TIMOTHY V. FLYNN-O'BRIEN
Attorney at Law
817 Gold Avenue SW
Albuquerque, New Mexico 87102-3014
Phone: 505-242-4088 / Fax: 866-428-7568

December 30, 2016

HAND-DELIVERED

Environmental Planning Commission
Karen Hudson, Chair
C/O Maggie Gould, Planner
1 Civic Plaza
Albuquerque, New Mexico 87102

RE: Project No. 1010582, 4600 Edith Blved. NE,

Dear Chairman Hudson and Members of the EPC:

I represent the Greater Gardner Neighborhood Association (GGNA) and several individual business and property owners. The property and small business owners own land adjacent to the development and therefore have standing. *See* EPC Rule B(12)(a)(2). GGNA has an interest in traffic, air quality, noise and safety issues for its members and has associational standing. See EPC Rule B(12)(a)(3).

The applicant has not met the requirements for a zone change under Resolution 270-1980 and state law. Attached is a response to the Applicant's justification letter. Separately I am submitting Exhibits A-P for the record. Because the City filed in early December we have had to try to gather relevant documents during the Christmas and New Years period when many people are out of town and businesses closed. The City was asked to consent to deferral but did not even respond so we have had to cancel vacations and devote much time preparing over the holidays. As a result I am still trying to get information. I will have additional documents which I will submit before the four (4) day deadline. Having been forced to prepare on the City's schedule and the City having not even had the curtesy of responding to the request to consent to deferral please understand we will object if the City requests deferral. Without limiting our arguments/issues a couple of the main issues are:

- the existing M-1 zoning is not inappropriate
- the applicant has not demonstrated, that is, met its burden of proof, that the permissive uses under the new zone will not be harmful to adjacent property or the neighborhood
- the applicant has not met its burden of proof under Res. 270-1980 concerning the change of conditions or more advantageous standards

- the applicant has not demonstrated justification for a spot zone under Res. 270-1980

The zone change to SU would permit three new uses on the property: a solid waste transfer station, a convenience center for individusls to drop off refuse, and a household hazardous waste drop off facility. It is uncontested that the change would result in an increase in truck and other traffic, in local emissions and noise locally.[1] The specific number of increased vehicle trips is disputed. The City proposes to build a transfer station to handle 2,600 tons per day. That capacity is not consistent with the assumptions in its analysis of traffic. The City acknowledges that the waste generated by residents will increase yearly (see Ex. G) but vehicle trips to accomodate that growth are not accounted for in its estimate of new trips. In its traffic study the City presumes waste will still be transferrded at other existing transfer stations and convenience centers but does not commit to keeping those facilities open. These inconsistencies underly the applicants's justification. It is uncontroverted that in this North Valley neighborhood there will be increased traffic, associated increased emissions, and increased noise. These and other effects of the proposed operation will harm adjacent small businesses, adjacent property and residences.

The City claims that all operations are inside the same building (12/1/16 application letter, pp. 5, 14, 15) and therefore noise is not an issue. Idling collection vehicles and idling citizen vehicles waiting to enter the facility will be outdoors with associated noise from diesel engines and exhaust from all vehicles. The assertion that all activities are indoors is contradicted by the City's admission in prior proceedings concerning this case in which the City admitted that the operation would be both indoors and outdoors. Ex. A p. A15. The City makes assertions about "mitigating" noise but submits no noise studies or reports from noise experts about noise levels. Similarly the City's assertions that building materials, doors and exhaust equipment will

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[1] There is substantial evidence that there would be an increase in truck traffic locally, increase in emissions locally, increase in noise and increased traffic congestion particularly on Edith, Comanche at I-25 and Comanche/Griegos, at local intersections and on I-25 south to the interchange. Ex. P, pp 498, 499 (projecting a 173% increase in traffic), ("Air pollution from increased diesel emissions and WTS operations in the impacted community will increase."), (increased noise from increase in traffic). There was also testimony that bicycle safety would decrease, particularly on Griegos/Comanche, which is the major bicycle route from the river to the foothills. Ex. P, pp. 430-432. The testimony was that bicycle safety was currently inadequate and that increased truck traffic would increase danger to cyclists and pedestrians. Id.
The City's 2006 Feasibility Analysis indicates the increase is even greater. See Ex. G, Albuquerque Integrated Waste Management Plan, at p. 29, which states that trucks would be able to make three collection runs because they can off load at the WTS. This permits a reduction from 124 trucks making one collection route (one out movement and one in movement) (total entering/exiting movements of 248) to 82 trucks making three round trips or six total movements (3 in/3out) for a total of 492 in or out movements. This represents an increase in truck trips to/from the facility at Edith and Comanche of almost 100%. These numbers are from the City's own analysis and therefore the lower numbers now presented by the City are not credible.

mitigate noise, odors etc. are unsupported conclusory statements and not enforceable. In any case the zone change should be denied for the reasons set forth herein and in the Response to Appellant's Justification.

Discussion. The EPC's duty is an important one, that is, to evaluate the arguments and evidence and to resolve the factual issues. When the law is applied to the facts found by the EPC it results in a decision. It is not the other way around. If the EPC "picks a winner" without first determining the facts it fails to act as required by law. If the EPC picks a winner and then adopts Staff's proposed findings without critically examining each proposed finding it may abdicate its critical role to staff. The EPC's responsibility to make independent judgment is particularly important because the City is both the applicant and staff. **The factual issues need to be resolved by the EPC** (not Staff) first and then the law applied to those determinations. Since Applicant has the burden of proof opponents do not need to introduce evidence if applicant has not met its burden of proof. We will provide evidence but that dos not change the legal responsibility of applicant to meet its burden of proof on all issues. The New Mexico Supreme Court has made it clear that that this body should make its own determinations and explain how its determinations result in a decision:

> Regardless of the justification, the decision-making body should provide a clear statement of what, specifically, [it] believes, after hearing and considering all the evidence, to be the relevant and important facts upon which its decision is based, and a full explanation of why those facts lead it to the decision it makes.
> *Albuquerque Commons v. City of Albuquerque* (hereafter "Albuquerque Commons"), 2008-NMSC-025, ¶35, 144 N.M. 99, 184 P.3d 411(internal quotations and citations omitted)

See also, *Atlixco Coalition v. Maggiore,* 1998-NMCA-134, ¶ 19, 125 N.M. 786, 965 P.2d 370 ("In an administrative context where the law has expressly required the decisionmaker to state the reasoning behind his decision... this principle [requirement that decisionmaker draft its own findings] may apply with additional force...").

A. The existing zoning is not inappropriate.

Resolution 270-1980 requires that the applicant prove that the existing is inappropriate. Ex. N, p. N19, AC-15-5 Finding 6a ("The applicant was required to demonstrate, and the EPC was required to find, that the existing zoning was inappropriate...."). When the existing M-1 zoning supports an ongoing operation and many other activities that zoning is not inappropriate. AC-15-5, Finding 6b at p. N19

B. Applicant has not proved that the change of zone would not be harmful to adjacent property, the neighborhood, or the community.

The City has the burden of proof on this issue. Res. 270-1980 (E). The City submits no evidence-just conclusory statements. There is substantial evidence from residents, business owners, experts and interested citizens that the zone change would lower of property values, increase noise, increase traffic, increased pollution (locally), increase danger to bicyclists and other harms to adjacent property and the neighborhood. See HIA. See also, Ex. D, E, & F. These are harms and the burden is on the applicant to prove the proposed combined transfer station, convenience center and HHW facility would not be harmful. It is not a question of whether, Citywide, there could be benefits. The City is required to prove the permissive uses would not be harmful to adjacent property or the neighborhood. The City has not met its burden. The City has not provided data on anticipated noise levels nor assessed the health impacts from increased noise frequency, assessed increases to local pollution or decreased property values nor assessed the effects of traffic other than at peak hours. The applicant's in-house traffic analysis is deficient as illustrated by opponents' independent review of that study. In addition to the deficiencies noted therein the City in-house traffic analysis does not assess traffic increases resulting from the closing of existing convenience centers. Since the City cites projected savings assuming those centers are closed the traffic analysis should analyze the traffic impacts if that option is followed. The City projects a 2% compounded annual increase in solid waste. See City's Integrated Solid Waste Management Plan, Ex. G, Appendix I, p.3 ("B. Landfill Life Calculation assuming 2% compound annual increase in waste). This increase in waste will necessitate additional collection and transport vehicle traffic. This must be assessed. The in-house traffic study does not do so. The City has failed to meet its burden of proof.

C. Applicant has not proven that a change of zone is more advantageous.

As shown in the attached Response to Applicant's Justification their request is not supported by the Goals and Policies of the Plans. To the extent Applicant cites policies Applicant cites general policies, not policies articulating that a zone change is more advantageous. Proof under the more advantageous criteria of Res. 270-1980 (D)[2] cannot be met by reference to general policies and goals of applicable plans. This was decided in *Vista Encantado NA et al v. City of Santa Fe,* No. D-0101-CV-2007-01354 (July 16, 2008). No plan articulates that zone changes to SU-1 for a waste transfer station, resource recovery and convenience center is more advantageous. The fulfillment of a public need does not meet the "more advantageous" requirement of Res. 270-1980 (D)(3).

The request is also inconsistent with Comprehensive Plan and North Valley Area Plan goals and policies. For example, See, for example, II.C.4 at II-59-60. ("The Goal is to protect the health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts.") (Emphasis in original). See also Comprehensive Plan, II.4 Policy (A)(5) ("Require noise impact analysis for all new development with noise-sensitive land uses.") These policies have not been complied with. Similarly the NVAP Goals and Policies are

[2] Res. 270-1980 (D): "A different use category is more advantageous to the community, as articulated in the Comprehensive Plan or other city master plan...."

inconsistent and not furthered by the request. The NVAP identifies the North Valley as a unique and fragile resource that should be preserved. Ex. I. The NVAP identifies a need to maintain and enhance the North Valley's environmental quality and rural flavor, and *reduce* noise impacts. The undisputed evidence is that the combined transfer station, convenience center and HHW facility will increase intensity of use, increase localized traffic and increase localized noise and air pollution which is inconsistent with these NVAP policies and goals. The city has not complied with the NVAP or its requirements for applying for a transfer station.

The New Mexico Supreme Court in *Albuquerque Commons*, 2008-NMSC-025, ¶ 30, held that at a minimum the more advantageous analysis requires proof of a public need for the change in question and proof that the public need will be best served by changing the classification for the particular piece of property *as compared with other property*. Applicant has not met this burden.

D. Applicant has not proved a change of conditions in the character of the neighborhood necessary to protect the public interest justifies the change.

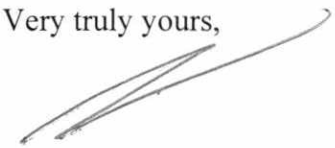
In New Mexico parties have a right to rely on the stability of zoning and anyone seeking to rezone property "must show a mistake in the original zoning or that a substantial change has occurred in the *character of the neighborhood* since the original zoning to such an extent that the reclassification or change ought to be made." *Miller v. City of Albuquerque,* 1976-NMSC-052, ¶15, 89 N.M. 503, 554 P.2d 665. (emphasis added). The *Miller* rule is applicable "to an upzoning of a specific property upon petition of the landowner." Albuqu*erque Commons,* 2008-NMSC-25, ¶ 26. Applicant does not even identify the area's character when annexed and zoned. Applicant's reference to the growth of the City is no evidence of a change in character of the neighborhood.

E. Applicant has not met its burden to justify not a spot zone.

A spot zone may only be approved when the change will clearly facilitate realization of the Comprehensive Plan or any other applicable plan or the area would function as a transition zone. Applicant claims the upzone would facilitate the Comprehensive Plan and NVAP but only refers to its general discussion of the plans not to realization of the plans or how the change would clearly facilitate realization. The City Council recognizes that the clearly facilitates realization standard is a high burden. The Council accepted the LUHO Recommendation in AC-16-1, Ex. N, p. N28 wherein the LUHO stated that a spot zone sets a more stringent standard than the other standards of R-270-1980). The EPC must "ensure that the applicant has shown that the zone change 'clearly facilitates realization of the applicable NVAP.'" AC-16-1, Ex. N at N26. The NVAP is realized, as discussed above, by the protection of what is described as a fragile resource and maintaining and protecting the area's rural character and reducing noise. Increasing traffic and noise does not clearly facilitate the NVAP.

Time for presentation.. The fundamental requirement of procedural due process is a fair hearing. Although the applicant's complete submittal is required to be included in their application the Commission allows the applicant substantial time to address the Commission to explain their position and illustrate their arguments. My clients have a vested interest in this application and have standing under EPC rules. I have tried to list major issues in this letter but require sufficient time to respond to applicant and staff and to advocate and explain these issues. In order to provide due process, I request that the Chair provide me with equal time to address the Commission.[3]

Very truly yours,



Timothy V. Flynn-O'Brien

TVFOB
cc: David Wood
Peggy Norton

[3] I recognize the EPC often enlarges time for neighborhood associations. EPC Rules, however, do not expressly provide the same consideration for an adjoining property owner even though the adjoining property owner has a direct interest in the proceeding and standing under EPC rules. Due process requires some balance in the time allotted my clients (adjacent property owners and a neighborhood association) as interested parties with vested interests and not to be simply limited to two (2) or five (5) minutes of "comment." Counsel recognizes that the Chair typically provides additional time to a property owner represented by counsel and has no reason not to expect the same practice to be followed in this hearing but since the rules applicable to appeals require every issue to be raised administratively I document the request here. Counsel requests 20 minutes to enable it to make a cogent presentation that focuses on relevant issues as they affect my respective clients.

Response to Applicant letter of December 1, 2016.

Page	Paragraph title	Comment
2	Zone Map Amendment	Statement that proposed use "would be very similar to its current use" is untrue. Current use does not include solid waste transfer, does not require permitting from state Environmental Health and does not include a convenience center or household hazardous waste facility. These are new uses and increase the intensity of the use.
3	Site Development Plan	Applicant references the EPA definition of a transfer station but does not reference the EPA admonishment that site selection is of paramount import and should include public participation. The site selection in this case was internal, not public and was limited to City owned property.
3	Selection of Site...	The letter states that JR Miller conducted a site survey of several sites but does not provide the study.
3	Selection of Site...	Statement that feasibility analysis was presented to Council in EC-14-11 is incorrect. EC-14-11 concerns contract with Wilson & Co. for on-call

		engineering services. See Ex. B. EC-14-44 stated "The primary goal of building a transfer station is to reduce the overall cost of transporting waste to the landfill." Ex. C at C4. Cover Analysis no.1) The 2014 update to the Feasibility analysis and the original 2011 analysis assumed the transfer station would be within ten (10) minutes from the "centroid" or Big I intersection. Ex. C at C9.
5	Proposed Site Operations	The number of trips is based on *current* operations and does not include the additional traffic associated with closing of the existing convenience centers and transfer stations or the increase in trips associated with predicted growth in the waste stream. On the other hand in estimating savings the City anticipates closing other facilities. The traffic study and TIS thresholds should be based on the station's capacity,.i.e., 2,600 tons per day and/or the trips associated with closing the existing stations and factoring in expected growth. According to the City's Integrated Waste Management Plan the City is producing 450,00 tons of

		solid waste per year or 1,200 tons per day/7 days a week/ 365 days a year. There is a 2% compounded annual increase per year. Integrated Waste Management Plan, Ex. G, Appendix I, p.3 ("B. Landfill Life Calculation")
9	Traffic Impact	The City's estimate of two trips per day for 45 collection vehicles is inconsistent with the IWMP estimate that collection vehicles could readily complete three (3) routes/day." Ex. G. p. 29. This alone increases the estimated new trips by one-third. The increased trips associated with closing of other transfer stations and convenience centers and with the 2% compound annual growth of the waste stream should be considered in a new traffic impact/analysis.
12	Res. 270-1980(A)	Health, safety, morals and general welfare requires not just a listing of potential positives but also consideration of negatives or costs associated with the zone change. AC-11-4, Ex. N, Finding 6 at N2. See also Finding 5h (conditions should be placed on project consistent with the safety and welfare of the community.)
12	Res.270-1980(B)	The justification conflates stability of land use and

		zoning with possible site improvements. The stability of zoning referenced in Res. 270-1980 (B) and case law provides that the policy is not to change zone classifications except in very limited circumstances and ***requires the applicant to bear the burden of proof.*** The applicant has not submitted *evidence* on each of the 270-1908 elements. The applicant's apparent conditioning of landscaping and other site beautification on the zone change is contrary to New Mexico's policy of stability of zoning .
13	Res. 270-1980(C)	Applicant provides a conclusory statement that the change furthers numerous policies. This is neither the standard nor the test. AC-11-4 ("The EPC ...erred in applying adopted city plans and policies by only considering those portions of the comprehensive plan that could be argued to justify the zone change while failing to consider those portions of the comprehensive plan that clearly conflicted with the proposed change. Ex. N, at N2, Finding 6.
13	Comprehensive Plan	The Comprehensive Plan does not articulate that the zone change for this

	property is more advantageous.
Policy II.B.6.a	Policy II.B.6a. New public, cultural, and arts facilities should be located in the Central urban area and existing facilities preserved.

The zone change neither furthers nor conflicts with the Policy. EPC's prior hearing on this matter the EPC found that this proposed project was not funded through the CIP program so was not a city service or facility. The policy does not speak to any zone change. To the extent the transfer station would be in the Central Urban area there are any number of sites in the Central Urban area and the Plan does not articulate that this site is more advantageous than any other. At best this policy is neutral to the zone change and is not a basis for determining that a zone change for this site (versus any other site) is more advantageous.

Section II.B.5.	Established Urban Area Goal. The Goal is to create a quality urban environment which perpetuates the tradition of identifiable, individual integrated communities within the metropolitan area which offers variety and maximum choice in housing, transportation, work areas, and life styles, while creating a visually pleasing built environment.

The zone change conflicts with the Policy. Applicant claims the new facility would enhance the established area through landscaping. This is not a basis for a zone change. Ex. N, at N1, AC-11-4, Council Finding 5c. in which the Council held that a Comprehensive Plan Policy concerning landscaping "does not mean that a zone change to allow a previously disallowed use should be approved if the property owner agrees to provide landscaping." The addition of new commercial and personal vehicle trips, associated pollution and noise would damage and threaten existing small businesses. See Ex. D and F. These changes would diminish quality of life for adjacent residences and nearby residential communities. See Ex. E and HIA. To the extent the City may install landscaping within the property line that can be done under existing zoning and no zone change is necessary for the City to improve the appearance of its facilities. In fact, the evidence is that the increased intensity of the combined transfer station, convenience center and hazardous waste facility is

inconsistent with the existing identifiable community and with existing small businesses that are well integrated with the community. The Rank 2 North Valley Area Plan goal is to preserve the North Valley's rural character, not to intensify use, increase traffic, noise and other conflicts.

14.	Policy II.B.5d.	The location, intensity, and design of new development shall respect existing neighborhood values, natural environmental conditions and carrying capacities, scenic resources, and resources of other social, cultural, recreational concern.

The zone change conflicts with the Policy. Applicant claims that improvements such as landscaping, stabilizing of slopes, will enhance the area but these improvements are permissive under existing zoning. See Ex. N at N1, AC-11-4 Council Finding 5c. Agreement to provide landscaping is not a basis for a zone change. The Policy speaks to intensity. Applicant does not address intensity. The addition of a transfer station, hazardous waste facility, and convenience center to existing vehicle parking, vehicle service and repair and administrative functions adds to the site's intensity and traffic generation. It also adds local pollution and increased noise. Even per the City's application the zone change would add a minimum of 1061 weekday trips and 764 weekend trips (trips include in/out) so the totals are 2,122 weekday and 1528 weekend trips).[1] This does not respect carrying capacities and resources of social, cultural or recreational concern.

Policy II.B.5.d requires that the location of new development respect existing neighborhood values, natural environmental conditions and carrying capacities. The neighborhood opposition is evidence that the location does not respect neighborhood values. The North Valley Area Plan ("NVAP") identifies a plan goal as to:

> "[p]reserve and enhance the environmental quality of the North Valley Area by: a) maintaining the rural flavor of the North valley b) controlling growth and maintaining low density development c) providing a variety of housing opportunities and life styles including differing socioeconomic types d) reducing noise level impacts"[2]

The NVAP is the City's compilation of neighborhood values and expression of goals for the North Valley in terms of environmental conditions and resources. The proposed zone change to permit a combined transfer station, convenience center and household hazardous waste facility (with increased traffic, increased noise and

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[1] These are the City figures. Opponents' study indicates more new trips.
[2] NVAP, Page 5.

local pollution) is inconsistent with the NVAP goal to maintain the rural flavor of the North Valley, control growth and reduce noise. The Council, in adopting the North Valley Area Plan, in Resolution, R-255 (Enactment No. 60-1993) provided in Section 7:

> "Solid Waste Transfer Stations shall be allowed in the North Valley Plan area only on land zoned for manufacturing uses and only if, after thorough investigation of relative benefits and costs, such location is deemed appropriate and the potential impacts on adjacent residential land can be mitigated through proper site design."

This has not been done.

14	Policy II.B.5e	New growth shall be accommodated through development in areas where vacant land is contiguous to existing or programmed facilities and services and *where the integrity of existing neighborhoods can be ensured.* (Emphasis added)

The zone change conflicts with the Policy. The "justification" cites claimed benefits from having one or more transfer stations as part of the solid waste system. That is not the issue nor does it address this policy. As set forth by the City Council in AC-11-4 the question is whether the policy is inconsistent with the transfer station. Ex. N at N1, Finding 5b. The key language of Policy II.B.5e is whether the integrity of the existing neighborhoods can be ensured with a new combined transfer station, convenience center and household hazardous waste facility. On this issue the applicant states (without explanation or evidence) that improving the efficiency of the citywide waste system ensures the integrity of the area. There is no causal relationship between the surrounding area and system-wide efficiency. Studies acknowledge increased local traffic and associated noise and pollution in the surrounding area. The applicant ignores residences within 100' -200' of the new combined transfer station, convenience center and household hazardous waste facility. Applicant must prove the integrity of existing residences and residentially zoned neighborhoods will not be affected by the increased traffic, noise and pollution. The evidence is that existing businesses will be damaged by the traffic, noise and pollution.

14	Policy II.B.5g	Development shall be carefully designed to conform to topographical features and include trail corridors in the

		development where appropriate.

The zone change conflicts with the Policy. Applicant claims that the grade differences from east to west will be advantageous but the grade exceeds the scoping criteria for the ideal site in the City's site selection survey. See Comment above at p. 3 to Selection of Site. The statement that trail corridors are not appropriate for this site ignores comments of Greater Albuquerque Bicycle Advisory Committee. Ex. P, pp. 430-432. The outer lanes of the Edith do not meet AASHTO minimums. Id. The City is not dedicating additional right of way for adequate traffic and bicycle lanes. Bicycle lanes/trails on Comanche are deficient under both AASHTO and NACTO guidelines. Ex. P. p. 431. Under Policy II.B.5g the applicant should reduce the site (dedicate right of way) to increase the right-of-way on Comanche to accommodate bicycle trails. The City has chosen not to do so and that is inconsistent with Policy II.B.5e and the Bicycle Transportation Facilities Plan ("BTFP"), a Rank 2 plan. Ex. L at L24. [Note the City requires landowners to dedicate right of way and to improve the roadway as a condition of site plan approval in the Paseo and Unser area. Why should the City not do the same?] See BTFP Goals and Principles 2b at L31 ("work toward addressing and improving challenging intersections and physical barriers, and consider pedestrian and bicycle movement in planning stages for new or reconstructed facilities.") The City's statement that trail corridors are not appropriate ignores the BTFP Goals and Principles. The City has ignored BTFP principle 7b ("Foster ongoing coordination among critical departments within the City to communicate and coordinate activities related to design of bikeways and trails.") Principle 7h ("Bicycles and pedestrians should be considered ...by all departments when setting policy and programs.") Comanche and Edith should be widened per NACTO and AASHTO guidelines. Ex. L at L3, BTFP p. 126. nos. 1 and 3(meet standards and minimize conflict of use). Locating the new combined transfer station, convenience center and household hazardous waste facility is inconsistent with the Rank 2 plan.

14	Policy II.B.5i	Employment and service uses shall be located to compliment residential areas and shall be sited to minimize adverse effects of noise, pollution, and traffic on residential environments.

The zone change is not consistent with Policy II.B.5i. Applicant claims that site design will mitigate effects of noise, lighting, and traffic. The Policy concerns site selection not design. The applicant assumes the selection of the site is appropriate. The site selection should have considered whether this site *complimented* residential areas. It does not as is indicated by the city's own analysis and applicable regulations. See Ex. M NMAC 20.9.4.1 prohibiting transfer stations within 250 feet of residences. Other sites would not conflict with any residential areas. The applicant's claim that the nearest residential neighborhood is 1,300 feet west

is not accurate. There are residences (residential environments) within 100' of the facility. The statement that the transfer station is enclosed ignores the admitted fact that the new combined transfer station, convenience center and household hazardous waste facility is both indoors and outdoors. Ex. A at A15. Trucks queuing to unload are outdoors creating noise and pollution. The "indoor" facility vents to the outdoors. The City as well as opponents' reports acknowledge that the new combined transfer station, convenience center and household hazardous waste facility will increase traffic, noise and pollution locally. this is inconsistent with Policy II.B.5g.

15	Policy II.B.5k	Land adjacent to arterial streets shall be planned to minimize the harmful effects of traffic; livability and safety of established neighborhoods shall be protected in transportation planning and operation.

The zone change does not further Policy II.B.5k. The first clause ("Land adjacent to arterial streets shall be planned to minimize harmful effects of traffic....") is applicable to the project as the project is adjacent to arterial streets. The techniques listed under Policy II.B.5k recommend noise impact analysis. ("Use noise impact analysis for noise-sensitive uses proposed adjacent to arterial streets; analyze projected traffic and noise impacts of proposed street widening and similar projects upon adjacent neighborhoods and mitigate accordingly.") The City has not provided a noise impact analysis. The zone change allows more intense development that will add to the harmful effects of traffic. See HIA and Opponents' Traffic analysis. The applicant's comments about residential neighborhoods are not consistent with the evidence as to the location of residences. The second clause of the Policy pertains transportation planning and operation and is not applicable as this is not a transportation planning project. The applicant's comments about traffic ignore the effects of increased traffic. The comments about reduction of miles traveled per year by the solid waste fleet are not pertinent to this Policy. Reductions in miles driven is also achievable by use of transfer stations at other locations and is not relevant to this site vis-à-vis other sites. The Comprehensive Plan recommends transfer stations throughout the area. Ex. I at I5. Reductions in miles driven can also be achieved by increasing transfer activity at existing transfer stations.

16	Policy II.B5l	Quality and innovation in design shall be encouraged in all new development; design shall be encouraged which is appropriate to the area.

The Policy is either not furthered by the zone change or the Policy is not applicable. The statement that the facility is state-of-the art is unsupported. The facility is not described as LEED certified. there are insufficient setbacks, sound barriers and enclosures . Vehicles queuing are adjacent to small businesses. There is insufficient distance between queuing trucks and neighboring property. No noise study has been performed despite the sites location near I-25 and arterial streets in an industrial area. The Comprehensive Plan states: "Residential properties near...Interstates 25 and 40, arterial streets and industrial areas are affected by excessive noise levels. Ex. I at I6 Unsupported representations about "state of the art" are not enforceable. If approved specific design standards should be incorporated into the site plan based on independent study. Noise studies should be performed before approval to quantify the effect and/or mitigation that can be accomplished through design and incorporated in enforceable standards. The facility is not designed to avoid conflicts with, and negative effects on, residences and commercial neighbors.

16	Policy II.B.5m	Urban and site design which maintains and enhances unique vistas and improves the visual quality of the visual environment shall be encouraged.

The zone change neither furthers nor conflicts with the Policy. The site design does not maintain nor enhance unique vistas. Any site improvements, e.g., landscaping can be implemented without the zone change. See AC-11-4 Finding 5c, Ex. N at N1. This is a public facility, which should require enhanced consideration of alternative sites and not be affected by the City's current ownership of the site.

16	Policy II.C.1b	*Automobile* travel's adverse effects on air quality shall be reduced through a balanced land/use transportation system that promotes the efficient placement of housing, employment and services. (Emphasis added).

The zone change does not further the Policy. The Policy refers to *automobile* travel. Applicant's reference to reduced miles for the solid waste fleet, even if assumed to be true, does not further the policy. The "centroid" for all feasibility studies is the Big I. This site is miles from the Big I so the location is not ideal. This site was selected because it was owned by the City and therefore would save money compared to the purchase of another site. There are other more ideally located sites that would reduce truck/fleet travel more. The "one-location" model will increase automobile traffic to convenience centers. This has not been evaluated. It does not

reduce miles driven to have collection vehicles collecting waste west of the river to travel to the Edith site to transfer waste vs. direct haul or use of a Westside transfer station. See Ex. K. The techniques enumerated under Policy II.C.1b(3) include development of performance standards using local air quality criteria and modeling, to minimize development's adverse effects upon air quality. See also II.C.1b(4), which requires consideration of air quality as a consideration in site plan review. The applicant has not submitted local air quality data or modeling. An air quality analysis should be required to determine the effect on the local area. The analysis should not only consider area wide potential benefits but local costs (localized increases in air pollution). See also II.C.1b(5)("Require traffic and air quality analysis for rank three and *large development site plans* to identify potential air quality problems and mitigation measures.") (Emphasis added.)

17	Policy II.C.1e	Motor vehicle emissions and their adverse effects shall be minimized.

Not relevant. The techniques listed under Policy II.C.1e (emission standards by vehicle year, enforcement of a vehicle idling ordinance, sampling of lead content in gasoline) demonstrate that this policy is not intended to promote specific land use decisions or to favor land use decisions based on potential area-wide improvements at the expense of individual areas.

17	Policy II.C.1g	Pollution from particulates shall be minimized.

The request neither furthers nor hinders the Policy. While a transfer station has the potential of reducing area wide particulate pollution the single transfer station model proposed causes greater pollution than multiple sites. Local particulate pollution would increase. the Policy does not address the appropriateness of this site vis-à-vis other sites.

	Policy II.C.1h	During air stagnation episodes, activities which contribute to pollution shall be reduced to the lowest level possible.

The request neither furthers nor hinders the Policy. This policy addresses cessation of activities during episodes and is not applicable to the application.

17	Policy IIC.1k	Citizens shall be protected from toxic air emissions.

The request neither furthers nor hinders the Policy. The policy does not address a project that may reduce emissions on an area wide basis but increase them locally as this project would. See comments to Policy II.C.1g, above. The single transfer station (excluding a Westside station) and/or closing convenience centers increases pollution compared to a multiple station plan.

18	Policy II.C.2a	Minimize the potential for contaminants to enter the community water supply.
	Policy II.C.2c	Water quality contamination from solid waste disposal shall be minimized.

The request does not further the Policy and may hinder the Policy. While the City may try to contain seepage into the soils the area is sensitive and the City is not proposing to remediate the site prior to construction to remove preexisting pollutants. See Maloy letter to NMEID dated April 12, 2016. Ex. D, at D8. without study and determination that there are no existing matters requiring remediation the proposal hinders the Policies. A study needs to be performed. There are insufficient protections for the site. If a study determines there are no existing environmental issues and conditions protects the site the request neither further nor hinders the Policy.

18	Policy II.C.3a	Planning and implementation of more efficient and economical methods of sold waste collection shall be continued.

The request neither furthers nor hinders the Policy. The project concerns transfer of waste to the landfill not collection of waste, which is what is addressed in the Policy. The project and studies submitted do not address multiple transfer stations. The Policy does not address other sites.

18	Policy II.C.3b	Encourage solid waste recycling systems which reduce the volume of waste while converting portions of the waste stream to useful products and/or energy.

The request neither furthers nor hinders the Policy. The applicant conflates the transfer station --which transfers waste from collection vehicles for transport to the landfill on larger trucks --with recycling. See Wilson letter, December 1, 2016 at p.5. This policy is not applicable to the transfer station. As to materials that will be accepted by the convenience center the application identifies mixed recyclables (paper, aluminum, glass, and steel cans), household hazardous waste, scrap metal/white goods, green waste, electronic waste and bulky waste. There is no evidence these materials will be converted to useful products or energy as envisioned by Policy II.C.3b. The Policy is not applicable. Albuquerque's diversion rate is approximately 5% compared to a national average of 32% and a New Mexico average of 9%. Ex. G, IWMP Exec. summary §2.2. The Policy encourages *strategies*

to increase the *rate of diversion and conversion to useful products or energy*. There is nothing in the zone change or proposal addressing increasing the rate of diversion and conversion. Even were the proposal to address increasing recycling of green waste the IWMP states that there is a "limited compost market availability." Ex. G. IWMP §3.2.

18	Policy II.C.3c	Illegal dumping shall be minimized.
19	Policy II.C.3f	Continue development of a program for managing hazardous waste generated by households and conditionally exempt small quantity generators.

Not relevant. Applicant makes a conclusory assertion that the convenience center will help prevent illegal dumping. Applicant provides no data or evidence concerning illegal dumping in the North Valley and/or near convenience centers or that addition of a convenience center reduces illegal dumping. No data is presented that current HHW facilities are insufficient or that HHW, convenience center and transfer stations must be combined to manage HHW.

19	Noise	The Comp Plan narrative (Ex. I at I6) states that numerous areas of the City exceed recommended noise levels. Specifically identified are residential areas near Interstate 25 and industrial areas. See I.A.1.C.4. "The Goal (II.C.4) is to protect the public health and welfare and enhance the quality of life by *reducing* noise and by *preventing new land use/noise conflicts*."

The request conflicts with the policy. The combined transfer station, convenience center and HHW facility (in addition to existing uses) will increase noise locally. The applicant asserts that there are no residential neighborhoods adjacent to the site. One, this ignores the residences 100' from the site and the Stepp residence adjacent. Two, the Policy is not limited to conflict with residences as Applicant infers but includes any new land use/noise conflicts. this includes conflicts with adjacent businesses. The LUHO recommendation adopted by the Council requires that the EPC consider the residences within 100 feet. Residences are defined as a Category B

land use (the second most sensitive land use to noise) by the FWHA noise Abatement Criteria. 23 CFR Part 772, Table 1.[3]Not adding new uses and increasing the intensity of the current uses would prevent conflicts. The techniques identified by the Comp Plan include integrating consideration of noise in the planning process to prevent future conflicts. There is no noise study identifying noise from the transfer facility and from idling collection or transport vehicles. The Comp Plan techniques include requiring noise impact analysis for all new development with noise-sensitive land uses. (II.C.4.a.7). This has not been done. The request conflicts with the Goal. The techniques identified in the Comprehensive Plan to achieve the Goal include consideration of noise mitigation measures. While the city asserts that these are incorporated into the building and design there is no study evaluating those measures, particularly noise from idling vehicles. Past projects much smaller than this (Hinkle Family Fun Center) have submitted formal noise studies to prove no noise conflict with specific mitigation measures, which were incorporated into conditions.. Applicant has submitted no such study. The Applicant's conclusory assertions are based on a false premise (no residences) are not evidence that the project furthers the goal. It is necessary to evaluate the impact of noise on existing commercial/industrial businesses. The City has ignored the Comp Plan recommendation that projects employ open space buffers, berms and barriers and that new construction should be oriented to minimize effects from noise producing sources. II.C.4.b.3 and 4

19	Developed Landscape	The Goal is to maintain and improve the natural and developed landscape's quality.

The request conflicts with the policy. The applicant asserts the zone change will further the goal by enabling the city to redevelop an unattractive site. On its website the city admits it has not been a good neighbor. That the City has withheld site improvements, including landscaping is not a justification for the rezoning. This has been decided by the City Council. See Ex. N, AC-11-4, Finding 5c at N1.

20	Policy II,C.8d	Landscaping shall be encouraged within public rights-of way to control water erosion and dust...

Irrelevant. This is not a public right-of way project. The Policy is not applicable. See Ex. N, AC-11-4, Finding 5b at N1.

20	II.D	The Goal is to develop and manage use of public services/facilities in an efficient and equitable

[3] While this is not a highway project using federal funds the classification of residences as category B is consistent with the Comp Plan.

		manner and in accordance with other land use policies.

The request conflicts with the policy. This is a zone change application for zone change special use zoning to permit co-location of a transfer station, convenience center and HHW facility at a particular location. That transfer stations may (or may not) create some efficiencies in the operation of the solid waste department. the City's contradictory positions concerning maintaining or closing existing convenience centers makes calculation of potential savings speculative. The zone change question concerns whether the request meets state and City standards and, relevant to II.C whether this site is equitable in accordance with other land use policies. These questions are site specific. The City has not explained(or submitted any study demonstrating that one transfer station is more efficient than several stations. For example is it more efficient for a collection vehicle at 98th St and I-40 to travel 9.5 miles to Edith and Comanche via the Big I and then back to 98th street and I-40 then to direct haul to Cerro Colorado (10.7 miles)? Or would it be more efficient for Westside collection vehicles to have a transfer station on the Westside (Atrisco Vista and I-40? See Ex. K. The City site studies presume a single location near the Big I and did not do an efficiency analysis of several stations. In this regard the Comprehensive Plan recommends several transfer stations. Ex. I at I5. Even assuming a single transfer station this is not the best site and conflicts with policies and standards for transfer stations.

20	Economic Dev't	The Goal is to achieve steady and diversified economic development balanced with other important social, cultural and environmental goals.

Irrelevant or the request hinders the Policy. The City claims that the transfer station will forestall increases in solid waste fees. savings do not depend on this site (vs. other sites) and are largely based on closing existing convenience centers. however, inconsistent with this "position" the city's traffic analysis assumes the City's existing centers remain open. The City is not consistent. Curbing rate increases is speculative and could better be achieved by increasing recycling/diversion. The Goal speaks not to possible savings by one entity but *balancing* economic development equitably with other social cultural and environmental goals. First, the proposed facility is not economic development--indeed it will reduce employment in the long run. [Savings are due to labor reductions and closing the other convenience centers.] The City does not balance whatever savings (even assuming savings equals economic development) with other important goals. The City has not addressed the economic impact on neighborhood businesses and residents. Ex.D, E, F. This is a "cost." The City has not addressed or "balanced" the cost of increased local traffic, increased local pollution and increased local noise nor evaluated sites that would not have these associated costs. The zone change is inconsistent with:

1. Policy II.B.5.d which requires that the location of new development respect existing neighborhood values, natural environmental conditions and carrying capacities. The neighborhood opposition is evidence that the location does not respect neighborhood values.

2. The North Valley Area Plan ("NVAP") goal to:

"[p]reserve and enhance the environmental quality of the North Valley Area by: a) maintaining the rural flavor of the North valley b) controlling growth and maintaining low density development c) providing a variety of housing opportunities and life styles including differing socioeconomic types d) reducing noise level impacts"

3. Policy II.B.5e New growth shall be ... where the integrity of existing neighborhoods can be ensured. The integrity of the neighborhoods cannot be ensured.

4. Policy II.B.5g. The development does not include trail corridors nor does it increase the ROW of adjacent streets that do not meet ASHTO standards for bicycle lanes.

5. Policy II.B.5i. The service use does not compliment the residential areas and in not located to minimize adverse effects of noise, pollution and traffic on residential environments.

6. Policy II.B.5k. and Policy II.C1b. The land is adjacent to arterial streets. The policy requires minimizing harmful effects of traffic. The project increases local traffic, conflict with bicyclists and does not meet bicycle safety standards. The increased intensity is inappropriate for this location. There are other locations that better meet the needs of a transfer station.

7. Policy II.C.1e and Policy II.C.1g, II.C.1h, II.C.1k. The Policies address minimizing emissions, their adverse effects. Air quality and pollution must be analyzed for both localized impacts and regional impacts. "Localized effects are those that occur within the project area ...."[4] It is uncontested that

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[4] Draft Environmental Impact Statement for I-25/Paseo del Norte Interchange, NMDOT, Section 3.9.2 (page 3-64)
URL: https://books.google.com/books?id=8ag1AQAAMAAJ&pg=SA3-PA64&lpg=SA3-PA64&dq=%22localized+effects+are+those+that+occur+within+the+project+area%

the localized impact is an increase in emissions and pollution. There has been no study calculating the local impact or cost-benefit study.

8. Policy I.A.1C.4 and Goal Ii.C.4. The evidence is that the project will increase noise contrary to the Goal and Policy.

21	NVAP	Goals. 1. To recognize the North Valley as a unique and fragile resource. Goal 2. To preserve and enhance the environmental quality of the North valley by maintaining the rural flavor, controlling growth, reducing noise impacts. 3. Preserve air, water and soil quality.

NVAP Goals and Policies, which identify the North Valley as a unique and fragile resource that should be preserved. The NVAP identifies a need to maintain and enhance the North Valley's environmental quality and rural flavor, and reduce noise impacts. The undisputed evidence is that the combined transfer station, convenience center and HHW facility will increase intensity of use, increase localized traffic and increase localized noise and air pollution which is inconsistent with these NVAP policies and goals. The city has not complied with the NVAP or its requirements for a transfer station. The prerequisites for the proposed zone change have not been met. The request conflicts with the NVAP.

The applicant states that the transfer station will discourage illegal dumping by providing a convenient location for North Valley citizens. This conclusory statement does not equate with any overriding NVAP goal and is not supported by any evidence of illegal dumping in the North Valley or that the request would in fact reduce illegal dumping, if it exists. the statement by applicant is speculative. In the City's traffic study the City stated that a percentage of the Eagle Rock convenience center traffic would use the Edith Convenience center. There was no assumed increase for use by North Valley residents. Since the City study states the Edith center will simply shift use from one center to another the assumption that North Valley dumping will be decreased is inconsistent with the traffic analysis. The city refers to potential reductions in regional pollution. this is not relevant to the

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22&source=bl&ots=klNP-Fknab&sig=NssIAE4jYALiTEMo3ryZcfIxfUg&hl=en&sa=X&ved=0ahUKEwj_qLmWt5rRAhUmjlQKHcANC-IQ6AEIGjAA#v=onepage&q=%22localized%20effects%20are%20those%20that%20occur%20within%20the%20project%20area%22&f=false

24	270-1980(D)	Applicant must demonstrate that changed conditions justify the zone change or that the change is more advantageous as articulated in the Comprehensive Plan or NVAP.

Changed conditions. The applicant claims that increased density and urbanization have changed the city as a whole and in this corridor. Changed conditions require a change of conditions necessary to protect the public interest. This has not been shown. Citywide growth, in any case, is not a basis for a site-specific zone change. This may justify a citywide rezoning or overall amendment of the zone code such as the IDO. The Solid Waste Department's desire or perceived "need" need for centralized transfer station is the applicant's "need" but not changed neighborhood conditions. The assertion that this site was most suitable is not supported by evidence in the record. There is no public need to

More advantageous. The reference to the numerous policies set forth in the applicant's letter does not meet the requirements of Res. 270-1980. As shown above most of the policies cited do not support the zone change. Applicant also misunderstands the more advantageous criteria has not been approved by the Supreme court but if permitted the Court has stated that a municipality may be able to justify an amendment by demonstrating that the change is more advantageous as articulated in the Comprehensive Plan or other City master plan but that "[t]he proof in such a case would have to show, at a minimum, that '(1) there is a public need for a change of the kind in question, and (2) that need will be best served by changing the classification of the particular piece of property in question as compared with other available property.'" *ACP*, 2008-NMSC-25, ¶30. Proof under the more advantageous criteria cannot be met by reference to general policies and goals of applicable plans. This was decided *in Vista Encantado NA et al v. City of Santa Fe,* No. D-0101-CV-2007-01354 (July 16, 2008). Ex. O. No plan articulates that a zone change to SU-1 of waste transfer station, resource recovery and convenience center is more advantageous. The Comprehensive Plan or other plan must articulate that a different use category is more advantageous to the community. Ex. O Moreover the role of the EPC is not to consider only those Policies that could be argued to justify the zone change while failing to consider those policies that conflict with the proposed change. Ex. N at N2, AC-11-4 Finding 6.

In any case the alleged community "need" for a transfer station is not site specific. The *ACP* case requires consideration of other properties. The city's site selection criteria were for a site between eight(8) and twelve (12) acres and within ten minutes of the Big I. JR MILLER 2014 pp 3,5. Under the more advantageous criteria there must be an analysis of other properties by applicant. This is the applicant's burden, The city has not shown any such analysis.

25	270-1980(E)	A change of zone will not be approved where some of the

		permissive uses would be harmful to adjacent property, the neighborhood or the community.

The burden of proof to show no harm is on the applicant. There must be evidence. Conclusory statements by the applicant or conclusory findings do not meet the requirements of Res. 270-1980(E). The applicant's justification is conclusory and premised on a misstatement concerning nearby residences. See LUHO recommendation in 2016. Ex A at A8-A9. The applicant asserts that the transfer station and convenience center will be operated within a completely enclosed building. The City Council Finding in accepting the LUHO recommendation is that the proposed uses are BOTH indoors and outdoors. This determination is binding on the City under the doctrine of administrative issue preclusion. For example, and not by way of limitation the queuing of convenience center and collection vehicles will be outdoors. The increased traffic, noise and pollution will affect adjacent property and the neighborhood. Ex. D, E, F. Property values will decrease, businesses will close and small businesses and residents will suffer from increased traffic, noise and pollution.

26	270-1980(G)	The cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone.

The city cites the assumed need for a central location. Per the city studies this would be within 10 minutes of the Big-I and have convenient and efficient access to the interstates and be between 8-12 acres. The Edith site was selected not because it was the best location but because of economic considerations pertaining to the applicant. The City admits the basis for the transfer station (and particularly for this location) is cost of land and economic considerations. See evidence submitted herewith and Ex C, EC-14-44, in which the City admitted, "The primary goal of building a transfer station is to reduce the overall cost of transporting waste to the landfill." see also JR Miller 2011 feasibility Analysis § 4.0 (Ex. C) acknowledging the main difference for Edith compared to other sites "is the City would not need to purchase another parcel."

26	270-1980(J)	Spot zone will <u>only</u> be approved if the zone change will function as a transition zone or "clearly facilitate realization of the Comprehensive Plan <u>and</u> any adopted sector development plan or area development plan.

Applicant admits this is a spot zone. applicant does not address how the spot zone "clearly facilitates realization" of the applicable plans other that the general reference to their discussion of plan goals and policies, which, as set forth above and as decided in *Vista Encantada* (Ex. O), does not meet the standard. See Ex. N, AC-16-

1 at N5. The question is whether a zone change will "clearly facilitates realization" of the North Valley Area Plan goals of recognizing the North Valley as a unique and fragile resource, preserving and enhancing the rural environmental quality of the North Valley by maintaining the rural flavor, controlling growth, reducing noise impacts and preserving air water and soil quality. See Ex. H (NVAP) and Ex. N, AC-14-7, Finding 8c at N5 and AC-16-1 at N1 et seq

GGNA EXHIBITS

A. 2016 Declaratory Ruling
2016 LUHO Recommendation Accepted by City Council

B. EC 14-11

C. EC 14-44 with Cover Analysis
JR Miller 2014 Feasibility Analysis Update
JR Miller 2011 Feasibility Analysis

D. Harm to Small Businesses

E. Letters from Residents Closest to Transfer Station Approximately 100 Feet

F. Expert Opinions Concerning Harm to Nearby Property

G. Integrated Waste Management Plan

H. North Valley Area Plan

I. Albuquerque/Bernalillo County 2002 Comprehensive Plan (Excerpts)

J. NM Statutes

K. Mileage Map

L. City Ordinances/Bikeways and Trails Facility Plan

M. 20.9.2.1 NMAC/20.9.4.1 NMAC

N. Prior City Council Decisions

O. Case Law

P. Documents from 2015 Zone Change Application

2016 DECLARATORY RULING

2016 LUHO RECOMMENDATION ACCEPTED BY CITY COUNCIL

GGNA-EXHIBIT A

LAND USE HEARING OFFICER'S RECOMMENDATION

APPEAL NO. AC-15-6 and AC-15-7

Project# 1010582, 15EPC-40051 Zone Map Amendment (Zone Change)
15EPC-40052 Site Development Plan for Building Permit

Greater Gardner Neighborhood Association, Guy Conway and Carolyn Conway (Conway Electric), Pat and Mary Beth Maloy (Maloy Mobile Storage Inc.), Larry Stepp (Step's American Marine), Rombin & Wright (William V Rombin), Dennis and Debra Hardy (Fleet Maintenance), Lorenzo Rameriz (Cross Connection), Steve Collins (Collins Engine Generator Service), Grande Heights NA, The Inter-Coalition Panel, WSCONA (Westside Coalition of Neighborhood Associations), Oxbow Village Homeowners Association, Appellants of AC-15-6.

Peggy Norton on behalf of the North Valley Coalition, Appellants of AC-15-7.

Wilson & Company, Inc., Agents for the City of Albuquerque Department of Municipal Development, Party Opponents.

I. BACKGROUND

This is a consolidated appeal (AC-15-6 & AC-15-7) from a decision of the Environmental Planning Commission (EPC) granting a zone change from M-1 to SU-1 for specified M-1 uses (a solid waste transfer station and convenience center) on several consolidated tracts of land comprising approximately 22-acres. The land at issue is located at 4600 Edith Blvd. N.E. and is owned by the city of Albuquerque. The applicant for the zone change and building permit is the Albuquerque Department of Municipal Development. The record reflects that on August 27, 2015, the City's agent Wilson & Company, Inc., submitted an application to the Planning Department for a zone change and for a building permit for its site development plan (site plan). The application was originally scheduled to be considered by the EPC at its October 8, 2015 public hearing. However due to a lack of a quorum, the hearing was rescheduled for November 5, 2015. On November 5, 2015, the EPC, with a quorum, took up the City's application in a quasi-judicial public hearing. On the following day, November 6, 2015, the EPC issued its

Official Notification of Decision, granting the zone change and approving the building permit and accompanying site plan. The Appellant of AC-15-6 filed their timely appeal on November 15, 2015 and the Appellants of AC-15-7 filed their timely appeal on November 20, 2015. The appeals were consolidated because the two appeals involve common questions of facts and of law regarding the single zone change, building permit, and site plan approval by the EPC. The City Council delegated the appeals to this Land Use Hearing Officer (LUHO). An extended LUHO public hearing was held on January 29, 2016.

II. STANDARD OF REVIEW

A review of an appeal is a whole record review to determine if the EPC erred:

1. In applying adopted city plans, policies, and ordinances in arriving at the decision;
2. In the appealed action or decision, including its stated facts;
3. In acting arbitrarily, capriciously or manifestly abusive of discretion.

At the appeal level of review, the decision and record must be supported by a preponderance of the evidence to be upheld. The LUHO is advisory to the City Council. The LUHO has authority to recommend that the City Council grant the appeal in whole or in part, deny, or remand the appeal for reconsideration if the remand would be necessary to clarify or supplement the record, or if the remand would expeditiously dispose of the matter."[1]

III. DISCUSSION

After a thorough review of the entire record of these consolidated matters, hearing arguments of the parties, testimony, and allowing cross-examination of witnesses in an extended 2-hour hearing, I respectfully recommend that the City Council remand the zone change request, building permit, and site plan to the EPC because the EPC failed to address benchmark issues under Enactment 270-1980, failed to adequately resolve significant contradicting evidence in the record, and, therefore, the record is not supported with sufficient evidence to support the zone change. The record before the EPC was perpetuated by shortcoming from its Planning Staff when

[1] See Rules of the Land Use Hearing Officer adopted by the City Council, February 18, 2004. Bill No. F/S OC-04-6 and codified in Section 14-16-4-4 of the Zoning Code.

Staff recommended that the EPC approve the zone change without themselves resolving several key issues required for a zone change. The record shows that the Staff and the EPC failed to conduct any meaningful analysis of the zone change request against the requirements of R-270-1980, Section 1.D and E. Thus, there is insufficient evidence in the record that the zone change satisfies R-270-1980. There are other deficiencies regarding conflicting factual questions which the EPC must also resolve. A remand to the EPC will compel the EPC (and Staff) to address the deficiencies in the record, including under R-270-1980.

As stated above, Appellants raise a number of substantive challenges to the EPC decision. Foremost is that the zone change does not satisfy City Enactment 270-1980. More specifically, Appellants claim that Section 1.D. of Enactment 270-1980 is not satisfied because the City applicant did not meet its burden to demonstrate that the existing M-1 zoning is in any manner inappropriate, necessitating the zone change. Appellants also claim under Enactment 270-1980, the City applicant did not respond to, nor did the EPC resolve, questions and evidence submitted from opponents of the zone change regarding alleged harmful effects to adjacent residential property owners, or to the neighborhood. In relation to the alleged deficiencies under Enactment 270-1980, Appellants also claim that the EPC failed to make fact-specific findings regarding the proposed use. Appellants claim that many findings are conclusory and unsupported by the record. Finally, Appellants contend that the EPC ignored or disregarded expert opinions and reports that allegedly rebut key EPC findings regarding traffic and environmental effects caused by the proposed use. There are no issues presented regarding notice to adjacent property owners or to neighborhood associations, and I find no notice deficiencies in the record.

I begin with the City's applications. After a January, 2015 pre-application conference with City Planning Staff, the record reveals that on August 27, 2015, the Department of Municipal Development submitted to the Planning Staff an application for the zone change and building permit. With the application, Wilson and Company, Inc., project engineer submitted a detailed project summary describing the existing site, zoning, and the details of, and the justifications for,

the proposed use.[2] In the summary, the engineer wrote that the proposed use is distinctly similar with the existing use. There is apparently no dispute that the City of Albuquerque Solid Waste Management Department (SWMD) is currently physically located on the subject site, and has been operating there since the 1980's. The record substantiates that there is no existing site development plan for the existing site. There is, however, a proposed site plan for the proposed uses which was submitted to the EPC with the application. The applicant's summary states that the *"proposed use of the site would remain very similar to its current use."*[3] Further in the summary, the applicant wrote that the proposed transfer station use is:

> .... defined by the Environmental Protection Agency (EPA) as a light industrial type facility where trash collection trucks discharge their loads so trash can be compacted and then reloaded into larger vehicles (e .g. trucks) for shipment to a final disposal site, typically a landfill or waste-to-energy facility (EPA, January 2001).[4] (emphasis added)

There is no evidence aside from the conclusory evidence in the summary that the proposed uses and the existing uses are similar. There are likely some similarities between the SWMD's current operation and the proposed transfer station and convenience center uses, but the record should include at a minimum what those similarities are so that the EPC can make appropriate findings. For example, it is obvious from the record that the uses are similar to some extent simply because they each involve the transportation of solid waste. However, the record is not so clear on other site-specific elements of the two uses that may or may qualify as similarities. For example, does the fact that a transfer station involves the accumulation and processing of solid waste make it dissimilar to the existing uses when the existing use does not include any accumulation of solid waste at the site? There are no facts in the record from which the EPC could make a meaningful comparison to determine if the uses are indeed similar. A meaningful comparison would assist the EPC in accurately determining if the proposed use is a permissive use (as Staff contend) under the existing M-1 zone. Such an analysis would also be helpful to all involved as Staff conducts its threshold analyses under Enactment 270-1980 (described below).

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2 See Page 170 of the record.

3 See Page 170 of the record.

4 Id.

A. Enactment 270-1980, Section 1.D.

Enactment 270-1980 has significant prominence in the zoning review process for the City of Albuquerque. It is a City resolution of zone change policies that are separate and apart from Comprehensive Plan (Comp. Plan) and other Rank Plan policies. For the City of Albuquerque, it is the guiding policy document from which zone change applications are judged by the Planning Staff, by the EPC and ultimately by the City Council in their review of zone change applications. Any zone change application must first satisfy the applicable policies therein before a zone can be changed under the City's Comprehensive Zoning Code (Zone Code). Certainly, there are other policy imperatives in the Rank Plans and elsewhere, but Enactment 270-1980 is always foremost in the analysis. With regard to Appellants' argument that the EPC failed to evaluate the existing zone, the relevant part of Enactment 270-1980, Section 1.D states:

> D. The applicant **must demonstrate that the existing zoning is inappropriate because**;
>
> 1. There was an error when the existing zone map pattern was created; or
> 2. Changed neighborhood or community conditions justify the change; or
> 3. A different use category is more advantageous to the community, as articulated in the Comprehensive Plan or other city master plan, even though (D) 1. or (D)2. above do not apply. (emphasis added).

With regard to the applicants' justification for the zone change under Enactment 270-1980, it can be found on Pages 10-12 of the applicant's summary/application to the EPC.[5] In the application summary, while neglecting to reconcile the zone change with subsections D., and E. of Section 1., the applicant only justified the zone change under Enactment 270-1980, Section 1. A., B., and C.

In the planning staff report to the EPC, Planning Staff wholly adopted the applicant's failings in the application summary. Staff failed to address how the "existing zone is inappropriate" under Section 1.D. In the Staff report to the EPC, without further analysis, Staff declared that "[t]he requested Zone Map Amendment is generally consistent with the requirements of R270-1980..."[6]

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5 Page 187-188 of the record.

6 Record, Page 50.

Staff wrote in the Staff report and testified at the EPC hearing that "[a] Zone Map Amendment is not required for this use because the current zoning allows for the propose use."[7] At the EPC hearing, Planning Staff further testified that the proposed use is a permissive use under the existing M-1 zone as a "public utility."[8] These conclusory contentions are the linchpin for the necessity of a remand.

First, Enactment 270-1980 is not vague or ambiguous. Subsection D of Enactment 270-1980, Section 1 requires that the applicant demonstrate that the existing M-1 zone is inappropriate either because there was some mistake in the zoning classification, or the conditions in the area have changed (necessitating the zone change), or that a new zone classification will be more advantageous to the community, in some regard under one or any of the City Rank land use plans. These three criteria are disjunctive; any one of the three can be shown for the applicant to meet their burden. The record is clear that without clear evidence, the EPC was led to believe that the proposed transfer station and accessory uses are permissive under the existing zone classification of M-1. EPC finding 6 concludes this fact. EPC Finding 14 also appertains to Enactment 270-1980. There are no findings, however, showing that the existing M-1 zone is inappropriate for any reason.

Although raised before the EPC by the opposition, the obvious question that was never resolved by the applicant, the Staff, or by the EPC is: If the proposed use is permissive in the existing M-1 zone, in what manner is the M-1 zone "inappropriate" under Enactment 270-1980, Section 1.D? That is, why is a zone change necessary? There was argument in the record that the proposed zone (SU-1 for M-1) would make a better zone for the transfer station uses. But that is a far cry from what is required.[9] The plain language of Section 1.D demands that the applicant focus on the inappropriateness of the existing zone not on the appropriateness of the newly proposed zone. Again the question, although a threshold issue, went unanswered during the

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7 Record, Page 51.

8 See Record, EPC Minutes, Page 378.

9 Planning Staff also justified the zone change as an attempt by the City to be transparent.

application review and approval process. The record before the EPC is barren of any analysis of the inappropriateness of the existing zone. As eluded to above, there is evidence in the record that planning Staff did advise the EPC that in their review of the zone change, the proposed SU-1 zone would be more appropriate or advantages to the community for the proposed use for various reasons, including that the use is unique and that there are more rigorous standards under the SU-1 zone than under the M-1 zone. Whether these contentions are true or not, or whether or not these contentions even are enough for a zone change, Staff have put the proverbial cart before the horse because these contentions do not directly address the threshold question of whether or not the existing zone is inappropriate under one or any of the three criteria described above.

In addition to the inappropriateness of the existing zone, another important unresolved question that must be resolved by the EPC is whether or not a transfer station and accessory uses are actually permissive uses under the M-1 zone. The applicant, Planning Staff, and the EPC made conclusions without investigation on the permissiveness of a transfer station in the M-1 zone. Moreover, there is conflicting evidence in the record as to what the proposed uses are categorized as in the Zone Code. An analysis of the permissiveness of the uses first demands that the uses be defined and categorized under the Zone Code if it is to be classified as a M-1 use. The Zone Code does not define or reference a "transfer station" or a "convenience center" in any zone or in the Definitions Section. Further, the record shows that there was no clear attempt at evaluating the uses in terms of their actual physical characteristics against the pre-defined use categories in the Zone Code to determine what use category the proposed uses most closely resemble in the M-1 zone. An analysis of the similarities of the existing use and the proposed uses would assist the EPC in resolving the question of the permissiveness of the proposed use in the M-1 zone.

The evidence in the record demonstrates that the Planning Staff assumed and concluded without consideration that the transfer station and convenience center meets the prescriptive "public utility" category under the M-1 zone. Notwithstanding the conclusion, there is also evidence in the record that the proposed uses are more closely aligned and similar to the manufacturing uses

category under the M-1 zone.[10] There is also evidence in the record, raised by Appellants, that the uses are neither manufacturing nor public utility uses—potentially making the proposed uses not permissive uses in the M-1 zone.

Clearly defining the use category will assist the EPC in determining if and how the existing zone is inappropriate under Enactment 270-1980, Section 1.D. Because there is conflicting evidence on what the uses are under the Zone Code, I find that there is not substantial evidence supporting Finding Six that the transfer station and convenience center uses are permissive in the M-1 zone. Because the EPC's decision is to a large extent supported by the presumption that a transfer station and accessory uses are permissive in the existing zone, a remand is necessary so that the EPC can resolve this fundamental question.

B. **Enactment 270-1980, Section 1.E.**

Appellants also contend that the EPC failed to determine if the proposed use would be harmful to adjacent property or the neighborhood. Again, the relevant part of Enactment 270-1980 is as follows:

> E. A change of zone shall not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood or the community. (emphasis added).

EPC Finding 10. C, E, and F are factually inaccurate insofar as these findings relate to residential uses or neighborhoods not being near the proposed transfer station site. First, Staff wrote and testified to the EPC that "[t]he proposed use will be located in an industrially zoned area and *not located near a residential area.*" (emphasis added). Yet, Staff also informed the EPC in its report that "[t]he nearest residential neighborhood is located approximately 1300 ft. west of the subject site."[11] Furthermore, there is unrebutted evidence in the record that there are six residential dwellings within 100 to 200 feet from the proposed transfer station at the corner of Edith Blvd

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10 In the LUHO hearing testimony and argument from City Staff categorized the proposed uses as a public utility and as manufacturing.

11 Record, Page 53.

and Rankin Road. The fact that these are nonconforming residential uses is irrelevant. Nonconforming uses are generally permissive uses like any other permissive use. The fact that there are six residential dwelling across the street from the proposed site contradicts Staff's report and makes the analysis of harms suspect and misleading. Because the underlying facts as to the proximity of residential uses is inaccurate, the matter must be reexamined. The EPC must reexamine the residential neighborhood under Enactment 270-1980, Section 1.E, and under Policy II.B.5.e. of the Comp. Plan.

The EPC was presented with inconsistent reports by Staff about the proximity of residential uses to the proposed uses, and it failed to resolve the issue with any substantial evidence to support Findings 10. C and E. in the EPC's Official Notification of Decision. Equally inadequate is Finding 14.E. as it is factually inaccurate and is conclusory, without sufficient evidence in the record to support it. There is no evidence in the record that the EPC addressed the accurate evidence of the proximity of the residential dwellings and how the residential uses are impacted as a result of their proximity to the proposed uses. Because there is inaccurate, insufficient, and inconsistent evidence in the record regarding the neighborhood residential uses, and because the EPC did not address Enactment 270-1980, Section 1.E as it relates to the potential harm to the adjacent residential uses, a remand is necessary so that the EPC may clarify the matter.

C. Traffic Impacts of the Proposed Uses

The EPC must clarify its decision regarding traffic impacts. The evidence demonstrates that currently the SWMD operates 54 commercial and 45 residential solid waste collection trucks from the subject site from the hours of 6:20 am to 2:30 pm. on a daily basis. The applicant claims that various other support vehicles are used in the current SWMD operations from the subject site but these vehicles are not well accounted for in the assessment of impacts. The applicant also claims that the proposed transfer station's operation will add 208 commercial transfer station truck trips to and from the site. It is not clear if these are new additional trips for the 54 commercial trucks or if these are converted trips from the existing trips which would otherwise go from the SWMD site directly to the landfill after their daily routes.

The record also shows that the residential truck trips will increase by 90 trips.[12] In addition, the proposed Convenience Center will add an estimated 225 new "public self-haulers" to the site (450 trips total). It is not clear in the record if, and how many, additional trucks will be added to the operation and whether the "public haulers are semi-truck traffic. These issues appear to be glossed over in the Staff report to the EPC.

The applicant argued in its application and at the EPC hearing that the site generated traffic of the proposed transfer station and convenience center will not meet the warranting criteria for a Traffic Impact Study (TIS) because the proposed uses will not produce 100 or more additional (new) peak direction, inbound or outbound vehicle trips to or from the site in the morning or evening peak period of the adjacent roadways. The applicant claims it did complete a TIS to further demonstrate that the proposed use did not meet the threshold requirements and that the addition of the new trips will not change the existing levels of services (LOS) at the peak hours on the adjacent streets.[13] Under the DPM, the minimum standard level of service cannot be less than a LOS D on roadway elements where the level of service is controlled by traffic control devices.[14] The evidence in the record suggests that the intersections most impacted by the transfer station are already operating at a LOS D. Apparently, the applicant argued that because the new trips associated with the proposed development occur primarily outside of the morning and afternoon peak hour times (for those intersections) and that the LOS for the surrounding intersections will remain at LOS D. However, I must point out that that is not the only criteria for a TIS. The precise criteria warranting a TIS under the City Development Process Manual is:

> [s]ite generated traffic of 100 or more additional (new) peak direction, inbound or outbound vehicle trips to or from the site in the morning ***or*** evening peak period of the adjacent roadways ***or the developments peak hour***. (emphasis added).[15]

12 See Page 172-173 of the record.

13 A summary of the applicants TIS conclusions can be found on Page 175 of the record.

14 DPM, Section 8.C.1.b.2.

15 DPM, Section 8.A.2.

Whether this discrepancy is minor or has any impact on the peak periods studied is not clear. The peak periods for the intersections studied were defined for the AM (6:30-9:30), Mid-Day (11:00-1 :30) and PM (3:00-6:30). The primary question becomes if the new trips occur *"primarily"* outside of the peak periods for the intersections studied, how do the new trips that occur within the peak periods impact those peak periods. A related question that was unresolved is how are these new trips disbursed throughout the peak periods? The applicant's conclusion that the threshold is not met seems to rely on a careful, perhaps fragile, distribution of truck trips throughout the day to avoid exceeding the DPM threshold.

It is clear from the record that the transfer station will have peak periods which overlap into the morning, lunch, and some into evening peak periods for the intersections studied. There are factual issues that were presented by Appellants before the EPC and in this appeal regarding how the new trips and the overlapping peak trips affect these peak periods. The assumptions for the distribution of the new trips is central to these issues and is not explained in any manner. Further, Staff did not appear to scrutinize, dispute or evaluate, the applicant's appraisal that the new trips added from the proposed use will not impact peak traffic conditions for the transfer stations peak periods or for the standard morning or evening peak periods. The fragile distribution of trips to avoid the threshold was never evaluated by Staff.

Instead, Staff reported conflicting information to the EPC. Staff wrote that "[t]he diagram submitted by the applicant shows new truck traffic associated with the proposed use *occurring outside* of the AM and PM peak hours."[16] (emphasis added). This conclusion is plainly inaccurate. Perhaps recognizing the gaffe, in the same Staff report, Staff took a somewhat contradicting position on this crucial subject of how the proposed traffic will impact peak traffic times. Staff wrote "[n]ew trips associated with the proposed use will still maintain a level of service D designation meaning that the new trips associated with the use will occur *primarily outside* of the AM and PM peak hour time frames."[17] (emphasis added). What's more, other than

16 Record, Page 53.

17 Record, Page 54.

the totals, the EPC did not have the overlapping or distribution numbers or assumptions to review and none were in the record except for the totals.[18]

On behalf of the North Valley Coalition, the Appellants submitted to the EPC a site specific study of the proposed transfer station titled the North Valley Health Impact Assessment (HIA). It appears that the HIA was created by the those opposing the proposed uses "to assess the impacts of a Waste Transfer Station (WTS) on the health of residents and others who live, work, attend school, or play in neighborhoods that are located near the site."[19] In the 130-page HIA, the study's authors allege several deficiencies in the applicant's application. With regard to the applicant's TIS, Appellants point to the HIA findings that the TIS fails to "include the additional volume of garbage trucks coming into and out of the impacted community because the study assumed that garbage truck traffic would occur during off-peak hours."[20]

In response, the applicant's agent submitted to the EPC its argument that the Appellant's HIA with regard to the TIS was misleading. Doubling down on their original contentions, they claim that "the impact to adjacent roadways (to the transfer station use) by the DPM is considered to be insignificant and does not require a TIS."[21] Apparently, the applicant is claiming that less than 100 new peak period inbound/outbound new vehicle trips threshold will be generated from the proposed uses. Yet, there is no clear data in the record distinguishing for the EPC the actual numbers of the new trips that will be generated during the peak periods—only the threshold numbers (totals). And, the manner of distribution to avoid the threshold is not clear in the record. In addition, as stated above there was no analysis on the development's peak periods which arguably overlap into the morning and possibly the evening peak periods. This analysis is equally

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18 I note however, that the TIS was not made a part of the appeal record, only the summary conclusions.

19 See Record, Pages 478; *North Valley Health Impact Assessment of the Proposed Edith Transfer Station*, August 2015; Prepared by: William Hudspeth, Ph.D., Kitty Richards, MS, MPH and Kristine Suozzi, MS, Ph.D. In collaboration with The North Valley Health Impact Assessment Committee and the North Valley Coalition.

20 Record, Pages 485-486.

21 Record, Page 925.

significant under the DPM if it is going to be the basis for not requiring a TIS. It should be noted that the applicant also concluded that the estimated 45 residential truck trip were not relevant to the analysis because they will occur after the morning peak hour and before the afternoon peak hour.[22] Yet the record has no findings or conditions (regarding the distribution of trips) that these trips will occur outside of peak periods. These are all significant issues that were raised by Appellant for which there is insufficient evidence in the record. Transparency requires that these issues be fleshed out and resolved.

I also note for the City Council that the TIS was not included in the record and it is not clear to me if the EPC had the benefit of reviewing the TIS. There is no evidence in the record that the EPC resolved the conflict or resolved how the added trips during peak periods impact the neighborhood. The totality of the evidence demonstrates that the EPC did not have sufficient evidence before it, and it shows that the EPC was not well-informed on the overlapping, or on the assumptions for disbursing the new trips. On remand, the EPC should resolve these issues because they are significant for determining if the threshold is met or not.

D. Other Issues

Next, the Appellants generally claim that economic considerations were the determining factor in selecting the SWMD site for the transfer station. Under Enactment 270-1980(G), the cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone. I find that there is no evidence that economics drove the decision, or was the determining factor for selecting the SWMD site. The record shows that the applicant selected the subject site (4600 Edith, NE) based on seven defined "criteria that are key to the success of this type of facility."[23] Certainly economics is clearly a consideration in any taxpayer or government funded project. But, of the numerous feasibility criteria in the listed site selection criteria in the applicants' summary, economics does not appear to be the "determining factor."

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22 Record, Page 926.

23 Record, Page 171.

Without evidence to support Appellants' claim that economics was the determining factor which drove site selection, I find that their claim is based in speculation and should be denied.

Appellants raised various other issues relating to specific Comprehensive plan policies. They claim that Comp. Plan Policy II.C.1.k was either ignored or not furthered. Comp. Plan Policy II.C.1.k states that "Citizens shall be protected from toxic air emissions." EPC Finding 10.N. states that this policy is furthered because of various mitigation measures that will be put in place to reduce emissions from leaving the site and the enclosed buildings on the site. I find that the Appellants have not met their burden of proof with this appeal issue. The evidence in the record demonstrates the City will take appropriate measures to mitigate emissions and, other than their assertions, the Appellants have not shown that the Policy is not being furthered.

Accordingly, based on all the evidence, I respectfully recommend that the City Council remand the application to the EPC to address the significant deficiencies in the record outlined above. The record is not supported with substantial evidence. Conversely, Appellants have met their burden of proof in these appeals as described above and have shown that the EPC erred in applying adopted city plans, policies, and ordinances in arriving at the decision, including its stated facts. In addition, the evidence supports that the EPC acted arbitrary, capriciously or manifestly abusive of discretion in approving the zone change at least with regard to Enactment 270-1980. A recommendation of a remand is warranted so that the EPC can address what is required under the Zone Code and under Enactment 270-1980.

Steven M. Chavez, Esq.
Land Use Hearing Officer

February 8, 2016

CITY OF ALBUQUERQUE

CODE ENFORCEMENT DIVISION
Plaza Del Sol Building, Suite 500
600 2nd Street NW
Albuquerque, New Mexico 87102

Richard J. Berry, Mayor

June 10, 2016

Savina G. Garcia, P.E.
Wilson & Company
4900 Lang Ave. NW
Albuquerque, New Mexico 87103

Re: Declaratory Ruling
Solid waste transfer station and convenience center in M-1 zone

Dear Ms. Garcia:

In response to your inquiry regarding the operation of a solid waste transfer station and convenience center in the M-1 zone, and whether or not these activities constitute a "public utility use or structure" as defined by the Zoning Code, I am issuing the following declaratory ruling.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

The operation of a solid waste transfer station[i] and convenience center, including a household hazardous waste[ii] drop-off center, is a permissive activity in the M-1 Light Manufacturing zone (ref. §14-16-2-20(A)(8) of the Comprehensive City Zoning Code). Although the code requires that all manufacturing activities in the M-1 zone occur within a completely enclosed building, the assembly and treatment of articles – including the handling, sorting, and transitory storage of solid wastes for transfer to another facility – may occur either inside a building, outside a building, or both. These activities associated with a solid waste transfer station and convenience center are similar and compatible to other uses permitted in the M-1 zone, including recycling yards; a bottling plant, cold storage plant, or warehousing operation with deliveries by large trucks and semi-tractor trailers; as well as a truck terminal and related maintenance facilities.

Additionally, a solid waste transfer station and convenience center cannot be classified as a "public utility use or structure" as listed in the IP Industrial Park zone for several reasons. First, the term "public utility use" is not defined, and other than the IP zone, this term is not used anywhere else within the Zoning Code. Without specific guidance or other reference from the code, deeming a solid waste transfer station and convenience center within the domain of a "public utility use" cannot be established.

Second, although "public utility structure" is defined in § 14-16-1-5 of the code[iii], this explanation was added several years after the original listing of a "public utility use or structure" as a permissive activity in the IP zone. The examples provided in

the definition are limited to the provision and delivery of public utilities, as well as their related structures[iv], and includes other public utility structures controlled by a rank two facility plan. The plain language of the definition associates the ownership of the structure with the provision of a utility and the control of a facility plan. While the City has a handful of adopted facility plans, there is not a corresponding facility plan for solid waste transfer stations and/or convenience centers, and is this service is not considered a utility.

Third, although "fire stations" are specifically enumerated in § 14-16-2-19(A)(19), like solid waste transfer stations and convenience centers, the location of these city services are not governed by an approved facility plan. Currently, there are no city fire stations located on land zoned IP, and most are sited on properties with SU-1 zoning as provided in § 14-16-2-22(B)(14). In fact, the Planning Ordinance designates that the purpose of a facility plan is to be "specialized in subject matter" and pertains to "only one type of natural resource utility or public facility, such as water or parks" (ref. § 14-13-2-2(B)(1)). To date, City Council has not adopted a facility plan for fire stations, nor is there a facility plan for solid waste transfer stations and convenience centers.

For the foregoing reasons, I hold that a solid waste transfer station and/or convenience center is a permissive activity in the M-1 Light Manufacturing zone. Additionally, I find that the term "public utility use" does not apply to a solid waste transfer station and/or convenience center, that the location of a solid waste transfer station and/or convenience center does not have to be in accordance with an approved facility plan because no such plan exists, and that a solid waste transfer station and/or convenience center is not required to possess a site development plan for building permit when located in the M-1 zone.

Sincerely,

Andrew Garcia

Andrew Garcia
Code Compliance Manager

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[i] A solid waste transfer station is described by the Environmental Protection Agency (EPA) as the consolidation of "waste from multiple collection vehicles into larger, high-volume transfer vehicles for more economical shipment to distant disposal sites. In its simplest form, a transfer station is a facility with a designated receiving area where waste collection vehicles discharge their loads. The waste is often compacted, then loaded into larger vehicles (usually transfer trailers, but intermodal containers, railcars, and barges are also used) for long-haul shipment to a final disposal site—typically a landfill, waste-to-energy plant, or a composting facility. No long-term storage of waste occurs at a transfer station; waste is quickly consolidated and loaded into a larger vehicle and moved off site, usually in a matter of hours" (*Waste Transfer Stations: A Manual for Decision-Making*, EPA, June, 2002).

[ii] Household hazardous waste (HHW) is defined by the EPA as coming from "residences, are generally produced in small quantities, and consist of common household discards such as paints, solvents, herbicides, pesticides, and batteries" (*Waste Transfer Stations: A Manual for Decision-Making*, EPA, June, 2002).

[iii] ***PUBLIC UTILITY STRUCTURE.*** A structure, owned by a unit of government or by a public utility company, which is an electric switching station; electric substation operating at voltages greater than 50 kilovolts (kV); gas transfer station or border station; city-owned lift station, odor control (or chlorine) station, water well or pump station, or water reservoir; or any other public utility structure controlled by a rank two facility plan.

[iv] ***STRUCTURE.*** Anything constructed or erected above ground level which requires location on the ground or attached to something having a location on the ground but not including a tent, vehicle, vegetation, or public utility pole or line (reference § 14-16-1-5 of the Comprehensive City Zoning Code).

EC 14-11

GGNA-EXHIBIT B

EC-14-11

CITY OF ALBUQUERQUE

Albuquerque, New Mexico
Office of the Mayor

Richard J. Berry, Mayor

INTER-OFFICE MEMORANDUM **DATE: January 3, 2014**

TO: Ken Sanchez, President, City Council

FROM: Richard J. Berry, Mayor

SUBJECT: Mayor's Recommendation of Wilson & Co., Inc. for Engineering Consultants for Citywide On-Call Engineering Services

The Selection Advisory Committee (SAC) met December 16, 2013 to consider the following project:

Project: Project No. 7855.00 Engineering Consultants for Citywide On-Call Engineering Services

Agency: Department of Municipal Development

Six proposals were received in response to the Request for Proposals.

Project Description: Multi-disciplinary engineering firm to provide on-call engineering services for a variety of citywide projects. Projects may require civil, mechanical, electrical and/or structural engineering services to be provided on an as-needed basis for all City departments. Services may include all phases of design, including studies and reports, public information activities, preliminary design, final design, permitting and possible bidding and construction phase services.

The Committee made the following recommendation:

1. Wilson & Co., Inc.
2. Huitt Zollars, Inc.
3. Parsons Brinckerhoff, Inc.

The Committee's analysis, score-sheet compilation and Minutes of the SAC Meeting are attached.

Therefore, in accordance with Section 14-7-2-1 et seq, ROA 1994, the following is my consultant selection recommendation concerning the procurement of professional services for the above listed project:

Wilson & Co., Inc.

Mayor's Recommendation of Wilson & Co., Inc. for Engineering Consultants for Citywide On-Call Engineering Services

This recommendation is being forwarded for Council consideration and action.

Approved:

Robert J. Perry Date
Chief Administrative Officer

Approved as to Legal Form:

David Tourek Date
City Attorney

Recommended:

12-20-13

Michael J. Riordan, P.E. Date
Director, Department of Municipal Development

MMc/mmc

Attachments:

Cover Analysis
Score Sheet Compilation
Minutes of the SAC Meeting

Composite Selection Advisory Committee Evaluation Form

Project No. 7855 On-Call Engr. Services **Date: December 16, 2013**

Evaluation Criteria	Maximum Points	Firm Name Wilson	Firm Name Huitt-Zollars	Firm Name Parsons Brinckerhoff
I. General Information 1. Provide Name and Address of Respondent and, if firm, when firm was established. 2. Provide number of employees, technical discipline and registration. 3. Indicate where the services are to be performed.	25	24	25	25
II. Project Team Members 1. Provide organization plan for management of the project. 2. Identify all consultants to be used on the project. 3. Provide qualifications of project team members shown in organization plan, including registration and membership in professional organizations. 4. Provide any unique knowledge of key team members relevant to the project.	100	88	88	91
III. Respondent Experience 1. Describe previous projects of a similar nature, including client contact (with phone numbers), year services provided, construction cost (if applicable), and a narrative description of how they relate to this project. 2. Provide examples of the Project Manager's City experience within the past five (5) years that serve to demonstrate the the Project Manager's knowledge of City procedures.	150	128	124	126
IV. Technical Approach 1. Describe respondent's understanding of the project scope. 2. Describe how respondent plans to perform the services required by the project scope. 3. Describe specialized problem solving required in any phase of the project.	150	130	125	127
V. Cost Control 1. Describe cost control and cost estimating techniques to be used for this project. 2. Provide comparisons of bid award amount to final cost estimate for projects designed by the respondent during the past two (2) years. The consultant may provide justification for any discrepancies that may exist with this information.	25	20	21	21
VI. Quality and Content of Proposal 1. Evaluator's rating of overall quality of proposal.	50	41	39	42
Total Possible Points	500	500	500	500
Total Points (Before Point Deductions)		431	422	432
Minus High and Low Scores Total		174	167	175
Total Points (Minus High and Low Scores)		257	255	257
Minus Point Deductions		2	0	9
Sub-Total (All Applicable Deductions Applied)		255	255	248
Plus Tie Breaker Points (If Applicable)		1		
SAC TOTAL SCORES		**256**	**255**	**248**
Plus Interview Scores (If Applicable)				
FINAL SCORES		**256**	**255**	**248**

GGNA-EXHIBIT B3

Cover Analysis

1. What is it?

   This Executive Communication is the Mayor's recommendation of Wilson & Co., Inc. for Engineering Consultants for Citywide On-Call Engineering Services, Project No. 7855.

2. What will this piece of legislation do?

   This legislation will create an on-call agreement for engineering services that can be used for various City departments for design and implementation of small construction projects.

3. Why is this project needed?

   The project is necessary to provide engineering services for various small construction projects throughout the City.

4. How much will it cost and what is the funding source?

   The amount of compensation in the agreement is $300,000.00 from various sources depending on the scope of services.

5. Is there a revenue source associated with this contract? If so, what level of income is projected?

   There is no revenue source associated with this contract.

6. What will happen if this project is not approved?

   If the legislation is not approved the lack of on-call engineering services agreements will impact the ability of City departments to construct and implement small citywide construction projects in a short amount of time.

7. Is this service already provided by another entity?

   The City generally has two on-call engineering agreements available for use by departments. One on-call engineering agreement is expiring in April 2013; this consultant agreement will be the replacement.

Minutes of the Meeting
of the
Selection Advisory Committee

Monday, December 16, 2013

PROJECT: 7855 – Engineering Consultants for City Wide On-Call Engineering Services

Room 7096, City/County Government Center

Present:

Jim Hamel, Project Manager, Department of Municipal Development, Administration
Keith Reed, P.E., Department of Municipal Development, Construction Services
Melissa Lozoya, P. E., Department of Municipal Development, Engineering
David Harrison, P. E., Department of Municipal Development, Engineering
Kellie Shaw, Department of Municipal Development, Administration

Others Present:

WHPacific
TYLin
HDR
BHI
Wilson & Co.
Huitt-Zollars
Parsons Brinckerhoff

Staff:

Michael L. McCan, Administrator & Chairman, Selection Advisory Committee
Betty Greenbaum, Recording Secretary

Six proposals were received in response to the Notice of Request for Proposals.

PROJECT DESCRIPTION:

Project Description: Multi-disciplinary engineering firm to provide on-call engineering services for a variety of citywide projects. Projects may require civil, mechanical, electrical and/or structural engineering services to be provided on an as-needed basis for all City departments. Services may include all phases of design, including studies and reports, public information activities, preliminary design, final design, permitting and possible bidding and construction phase services.

Estimated Compensation: **$300,000.00**

The Chairman called the meeting to order at 10:35 a.m. to review responses to the project. He reminded the Committee members of the section of the Rules and Regulations regarding lobbying to ascertain if anyone had been lobbied to support submittals on this project. No Committee member made a motion regarding the issue of lobbying.

The Chairman asked the project manager if he wished to provide any additional information pertinent to the project. The project manager stated as an on-call project, tasks would be varied.

The Chairman asked each Committee member to comment on the proposals, but to withhold giving their scores for each proposal until all discussions have ended. Committee members were generally pleased with the quality of the proposals.

Upon scoring the proposals one tie was broken. Because the point difference between the first and second-ranked firms was less than 5% of the total points obtainable, point deductions were applied to the scores. The Committee was then advised of the scores and of the ranking according to these scores.

The SAC Chairman stated that these scores would be verified prior to submitting the Committee's recommendations to the Mayor.

The Chairman asked the Committee members if anyone wished to conduct interviews. There was no motion to conduct interviews.

In accordance with the Rules and Regulations, the following three firms are therefore the Committee's recommendation to the Mayor as ranked by the final adjusted scores:

1. Wilson & Co., Inc.
2. Huitt Zollars, Inc.
3. Parsons Brinckerhoff, Inc.

There being no further business before the Committee, the Chairman adjourned the meeting at 10:45 a.m.

Michael McCan
Administrator & Chairman, Selection Advisory Committee

Cc: City Clerk

EC 14-44 with

COVER ANALYSIS

JR MILLER 2014 FEASABILITY ANALYSIS UPDATE

JR MILLER 2011 FEASABILITY ANALYSIS

GGNA EXHIBIT C

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5 records | Group

Date	Action B
5/19/2014	City Co
5/5/2014	City Co
4/28/2014	Finance
3/17/2014	City Co
3/17/2014	Preside

City of Albuquerque - Action Details

Details

File #:	EC-14-44
Type:	Executive Communication
Title:	FY10 Priority Objective Status Report: Environmental and Enhancement Goal 5, Objective 13 - Status Report on Transfer Station Feasibility Analysis
Mover:	Ken Sanchez Seconder:
Result:	Pass
Agenda note:	
Minutes note:	(Exhibit 18)
Action:	Receipt Be Noted
Action text:	A motion was made by President Sanchez that this matter be Receipt Be Noted. The motion carried by the following vote:

Votes (9:0)

9 records | Group | Export

Person Name	Vote
Dan Lewis	For
Ken Sanchez	For
Isaac Benton	For
Klarissa J. Peña	For
Brad Winter	For
Rey Garduño	For
Diane G. Gibson	For

GGNA-EXHIBIT C1

EC-14-44

City of Albuquerque

Albuquerque, New Mexico
Office of the Mayor

Richard J. Berry, Mayor

Interoffice Memorandum

March 7, 2014

To: Ken Sanchez, President, City Council

From: Richard J. Berry, Mayor

Subject: FY10 Priority Objective Status Report: Environmental and Enhancement Goal 5, Objective 13 – Status Report on Transfer Station Feasibility Analysis

This Transfer Station Feasibility Report will provide the City Council with information to assist in making a decision of future facility needs to provide convenient and cost effective services. The Addendum report was prepared to complete a review and update of the key financial assumptions used in the 2011 Feasibility Study. The updated information focuses on the current labor rates, the cost of fuel and any changes to the solid waste system that may influence the feasibility of building a new transfer station. The updated information was applied to the financial models to verify the findings stated in the 2011 Report.

Attached is the 2011 Albuquerque Transfer Station Feasibility Analysis as mentioned in the objective stated above. Also included is the 2014 Addendum, which shows current cost of construction. This goal is complete.

Submission of Transfer Station Feasibility Study and 2014 Addendum: EC

Approved:

3/6/14

Robert J. Perry Date
Chief Administrative Officer

Approved as to Legal Form:

3/4/14

David Tourek Date
City Attorney

Recommended:

3-4-14

Jill Holbert Date
Acting Director, SWMD

Cover Analysis

1. What is it?

An executive communication to address FY10, Priority Objective #13 under Goal #5, Environmental and Enhancement: the Feasibility of a Centralized Transfer Station. The Solid Waste Management Department (SWMD) is considering the feasibility of constructing a new transfer station to provide a centralized location where SWMD collection trucks could unload and avoid driving directly to the Cerro Colorado Landfill. It would also provide a convenient location for the general public to unload. The primary goal of building a transfer station is to reduce the overall cost of transporting waste to the landfill. Other benefits include reducing the impacts on roads, saving energy, and increasing convenience for SWMD collection trucks and other customers. It can also enhance SWMD's ability to recover more materials.

2. What will this piece of legislation do?

This executive communication provides a report addressing the elements listed above in relation to the Albuquerque Transfer Station Feasibility Analysis.

3. Why is this project needed?

This is the appropriate business desicision based on the attached study and analysis of operations. As a recommendation of the Integrated Waste Management Plan, the transfer station feasibility analysis provides the city with information concerning future facility needs, addresses transportation efficiencies, and a means to continue to provide convenient and cost effective services. The study results demonstrate that it would be cost effective to build a central transfer station to reduce the time, expense, and fuel associated with driving each collection vehicle to Cerro Colorado Landfill. The collection trucks would not be subject to the wear and tear associated with climbing "nine mile hill" or the unpaved roads at the landfill. The study also incorporates household hazardous waste collection as well as a citizen recycling drop center at the transfer site. The study shows by using the current SWMD property at 4600 Edith the City would save approximately 5 million dollars in land purchase costs of locating the facility elsewhere. The Edith site also meets the study criteria for a centrally located facility. The highest

and best use of the site is to clear the entire Edith property and build a transfer station, new vehicle maintenance facility and administration building. The existing maintenance facility is in dire need of replacement and will need to be replaced in the next five years based on the complexity of the new trucks.

4. How much will it cost and what is the funding source?

According to the study, construction of the basic transfer station at the Edith site is estimated at $22.3M. The additional cost of the vehicle maintenance shop and administrative office facilities is estimated at $13.5M. Total estimated project cost of $35.8 million dollars.

Funding would come primarily from operational savings. The transportation cost savings projected by the study are conservatively estimated at $4.4M per year. In addition to transportation cost savings, routing efficiencies and existing convenience center efficiencies could be realized totaling about $5.7M per year. The total estimated savings is $10.1M per year. The SWMD enterprise fund would be the funding source for all costs of the project based on its retiring debt service and its ability to maintain debt service capacity within the fund.

5. Is there a revenue source associated with this contract? If so what level of income is projected?

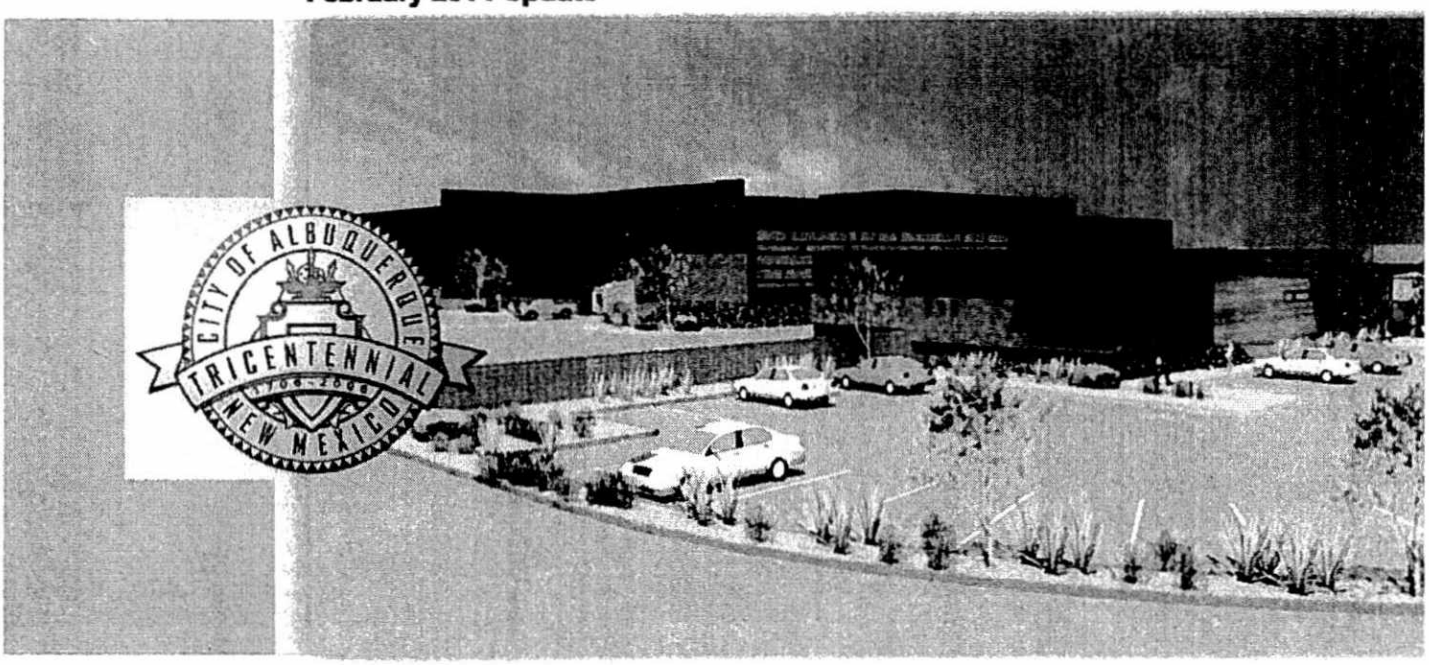
No. The project is primarily based on cost savings. The transportation cost savings projected by the study are conservatively estimated at $4.4M per year. In addition to transportation cost savings, routing efficiencies and existing convenience center efficiencies could be realized totaling about $5.7M per year. The total estimated savings is $10.1M per year. The SWMD enterprise fund would be the funding source for all costs of the project based on its retiring debt service and its ability to maintain debt service capacity within the fund.

JRM &A

ARCHITECTS
ENGINEERS
PLANNERS

Addendum | Albuquerque Transfer Station
Feasibility Analysis

February 2014 Update



Prepared for |
The City of Albuquerque
Solid Waste Department

Prepared By |
Doug Drennen
Principal
J.R. Miller & Associates

Addendum - Transfer Station Feasibility Study
2014 Update

1. Introduction

In 2011 the City completed a study to determine the feasibility of building a central transfer station. The new station would ideally be located on property within a three (3) mile radius from the I-25/I-40 intersection. After consideration of several sites, the Solid Waste Collection Yard on Edith Street was selected as a preferred site. The study results demonstrated that it would be cost effective to build a central transfer station to reduce the time and expense of driving each collection vehicle up "nine mile hill" to the landfill. The city would be able to co-locate the new transfer station with a new maintenance and service center.

This Addendum report was prepared to complete a review and update of the key financial assumptions used in the 2011 Feasibility Study. The updated information focuses on the current labor rates, the cost of fuel and any changes to the solid waste system that may influence the feasibility of building a new transfer station. The updated information was applied to the financial models to verify the findings stated in the 2011 Report. As in the 2011 study, J.R. Miller and Associates used actual data from City operations over the past two years to complete this update.

The amount of waste delivered to the landfill by city collection trucks in 2011 and 2012 was 383,956 and 368,115 tons per year respectively. In 2010 the total waste delivered by City collection trucks to the landfill was 404,000 tons. Although the amount of waste delivered over the past two years was less, the actual number of trips reported for 2013 were similar. This is most likely attributed to the fact that collection trucks still pick up the same number of routes even though less waste is generated. Also, the decline in waste volumes is probably related to less waste from commercial sector. This is an added benefit of the transfer station as the trailers can be loaded to maximum payloads thus making fewer trips when waste volumes are lower.

The Update focuses on the two primary cost factors considered in the feasibility analysis. The first is the cost of transporting waste to the landfill versus the new transfer station. The second is the capital cost to construct the new facilities. The estimated costs of operating a new central Transfer Station were also evaluated and updated to reflect current City's current labor cost.

2. Updated Transportation Costs

The evaluation of the transportation cost is based on comparing the expense of driving collection trucks directly to landfill versus driving to the Edith Street site. Almost all vehicles use either I-25 or I-40 for their primary route to the landfill, therefore it is assumed that the start of the long haul to the landfill will be the Big I intersection. This is considered the center of waste generation as was in the case of the 2011 Study.

The transportation travel times remain the same as used in the 2011 study. From this interchange it is approximately twenty (20) miles to the landfill. The trucks must travel up I-40 on what is

referred to as "nine mile hill" with an average grade of 7%. Once off I-40 freeway, collection trucks must travel nine (9) miles along a local access road to the gatehouse and onto the landfill. The roundtrip to the landfill and back to the Big I intersection takes about eighty (80) minutes, not including the time spent at the landfill. Time spent at the landfill is about twenty (20) minutes which includes; travel to the working face, unloading, and back through the gatehouse. Total time per load for transport to the landfill and unloading is approximately one hundred (100) minutes.

The cost of directly hauling to the landfill was established using actual operating and maintenance expenses in conjunction with actual labor costs. The cost per load was based on the roundtrip time to the landfill plus the unloading time multiplied by the hourly cost to operate each type of vehicle. The hourly operating expense for each type of collection truck does vary because actual fuel expenses and maintenance costs vary for each type of truck although the labor expenses are essentially the same. The cost factors to arrive at the operating expenses have been updated based on actual 2014 dollars.

The loads-per-day for each vehicle type are based on the current number of vehicles SWD operates in each category multiplied by the average number of loads per day that vehicle category picks up. The trips made to the landfill were also updated.

The following is a list of the transportation related expenses that were updated.

	2011	2013-14	% Change
1. Labor (represents drivers/ maintenance Includes benefits /overhead) *	$26.89/hr	$29.70/hr	10.4%
2. Trips to Landfill (all City collection trucks)	246	248	0.8 %
3. Fuel Prices	$2.39/gal	$3.13/gal	31%

*The Department reported that the labor rate change includes a onetime catch-up to the benefits and IDOH rates over several years. Annual adjustments for labor rates are typically 1% to 2%.

Using the updated information the transportation cost tables were revised

Transportation Cost for Direct Haul to Landfill (2014)

Vehicle Type	Per Hour Vehicle Cost	Roundtrip & Unloading Time	Transportation Cost per Load	Total Loads per Day	Transportation Cost per Day
Automated	$ 72	100 min	$120	86	$10,320
Front Loader	$ 72	100 min	$120	51	$ 6,120
FL w/ Assistant	$101	100 min	$168	14	$ 2,350
Rear Loader Comml & W/L	$ 84	100 min	$140	6	$ 840
Roll-off - Box	$ 59	100 min	$ 98	91	$ 8,900
Transfer Trucks	$ 56		N/A		$ 0
Total Estimated Cost Direct Haul / Day					**$28,530**

The updated table above shows that the City currently spends approximately $28,530 per day for collection vehicles to transport waste directly to the landfill. The 2011 report estimated this cost to be $26,500 per day. The 2014 cost represents a nearly 8% increase in the transportation expenses for collection trucks or about 4% per year.

Based on five (5) days per week and fifty-two (52) weeks per year of operations, the City will spend approximately $7.42 million per year for transporting waste directly to the landfill. The transportation time to direct haul requires approximately 410 man-hours per day in addition to the time spent on the collection routes.

2.1 Transportation Cost w/New Transfer Station

If SWD were to construct a new centrally located transfer station, collection vehicles would be able to avoid travel time to the landfill. The trucks would not be subject to the wear and tear associated with climbing nine mile hill or need to travel on unpaved landfill roads. The 2011 analysis assumed the new transfer station would be located within ten (10) minutes of the centroid or in this case, the Big I intersection. The Edith Street site meets these criteria. This recognizes a seventy (70) minute decrease in travel time to the landfill. The ten (10) minute travel time also accounts for the fact that some collection vehicles do not travel through the interchange but might use surface streets to access the transfer station.

Another time savings factor to consider is that it will take less time to unload at a transfer station than at a landfill. This is due in part to the fact that the vehicles will not have to travel out to the working face to unload but rather drive inside a large building to unload. Also trucks would travel on paved roads rather than landfill roads which is less wear on tires.

At the new central transfer station it is expected that trailers will achieve an average payload of 24 tons. Roundtrip to the landfill for transfer trucks will be approximately eighty (80) minutes. The average time to load a transfer trailer (assumes top load) is ten (10) minutes and the time to unload at the landfill is assumed to be fifteen (15) minutes for a total time of one hundred and five (105) minutes. Currently, transfer trailers hauling from the Eagle Rock station make the round trip to the landfill in one hundred and fifteen (115) minutes. Since the Eagle Rock station is located about seven (7) miles north of the Big I, the time from a new central location should be less.

In the previous study the 2010 waste stream was 404,000 tons which results in approximately 17,000 trips to the landfill. Averaging the past two years the waste delivered to the landfill would be 375,000 tons or 15,625 trips. For the purposes of this update and in order to actually compare the cost difference from the previous analysis we used 17,000 transfer trips. However, we also used the lower waste quantities that resulted in fewer trips to present what happens when the waste quantities are reduced.

Based on operations of five (5) days per week and fifty-two (52) weeks per year, this is equivalent to approximately sixty-five (65) trips to the landfill per day. To transfer the initial waste SWD would need seventeen (17) transfer trucks and trailers. Additional trucks and trailers will be needed to provide backup equipment for the operation. If SWD receives waste from the convenience centers and/or other private collection companies, additional trucks will be needed.

The following chart shows the cost that would be required to transport wastes to the landfill with a transfer station. This chart does not include the cost to operate the transfer station or finance the transfer station construction. The roundtrip and unloading times are based on the assumptions above.

Transportation Cost for Transfer to the Landfill (2014)

Vehicle Type	Per Hour Vehicle Cost	Roundtrip & Unloading Time	Transportation Cost per Trip	Total Loads per Day	Transportation Cost per Day
Automated	$ 72	20 min	$24	86	$2,060
Front Loader	$ 72	20 min	$24	51	$1,220
FL w/ Assistant	$101	20 min	$33	14	$ 460
Rear Loader	$ 84	20 min	$28	6	$ 170
Roll-off - Box	$ 59	20 min	$20	91	$1,820
Transfer Trucks	$ 56	105 min	$98	65	$6,370
Total Estimated Cost / Day					**$12,100**

Based on this analysis the cost for collection trucks to deliver waste to the transfer stations and transport waste from the transfer station to the landfill is approximately $12,100 per day or $3.15 million per year. This represents an annual savings of $4.27 million per year over collection trucks hauling directly to the landfill.

However, if we use the actual waste quantities averaged over the past two years it would only make 15,625 trips per year or about sixty (60) per day. Under these conditions the cost for transportation with the transfer station would have been $11,610 per day. The actual annual cost would have been $3.02 million. This would have been a difference of $4.4 million or an additional savings of $130,000 annually.

2.2 Summary of Updated Transportation Costs

The transportation analysis using 2014 data shows there is a slight increase in the cost savings when comparing direct haul versus having the transfer station. The transportation cost difference in the 2011 study was a $15,200 per day or $4.0 million per year. The Updated 2014 model shows this difference to be $16,430 per day or annual cost of approximately $4.3 million per year or a 7.5% increase. This is mainly a result of the labor cost increase of 10.4% which is partially due to a "catch up" on benefits therefore it is not reasonable to expect a 5% increase in these cost each year.

Fuel prices also contribute to the transportation cost savings but not as much. For the purposes of this updated report we used a $3.00 per gallon versus the current price of $3.13 per gallon. Since these prices are volatile we wanted the analysis to recognize this fact by not using the higher price.

The time savings have not changed since our previous report so the financial analysis will reflect only these cost changes.

The results of the transportation analysis will be included in the updated financial model.

3. Update Construction Cost Estimates at Edith Street

In the 2011 Feasibility Study JRMA prepared a conceptual building and site plan to construct a new central transfer station at the Edith Street Solid Waste Department Offices and Collection Yard. There are several advantages to using this site. One, it is centrally located to provide convenient cost efficient collection services. Two, after collection trucks finish their routes they can be parked on site. Three, by using this property the City would save an estimated $5.0 million by not purchasing new property.

In order to use the property it will be necessary to relocate the current operations into new facilities on the existing property. This is ideal since the current maintenance facilities are outdated to efficiently service modern collection trucks. The buildings and bay sizes need to be modified and improved to accommodate the entire fleet. A new central transfer station will be sized to handle all waste delivered by the SWD's collection fleet. It must also contain certain features necessary for the SWD to provide full services for its constituents.

3.1 Site Features and Facilities

A conceptual design and site layout was developed to estimate the relative construction cost for the analysis. Based on information provided to us by the SWD for the original feasibility study in 2011, the features and facilities to be built for the new central transfer station were determined. It is our understanding that nothing has changed with regards to the facility's needs. The basis for the project remains as follows.

- Transfer Station Building - Building will be sized to handle current waste flow of about 2,000 TPD and future growth. For estimating purposes it is assumed the transfer station should be between 50,000 s.f. and 70,000 s.f. In the construction cost estimate, a 70,000 s.f. pre-engineered metal building (PEMB) was assumed.
- A central gate house and scale system will be installed. It will provide two inbound scales and one outbound scale for weighing customers. A fourth scale may be installed to weigh outbound transfer trucks.
- The site is large enough to provide adequate queue space for on-site stacking to prevent back-up onto public right-of-way.
- Employee space for on-site employees only including foreman offices, restrooms and locker space, break room and training/conference area. This space is typically about 4,000 s.f. for this size facility. The main employee area for collection fleet drivers, maintenance staff and administrative functions are to remain at the SWD offices on Edith Blvd.
- A Household Hazardous Waste Collection Facility (assume 5,000 s.f.)
- Recycling Drop-Off for source-separated materials delivered by the public (assume 5,000 s.f.)
- Maintenance area for onsite mobile equipment i.e. front loader, skid loader and forklift etc. Parking area for transfer trucks and trailers.
  *Note: One option will be to park trailers at the landfill.

Using the information above and space assumptions from our experience, a generic site plan was developed. In order to allow for sufficient site area to build the facilities described and to allow for a safe and efficient traffic circulation plan, it is desirable to use between eight (8) acres and twelve (12) acres of land. The most efficient method to load a transfer trailer is to load from the top or by gravity. Therefore, it is desirable to locate the tipping floor at an elevated level which is typically about sixteen (16) feet above the load out tunnel floor. Thus, having a grade differential on the property can lead to a more efficient operation and can certainly reduce initial construction costs.

3.2 Construction Costs Estimate

The transfer station facility criteria described above was used by JRMA to prepare a planning level construction cost estimate for the 2011 feasibility report and also used for this updated report. The estimate was originally developed to provide information for evaluating the feasibility of building a central transfer station for the purposes of reducing overall system cost (i.e. this proposed new facility is more cost effective than continuing to have collection vehicles haul directly to the landfill). The facility criteria are consistent with our initial reviews. If it is decided to move the project forward, the design for a permanent transfer station should be defined and developed through additional efforts. After that step is completed a professional construction cost estimator should provide a more defined construction cost estimate. It is assumed the site will not require any remedial actions. The other key assumptions used to develop construction cost are as follows:

- The transfer station facility will be built on a 9 acre site
- A few line items in the estimate include:
  - A 70,000 s.f. PEMB transfer station building
  - Recycling drop center
  - Household Hazardous Waste building (HHW)
  - A gatehouse and scale complex to weigh vehicles and handle transactions
  - State Gross Receipts tax of 7%

The construction cost estimate prepared in 2011 listed four primary areas of work for completing the new transfer station. Each of these areas of construction were reviewed to determine if there have been changes to the unit cost used to complete the estimate. An update of each area of work is as follows:

3.2.1 Site Work - 2011 Estimate - $1,770,000

Description: This area of work includes demolition of existing infrastructure, site preparation, site grading and paving, utilities and landscaping. To compare construction costs for these items the City's Department of Municipal Development (DMD) provided data from recent public works projects for several of the items used in the cost estimate. Based on the information each of the main categories of work; clearing, demolition, grading and paving, used in the previous estimate were slightly higher than those provided by DMD. This represented 62% of the total cost for this area. The other items included in this work area were for storm water management, landscaping, and utilities, all of which appear reasonable for this planning level estimate. There was no information in the DMD to verify these items. The planning level cost estimate for this work is still reasonable.

3.2.2 Entrance Roads and Scale Complex – 2011 Estimate - $692,000

Description: The area of work includes a new entrance road and four new scales. The paving costs used are within the actual cost provided by DMD. JRMA compared the cost to install scales and scale house with other recent projects. These costs appear to be reasonable and no changes are needed.

3.2.3 Main Transfer Station - 2011 Estimate - $10,830,000

Description: The primary construction item is a 70,000 s.f. PEMB for the transfer station. JRMA contacted local metal building suppliers and they confirmed the cost estimate used to purchase and install a PEMB for the New Mexico marketplace is comparable to that used in the 2011 cost estimate. The concrete foundation cost estimate was comparable to that provided by the New Mexico Department of Transportation. No changes are required for the transfer station building.

3.2.4 Buy Back Center and HHW Drop off – 2011 Estimate - $1,680,000

Description: This area of work provides a large paved area for cars and pickups to drop off recyclables and a HHW Center. The functions and layout of these facilities is less defined. JRMA used costs from recent projects to estimate the cost of construction. For instance an HHW facility was designed and constructed in Santa Fe in 2012 where the cost was about $800,000. For the City the cost estimate used was $900,000 but it did not include the paving which is broken out separately. Based on the preliminary nature of the facilities to be built the construction cost estimate prepared in 2011 appears reasonable and no changes are required for the planning level cost estimate.

The construction cost estimate also includes line items for the contractor's general conditions, and engineering/construction administration. These estimates are still within typical percentages used in estimating the cost for construction on projects. Also the 15% contingency appears reasonable.

Note the cost estimate does not include any contingency for remediation of site conditions.

3.3 Construction Cost for Office and Maintenance Center

With this update JRMA reviewed the estimated construction cost for the new offices and truck maintenance center. As with the transfer station project the site civil work which includes grading, storm water management and paving has not increased based on unit cost received from recent City public works projects. However, JRMA believes the unit cost used for the employees break rooms and showers etc. may be low based on recent projects completed by JRMA. Therefore, we would suggest using a unit cost of $300 per s.f. for these areas versus the $175 per s.f. used in the 2011 report. The result is the estimated planning level construction cost increased from $12.4

million to $13.5 million or 9%. Assuming this additional cost is realized it would translate to about $55,000 annually over twenty (20) years.

The updated construction cost estimates are provided in the Updated Appendix B of this Addendum.

4. Update Cost of Operations

The operating expenses for the new transfer station were prepared in 2011 feasibility report. Of the operating costs, labor expenses represented 43% of the total cost. Given that labor expenses for the City have increased by 10.4% it is assumed the operating expenses will incur these increases. In addition to the labor increase we assumed a modest 2% increase in other operating expenses.

Estimated Operating Expenses	2011	2014 Update
Labor Expense	$1,100,000	$ 1,214,000
Equipment Expenses	370,000	377,000
Equipment Maintenance	120,000	122,000
Equipment Replacement	300,000	306,000
Facility Replacement	300,000	306,000
Subtotal	$ 2,190,000	$ 2,325,000
Operating Contingency (20%)	440,000	465,000
Transfer Station Operating Expenses	$ 2,630,000	$ 2,790,000
Other Services		
Recycle Drop Off Center	$ 100,000	$ 112,000
HHW Drop Off (5 days/wk)	$ 150,000	$ 168,000
Subtotal Other Services	$ 250,000	$ 280,000
Total Operating Expenses	$ 2,880,000	$ 3,070,000

The result of these adjustments demonstrates the operating expenses have increased by a total of 6.6%. In the 2011 model JRMA rounded the operating expenses to $3,000,000. Therefore, for planning purposes we used $3,100,000 in the financial analysis.

The SWD currently also operates three convenience centers or small transfer stations. The annual operating expenses presented in the 2011 Report were $3.1 million. This represents the net operating expenses and does not include transfers and transportation costs. Transportation of waste to the landfills from these facilities was reported to be $427,000 and the truck repair and maintenance allocation was $315,000.

To determine the cost impacts of building a new central transfer the operating expenses of the three convenience centers were updated. It is understood this information is used only for providing the financial analysis of the impacts of closing one or more of the convenience centers for consolidation purposes. The City has not made a decision to close any of these centers.

Operating expenses for a new transfer station were estimated to have increased by 6.6%. Using this inflation factor, the operating expenses for the three convenience centers of $3.1 million in 2011 would increase to $3.3 million in 2014. It stands to reason then the truck repair and maintenance expense allocation would also increase by 6.6% from $315,000 to $336,000. The total cost of operations for the three convenience centers is assumed to be $3.6 million in 2014.

Transportation expenses were estimated to have increased by 7.5% since 2011. Therefore, the transportation cost from the convenience centers to the landfill which was $427,000 in 2011 is estimated to $459,000 in 2014.

The updated costs for operating and transporting waste from the convenience center will be used to update the scenarios in the financial analysis that show the impacts to the system cost if the convenience centers are closed when the new central transfer station is constructed.

5. Update Financial Models

Using the dated cost information the Feasibility model has been the updated. This includes the two primary options of 1) Building a New Transfer Station and 2) Building the Transfer Station and new facilities for the Solid Waste Department. Under each option there are three scenarios similar to the 2011 Report. The first assumes the convenience centers would be closed when the new transfer station becomes operational. A second scenario shows what happens if the convenience centers are closed and the labor cost savings are not fully realized. The third scenario demonstrates the cost impact when keeping the convenience centers open.

In the 2011 Report the City provided fixed cost for licensing, insurance and general overhead expenses that are attributed to operating the collection fleet. This information was included in the hourly operations cost for evaluating impacts of transporting waste under each option. Whereas, it is not inaccurate to include these fixed expenses it is our opinion that perhaps these savings may not be fully realized. When taken out of the transportation analysis it does not change the feasibility of moving forward with the transfer station project. It does change the cost difference of the alternatives, but not significantly. As such, in completing the updated report we removed these fixed operational expenses from the analysis. If the City wishes to include them the models can be adjusted.

The following table summarizes the financial impacts of the various scenarios and compares the results to the 2011 report. Specifically, the figures show the difference or savings in operating expenses between direct haul to landfill versus operating a central transfer and transporting waste for the first year of operations. The table also shows the life cycle cost savings projected over twenty-four (24) years. This includes the four (4) years to design and build the facilities and twenty (20) years to retire the debt.

Summary Table - Cost Savings of Transfer versus Direct Haul

	2011		2014	
Scenarios w/Transfer Station	**1sr Yr $**	**Life Cycle**	**1sr Yr $**	**Life Cycle**
1. ***TS w/Convenience Centers Closed***	$3.0 M	$118 M	$3.4 M	$133 M
2. ***TS w/Convenience Centers Closed – no labor savings***	$1.2 M	$ 67 M	$1.7 M	$ 83 M
3. ***TS w/Convenience Centers Open***	($800,000)	$ 10 M	($600,000)	$ 18 M
Scenarios with Full Build Out of new Solid Waste Department Facilities				
4. ***TS &SWD w/Convenience Centers Closed***	$2.0 M	$98 M	$2.4.M	$112 M
5. ***TS &SWD w/Convenience Centers Closed – no labor savings***	$200,000	$47 M	$610,000	$61 M
6. ***T S $ SWD w/Convenience Centers Open***	($1.8 M)	($10.0 M)	($1.6 M)	($3.2 M)

Comparing the 2014 updated information to the 2011 Report the cost of each scenario has increased because of the various factors described in Addendum. However, the difference between the transfer and direct hauling has increased demonstrating the savings to the City of building the transfer station is more favorable than the cost represented in 2011.

Addendum to
Albuquerque Transfer Station
Feasibility Analysis

Appendix B
Updated Construction Cost Tables

Albuquerque Transfer Station

Edith St SWD Offices/Hauling Yard & Maintenance Center Facilities (Approx 8 Acres)

Preliminary Construction Costs (February 2014 $)

Generic Site

BUILDING/ SITE AREA		DESCRIPTION OF WORK	QUANTITY	SF / LF	UNIT COST	EXTENDED VALUE	Assumptions Notes 01/30/14
Site Work							
	Demolition	Remove Debris / demo structures	1	LS	$200,000.00	$200,000	
	Site Preparation	Clear and Grade	250,000	SF	$0.50	$125,000	
	Soil Removal /Fill		20,000	CY	$8.00	$160,000	Import - can be reduced with precise grading plan
	Utilities	Water/Fire extension	1,000	LF	$20.00	$20,000	
		Sewer	1,000	LF	$20.00	$20,000	
		Power	1	LS	$100,000.00	$100,000	
	Paving	Employee parking	55,000	SF	$4.00	$220,000	
		Truck parking 8 in paving	125,000	SF	$6.00	$750,000	Employee parking 4 inch plus base
		Access roads - maneuver areas etc	20,000	SF	$6.00	$120,000	All truck access areas 8 inch plus base
		Storm water	1	LS	$200,000.00	$200,000	
	Landscaping	Based on screening	10,000	SF	$5.00	$50,000	
SUBTOTAL SITE WORK						$1,965,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE WORK						$1,965,000	
ENTRANCE ROADS / SCALE COMPLEX							
	Access Roads	Includes entrance, access, and site parking		SF	$6.00	$0	
	Scale Approaches	Concrete		SF	$12.00	$0	
	Scale house	Scale house and bathrooms		SF	$400.00	$0	
	Scales	Two entrance plus 1 exit and transfer trucks		EA	$60,000.00	$0	
SUBTOTAL ONSITE ROADS AND SCALE COMPLEX						$0	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE IMPROVEMENTS AND SCALE COMPLEX						$0	
MAIN TRANSFER STATION							
	New Transfer Station	PEMB - with standard concrete base / skylights		SF	$140.00	$0	
	Foundations/ Tunnel	Standard slab on grade		SF	$6.00	$0	
	New Push Wall	Standard concrete push walls		LF	$200.00	$0	
				LF		$0	
						$0	
	Employee / Maintenance Area	SWD Office	8,400	SF	$225.00	$1,890,000	New SWD Offices with no driver center
	Mech	Break room / showers etc.	1,600	SF	$300.00	$480,000	
	Driver Center	Employee Center w/ showers etc	3,000	SF	$300.00	$900,000	
	Truck Bays	Truck maintenance facility	22,000	SF	$175.00	$3,850,000	
SUBTOTAL NEW TRANSFER STATION W/EMPLOYEE SPACE						$7,120,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL NEW TRANSFER STATION						$7,120,000	
Buy Back Center and HHW Drop Off							
	Paving	Drives and maneuvering areas for drop offs		SF	$6.00	$0	
				SF		$0	
	HHW building	Assume 4,000 sq ft		SF	$225.00	$0	
	Misc.	Walls, dividers, boxes etc		LS	$100,000.00	$0	
	Recycle Drop-Off	Area for public to drop-off recyclables		SF	$100.00	$0	
SUBTOTAL CONSTRUCTION COST - RECYCLING CENTER / HHW						$0	
SUMMARY OF ESTIMATED CONSTRUCTION COST							
Site Work - Grading, Drainage and Paving						**$1,965,000**	
Entrance Road and Scale complex						**$0**	
Buyback & Recycle Drop Off Center						**$0**	
Transfer Station Expansion w/ Entrance / Employee and Maintenance bays						**$7,120,000**	
Subtotal Construction Cost						**$9,085,000**	
Cost of Land							
		General Condition			12%	$1,090,200	
		Engineering /Construction Adm			12%	$1,090,200	
		Contingency			15%	$1,362,750	
		Gross Receipts Tax			7%	$807,657	
SUMMARY - TOTAL ESTIMATED CONSTRUCTION COST						$13,435,807	**USE $ 13,500,000**

Notes JRMA 1/30/2014

Estimates are preliminary and carry a confidence range of +20 /-15%.
Site Plans are conceptual but based on projects of similar size and complexity
Incomplete base maps with limited topographic data were used
Unit cost are based on projects in other areas in absence of unit prices for New Mexico region
No environmental clean up/remediation is included

Albuquerque Transfer Station

Edith St Transfer Station Facilities (9 Acres)

Preliminary Construction Costs (February 2014 $)

BUILDING/ SITE AREA		DESCRIPTION OF WORK	QUANTITY	SF / LF	UNIT COST	EXTENDED VALUE	Assumptions Notes 12/30/11
Generic Site							
Site Work							
	Demolition	Remove Debris / demo structures	1	LS	$200,000.00	$200,000	
	Site Preparation	Clear and Grade	350,000	SF	$0.50	$175,000	
	Soil Removal /Fill		20,000	CY	$8.00	$160,000	Import - can be reduced with precise grading plan
	Utilities	Water/Fire extension	1,000	LF	$20.00	$20,000	
		Sewer	1,000	LF	$20.00	$20,000	
		Power	1	LS	$100,000.00	$100,000	
	Paving	Employee parking		SF	$4.00	$0	
		Truck parking 8 in paving	0	SF	$6.00	$0	Employee parking 4 inch plus base
		Access roads - maneuver areas etc	120,000	SF	$6.00	$720,000	All truck access areas 8 inch plus base
		Storm water	1	LS	$200,000.00	$200,000	
	Landscaping	Based on screening	35,000	SF	$5.00	$175,000	
SUBTOTAL SITE WORK						$1,770,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE WORK						$1,770,000	
ENTRANCE ROADS / SCALE COMPLEX							
	Access Roads	Includes entrance; access; and site parking	30,000	SF	$6.00	$180,000	
	Scale Approaches	Concrete	6,000	SF	$12.00	$72,000	
	Scale house	Scale house and bathrooms	500	SF	$400.00	$200,000	
	Scales	Two entrance plus 1 exit and transfer trucks	4	EA	$60,000.00	$240,000	
SUBTOTAL ONSITE ROADS AND SCALE COMPLEX						$692,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE IMPROVEMENTS AND SCALE COMPLEX						$692,000	
MAIN TRANSFER STATION							
	New Transfer Station	PEMB - with standard concrete base / skylights	70,000	SF	$140.00	$9,800,000	
	Foundations/ Tunnel	Standard slab on grade	70,000	SF	$6.00	$420,000	
	New Push Wall	Standard concrete push walls	200	LF	$200.00	$40,000	
	Retaining Walls	Build 150 ft on one side @ 10ft ave	3,000	sf	$40.00	$120,000	Only need to build about 300 flbecuase of site topography
	Employee / Maintenance Area	Office space for foreman/break room and lunch/lockers	2,000	SF	$225.00	$450,000	
	Mech	Break room / showers etc.		SF	$150.00	$0	
	Driver Center	Employee Center w/ showers etc		SF	$150.00	$0	
	Truck Bays	Truck maintenance facility		SF	$175.00	$0	
SUBTOTAL NEW TRANSFER STATION W/EMPLOYEE SPACE						$10,830,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL NEW TRANSFER STATION						$10,830,000	
Buy Back Center and HHW Drop Off							
	Paving	Drives and maneuvering areas for drop offs	20,000	SF	$4.00	$80,000	
				SF		$0	
	HHW building	Assume 4,000 sq ft	4,000	SF	$225.00	$900,000	
	Misc.	Walls, dividers, boxes etc	1	LS	$100,000.00	$100,000	
	Recycle Drop-Off	Area for public to drop-off recyclables	6,000	SF	$100.00	$600,000	
SUBTOTAL CONSTRUCTION COST - RECYCLING CENTER / HHW						$1,680,000	
SUMMARY OF ESTIMATED CONSTRUCTION COST							
Site Work - Grading, Drainage and Paving						$1,770,000	
Entrance Road and Scale complex						$692,000	
Buyback & Recycle Drop Off Center						$1,680,000	
Transfer Station Expansion w/ Entrance / Employee and Maintenance bays						$10,830,000	
	Subtotal Construction Cost					$14,972,000	
Cost of Land							
		General Condition			12%	$1,796,640	
		Engineering /Construction Adm			12%	$1,796,640	
		Contingency			15%	$2,245,800	
		Gross Receipts Tax			7%	$1,456,776	
SUMMARY - TOTAL ESTIMATED CONSTRUCTION COST						$22,267,856	**Use $22,300,000**

Notes JRMA 2/13/2014

Estimates are preliminary and carry a confidence range of +20 /-15%
Site Plans are conceptual but based on projects of similar size and complexity
Incomplete base maps with limited topographic data were used
Unit cost are based on projects in other areas in absence of unit prices for New Mexico region
No environmental clean up/remediation is included

Addendum to
Albuquerque Transfer Station
Feasibility Analysis

Appendix C
Updated Financial Models

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd w/ New SWD Facilities

SCENARIO # 1 - BASE CASE NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE 2014

	Current Waste Volumes		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,628		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		**$3,640,000**	**$3,640,000**	**$3,749,200**	**$3,861,676**	**$3,977,526**	**$4,096,852**	**$4,219,758**	**$4,346,350**	**$4,476,741**	**$4,611,043**	**$4,749,374**	**$4,891,856**	**$5,038,611**	**$5,189,770**	**$5,345,463**	**$5,505,827**	**$5,671,001**	**$5,841,131**	**$6,016,365**	**$6,196,856**	**$6,382,762**	**$6,574,245**	**$6,771,472**	**$6,974,616**	**$7,183,855**	**$125,312,352**
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,318	$5.50/ton	$177,749	$184,812	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506	$285,568	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,720	$407,509	$423,932	$441,017	$6,973,711
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,308	$94,989	$98,817	$102,799	$106,942	$111,251	$115,735	$120,399	$125,251	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,181,959
Don Reservoir	7,628	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,699	$264,963	$275,639	$286,747	$298,303	$310,324	$322,830	$335,841	$349,375	$363,455	$378,102	$393,339	$409,191	$425,681	$442,836	$460,683	$479,248	$498,562	$7,883,684
Collection Direct haul	406,000	$18.32/ton	$7,437,800	$7,735,737	$8,077,722	$8,351,239	$8,687,294	$9,037,912	$9,402,240	$9,781,046	$10,175,222	$10,585,284	$11,011,871	$11,455,649	$11,917,312	$12,397,579	$12,897,202	$13,416,959	$13,957,660	$14,520,156	$15,106,319	$15,716,063	$16,347,340	$17,006,138	$17,691,485	$18,404,452	$291,826,083
Subtotal Transportation			**$7,877,594**	**$8,195,961**	**$8,575,322**	**$8,868,893**	**$9,226,309**	**$9,598,129**	**$9,984,536**	**$10,387,327**	**$10,805,936**	**$11,241,415**	**$11,694,445**	**$12,165,751**	**$12,656,009**	**$13,166,047**	**$13,696,638**	**$14,248,613**	**$14,822,832**	**$15,420,192**	**$16,041,626**	**$16,688,393**	**$17,360,604**	**$18,060,267**	**$18,788,096**	**$19,545,257**	**$309,865,437**
Total Existing			**$11,517,594**	**$11,944,261**	**$12,386,998**	**$12,846,419**	**$13,323,161**	**$13,817,887**	**$14,331,284**	**$14,864,068**	**$15,416,979**	**$15,990,790**	**$16,586,300**	**$17,204,342**	**$17,845,779**	**$18,511,509**	**$19,202,465**	**$19,919,614**	**$20,663,963**	**$21,436,557**	**$22,238,482**	**$23,070,855**	**$23,934,849**	**$24,831,740**	**$25,762,715**	**$26,729,111**	**$434,377,769**
New Central Transfer Station																											
Operations																											
Central Station Operations	459,680	$3,100,000				$3,207,454	$3,469,077	$3,593,750	$3,701,563	$3,812,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125	$4,419,859	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$97,140,288
Convenience Centers			$3,640,000	$3,749,200	$3,861,676																						
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			**$3,640,000**	**$3,749,200**	**$3,861,676**	**$3,207,454**	**$3,469,077**	**$3,593,750**	**$3,701,563**	**$3,812,609**	**$3,926,987**	**$4,044,797**	**$4,166,141**	**$4,291,125**	**$4,419,859**	**$4,552,455**	**$4,689,028**	**$4,829,699**	**$4,974,590**	**$5,123,828**	**$5,277,542**	**$5,435,869**	**$5,598,945**	**$5,766,913**	**$5,939,921**	**$6,118,118**	**$97,140,288**
Transportation Costs																											0
Transport to Cerro Landfill	459,680	$7.77/ton				$4,020,145	$4,182,157	$4,350,698	$4,526,051	$4,709,430	$4,898,180	$5,095,576	$5,300,026	$5,511,555	$5,734,793	$5,967,595	$6,208,494	$6,458,097	$6,718,982	$6,989,757	$7,271,444	$7,564,084	$7,868,332	$8,186,466	$8,516,381	$8,859,591	$128,945,106
Transport from Convenience Centers																											0
Eagle Rock	0	$5.50/ton	$177,749	$184,912	$192,364	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$555,026
Montessa Park	0	$5.50/ton	$81,103	$84,371	$87,772	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$253,246
Don Reservoir	0	$26.36/ton	$200,942	$209,040	$217,465	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$627,447
Collection Direct haul			$7,417,800	$7,716,737	$8,077,723																						
Subtotal Transportation			**$7,877,594**	**$8,195,961**	**$8,575,322**	**$4,020,145**	**$4,182,157**	**$4,350,698**	**$4,526,051**	**$4,709,430**	**$4,898,180**	**$5,095,576**	**$5,300,026**	**$5,511,555**	**$5,734,793**	**$5,967,595**	**$6,208,494**	**$6,458,097**	**$6,718,982**	**$6,989,757**	**$7,271,444**	**$7,564,084**	**$7,868,332**	**$8,186,466**	**$8,516,381**	**$8,859,591**	**$130,380,824**
New TS - Capital Investments																											
Real Estate																											
Land Purchase		$0																									
Site Permitting		$100,000																									
Construction cost		$25,801,000																									
Annualized Debt Service	0.08024	$2,080,616				$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$2,080,616	$57,617,320
5% @ 30 yrs																											
Transfer Station Equipment																											
Transfer trucks	10	100,000 ea	$1,000,000																								
Transfer trailers	10	55,000 Ea	$550,000																								
Rolling Stock		350,000	$350,000																								
Annualized Equipment Cost	0.09634		$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050						$2,745,755.20
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station			**$0**	**$0**	**$0**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,263,666**	**$2,080,616**	**$2,080,616**	**$2,080,616**	**$2,080,616**	**$2,080,616**	**$0**	**$60,363,075**
Total annual Cost for New Transfer Station			**$11,517,594**	**$11,944,261**	**$12,386,998**	**$10,471,265**	**$10,734,908**	**$11,008,114**	**$11,291,259**	**$11,584,705**	**$11,888,833**	**$12,204,039**	**$12,530,735**	**$12,869,347**	**$13,220,317**	**$13,584,186**	**$13,961,189**	**$14,352,062**	**$14,757,239**	**$15,177,251**	**$15,429,623**	**$15,880,968**	**$16,348,893**	**$16,833,996**	**$17,336,918**	**$14,977,709**	**$322,292,102**
Total Savings:			**$0**	**$0**	**$0**	**$2,375,154**	**$2,588,261**	**$2,809,773**	**$3,040,025**	**$3,279,363**	**$3,528,146**	**$3,786,750**	**$4,055,565**	**$4,334,995**	**$4,625,462**	**$4,927,323**	**$5,241,276**	**$5,567,552**	**$5,906,725**	**$6,259,308**	**$6,808,879**	**$7,189,897**	**$7,585,986**	**$7,997,744**	**$8,425,795**	**$11,751,402**	**$112,085,461**

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

JBMA 2/13/2014

GGNA-EXHIBIT C21

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd w/New SWD Facilities

SCENARIO # 2 - NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE - LABOR COST SAVING NOT REALIZED

	Current Waste Volumes		2014	2015	2016	2017	2018	2019	2020	2021
Existing System										
Operations										
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,218,758	$4,346,350	$4,476,741
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,218,758	$4,346,350	$4,476,741
Transportation Cost										
Convenience Centers										
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,376
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,309	$94,988	$98,817	$103,799	$106,942
Don Reservoir	7,623	$26.36/ton	$200,942	$209,040	$217,465	$226,328	$235,345	$244,880	$254,696	$264,961
Collection Direct haul	405,000	$18.32/ton	$7,417,800	$7,716,737	$8,027,722	$8,351,279	$8,687,794	$9,037,912	$9,402,140	$9,781,046
Subtotal Transportation			$7,877,594	$8,195,061	$8,525,322	$8,869,099	$9,226,309	$9,598,129	$9,984,864	$10,387,127
Total Existing			$11,517,594	$11,944,261	$12,386,998	$12,846,419	$13,323,161	$13,817,887	$14,331,204	$14,864,058
New Central Transfer Station										
Operations										
Central Station Operations	459,687	$3,100,000				$3,387,464	$3,449,077	$3,593,750	$3,701,562	$3,812,609
Convenience Centers			$3,640,000	$3,749,200	$3,861,676					
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,640,000	$3,749,200	$3,861,676	$3,387,464	$3,449,077	$3,593,750	$3,701,562	$3,812,609
Transportation Costs										
Transport to Cerro Landfill	459,687	$7.77/ton				$4,028,145	$4,182,157	$4,350,698	$4,526,031	$4,708,430
Transport from Convenience Centers										
Eagle Rock	0	$5.50/ton	$177,749	$184,912	$192,364	$0	$0	$0	$0	$0
Montessa Park	0	$5.50/ton	$81,103	$84,371	$87,772	$0	$0	$0	$0	$0
Don Reservoir	0	$26.36/ton	$200,942	$209,040	$217,465	$0	$0	$0	$0	$0
Collection Direct haul			$7,417,800	$7,716,737	$8,027,722					
Subtotal Transportation			$7,877,594	$8,195,061	$8,525,322	$4,028,145	$4,182,157	$4,390,698	$4,526,031	$4,708,430
New TS - Capital Investments										
Real Estate										
Land Purchase		$0								
Site Permitting		$300,000								
Construction cost		$35,800,000								
Annualized Debt Service 0.08024		$2,880,616				$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616
5% @ 20 yrs										
Transfer Station Equipment										
Transfer trucks 10 100,000 Ea		$1,000,000								
Transfer trailers 10 55,000 Ea		$550,000								
Rolling Stock 350,000		$350,000								
Annualized Equipment Cost 0.09634		$183,050				$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs										
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666
Total annual Cost for New Transfer Station			$11,517,594	$11,944,261	$12,386,998	$10,473,265	$10,734,900	$11,008,114	$11,291,259	$11,584,705
Total Savings:			$0	$0	$0	$2,375,154	$2,588,261	$2,809,773	$3,040,025	$3,279,353
Labor		$1,614,843				$1,764,582	$1,817,520	$1,872,045	$1,928,207	$1,986,053
Savings Less Labor:						$610,572	$770,741	$937,728	$1,111,818	$1,293,310

	2022	2023	2024	2025	2026	2027	2028	2029
Existing System								
Operations								
Convenience Centers	$4,611,043	$4,749,374	$4,891,856	$5,038,611	$5,189,770	$5,345,463	$5,505,827	$5,671,001
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,611,043	$4,749,374	$4,891,856	$5,038,611	$5,189,770	$5,345,463	$5,505,827	$5,671,001
Transportation Cost								
Convenience Centers								
Eagle Rock	$243,824	$253,650	$263,872	$274,506	$285,569	$297,077	$309,049	$321,504
Montessa Park	$111,253	$115,736	$120,330	$125,251	$130,299	$135,550	$141,012	$146,695
Don Reservoir	$275,639	$286,747	$298,303	$310,324	$322,830	$335,841	$349,375	$363,455
Collection Direct haul	$10,175,222	$10,585,284	$11,011,871	$11,455,649	$11,917,312	$12,397,579	$12,897,202	$13,416,959
Subtotal Transportation	$10,805,936	$11,241,435	$11,694,444	$12,165,781	$12,656,009	$13,166,047	$13,696,638	$14,248,613
Total Existing	$15,416,979	$15,990,790	$16,586,300	$17,204,342	$17,845,779	$18,511,509	$19,202,445	$19,919,634
New Central Transfer Station								
Operations								
Central Station Operations	$3,926,987	$4,044,797	$4,166,141	$4,291,125	$4,419,859	$4,552,455	$4,689,028	$4,829,699
Convenience Centers								
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$3,926,987	$4,044,797	$4,166,141	$4,291,125	$4,419,859	$4,552,455	$4,689,028	$4,829,699
Transportation Costs								
Transport to Cerro Landfill	$4,898,180	$5,095,576	$5,300,928	$5,514,555	$5,736,792	$5,967,985	$6,208,494	$6,458,697
Transport from Convenience Centers								
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0
Collection Direct haul								
Subtotal Transportation	$4,898,180	$5,095,576	$5,300,928	$5,514,555	$5,736,792	$5,967,985	$6,208,494	$6,458,697
New TS - Capital Investments								
Real Estate								
Land Purchase								
Site Permitting								
Construction cost								
Annualized Debt Service 0.08024	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616
5% @ 20 yrs								
Transfer Station Equipment								
Transfer trucks 10 100,000 Ea								
Transfer trailers 10 55,000 Ea								
Rolling Stock 350,000								
Annualized Equipment Cost 0.09634	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs								
Subtotal Capital Cost for New Transfer Station	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666
Total annual Cost for New Transfer Station	$11,888,833	$12,204,039	$12,530,785	$12,869,342	$13,220,317	$13,584,106	$13,961,189	$14,352,062
Total Savings:	$3,528,146	$3,786,750	$4,055,565	$4,334,905	$4,625,462	$4,927,404	$5,241,276	$5,567,552
Labor	$2,045,634	$2,107,004	$2,170,214	$2,235,320	$2,302,380	$2,371,451	$2,442,595	$2,515,872
Savings Less Labor:	$1,482,512	$1,679,747	$1,885,351	$2,099,675	$2,323,082	$2,555,953	$2,798,681	$3,051,680

	2030	2031	2032	2033	2034	2035	2036	2037	Total for 24 years
Existing System									
Operations									
Convenience Centers	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Transportation Cost									
Convenience Centers									
Eagle Rock	$334,460	$347,838	$361,962	$376,548	$391,723	$407,509	$423,932	$441,017	$6,979,713
Montessa Park	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,183,953
Don Reservoir	$378,102	$393,338	$409,191	$425,681	$442,836	$460,683	$479,248	$498,567	$7,883,864
Collection Direct haul	$13,957,663	$14,520,156	$15,105,319	$15,714,063	$16,347,340	$17,006,138	$17,691,485	$18,404,452	$295,026,283
Subtotal Transportation	$14,822,832	$15,420,187	$16,041,426	$16,688,300	$17,360,634	$18,060,267	$18,788,096	$19,545,767	$309,065,411
Total Existing	$20,663,963	$21,436,557	$22,238,282	$23,070,886	$23,934,879	$24,831,740	$25,762,713	$26,729,111	$434,377,763
New Central Transfer Station									
Operations									
Central Station Operations	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,119	$97,140,268
Convenience Centers									
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,119	$108,992,144
Transportation Costs									0
Transport to Cerro Landfill	$6,718,982	$6,989,757	$7,271,444	$7,564,484	$7,869,332	$8,186,466	$8,516,381	$8,859,591	$128,945,106
Transport from Convenience Centers									0
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$555,026
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$253,246
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$627,447
Collection Direct haul									
Subtotal Transportation	$6,718,982	$6,989,757	$7,271,444	$7,564,484	$7,869,332	$8,186,466	$8,516,381	$8,859,591	$130,380,828
New TS - Capital Investments									
Real Estate									
Land Purchase									
Site Permitting									
Construction cost									
Annualized Debt Service 0.08024	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616		$57,612,320
5% @ 20 yrs									
Transfer Station Equipment									
Transfer trucks 10 100,000 Ea									
Transfer trailers 10 55,000 Ea									
Rolling Stock 350,000									
Annualized Equipment Cost 0.09634	$183,050	$183,050							$2,745,755.20
5% @ 15 yrs									
Subtotal Capital Cost for New Transfer Station	$3,063,666	$3,063,666	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$0	$60,358,075
Total annual Cost for New Transfer Station	$14,757,239	$15,177,251	$15,429,603	$15,880,968	$16,348,853	$16,833,996	$17,336,918	$14,977,709	$322,292,502
Total Savings:	$5,906,725	$6,259,306	$6,808,879	$7,189,897	$7,585,986	$7,997,744	$8,425,795	$11,751,402	$112,085,461
Labor	$2,591,349	$2,669,089	$2,749,162	$2,831,637	$2,916,586	$3,004,083	$3,094,206	$3,187,032	$50,602,018
Savings Less Labor:	$3,315,376	$3,590,217	$4,059,718	$4,358,260	$4,669,400	$4,993,661	$5,331,589	$8,564,370	$61,483,442

Annual Generation Rate Increase:	3%
Annual Hauling Cost Increase:	4%
Annual Operations Cost Increase:	3%
Annual Labor Rate Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

JBMA 2/11/2014

GGNA-EXHIBIT C22

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd w/New SWD Facilities

SCENARIO # 3 - NEW TRANSFER STATION & CONVENIENCE CENTERS OPEN

	Current Waste Volumes		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Existing System														
Operations														
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,400,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,309	$94,989	$98,817	$102,799	$106,942	$111,251	$115,735	$120,399	$125,251
Don Reservoir	7,623	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,696	$264,961	$275,639	$286,747	$298,301	$310,324
Collection Direct haul	405,000	$18.32/ton	$7,417,800	$7,716,737	$8,027,722	$8,351,239	$8,687,794	$9,037,912	$9,402,140	$9,781,046	$10,175,222	$10,585,284	$11,011,871	$11,455,649
Subtotal Transportation			$7,877,594	$8,195,061	$8,525,322	$8,868,893	$9,226,309	$9,598,129	$9,984,934	$10,387,327	$10,805,936	$11,241,416	$11,694,444	$12,165,730
Total Existing			$11,517,594	$11,944,261	$12,386,998	$12,846,419	$13,323,161	$13,817,887	$14,331,284	$14,864,068	$15,416,979	$15,990,790	$16,586,300	$17,204,342
New Central Transfer Station														
Operations														
Central Station Operations	405,000	$3,100,000				$3,387,454	$3,489,077	$3,593,750	$3,701,562	$3,812,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,640,000	$3,749,200	$3,861,676	$7,364,980	$7,585,929	$7,813,507	$8,047,912	$8,289,350	$8,538,030	$8,794,171	$9,057,996	$9,329,736
Transportation Costs														
Transport to Cerro Landfill	405,000	$7.77/ton				$3,543,885	$3,684,623	$3,833,114	$3,987,568	$4,148,298	$4,315,464	$4,489,377	$4,670,299	$4,858,512
Transport form Convenience Centers														
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,309	$94,989	$98,817	$102,799	$106,942	$111,251	$115,735	$120,399	$125,251
Don Reservoir	7,623	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,696	$264,961	$275,639	$286,747	$298,301	$310,324
Collection Direct Haul			$7,417,800	$7,716,737	$8,027,722									
Subtotal Transportation			$7,877,594	$8,195,061	$8,525,322	$4,059,539	$4,223,139	$4,393,331	$4,570,382	$4,754,569	$4,946,178	$5,145,509	$5,352,872	$5,568,594
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$300,000												
Construction cost		$35,800,000												
Annualized Debt Service	0.08024	$2,880,616												
5% @ 20 yrs						$2,880,616	$2,880,616	$2,880,616	$2,880,615	$2,880,616	$2,880,616	$2,880,616	$2,880,615	$2,880,616
Transfer Station Equipment														
Transfer trucks	10 100,000 Ea	$1,000,000												
Transfer trailers	10 55,000 Ea	$550,000												
Rolling Stock	350,000	$350,000												
Annualized Equipment Cost	0.09634	$183,050												
5% @ 15 yrs						$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666
Total annual Cost for New Transfer Station			$11,517,594	$11,944,261	$12,386,998	$14,488,186	$14,872,734	$15,270,505	$15,681,961	$16,107,585	$16,547,875	$17,003,346	$17,474,536	$17,961,996
Total Savings:			$0	$0	$0	-$1,641,766	-$1,549,573	-$1,452,618	-$1,350,677	-$1,243,517	-$1,130,896	-$1,012,557	-$888,236	-$757,654

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total for 24 years
Existing System													
Operations													
Convenience Centers	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Transportation Cost													
Convenience Centers													
Eagle Rock	$285,563	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,723	$407,509	$423,932	$441,017	$6,973,711
Montessa Park	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,181,953
Don Reservoir	$322,830	$335,841	$349,375	$363,455	$378,102	$393,339	$409,191	$425,681	$442,836	$460,683	$479,248	$498,562	$7,883,664
Collection Direct haul	$11,917,312	$12,397,579	$12,897,202	$13,416,958	$13,957,863	$14,520,156	$15,105,319	$15,714,063	$16,347,340	$17,006,138	$17,691,495	$18,404,452	$291,026,083
Subtotal Transportation	$12,656,009	$13,166,047	$13,696,638	$14,248,613	$14,822,832	$15,420,192	$16,041,626	$16,688,103	$17,360,634	$18,060,267	$18,788,096	$19,545,257	$309,065,411
Total Existing	$17,845,779	$18,511,509	$19,202,465	$19,919,614	$20,663,963	$21,436,557	$22,238,482	$23,070,865	$23,934,879	$24,831,740	$25,762,713	$26,729,111	$434,377,763
New Central Transfer Station													
Operations													
Central Station Operations	$4,419,859	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$92,140,268
Convenience Centers	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$9,609,628	$9,897,917	$10,194,855	$10,500,700	$10,815,721	$11,140,193	$11,474,398	$11,818,631	$12,173,190	$12,538,385	$12,914,537	$13,301,973	$217,452,619
Transportation Costs													0
Transport to Cerro Landfill	$5,054,310	$5,257,999	$5,469,896	$5,690,333	$5,919,654	$6,158,216	$6,406,392	$6,664,569	$6,933,151	$7,212,557	$7,503,224	$7,805,609	$113,605,057
Transport form Convenience Centers													0
Eagle Rock	$285,563	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,723	$407,509	$423,932	$441,017	$6,973,711
Montessa Park	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,181,953
Don Reservoir	$322,830	$335,841	$349,375	$363,455	$378,102	$393,339	$409,191	$425,681	$442,836	$460,683	$479,248	$498,562	$7,883,664
Collection Direct Haul													
Subtotal Transportation	$5,793,004	$6,026,466	$6,269,333	$6,521,987	$6,784,823	$7,058,251	$7,342,699	$7,638,609	$7,946,446	$8,266,687	$8,599,835	$8,946,414	$131,644,385
New TS - Capital Investments													
Real Estate													
Land Purchase													
Site Permitting													
Construction cost													
Annualized Debt Service													
5% @ 20 yrs	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,615	$2,880,616	$2,880,615	$2,880,616		$57,612,320
Transfer Station Equipment													
Transfer trucks													
Transfer trailers													
Rolling Stock													
Annualized Equipment Cost													
5% @ 15 yrs	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.20
Subtotal Capital Cost for New Transfer Station	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$3,063,666	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$2,880,616	$0	$60,358,075
Total annual Cost for New Transfer Station	$18,466,303	$18,988,050	$19,527,854	$20,086,354	$20,664,213	$21,262,111	$21,697,714	$22,337,856	$23,000,251	$23,685,689	$24,394,988	$22,248,381	$437,617,338
Total Savings:	-$620,524	-$476,540	-$325,389	-$166,739	-$247	$174,447	$540,768	$733,009	$934,627	$1,146,051	$1,367,725	$4,480,730	-$3,239,576

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions
1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

JBMA 2/18/2016

GGNA-EXHIBIT C23

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd

SCENARIO # 1 - BASE CASE NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE 2014

	Current Waste Volumes		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Existing System														
Operations														
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,309	$94,989	$98,817	$102,798	$106,942	$111,251	$115,735	$120,399	$125,251
Don Reservoir	7,623	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,696	$264,961	$275,639	$286,747	$298,303	$310,324
Collection Direct haul	405,000	$18.32/ton	$7,417,800	$7,716,737	$8,027,722	$8,351,239	$8,687,794	$9,037,912	$9,402,140	$9,781,046	$10,175,222	$10,585,284	$11,011,871	$11,455,649
Subtotal Transportation			$7,877,594	$8,195,061	$8,525,322	$8,868,893	$9,226,309	$9,598,129	$9,984,834	$10,387,327	$10,805,936	$11,241,415	$11,694,444	$12,165,731
Total Existing			$11,517,594	$11,944,261	$12,386,998	$12,846,419	$13,323,161	$13,817,887	$14,331,284	$14,864,068	$15,416,979	$15,990,790	$16,586,300	$17,204,342
New Central Transfer Station														
Operations														
Central Station Operations	458,687	$3,100,000				$3,387,454	$3,489,077	$3,593,750	$3,701,563	$3,812,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125
Convenience Centers			$3,640,000	$3,749,200	$3,861,676									
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,640,000	$3,749,200	$3,861,676	$3,387,454	$3,489,077	$3,593,750	$3,701,562	$3,812,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125
Transportation Costs														
Transport to Cerro Landfill	458,687	$7.77/ton				$4,020,145	$4,182,157	$4,350,698	$4,526,031	$4,708,430	$4,898,180	$5,095,576	$5,300,928	$5,514,555
Transport form Convenience Centers														
Eagle Rock	0	$5.50/ton	$177,749	$184,912	$192,364	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0	$5.50/ton	$81,103	$84,371	$87,772	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0	$26.36/ton	$200,942	$209,040	$217,485	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collection Direct haul			$7,417,800	$7,716,737	$8,027,722									
Subtotal Transportation			$7,877,594	$8,195,061	$8,525,332	$4,020,145	$4,182,157	$4,350,698	$4,526,031	$4,708,430	$4,898,180	$5,095,576	$5,300,928	$5,514,555
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$100,000												
Construction cost		$22,300,000												
Annualized Debt Service	0.08024	$1,797,376				$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376
5% @ 20 yrs														
Transfer Station Equipment														
Transfer trucks	10 100,000 ea	$1,000,000												
Transfer trailers	10 55,000 Ea	$550,000												
Rolling Stock	350,000	$350,000												
Annualized Equipment Cost	0.09634	$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs														
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426
Total annual Cost for New Transfer Station			$11,517,594	$11,944,261	$12,386,998	$9,388,025	$9,651,660	$9,924,874	$10,208,019	$10,501,465	$10,805,593	$11,120,799	$11,447,495	$11,786,107
Total Savings:			$0	$0	$0	$3,458,394	$3,671,501	$3,893,013	$4,123,265	$4,362,603	$4,611,386	$4,869,990	$5,138,805	$5,418,235

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total for 24 years
Existing System													
Operations													
Convenience Centers	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,912,352
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,912,357
Transportation Cost													
Convenience Centers													
Eagle Rock	$285,569	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,723	$407,509	$423,932	$441,017	$6,973,711
Montessa Park	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,183,951
Don Reservoir	$322,830	$335,841	$349,375	$363,455	$378,102	$393,399	$409,191	$425,681	$442,836	$460,683	$479,248	$498,563	$7,883,664
Collection Direct haul	$11,917,312	$12,397,579	$12,897,202	$13,416,956	$13,957,663	$14,520,156	$15,105,319	$15,714,063	$16,347,340	$17,006,138	$17,691,485	$18,404,452	$291,026,083
Subtotal Transportation	$12,656,089	$13,166,047	$13,696,638	$14,248,611	$14,822,832	$15,420,192	$16,041,626	$16,688,101	$17,360,634	$18,060,267	$18,788,096	$19,545,257	$309,065,411
Total Existing	$17,845,779	$18,511,509	$19,202,465	$19,919,614	$20,663,963	$21,436,557	$22,238,482	$23,070,865	$23,934,879	$24,831,740	$25,762,719	$26,729,111	$434,977,763
New Central Transfer Station													
Operations													
Central Station Operations	$4,419,859	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$97,140,388
Convenience Centers													
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,419,859	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$108,391,346
Transportation Costs													
Transport to Cerro Landfill	$5,736,792	$5,967,985	$6,208,494	$6,458,697	$6,718,982	$6,989,757	$7,271,444	$7,564,484	$7,869,332	$8,186,466	$8,516,381	$8,859,503	$129,945,106
Transport form Convenience Centers													0
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$555,026
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$253,346
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$627,447
Collection Direct haul													
Subtotal Transportation	$5,736,792	$5,967,985	$6,208,494	$6,458,697	$6,718,982	$6,989,757	$7,271,444	$7,564,484	$7,869,332	$8,186,466	$8,516,381	$8,859,503	$130,380,624
New TS - Capital Investments													
Real Estate													
Land Purchase													
Site Permitting													
Construction cost													
Annualized Debt Service	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376		$35,947,520
5% @ 20 yrs													
Transfer Station Equipment													
Transfer trucks													
Transfer trailers													
Rolling Stock													
Annualized Equipment Cost	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.30
5% @ 15 yrs													
Subtotal Capital Cost for New Transfer Station	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$0	$38,693,275
Total annual Cost for New Transfer Station	$12,137,077	$12,500,866	$12,877,949	$13,268,822	$13,673,909	$14,094,011	$14,346,363	$14,797,728	$15,265,653	$15,750,756	$16,253,678	$14,977,709	$300,627,502
Total Savings:	$5,708,702	$6,010,644	$6,324,516	$6,650,792	$6,989,965	$7,342,546	$7,892,119	$8,273,137	$8,669,226	$9,080,984	$9,509,035	$11,751,402	$133,750,261

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

4/23/2014

GGNA-EXHIBIT C24

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd

SCENARIO # 2 - NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE - LABOR COST SAVING NOT REALIZED

	Current Waste Volumes		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Existing System														
Operations														
Convenience Centers														
Eagle Rock	32,318	$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$7,400,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,773	$91,309	$94,989	$98,817	$102,799	$106,942	$111,251	$115,735	$120,399	$125,251
Don Reservoir	7,623	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,696	$264,961	$275,639	$286,747	$298,303	$310,324
Collection Direct haul	405,000	$18.32/ton	$7,417,800	$7,716,737	$8,027,722	$8,351,239	$8,687,794	$9,037,912	$9,402,140	$9,781,046	$10,175,222	$10,585,284	$11,011,871	$11,455,649
Subtotal Transportation			$7,877,594	$8,195,062	$8,525,322	$8,868,893	$9,226,309	$9,598,129	$9,984,934	$10,387,327	$10,805,936	$11,241,415	$11,694,444	$12,165,731
Total Existing			$11,517,594	$11,944,261	$12,386,998	$12,846,419	$13,323,161	$13,817,887	$14,331,284	$14,864,068	$15,415,979	$15,990,790	$16,586,300	$17,204,342
New Central Transfer Station														
Operations														
Central Station Operations	459,687	$3,500,000				$3,387,454	$3,480,077	$3,593,750	$3,703,542	$3,817,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125
Convenience Centers														
Eagle Rock	0		$3,640,000	$3,749,200	$3,861,676									
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,640,000	$3,749,200	$3,861,676	$3,387,454	$3,480,077	$3,593,750	$3,703,542	$3,817,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125
Transportation Costs														
Transport to Cerro Landfill	459,687	$7.77/ton				$4,020,145	$4,182,157	$4,350,698	$4,526,031	$4,708,430	$4,898,180	$5,095,576	$5,300,928	$5,514,555
Transport from Convenience Centers														
Eagle Rock	0	$5.50/ton	$177,749	$184,912	$192,964	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0	$5.50/ton	$81,103	$84,371	$87,772	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0	$26.36/ton	$200,942	$209,040	$217,465	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collection Direct haul			$7,417,800	$7,716,737	$8,027,722									
Subtotal Transportation			$7,877,594	$8,195,062	$8,525,322	$4,020,145	$4,182,157	$4,350,698	$4,526,031	$4,708,430	$4,898,180	$5,095,576	$5,300,928	$5,514,555
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$100,000												
Construction cost		$22,300,000												
Annualized Debt Service	0.08024	$1,797,376												
5% @ 20 yrs						$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376
Transfer Station Equipment														
Transfer trucks	10 100000 Ea	$1,000,000												
Transfer trailers	10 55,000 Ea	$550,000												
Rolling Stock	$50,000	$350,000												
Annualized Equipment Cost	0.09634	$183,050												
5% @ 15 yrs						$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426
Total annual Cost for New Transfer Station			$11,517,594	$11,944,261	$12,386,998	$9,388,025	$9,651,660	$9,924,874	$10,208,019	$10,501,465	$10,805,593	$11,120,799	$11,447,495	$11,786,107
Total Savings:			$0	$0	$0	$3,458,394	$3,671,501	$3,893,013	$4,123,265	$4,362,603	$4,611,386	$4,869,990	$5,138,805	$5,418,235
Labor		$1,614,847				$1,764,582	$1,817,520	$1,872,045	$1,928,207	$1,986,053	$2,045,634	$2,107,004	$2,170,214	$2,235,320
Savings Less Labor:						$1,693,812	$1,853,981	$2,020,968	$2,195,058	$2,376,550	$2,565,752	$2,762,987	$2,968,591	$3,182,915

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total for 24 years
Existing System													
Eagle Rock	$5,189,770	$5,345,463	$5,505,827	$5,671,003	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$135,312,352
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$5,189,770	$5,345,463	$5,505,827	$5,671,003	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$135,312,352
Transportation – Eagle Rock	$285,569	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,723	$407,509	$423,932	$441,017	$6,973,711
Montessa Park	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,181,953
Don Reservoir	$322,830	$335,841	$349,375	$363,455	$378,102	$393,339	$409,191	$425,681	$442,836	$460,683	$479,248	$498,562	$7,893,684
Collection Direct haul	$11,917,312	$12,397,579	$12,897,202	$13,416,969	$13,957,663	$14,520,156	$15,105,319	$15,714,063	$16,347,340	$17,006,138	$17,691,485	$18,404,453	$291,026,063
Subtotal Transportation	$12,656,009	$13,166,047	$13,696,638	$14,248,013	$14,822,432	$15,420,192	$16,041,626	$16,688,303	$17,360,694	$18,060,267	$18,788,096	$19,545,257	$309,065,411
Total Existing	$17,845,779	$18,511,509	$19,203,465	$19,919,614	$20,663,963	$21,436,557	$22,238,482	$23,070,865	$23,934,879	$24,831,740	$25,762,713	$26,729,111	$434,377,763
Central Station Operations	$4,419,859	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$97,140,268
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,419,859	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$0
Transport to Cerro Landfill	$5,736,792	$5,967,985	$6,208,494	$6,458,697	$6,718,982	$6,989,757	$7,271,444	$7,564,484	$7,869,332	$8,186,466	$8,516,381	$8,859,581	$128,893,344
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$128,545,106
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$555,036
Collection Direct haul													$253,246
													$627,447
Subtotal Transportation	$5,736,792	$5,967,985	$6,208,494	$6,458,697	$6,718,982	$6,989,757	$7,271,444	$7,564,484	$7,869,332	$8,186,466	$8,516,381	$8,859,581	$130,980,824
5% @ 20 yrs (Debt Service)	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376		$35,947,520
5% @ 15 yrs (Equipment)	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.20
Subtotal Capital Cost for New Transfer Station	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$0	$38,693,275
Total annual Cost for New Transfer Station	$12,137,077	$12,500,886	$12,877,949	$13,268,822	$13,673,999	$14,094,011	$14,346,363	$14,797,738	$15,265,853	$15,750,756	$16,253,678	$14,977,709	$300,677,502
Total Savings:	$5,708,702	$6,010,644	$6,324,516	$6,650,792	$6,989,965	$7,342,546	$7,892,119	$8,273,137	$8,669,726	$9,080,984	$9,509,035	$11,751,402	$133,750,361
Labor	$2,302,380	$2,371,451	$2,442,595	$2,515,872	$2,591,349	$2,669,089	$2,749,162	$2,831,637	$2,916,586	$3,004,083	$3,094,206	$3,187,032	$50,602,018
Savings Less Labor:	$3,406,322	$3,639,193	$3,881,921	$4,134,920	$4,398,616	$4,673,457	$5,142,958	$5,441,500	$5,752,640	$6,076,901	$6,414,829	$8,564,370	$83,148,242

Annual Generation Rate Increase:	7%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%
Annual Labor Rate Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax.

JMMA 2/13/2014

GGNA-EXHIBIT C25

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd

SCENARIO # 3 - NEW TRANSFER STATION & CONVENIENCE CENTERS OPEN

	Current Waste Volumes		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Existing System														
Operations														
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,400,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,309	$94,989	$98,817	$102,799	$106,942	$111,251	$115,735	$120,369	$125,251
Don Reservoir	7,633	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,696	$264,961	$275,639	$286,747	$298,303	$310,324
Collection Direct haul	405,000	$18.32/ton	$7,417,800	$7,716,737	$8,027,723	$8,351,239	$8,687,794	$9,037,912	$9,402,140	$9,781,046	$10,175,222	$10,585,284	$11,011,871	$11,455,649
Subtotal Transportation			$7,877,594	$8,195,062	$8,525,322	$8,868,893	$9,226,309	$9,598,129	$9,984,934	$10,387,327	$10,805,936	$11,241,415	$11,694,444	$12,165,731
Total Existing			$11,517,594	$11,944,261	$12,386,998	$12,846,419	$13,323,161	$13,817,887	$14,331,284	$14,864,068	$15,416,979	$15,990,790	$16,586,300	$17,204,342
New Central Transfer Station														
Operations														
Central Station Operations	405,000	$3,100,000				$3,387,454	$3,489,077	$3,593,750	$3,701,562	$3,812,609	$3,926,987	$4,044,797	$4,166,141	$4,291,125
Convenience Centers		$3,640,000	$3,640,000	$3,749,200	$3,861,676	$3,977,526	$4,096,852	$4,219,758	$4,346,350	$4,476,741	$4,611,043	$4,749,374	$4,891,856	$5,038,611
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,640,000	$3,749,200	$3,861,676	$7,364,980	$7,585,929	$7,813,507	$8,047,912	$8,289,350	$8,538,030	$8,794,171	$9,057,996	$9,329,736
Transportation Costs														
Transport to Cerro Landfill	405,000	$7.77/ton				$3,541,885	$3,684,623	$3,833,134	$3,987,588	$4,148,288	$4,315,464	$4,489,377	$4,670,299	$4,864,512
Transport form Convenience Centers														
Eagle Rock	32,318	$5.50/ton	$177,749	$184,912	$192,364	$200,117	$208,181	$216,571	$225,299	$234,378	$243,824	$253,650	$263,872	$274,506
Montessa Park	14,746	$5.50/ton	$81,103	$84,371	$87,772	$91,309	$94,989	$98,817	$102,799	$106,942	$111,251	$115,735	$120,369	$125,251
Don Reservoir	7,623	$26.36/ton	$200,942	$209,040	$217,465	$226,228	$235,345	$244,830	$254,696	$264,961	$275,639	$286,747	$298,303	$310,324
Collection Direct haul			$7,417,800	$7,716,737	$8,027,722									
Subtotal Transportation			$7,877,594	$8,195,063	$8,525,321	$4,058,539	$4,223,159	$4,393,331	$4,570,332	$4,754,569	$4,946,178	$5,145,509	$5,352,839	$5,568,594
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$100,000												
Construction cost		$22,300,000												
Annualized Debt Service	0.08024	$1,797,376				$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376
5% @ 20 yrs														
Transfer Station Equipment														
Transfer trucks	10 100,000 Ea	$1,000,000												
Transfer trailers	10 55,000 Ea	$550,000												
Rolling Stock	350,000	$350,000												
Annualized Equipment Cost	0.09634	$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs														
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426
Total annual Cost for New Transfer Station			$11,517,594	$11,944,261	$12,386,998	$13,404,946	$13,789,494	$14,187,265	$14,598,721	$15,024,345	$15,464,635	$15,920,306	$16,391,296	$16,878,756
Total Savings:			$0	$0	$0	-$558,526	-$465,333	-$309,378	-$267,437	-$160,277	-$47,655	$70,483	$195,004	$325,586

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total for 24 years
Existing System													
Operations													
Convenience Centers	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Transportation Cost													
Convenience Centers													
Eagle Rock	$285,569	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,723	$407,509	$423,932	$441,017	$6,973,711
Montessa Park	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,181,953
Don Reservoir	$322,830	$335,841	$349,375	$363,455	$378,102	$393,339	$409,191	$425,681	$442,836	$460,683	$479,248	$498,562	$7,883,664
Collection Direct haul	$11,917,312	$12,397,579	$12,897,202	$13,416,959	$13,957,653	$14,520,156	$15,105,319	$15,714,069	$16,347,340	$17,006,138	$17,691,485	$18,404,452	$291,026,061
Subtotal Transportation	$12,656,009	$13,166,047	$13,696,638	$14,248,613	$14,822,837	$15,420,192	$16,043,626	$16,688,109	$17,360,634	$18,060,267	$18,788,096	$19,545,257	$309,065,411
Total Existing	$17,845,779	$18,511,509	$19,202,465	$19,919,614	$20,663,963	$21,436,557	$22,238,432	$23,070,865	$23,934,879	$24,831,740	$25,762,213	$26,729,111	$434,377,763
New Central Transfer Station													
Operations													
Central Station Operations	$4,419,858	$4,552,455	$4,689,028	$4,829,699	$4,974,590	$5,123,828	$5,277,542	$5,435,869	$5,598,945	$5,766,913	$5,939,921	$6,118,118	$87,140,208
Convenience Centers	$5,189,770	$5,345,463	$5,505,827	$5,671,001	$5,841,131	$6,016,365	$6,196,856	$6,382,762	$6,574,245	$6,771,472	$6,974,616	$7,183,855	$125,312,352
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$9,609,628	$9,897,917	$10,194,855	$10,500,700	$10,815,721	$11,140,193	$11,474,399	$11,818,631	$12,173,190	$12,538,385	$12,914,537	$13,301,973	$232,452,619
Transportation Costs													0
Transport to Cerro Landfill	$5,054,310	$5,257,999	$5,469,896	$5,690,333	$5,919,654	$6,158,216	$6,406,382	$6,664,569	$6,933,151	$7,212,557	$7,503,224	$7,805,603	$113,605,057
Transport form Convenience Centers													0
Eagle Rock	$285,569	$297,077	$309,049	$321,504	$334,460	$347,939	$361,961	$376,548	$391,723	$407,500	$423,932	$441,017	$6,973,711
Montessa Park	$130,299	$135,550	$141,012	$146,695	$152,607	$158,757	$165,155	$171,811	$178,735	$185,938	$193,431	$201,226	$3,181,953
Don Reservoir	$322,830	$335,841	$349,375	$363,455	$378,102	$393,339	$409,191	$425,681	$442,836	$460,683	$479,248	$498,562	$7,883,664
Collection Direct haul													
Subtotal Transportation	$5,793,008	$6,026,466	$6,269,333	$6,521,597	$6,784,823	$7,058,351	$7,342,695	$7,638,620	$7,946,446	$8,266,687	$8,599,835	$8,946,408	$131,644,385
New TS - Capital Investments													
Real Estate													
Land Purchase													
Site Permitting													
Construction cost													
Annualized Debt Service	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376		$35,947,520
5% @ 20 yrs													
Transfer Station Equipment													
Transfer trucks													
Transfer trailers													
Rolling Stock													
Annualized Equipment Cost	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.30
5% @ 15 yrs													
Subtotal Capital Cost for New Transfer Station	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$0	$38,693,275
Total annual Cost for New Transfer Station	$17,383,063	$17,904,810	$18,444,614	$19,003,114	$19,580,971	$20,178,871	$20,814,474	$21,254,636	$21,917,011	$22,602,449	$23,311,748	$22,248,381	$415,952,539
Total Savings:	$462,716	$606,700	$757,851	$916,501	$1,082,993	$1,257,687	$1,424,008	$1,816,249	$2,017,867	$2,229,291	$2,450,965	$4,480,730	$18,425,224

Annual Generation Rate increase	2%
Annual Hauling Cost increase	3%
Annual Operations Cost increase	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

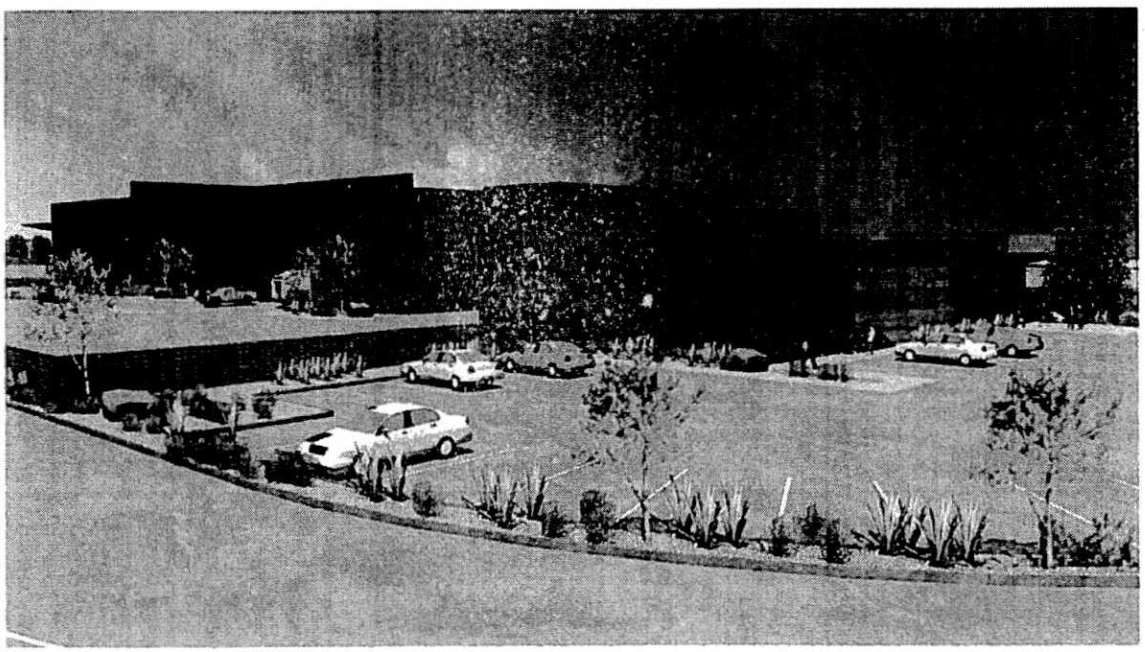
JBMA 2/13/2014

GGNA-EXHIBIT C26

Albuquerque Transfer Station Feasibility Analysis

Prepared For

Solid Waste Department



December 2011

Prepared By

J.R. Miller & Associates, Inc.

ARCHITECTS ENGINEERS PLANNERS

Albuquerque Transfer Station Feasibility Analysis

Prepared For

Solid Waste Department

Prepared By

J.R. Miller & Associates, Inc.

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December 2011

GGNA-EXHIBIT C28

Albuquerque Transfer Station
Feasibility Analysis

1. Introduction

1.1 Purpose

The Solid Waste Department (SWD) is considering the feasibility of constructing a new transfer station to be centrally located near the I-25 and I- 40 interchange. The new transfer station would provide a convenient location where SWD collection trucks could unload and avoid driving directly to the Cerro Colorado Landfill to unload. It will also provide a convenient location for the general public to unload. The primary goal of building a transfer station is to reduce the overall cost of transporting waste to the landfill. Other benefits include reducing the impacts on roads, saving energy, and increasing convenience for SWD collection trucks and other customers. It can also enhance SWD's ability to recover more materials.

JR Miller and Associates (JRMA) was retained to evaluate the feasibility of constructing and operating a new central transfer station. The facility's primary function would serve to receive waste delivered by SWD collection vehicles thus eliminating the need for these trucks to travel up to Nine Mile hill to the landfill. It would also accept waste from the general public. Similar to the existing transfer stations the facility would be open seven days per week. The facility would also include a recycling and a household hazardous waste (HHW) drop off center.

This analysis will entail a review of the impacts on the existing collection services and transfer station system. Currently, SWD operates three convenience centers that accept waste from the public center. The largest of the three is the Eagle Rock Station located on the north side of the City off the I-25 at the Alameda exit. The other two stations are smaller and located in the south and west sides of the City. Depending on the final location of the new central transfer station it may be reasonable to close one or more of the existing facilities thus reducing the operating expenses for these centers.

The feasibility analysis will provide the City with information to assist in making a decision of future facility needs to provide convenient and cost effective services.

1.2 Study Approach

Many communities have been forced to build larger transfer stations within the jurisdiction due to the fact that new landfills are typically located further from the urbanized areas where waste is generated. In the case of the City of Albuquerque the landfill is located about 20 miles west of the City center but at the top of the plateau. This location requires each collection truck to make two trips a day to the landfill to complete their routes. The time required driving to the landfill in conjunction with the operation and maintenance expenses associated with making these trips provide compelling reasons to evaluate the alternative of operating a central transfer station.

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Albuquerque Transfer Station
Feasibility Analysis

The approach for completing the analysis will entail several steps.

1. Evaluate the current transportation expenses for collection trucks to haul directly to the landfill. The analysis will consider labor cost as well as the operations and maintenance expenses associated with collection trucks traveling to the landfill. This information was provided by the SWD.
2. Using a hypothetical location for the new transfer station, evaluate the transportation cost if collection trucks can unload and return to their routes rather than direct haul to the landfill. The location used is a somewhat optimal location with easy access to the major freeways to allow transfer trucks to make the trip to the landfill efficiently. For the City of Albuquerque this would ideally be somewhere within 3 miles of the Big I interchange. With this location the cost to transport waste in larger trucks to the landfill can be established.
3. Once the transportation cost comparison was completed the capital investment needed to build a new transfer station was prepared. JRMA prepared criteria for building a new transfer station to handle the waste collected by SWD. The criteria were used to establish the size of buildings and other features for the facilities to be considered in the evaluation. The result was a basis for design for a new transfer station that established minimum requirements for the size of parcel needed.
4. Determine the equipment needs to operate the new transfer station. SWD currently operates the three convenience centers and has several tractor/ trucks and live bottom trailers to haul waste to the landfill. The new transfer station will require the purchase of additional rolling stock to handle the transport of about 1,600 tons of waste each day. The feasibility analysis considers the option to close convenience centers and assign existing rolling stock to the new facility.
5. A transfer station operation requires the SWD to take on additional operational expenses. This includes gatehouse personnel and staff to operate the facility and drivers to transport waste. It is assumed that the reduction of drivers resulting from the savings in time from using the transfer station versus hauling direct will be available to operate transfer trucks, thus eliminating the need to hire new drivers.

Once the cost of constructing and operating a new transfer station was determined, a comparison was made to the cost of continuing to operate the current system of collection trucks hauling directly to the landfill. A financial model was prepared to compare the 20 year life cycle of the alternatives. The financial analysis allows the City to evaluate the alternatives on a life cycle cost basis. The model also provides a tool to consider other options such as whether to close one or more of the existing convenience centers and determine the impacts.

2. Feasibility Analysis

The feasibility analysis entails developing financial information for the various aspects of building a new transfer station. This includes the cost of transporting waste, building a new transfer station and integrating the operational expenses into the SWD budgets. The first step in the feasibility study is to consider the transportation costs associated with the options. For this analysis it is

necessary to compare the cost of the different types of collection vehicles to continue to haul directly to the landfill versus unloading at a centrally located transfer station and load a large trailer to haul to the landfill. The collection trucks can then return to the route and avoid the time to travel to the landfill.

Assuming the transportation cost appears favorable for building the new transfer station then the construction and operation expenses can be established to complete the feasibility analysis.

2.1 Background

In FY 2010 the Cerro Colorado Landfill received 529,615 tons of waste. Of this total, 404,929 tons or 76% was delivered by SWD collection vehicles and 54,686 tons or 10% was transferred from the three convenience centers operated by SWD. The breakdown is as follows:

City Collection trucks/other Departments	404,929 tons
Transfer /Convenient Centers	
Montessa	14,746 tons
Eagle Rock	32,318 tons
Don Reservoir	7,623 tons
	54,686 tons

The remaining 70,000 tons disposed at the landfill were generated by non-city sources, including commercial haulers (63,698 tons) and county departments (4,954 tons).

The payload for collection trucks varies on the type and size of the truck. Residential collection (automated) trucks hauled an average load of 7.7 tons in FY 2010. Commercial collection vehicles hauled an average of 8.1 tons during this period. Roll-off trucks carried an average load of 3.1 tons in the same time period. The average load for a rear loading (W&L/Large Item) collection truck was 4.7 tons during the same period. The average payloads are important to establish the transportation cost on a per ton basis. Since it is possible for transfer trailers to achieve payloads of 24 tons for each trip the cost benefits can be more accurately measured.

2.2 Existing Transportation Costs

Once SWD collection trucks have completed their routes or for roll-offs that have picked up a customer's waste, they will drive directly to the landfill to unload. Because almost all vehicles use either the I-25 or I-40 for their primary route to the landfill, it will be assumed that the start of the long haul to the landfill will be the Big I intersection. This will be referred to as the center of waste generation. From this interchange it is approximately 20 miles to the landfill. The trucks must travel up I-40 on what is referred to as "Nine Mile hill" with an average grade of 7%. Once off the I-40 freeway, collection trucks must travel 9 miles along a local access road to the gatehouse and onto the landfill. The roundtrip to the landfill and back to the Big I intersection takes about 80 minutes, not including the time spent at the landfill. Time spent at the landfill is about 20 minutes which includes the travel to the working face, and unloading, and back through the gatehouse. Total time per load for transport to the landfill and unloading is approximately 100 minutes.

Albuquerque Transfer Station
Feasibility Analysis

The cost of directly hauling to the landfill has been established using actual operating and maintenance expenses in conjunction with actual labor costs. The cost per load was based on the roundtrip time to the landfill plus the unloading time multiplied by the hourly cost to operate each type of vehicle. The hourly operating expense for each type of collection truck does vary because actual fuel expenses and maintenance costs differ for each type of truck although the labor expenses are essentially the same. More information regarding the cost per hour for each type of vehicle is provided in Appendix A.

The loads-per-day for each vehicle type are based on the current number of vehicles SWD operates in each category multiplied by the average number of loads per day that vehicle category picks up. The cost per load for each vehicle type, as well as the total cost for transportation is presented in the following chart:

Transportation Cost for Direct Haul to Landfill

Vehicle Type	Per Hour Vehicle Cost	Roundtrip & Unloading Time	Transportation Cost per Load	Total Loads per Day	Transportation Cost per Day
Automated	$68	100 min	$113	85	$9,600
Front Loader	$68	100 min	$113	50	$5,700
FL w/ Assistant	$95	100 min	$158	13	$2,100
Rear Loader Comml & W/L	$78	100 min	$130	3	$400
Roll-off - Box	$55	100 min	$92	95	$8,700
Transfer Trucks	$52		N/A		$0.00
Total Estimated Cost Direct Haul / Day					**$26,500**

The chart above shows that the City currently spends approximately $26,500 per day for collection vehicles to transport waste directly to the landfill. Based on 5 days per week and 52 weeks per year of operations, the City spends approximately $6.9 million per year for transporting waste directly to the landfill. The transportation time to direct haul requires approximately 410 man-hours per day in addition to the time spent on the collection routes.

2.3 Transportation Cost with New Transfer Station

If SWD were to construct a new centrally located transfer station, collection vehicles would be able to avoid the time to travel directly to the landfill. The trucks would not be subject to the wear and tear associated with climbing Nine Mile hill or need to travel on unpaved landfill roads. For this analysis it is assumed the new transfer station would be located within 10 minutes of the centroid or in this case the Big I intersection. Therefore, collection trucks would travel only 10 minutes rather than the 80 minutes currently required to travel to the landfill. This 10 minute travel time also accounts for the fact that some collection vehicles do not travel through the interchange but might use surface streets to access the transfer station.

Albuquerque Transfer Station
Feasibility Analysis

Another time savings factor to consider is that it will take less time to unload at a transfer station than at a landfill. This is due in part to the fact that the vehicles will not have to travel out to the working face and maneuver on a rock pad to unload but rather drive inside a large building to unload. Also trucks would travel on paved roads rather than landfill roads.

At a new central transfer station, waste would be loaded into larger trailers for transport to the landfill. A transfer truck can carry a payload of about 24 tons based on current road limits, which is equivalent to the capacity of 3 to 5 collection vehicles. A well designed and operated transfer station will allow operators to efficiently fill each truck to capacity before transfer. Roundtrip to the landfill for transfer trucks will be approximately 80 minutes. The average time to load a transfer trailer (assumes top load) is 10 minutes and the time to unload at the landfill is assumed to be 15 minutes for a total time of 105 minutes. Currently, transfer trailers hauling from the Eagle Rock station make the round trip to the landfill in 115 minutes. Since the Eagle Rock station is located about 7 miles north of the Big I, the time from a new central location should be less.

Assuming a transfer station were designed to handle an initial capacity of 405,000 tons, approximately the amount of waste that SWD vehicles collected in FY 2010, the transfer trucks would make approximately 17,000 trips to the landfill per year. Based on operations of 5 days per week and 52 weeks per year, this is equivalent to approximately 65 trips to the landfill per day. To transfer the initial waste SWD would need 17 transfer trucks and trailers. Additional trucks and trailers will be needed to provide backup equipment for the operation. If SWD receives waste from the convenience centers and/or other private collection companies, additional trucks will be needed.

The following chart shows the cost that would be required to transport wastes to the landfill with a transfer station. This chart does not include the cost to operate the transfer station or finance the transfer station construction. The roundtrip and unloading times are based on the assumptions above.

Vehicle Type	Per Hour Vehicle Cost	Roundtrip & Unloading Time	Transportation Cost per Trip	Total Loads per Day	Transportation Cost per Day
Automated	$68	20 min	$23	85	$2,000
Front Loader	$68	20 min	$23	50	$1,200
FL w/ Assistant	$95	20 min	$32	13	$400
Rear Loader	$78	20 min	$26	3	$100
Roll-off - Box	$55	20 min	$18	95	$1,700
Transfer Trucks	$52	105 min	$91	65	$5,900
Total Estimated Cost / Day					**$11,300**

For this alternative the cost for collection trucks to deliver waste to the transfer stations and transport waste from the transfer station to the landfill is approximately $11,300 per day or $2.9 million per year. The result is that collection trucks would only use approximately 82 man-hours per day to haul waste to the transfer station. Transfer truck drivers would use 114 man-hours per day,

for a total of 196 man-hours per day to transport waste to the landfill. This is a reduction of 231 man-hours per day of labor, which is equivalent to approximately 29 full time equivalents (FTE's).

2.4 Findings of Transportation Analysis

The transportation cost associated with operating a new transfer station presents a potential savings of about $15,200 per day, which is approximately $4.0 million per year. Of this $4.0 million per year, approximately $2.3 million represents the operations (i.e. fuel cost) and maintenance cost savings from reduced miles traveled. The remaining $1.6 million in savings is a result of reduced labor cost by avoiding the time to travel to the landfill. To fully realize these savings, the City could assign some to the operation of the new transfer station, reduce the work force through attrition/retirement, and/or use the resources to add or expand services.

As mentioned, if the City were to construct a new central transfer station it will be necessary to purchase both trucks and trailers for the operation. One option to committing the capital outlay for rolling stock may be to contract the long haul to the landfill operator. The reason is there may be several trucking companies with idle or standby equipment that could be used to perform this work. Both private and public transfer station operators have used this approach with success. Depending on availability of local trucking companies this option may have merit.

2.5 Other Factors

If the collection trucks do not need to travel to the landfill certainly the most direct cost savings to SWD is reduced fuel and labor. The analysis performed also accounts for potential savings on standard maintenance and equipment replacement schedules. However, there are other factors that could have direct impact on operations that will be recognized. The first is the avoidance of having 165 collection trucks travel up and back down the Nine Mile hill. This condition causes excessive wear on both the transmissions and braking systems on collection trucks. For this reason, it can be expected the SWD will experience a reduction in maintenance costs based on having to travel fewer miles each day.

2.6 Convenience Centers Operations

The SWD operates three convenience centers, and if a new transfer station were built they may wish to consolidate some or all of these convenience center operations into the new transfer station. Assuming the new transfer station is relatively centrally located with good access; all three stations may be located within 5 miles. Also, consolidating operations of three small stations to one large facility would result in less operating costs. For example, each of the smaller stations has a scale house and at least two operators / landfill attendants; and, each site has either a large front loader/dozer to handle waste and load trailers. These would be integrated into one facility requiring less labor and equipment.

Albuquerque Transfer Station
Feasibility Analysis

The other factor impacted would be the cost of transporting waste. A new central station could reduce the overall cost to transport because of its central location. Also, because the smaller stations have little space for operating and interim storage, pay loads are less than maximum (i.e. 20 tons or less vs. maybe 24 tons). This is partly because the waste materials received at smaller station are from self haul customers that often contain bulky items. Unless operators have the space and equipment to break up these loads they cannot achieve the highest density in the trailer. In a large station there will be space to spread this material out, break it up and then blend it with higher density waste to achieve an overall higher density or payload in each trailer driving to the landfill.

The following presents the analysis of the potential reduction in transportation costs that might be experienced by closing the three convenience centers and consolidating services to one central site.

The three convenience centers received the following tonnages in FY 2010:

Montessa	14,746 tons
Eagle Rock	32,318 tons
Don Reservoir	7,623 tons
	54,686 tons

The Don Reservoir convenience center is the smallest of the three. This convenience center transports waste to the landfill in roll off trucks. This convenience center sent 2,545 trucks to the landfill during FY 2010, with the trucks carrying 3.0 tons on average. A round trip to the landfill takes approximately 80 minutes, including unloading time. If the waste had been collected at a transfer station near the Big I and transported by transfer trucks instead, this material would have only required 318 trips with a roundtrip time of 105 minutes. The following chart compares the cost of transporting from Don Reservoir with the cost of transporting the same volume of waste from a central transfer station:

Don Reservoir Transfer/Drop Off Center

	Tons	Vehicle Type	Vehicle Capacity (tons)	Vehicle Trips	Round Trip Time	Vehicle Operations	Transfer Cost per Trip	Transfer Cost per Year
Don Reservoir	7,623	Roll Off	3.0	2,545	80 min	$55/hr	$73.33	$186,633
Transfer Station	7,623	Transfer Truck	24.0	318	105 min	$52/hr	$91.00	$28,938
					Annual Transportation Savings:			**$157,695**

This data shows that the SWD could have saved approximately $160,000 in FY 2010 by hauling waste from a central transfer station and closing Don Reservoir.

Eagle Rock and Montessa both haul waste using transfer trucks. However neither facility has the ability to monitor the weight of the truck during loading to efficiently guarantee that the transfer truck

has been loaded to the maximum capacity before it leaves the loading area. The City has the potential to decrease the cost of transporting the waste to the landfill by requiring the customers to bring it to a facility that is located closer to the landfill or by increasing the amount of material loaded into each truck. The SWD claims that roundtrips to the landfill from Eagle Rock take 105 minutes, and 10 minutes has been included for the loading of the truck. The following chart shows the potential transportation savings for the SWD if they were to close the Eagle Rock convenience center and require all the traffic to visit the proposed transfer station instead:

	Tons	Vehicle Type	Vehicle Capacity (tons)	Vehicle Trips	Round Trip Time	Vehicle Operations	Transfer Cost per Trip	Transfer Cost per Year
Eagle Rock	32,318	Transfer Truck	19.5	1,658	115 min	$52/hour	$99.67	$165,247
Transfer Station	32,318	Transfer Truck	24.0	1,347	105 min	$52/hour	$91.00	$122,577
							Annual Savings:	**$42,670**

SWD could save $43,000 per year on transportation by hauling waste from a new central transfer station instead of the Eagle Rock convenience center. This is less per ton than the other stations because the Eagle Rock station does have a larger tip floor and payloads are typically higher than the other stations.

Roundtrip travel from the Montessa convenience center to the landfill will require about 120 minutes, including loading. The following chart estimates the transportation savings that the SWD could experience by closing this convenience center and accept waste at the proposed transfer station instead.

	Tons	Vehicle Type	Vehicle Capacity	Vehicle Trips	Round Trip Time	Vehicle Operations	Transfer Cost per Trip	Transfer Cost per Year
Montessa	14,746	Transfer Truck	20.1	735	120 min	$52/hour	$104.00	$76,440
Transfer Station	47,064	Transfer Truck	24.0	615	105 min	$52/hour	$91.00	$55,965
							Annual Savings:	**$20,475**

By closing the Montessa convenience center, the City could save approximately $20,000 per year.

2.7 Findings of Transportation Analysis

If the SWD were to close all three convenience centers and only receive solid waste at the proposed transfer station, they could save an estimated $220,000 per year in transportation expenses. This transportation saving does not include the saving that could result from

discontinuing operation at these facilities. Another option to consider is to possibly reduce the operating hours of these smaller stations if the City wished to continue providing some level of service to these areas.

3. Cost to Construct and Operate a New Transfer Station

A new central transfer station will be sized to handle all waste delivered by the SWD's collection fleet. It must also contain certain features necessary for the SWD to provide full services for its constituents. This section discusses the requirements for the new transfer station and other features to be used in defining the basis of design. Then a conceptual design and site layout was developed to estimate the relative construction cost for the analysis.

3.1 Site Features and Facilities

Based on information provided by the SWD, the features and facilities to be built for the new central transfer station were determined. The basis for the project is as follows.

- Transfer Station Building - Building will be sized to handle current waste flow of about 2,000 tpd and future growth. For estimating purposes it is assumed the transfer station should be between 50,000 and 70,000 sq ft. In the construction cost estimate, a 65,000 sq. ft. pre-engineered metal building (PEMB) was assumed.
- A central gate house and scale system will be installed. It will provide two inbound scales and one outbound scale for weighing outbound customers. A fourth scale may installed for to weigh out transfer trucks.
- The site will be large enough to provide adequate queue space for on-site stacking to prevent back-up onto public right-of-way.
- Employee space for on-site employees only i.e. foreman offices, restrooms and locker space, break room and training/conference area. This is typically about 4,000 sq ft. The main employee area for collection fleet drivers, maintenance staff and administrative functions are to remain at the SWD offices on Edith Blvd.
- A Household Hazardous Waste Collection Facility (assume 5,000 sq ft)
- Recycling Drop-Off for source-separated materials delivered by the public (assume 5,000 sq ft)
- Maintenance area for onsite mobile equipment i.e. front loader, skid loader and forklift etc. Parking area for transfer trucks and trailers. Note: One option will be to park trailers at the landfill.

Using this information, a generic site plan was developed. In order to have sufficient land to build the facilities described and to allow for a safe and efficient traffic circulation plan, it is desirable to have between 8 acres and 12 acres of land. The most efficient method to load transfer trailer is to load from the top or by gravity. Therefore, it is desirable to have the tipping floor at a different level which is typically 16 feet above the load out tunnel. Thus having a grade differential on the property can lead to a more efficient operation and can certainly reduce initial construction costs.

3.2 Construction Costs Estimate

Using the transfer station facility criteria described above JRMA prepared a planning level approximate construction cost estimate. This estimate is being developed to provide information for evaluating the feasibility of building a central transfer station for the purposes of reducing overall system cost (i.e. is it less than continuing to have collection vehicles haul directly to the landfill). The facility criteria are preliminary and if it is decided to move forward additional effort to define the basis for design for a permanent transfer station can be developed. After that step is completed a more defined construction cost can be prepared.

In addition to the site features described above there are several key assumptions used to prepare the cost estimate. First, it is assumed a new transfer station site would 1) be built on commercial/ industrial land within 3 miles from the Big I. 2) The site is within the urbanized area of the City and would have access to arterial streets and utilities would be readily available. 3) The terrain would be such that the soil cut and fill would be relatively balanced and 4) that the site is not a "brownfield" requiring remediation.

The other key assumptions used to develop construction cost are as follows.

- The transfer station will be built on 9 acre site
- Facilities to be included include:
  - A 70,000 sq ft Pre- Engineered metal building transfer station building
  - Recycling drop center
  - Household Hazardous waste building (HHW)
  - A gatehouse and scale complex to weigh vehicle and handle transactions
  - State Gross Receipts tax of 7%

The estimated design and construction cost is $24,700,000 plus the estimated cost for the land and site permitting is $5,300,000. The cost of land assumes the City needs to purchase a larger parcel based on preliminary review of available parcels and ensuring there is sufficient buffer space. Total cost to purchase land and to build a new transfer station on a "Generic Site" is estimated to be $29,000,000. The site is based on comparable land within 3 mile radius of the Big I interchange.

Appendix B provides a more detailed breakdown of the construction cost of the assumptions used. It is important to note the construction cost estimate is for a generic site and the actual construction cost will be based on information developed from a detailed programming effort conducted to define the project considering a specific site.

3.3 Cost to Operate a New Transfer Station

3.3.1 Existing Conditions

The SWD currently operates three convenience centers or small transfer stations. The total annual cost to operate these facilities is $5.9 million as reported in the 2011 Cost of Service study. These

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costs include several items that are not related to direct operations of the centers. For instance they include landfill disposal cost and administrative and interfund transfers that amount to $2.1 million. Thus, the direct operating expenditures for the three centers, including the cost to haul wastes from the centers to the landfill is about $3.84 million. If the transportation expenses are subtracted from the operational expenses, the actual direct operating expense is about $3.1 million ($3,837,000 - $427,000 transportation - $315,000 Truck R&M)

The operating expenses include $2,253,000 for labor cost. The total labor required to operate the three centers is as follows:

Supervisors	6
Gatehouse Attendants	6
Landfill Attendants (includes equipment operators)	14
Transport Operators	16
Total Labor (FTE's)	42

The convenience centers are open to the general public seven days per week. The general public can use the facilities each day accept for holidays from 8:00 am to 5:00 pm (9 hours). Certain SWD collection vehicles use the centers during the week and sometimes on Saturday. Actual operating hours are from 6:00 am to 6:00 pm which provides time for collection vehicles to use the facility in the early hours and time to load out materials at the end of the day.

3.3.2 Cost to Operate a Central Transfer Station

Eagle Rock is the largest center and it operates similar to that of a large scale transfer station. Waste is tipped on the floor inside a building and a large front loader or track loader pushes the waste into a load out port where it drops into a trailer located 16 feet below the tipping floor. This is referred to as a top load method and is considered the most efficient method to load transfer trucks. It is also the preferred method for larger transfer stations that handle more than 1,000 tons per day.

The new transfer station would be designed to handle 2,000 tons per day and would be capable of handling 3,000 tons per day. This can be accommodated by designing the station with two load out ports. The operating hours are assumed to be similar to that of the current convenience centers. The stations should be designed to allow for the SWD collection vehicles and self haulers to unload in separate areas. This will result in much safer traffic circulation and will require fewer floor spotters to direct cars and pickups to available unloading stalls.

The largest expense of operating the transfer station will be the labor costs. JRMA used information for the existing convenience centers to arrive at the labor expenses for the new station. Given the operating assumptions the amount of labor required to operate the new station is estimated as follows:

Supervisors	3
Gatehouse Attendants	3
Landfill Attendants (includes equipment operators)	8
Equipment Operators	3
Total Labor (FTE's)	17

In addition to the direct labor to operate the transfer station it is assumed that two current administrative positions would be part of the operating expenses. One is the Accountant Manager to be the administrator for the gatehouse/ scale complex and the second is the Accountant Assistant.

It is expected there will be between 18 and 20 drivers for transfer trucks. For the feasibility analysis we used 20 drivers. However, between the labor savings in the reduced collection vehicle time and potentially drivers from the existing convenience centers being re-assigned if they are closed, there will be no new employees needed to operate the transfer station. The labor expense for the transport drivers is accounted for in the transportation costs.

Operating expenses for the new transfer station were developed based on current operations and information from similar type facilities.

Estimated Operating Expenses	
Labor Expense	$1,100,000
Equipment Expenses	360,000
Equipment Maintenance	150,000
Equipment Replacement	300,000
Facility Replacement	300,000
Subtotal	$ 2,210,000
Operating Contingency (15%)	340,000
Transfer Station Operating Expenses	$ 2,550,000
Other Services	
Recycle Drop Off Center	$ 100,000
HHW Drop Off (5 days/wk)	$ 150,000
Subtotal Other Services	$ 200,000
Total Operating Expenses	$ 3,000,000

The new transfer station provides an opportunity to offer other new services. The site plan has included the area needed to operate a drop off facility for source separated materials and a new Household Hazardous Waste facility (HHW). It is assumed the recycling center would be open every day while the HHW facility would be available for five days per week. Some HHW facilities are operated by appointment only or just a few days per week.

The operating expenses were included in the feasibility model.

4.0 Evaluation of Edith Blvd site

The Solid Waste Departments (SWD) primary center of operations is located at 4600 Edith Blvd. On this 19 acre parcel SWD has its central offices and dispatch center and the main hauling yard where the collection fleet is parked and maintained. Drivers enter the site from Comanche Road

and park their personnel vehicles enter the employee center and prepare for their routes. They access their collection vehicle in a separate parking lot. Mechanics and maintenance personnel also use the Comanche entrance. The City has several maintenance bays for servicing the collection fleet with both preventive maintenance and larger overall repairs. Visitors and office personnel use the drive off Edith Blvd.

There are several buildings on the premises that are over 15 years old. Some are occupied by support operations such as container repairs, bays for repairing transfer trailers and a paint shop while others are used for storage areas for miscellaneous items or are empty. A fueling station was recently constructed in the back portion of the site. The large parcel provides generous spaces for SWD to conveniently park and store equipment.

In considering using the Edith Blvd site for a new transfer station it was necessary to determine if a 9 acre area could be allocated for this operation. It was established that a 9 acres could be dedicated to building a new transfer station on the southern portion of the site. To make room certain older storage buildings would be demolished and some operations would need to be relocated. However, the primary office and employee complex and the maintenance building could remain along with collection truck parking area. The fueling station likewise will not be impacted.

A preliminary site plan was developed and a construction cost estimate prepared. The total construction cost for the facility was estimated to be $22,300,000. All assumptions used for the generic site were applied to the Edith Blvd site. The Edith Blvd site does have favorable conditions for building a transfer station. First, there are available utilities throughout the entire site making extensions to service new structures easy. Second, the site slopes at about 4% from east to west creating almost a 15 feet grade differential. This is beneficial for building a station to use top loading for the transfer trailers similar to Eagle Rock facility. Third, it is already permitted for the collection activities which, makes it more compatible for use as a transfer station. One example is traffic impacts are minimal because of existing operations.

The main cost difference is the City would not need to purchase a separate parcel. The Edith Blvd site is centrally located within 1.5 miles of the Big I and has good access to highways and arterials. These conditions make the Edith Blvd a very attractive option for constructing the new transfer station. The conceptual facility plans for the Edith Blvd site are presented in Appendix D.

4.1 Re-Development of Edith Blvd Site

One option to consider is to re-develop the entire Edith Blvd site in conjunction with building a new transfer station. The existing truck maintenance center is outdated and was not built to service size and type of collection trucks the City currently operates. For instance, the buildings lack adequate clearance to support efficient preventive maintenance functions thus requiring more time to change fluids, brakes and tires. Likewise, access to needed parts and equipment is not convenient and leads to inefficiencies. A new maintenance facility designed to handle the modern collection trucks and provide the infrastructure to allow efficient use of tools and support equipment could lead to more efficient vehicle maintenance procedures.

A new office structure would also be built as part of the project. The building would be approximately 9,000 sq ft and would house SWD management, administrative staff and dispatch operations.

A key advantage of considering redevelopment of the entire property is that it would open up options to consider the most efficient layout for the transfer station and customer services the City desires to provide. Thus instead of using the south portion for the transfer station a more practical approach would be to use the central portion of the site for the transfer station and move the collection fleet parking and maintenance operations to the south portion. This option supports a clear division of the professional drivers from the self haul traffic that would use the new transfer station.

In preparing this analysis a re-development plan for the entire site was prepared and is presented in Appendix D. It demonstrates some of the advantages discussed above. It should be noted this plan is conceptual and the scope of work did not include preparing a detailed site plan. The conceptual plan does however provide a basis for preparing a planning level construction cost estimate.

4.2 Construction cost for New Offices and Maintenance Center

A conceptual site plan that shows how a new transfer station would be placed on the 19 acre site was prepared to develop the Edith Blvd construction cost estimate. This estimate assumed that 9 acres of the site would be used for the constructing a new transfer station while the existing office complex and maintenance center remains in operation. In preparing a re-development plan for the entire site, operations were relocated to provide efficient overall traffic flow. The layout also preserves certain operational parameters important to SWD. For instance, the collection fleet operations are independent of customer traffic at the transfer station and were co-located with easy access to support facilities. The truck fueling station will remain in place. The main office is prominently located with easy access for visitors and customer traffic. The recycling drop off and HHW center is in front so that customers using this service do not have to drive through the site to have access.

A construction cost estimate was developed for the added cost to re-develop the entire site. This includes the cost to improve 8 additional acres, build a new office complex and maintenance center and new parking lots for the collection fleet and drivers. The construction cost is estimated to be $12,400,000. This is addition to the $22.3 million for the new transfer station. There may be some cost savings realized if the project is built under one contract. However, the City will need to maintain operations as the project is built. The site plan prepared shows how the project can be built in phases to keep the collection fleet and maintenance function operational during construction.

5.0 Feasibility Analysis

5.1 Description of Financial Analysis

In order to determine the feasibility of building a new central transfer station the projected cost savings, primarily associated with a reduction in transportation expenses, must be considered with cost of construction and operation over a certain period. To complete this analysis JRMA used the expenses and cost estimates discussed previously in the report and prepared a financial model that compares the current collection and transfer station system with that of a new centralized transfer stations. The model depicts the annual costs as well as the life cycle cost over a 20 year period.

The model was developed to allow the City to evaluate several different scenarios. One scenario is to consider the fact that perhaps not all of the labor cost savings from collection routes is fully realized. Some positions could be phased out through attrition while others could be transferred to other functions. This scenario provides the City with a sensitivity analysis of the feasibility. Another scenario considers what happens if the existing transfer stations remain in operation. Although a new transfer station would be centrally located and therefore within 5 miles of each of the current convenience stations, SWD could decide to keep one or all of the smaller stations open. Thus, the model shows the impact of these options.

The model also was initially developed to consider the cost of the City to develop a new transfer station on a generic site. The new site would be a parcel that is located within a 3 mile radius of the Big I, zoned for industrial and/ or commercial use with reason access to the primary highway system. There are several sites identified that meet this criteria but no specific site was assumed. However, an alternative to purchasing a new parcel for the station would be to build the facility on the existing SWD property on Edith Blvd. If this site can be used the City would not need to purchase a new parcel which would improve the feasibility.

5.1 Financial Projections and Results

The base scenario compares the cost to construct a new transfer station on a new parcel of land the City would purchase. Although to build a new transfer station would require about 9 acres in the preliminary review of sites the parcels that might be suitable were much larger at 15 to 17 acres. Information provided by the City suggests a new parcel of approximately 15 acres could cost between $4,000,000 and $5,100,000 plus the cost to permit the site. For the purpose of the analysis $5,000,000 was used for the purchase price of the land and $300,000 was used for permitting.

The existing transportation cost for collection vehicles to transport waste to the landfill and return to the Big I location was modeled with the cost to use the new transfer station. This information was presented in Chapter 2 of this report. The cost to construct a new transfer station including land cost is $29 million. Annual operating expenses are about $3.0 million in 2011 dollars.

GGNA-EXHIBIT C43

Albuquerque Transfer Station
Feasibility Analysis

The model shows that if the City would continue to transport to the landfill and operate the three convenience centers the total expenses over 24 years is projected to be about $471 million. If the new central transfer station is built and the three convenience centers are closed the estimated projected expense is $352 million over the same period. Therefore, the projected cost savings off constructing the transfer station is estimated to be potentially $118 million. The 24 year period considers that it will take four years to complete the project and 20 years for financing the capital improvements.

Two alternative scenarios were modeled to show the impacts if all the labor cost saving is not realized and also what happens when the existing transfer station / convenience centers remain open. In both cases there is cost savings over 24 years but is greatly reduced.

The alternative to purchasing a new site to build the new transfer station is to redevelop SWD's operating center on Edith Blvd. The estimated cost to build on a 9 acre site within the total 19 acres is $22.3 million. The construction cost is expected to be slightly less since the site has good access requiring minimal road improvements and utilities are readily available on site including a fire loop. These are assumed to be adequate for the new transfer station and therefore can be extended or relocated as needed. Also, there is no cost to purchase land.

When this alternative is modeled over the 24 year period the total savings is estimated to be potentially $129 million. The two scenarios were also modeled similar to the previous to the generic site option and result show a significant reduction in the cost savings. However, even under these circumstances it appears feasible to consider building a new transfer station.

If SWD were to redevelop the entire property and build a new office and maintenance center complex the additional capital expense is estimated to be $12.4 million. When this is added to the cost of the transfer station and amortized over the same period the potential cost savings is estimated to be $109 million, if all three convenience centers are closed. This scenario does not reflect directly on the feasibility of building or not building the new transfer station but is does show the impact of building the new facilities if constructed and financed over the same period. The models used for this analysis are presented in Appendix C.

Appendix A:
Transportation Operation Expenses/ Hourly Costs

Albuquerque Transfer Station
Feasibility Analysis

Appendix A :
Transportation Operating Expenses/ Hourly Costs

The hourly costs presented in the table above were taken from actual operating and costs data provided by the Solid Waste Department. The per hour cost to operate the vehicle classifications were determined by combining the labor, maintenance and repair, vehicle replacement, and overhead expenses such as insurance, licenses, etc.

The cost of labor for vehicle operations is based on the current average hourly rate for drivers and assistants as provided by the City.

LABOR Cost

Vehicle Type	Driver	Assistant	Labor per Hour
Automated	$26.89		**$26.89**
Front Loader	$26.89		**$26.89**
FL w/ Assistant	$26.89	$26.89	**$53.77**
Rear Loader	$26.89	$26.89	**$53.77**
Roll-off	$26.89		**$26.89**
Transfer	$26.89		**$26.89**

The hourly maintenance and repair cost for vehicles was determined by taking the average annual maintenance and repair cost for each vehicle type and converting it to a per hour rate. The costs were then divided by the fraction of time that the vehicles are used, so that the final hourly rate accounts for the downtime of each vehicle. Transfer vehicle maintenance was assumed at $30,000 per vehicle per year.

MAINTENANCE & REPAIR

Vehicle Type	Maintenance & Repair per Year				M&R Per Active Hour	Vehicle Activity	M&R Per Hour
	Labor	Parts	Commercial	Total			
Automated	$21,675	$19,666	$3,638	$44,979	**$21.62**	86%	$25.23
Front Loader	$21,293	$17,646	$8,961	$47,901	**$23.03**	86%	$26.87
Rear Loader	$9,756	$8,589	$1,386	$19,731	**$9.49**	86%	$11.07
Roll-off	$13,846	$10,547	$4,107	$28,500	**$13.70**	86%	$15.99
Transfer				$17,583	**$8.45**	86%	$9.86

A cost to replace the vehicle was also reflected in the hourly rate for vehicle operations. The actual allowance the City has per year for replacing each type of vehicle was divided by the number of vehicles of that type in operation and calculated to a per hour rate. Transfer Vehicle replacement funds were estimated at $500,000 per year.

Albuquerque Transfer Station
Feasibility Analysis

VEHICLE REPLACEMENT

Vehicle Type	Vehicle Replacement Costs	Life Years	Annual Replacement Cost per Vehicle	Replacement per Vehicle Hour
Automated	$255,000	9	$28,333	**$13.62**
Front Loader	$220,000	9	$24,444	**$11.75**
Rear Loader	$220,000	9	$24,444	**$11.75**
Roll-off	$175,000	9	$19,444	**$9.35**
Transfer	$253,000	12	$21,083	**$10.14**

Fuel costs were calculated by dividing the average number of miles a vehicle of each type drivers per year by the average miles per gallon (MPG) for that vehicle type. Transfer truck MPG was estimated at 2.0 based on data from Argonne National Laboratory. Average annual mileage for transfer trucks was estimated based on vehicles making 4 trips to the landfill per day for 5 days per week and 52 weeks per year. Distance to the landfill was assumed to be 20 miles from the transfer station. Hourly fuel rates were divided by the average time that each vehicle is in use to account for vehicle downtime and backups.

FUEL

Vehicle Type	Avg. Miles per Year	Avg. MPG	Gallons Needed	Price per Gallon	Total per Year	Fuel Per Hour	Vehicle Activity	Fuel per Hour
Automated	21,238	3.0	7,175	$2.39	$17,112	$1.65	86%	**$1.92**
Front Loader	25,546	3.5	7,278	$2.39	$17,358	$1.67	86%	**$1.95**
Rear Loader	13,513	3.6	3,764	$2.39	$8,977	$0.86	86%	**$1.01**
Roll-off	47,467	4.6	10,387	$2.39	$24,772	$2.38	86%	**$2.78**
Transfer	41,600	2.0	24,613	$2.39	$58,703	$4.77	100%	**$4.77**

The following chart combines the above data to create a total per hour vehicle cost for each type of vehicles.

TOTAL PER HOUR VEHICLE COST

Vehicle Type	Labor	Maintenance & Repair	Vehicle Replacement	Fuel	Other	Per Hour Total
Automated	$26.89	$25.23	$13.62	$1.92		**$67.66**
Front Loader	$26.89	$26.87	$11.75	$1.95		**$67.45**
FL w/ Assistant	$53.77	$26.87	$11.75	$1.95		**$94.34**
Rear Loader	$53.77	$11.07	$11.75	$1.01		**$77.60**
Roll-off	$26.89	$15.99	$9.35	$2.78		**$55.00**
Transfer	$26.89	$9.86	$10.14	$4.77		**$51.66**

Albuquerque Transfer Station
Feasibility Analysis

Note: The total vehicle operating cost per hour was rounded to the nearest $ in the analysis.

Appendix B
Construction Cost Tables

Albuquerque Transfer Station
Feasibility Analysis

Albuquerque Transfer Station
Generic Site Centrally Located
Preliminary Construction Costs (December 2011 $)

BUILDING/ SITE AREA		DESCRIPTION OF WORK	QUANTITY	SF / LF	UNIT COST	EXTENDED VALUE	Assumption Notes
Generic Site							
Site Work							
	Demolition	Remove Debris / demo structures	1	LS	$100,000.00	$100,000	
	Site Preparation	Clear and Grade	350,000	SF	$1.00	$350,000	
	Soil Removal /Fill		40,000	CY	$8.00	$320,000	Varies depending on existing topography
	Utilities		4,000	LF	$25.00	$100,000	Utility costs expected to be more extensive than Edith site
		Water /Fire					
		Sewer	1,000	LF	$20.00	$20,000	" "
		Power	1	LS	$100,000.00	$100,000	" "
		Stormwater	1	LS	$300,000.00	$300,000	" "
	Paving	Parking areas	15,000	SF	$4.00	$60,000	" "
		Driveways and truck maneuvering	150,000	SF	$6.00	$900,000	
	Landscaping	10% of Site Development	35,000		$5.00	$175,000	
SUBTOTAL SITE WORK						**$2,425,000**	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE WORK						**$2,425,000**	
ENTRANCE ROADS / SCALE COMPLEX							
	Access Roads	Includes entrance; access, and adv parking	30,000	SF	$6.00	$180,000	
	Scale Approaches	Concrete	6,000	SF	$12.00	$72,000	
	Scale house	Scalehouse and bathrooms	500	SF	$400.00	$200,000	
	Scales	Two entrance plus 1 exit and transfer trucks	4	EA	$60,000.00	$240,000	
SUBTOTAL ONSITE ROADS AND SCALE COMPLEX						**$692,000**	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE IMPROVEMENTS AND SCALE COMPLEX						**$692,000**	
MAIN TRANSFER STATION							
	New Transfer Station	PEMB - with standard concrete base / skylighting	70,000	SF	$140.00	$9,800,000	
	Foundations/ Tunnel	Standard slab on grade	70,000	SF	$6	$420,000	
	New Push Wall	Standard concrete push walls	100	LF	$200.00	$20,000	
	Retaining Walls	Tunnel walls	6,000	SF	$40.00	$240,000	Assume site requires full tunnel
	Employee / Maintenance Area	Office space for foreman/ conference / break and lunch room / lockers	3,000	SF	$225.00	$675,000	Remote location requires larger office space than Edith site
SUBTOTAL NEW TRANSFER STATION W/EMPLOYEE SPACE						**$11,155,000**	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL NEW TRANSFER STATION						**$11,155,000**	
Buy Back Center and HHW Drop Off							
	Paving	Drive and maneuvering areas for drop offs	20,000	SF	$4	$80,000	
	Recycle Drop Off	Area for public to drop off recyclables	6,000	SF	$100.00	$600,000	
	HHW building	Assume 4,000 sq ft	4,000	SF	$225	$900,000	
	Misc.	Walls, dividers, boxes etc	1	LS	$100,000	$100,000	
						$0	
SUBTOTAL CONSTRUCTION COST - BUY BACK CENTER / HHW						**$1,680,000**	
SUMMARY OF ESTIMATED CONSTRUCTION COST							
Scalehouse and Entrance Improvements						**$2,425,000**	
Site Improvements and Scalehouse						**$692,000**	
Buyback & Recycle Drop Off Center						**$1,680,000**	
Transfer Station Expansion w/ Entrance / Employee and Maintenance bays						**$11,155,000**	
Subtotal Construction Cost						**$15,952,000**	
Cost of Land		**Based on information from City for 18 acres plus $300,000 for permitting**				**$5,300,000**	
		General Condition			12%	$1,914,240	
		Engineering /Construction Adm			12%	$1,914,240	
		Contingency			18%	$2,392,800	
		Gross Receipts Tax			7%	$1,552,130	
SUMMARY - TOTAL ESTIMATED CONSTRUCTION COST						**$29,028,410**	**USE $ 29,000,000**

Notes JRMA 12/30/2011

The generic site and facility layout assume 9 acres of development property
Estimates are preliminary and carry a confidence range of +20 /-15%.
Site Plans are conceptual but based on projects of similar size and complexity
Incomplete base maps with limited topographic data were used
Unit prices are based on projects in other areas in absence of unit prices for New Mexico region
Property purchase assumes the City may have to purchase larger site to obtain full 9 acres.
No environmental clean up/remediation is included

Albuquerque Transfer Station
Feasibility Analysis

Albuquerque Transfer Station
Edith St Transfer Station Facilities (9 Acres)
Preliminary Construction Costs (December 2011 $)

Generic Site BUILDING/ SITE AREA		DESCRIPTION OF WORK	QUANTITY	SF / LF	UNIT COST	EXTENDED VALUE	Assumptions Notes 12/30/11
Site Work							
	Demolition	Remove Debris / demo structures	1	LS	$200,000.00	$200,000	
	Site Preparation	Clear and Grade	350,000	SF	$0.50	$175,000	
	Soil Removal /Fill		20,000	CY	$8.00	$160,000	Import - can be reduced with precise grading plan
	Utilities	Water/Fire extension	1,000	LF	$20.00	$20,000	
		Sewer	1,000	LF	$20.00	$20,000	
		Power	1	LS	$100,000.00	$100,000	
	Paving	Employee parking		SF	$4.00	$0	
		Truck parking 8 in paving	0	SF	$6.00	$0	Employee parking 4 inch plus base
		Access roads - maneuver areas etc	120,000	SF	$6.00	$720,000	All truck access areas 8 inch plus base
		Storm water	1	LS	$200,000.00	$200,000	
	Landscaping	Based on screening	35,000	SF	$5.00	$175,000	
SUBTOTAL SITE WORK						$1,770,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE WORK						$1,770,000	
ENTRANCE ROADS / SCALE COMPLEX							
	Access Roads	Includes entrance; access; and site parking	30,000	SF	$6.00	$180,000	
	Scale Approaches	Concrete	6,000	SF	$12.00	$72,000	
	Scale house	Scale house and bathrooms	500	SF	$400.00	$200,000	
	Scales	Two entrance plus 1 exit and transfer trucks	4	EA	$60,000.00	$240,000	
SUBTOTAL ONSITE ROADS AND SCALE COMPLEX						$692,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE IMPROVEMENTS AND SCALE COMPLEX						$692,000	
MAIN TRANSFER STATION							
	New Transfer Station	PEMB - with standard concrete base / skylights	70,000	SF	$140.00	$9,800,000	
	Foundations/ Tunnel	Standard slab on grade	70,000	SF	$6.00	$420,000	
	New Push Wall	Standard concrete push walls	200	LF	$200.00	$40,000	
	Retaining Walls	Build 150 ft on one side @ 10ft ave	3,000	sf	$40.00	$120,000	Only need to build about 300 ftbecuase of site topography
	Employee / Maintenance Area	Office space for foreman/break room and lunch/lockers	2,000	SF	$225.00	$450,000	
	Mech	Break room / showers etc.		SF	$150.00	$0	
	Driver Center	Employee Center w/ showers etc		SF	$150.00	$0	
	Truck Bays	Truck maintenance facility		SF	$175.00	$0	
SUBTOTAL NEW TRANSFER STATION W/EMPLOYEE SPACE						$10,830,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL NEW TRANSFER STATION						$10,830,000	
Buy Back Center and HHW Drop Off							
	Paving	Drives and maneuvering areas for drop offs	20,000	SF	$4.00	$80,000	
				SF		$0	
	HHW building	Assume 4,000 sq ft	4,000	SF	$225.00	$900,000	
	Misc.	Walls, dividers, boxes etc	1	LS	$100,000.00	$100,000	
	Recycle Drop-Off	Area for public to drop-off recyclables	6,000	SF	$100.00	$600,000	
SUBTOTAL CONSTRUCTION COST - RECYCLING CENTER / HHW						$1,680,000	
SUMMARY OF ESTIMATED CONSTRUCTION COST							
Site Work - Grading, Drainage and Paving						$1,770,000	
Entrance Road and Scale complex						$692,000	
Buyback & Recycle Drop Off Center						$1,680,000	
Transfer Station Expansion w/ Entrance / Employee and Maintenance bays						$10,830,000	
Subtotal Construction Cost						$14,972,000	
Cost of Land							
		General Condition			12%	$1,796,640	
		Engineering /Construction Adm			12%	$1,796,640	
		Contingency			15%	$2,245,800	
		Gross Receipts Tax			7%	$1,456,776	
SUMMARY - TOTAL ESTIMATED CONSTRUCTION COST						$22,267,856	Use $22,300,000

Notes JRMA 12/30/2011

Estimates are preliminary and carry a confidence range of +20 /-15%.
Site Plans are conceptual but based on projects of similar size and complexity
Incomplete base maps with limited topographic data were used
Unit cost are based on projects in other areas in absence of unit prices for New Mexico region
No environmental clean up/remediation is included

Albuquerque Transfer Station
Feasibility Analysis

Albuquerque Transfer Station

Edith St SWD Offices/Hauling Yard & Maintenance Center Facilities (Approx 8 Acres)

Preliminary Construction Costs (December 2011 $)

Generic Site							
BUILDING/ SITE AREA		DESCRIPTION OF WORK	QUANTITY	SF / LF	UNIT COST	EXTENDED VALUE	Assumptions Notes 12/30/11
Site Work							
	Demolition	Remove Debris / demo structures	1	LS	$200,000.00	$200,000	
	Site Preparation	Clear and Grade	250,000	SF	$0.50	$125,000	
	Soil Removal /Fill		20,000	CY	$8.00	$160,000	Import - can be reduced with precise grading plan
	Utilities	Water/Fire extension	1,000	LF	$20.00	$20,000	
		Sewer	1,000	LF	$20.00	$20,000	
		Power	1	LS	$100,000.00	$100,000	
	Paving	Employee parking	55,000	SF	$4.00	$220,000	
		Truck parking 8 in paving	125,000	SF	$6.00	$750,000	Employee parking 4 inch plus base
		Access roads - manauver areas etc	20,000	SF	$6.00	$120,000	All truck access areas 8 inch plus base
		Storm water	1	LS	$200,000.00	$200,000	
	Landscaping	Based on screening	10,000	SF	$5.00	$50,000	
SUBTOTAL SITE WORK						$1,965,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE WORK						$1,965,000	
ENTRANCE ROADS / SCALE COMPLEX							
	Access Roads	Includes entrance; access; and site parking		SF	$6.00	$0	
	Scale Approaches	Concrete		SF	$12.00	$0	
	Scale house	Scale house and bathrooms		SF	$400.00	$0	
	Scales	Two entrance plus 1 exit and transfer trucks		EA	$60,000.00	$0	
SUBTOTAL ONSITE ROADS AND SCALE COMPLEX						$0	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL SITE IMPROVEMENTS AND SCALE COMPLEX						$0	
MAIN TRANSFER STATION							
	New Transfer Station	PEMB - with standard concrete base / skylights		SF	$140.00	$0	
	Foundations/ Tunnel	Standard slab on grade		SF	$6.00	$0	
	New Push Wall	Standard concrete push walls		LF	$200.00	$0	
				LF		$0	
						$0	
	Employee / Maintenance Area	SWD Office	6,400	SF	$225.00	$1,890,000	New SWD Offices with no driver center
	Mech	Break room / showers etc.	1,600	SF	$150.00	$240,000	
	Driver Center	Employee Center w/ showers etc	3,000	SF	$150.00	$450,000	
	Truck Bays	Truck maintenance facility	22,000	SF	$175.00	$3,850,000	
SUBTOTAL NEW TRANSFER STATION W/EMPLOYEE SPACE						$6,430,000	
		General Condition				$0	
		Engineering				$0	
		Contingency				$0	
TOTAL NEW TRANSFER STATION						$6,430,000	
Buy Back Center and HHW Drop Off							
	Paving	Drives and maneuvering areas for drop offs		SF	$6.00	$0	
				SF		$0	
	HHW building	Assume 4,000 sq ft		SF	$225.00	$0	
	Misc.	Walls, dividers, boxes etc		LS	$100,000.00	$0	
	Recycle Drop-Off	Area for public to drop-off recyclables		SF	$100.00	$0	
SUBTOTAL CONSTRUCTION COST - RECYCLING CENTER / HHW						$0	
SUMMARY OF ESTIMATED CONSTRUCTION COST							
Site Work - Grading, Drainage and Paving						**$1,965,000**	
Entrance Road and Scale complex						**$0**	
Buyback & Recycle Drop Off Center						**$0**	
Transfer Station Expansion w/ Entrance / Employee and Maintenance bays						**$6,430,000**	
Subtotal Construction Cost						**$8,395,000**	
Cost of Land							
		General Condition			12%	$1,007,400	
		Engineering /Construction Adm			12%	$1,007,400	
		Contingency			15%	$1,259,250	
		Gross Receipts Tax			7%	$746,316	
SUMMARY - TOTAL ESTIMATED CONSTRUCTION COST						**$12,415,366**	**USE $ 12,400,000**

Notes JRMA 12/30/2011

Estimates are preliminary and carry a confidence range of +20 /-15%.
Site Plans are conceptual but based on projects of similar size and complexity
Incomplete base maps with limited topographic data were used
Unit cost are based on projects in other areas in absence of unit prices for New Mexico region
No environmental clean up/remediation is included

Appendix C
Financial Models

Albuquerque Transfer Station

Feasibility Evaluation for Generic Site

SCENARIO # 1 - BASE CASE NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE 2014

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		***$3,400,000***	***$3,410,000***	***$3,512,300***	***$3,617,669***	***$3,726,199***	***$3,837,985***	***$3,953,125***	***$4,071,718***	***$4,193,870***	***$4,319,686***	***$4,449,277***	***$4,582,755***	***$4,720,237***	***$4,861,845***	***$5,007,700***	***$5,157,931***	***$5,312,669***	***$5,472,049***	***$5,636,210***	***$5,805,297***	***$5,979,456***	***$6,158,839***	***$6,343,604***	***$6,533,913***	***$6,729,930***	***$117,394,263***
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,318	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,539	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,501	$350,064	$364,172	$378,848	$394,116	$409,998	$6,485,227
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,596	$84,887	$88,308	$91,867	$95,568	$99,420	$103,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,118	$218,587	$227,386	$236,560	$246,099	$256,011	$266,328	$277,061	$288,226	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	405,000	$21.19/ton	$4,580,000	$4,925,774	$9,285,483	$9,659,688	$10,048,973	$10,453,947	$10,875,241	$11,313,513	$11,760,447	$12,243,756	$12,737,180	$13,250,488	$13,784,443	$14,339,857	$14,917,809	$15,519,090	$16,144,510	$16,795,134	$17,471,977	$18,176,098	$18,908,595	$19,670,611	$20,463,337	$21,288,009	$396,625,230
Subtotal Transportation			***$9,007,279***	***$9,370,273***	***$8,747,895***	***$10,140,735***	***$10,549,407***	***$10,974,548***	***$11,416,822***	***$11,878,920***	***$12,353,560***	***$12,853,489***	***$13,373,484***	***$13,910,355***	***$14,470,947***	***$15,054,121***	***$15,660,805***	***$16,291,933***	***$16,948,498***	***$17,631,522***	***$18,342,071***	***$19,081,258***	***$19,850,233***	***$20,650,137***	***$21,482,400***	***$22,346,141***	***$353,386,687***
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,246	$17,302,765	$17,954,239	$18,630,593	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,420,547	$23,267,733	$24,147,369	$25,060,714	$26,009,072	$26,993,842	$28,016,313	$29,078,071	$470,781,151
New Central Transfer Station																											
Operations																											
Central Station Operations	459,687	$8,000,000				$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$84,006,711
Convenience Centers			$3,410,000	$3,512,300	$3,617,669																						
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			***$3,410,000***	***$3,512,300***	***$3,617,669***	***$3,278,181***	***$3,376,526***	***$3,477,822***	***$3,582,157***	***$3,689,622***	***$3,800,310***	***$3,914,320***	***$4,031,749***	***$4,152,702***	***$4,277,283***	***$4,405,601***	***$4,537,769***	***$4,673,902***	***$4,814,119***	***$4,958,543***	***$5,107,299***	***$5,260,518***	***$5,418,334***	***$5,580,884***	***$5,748,310***	***$5,920,760***	***$104,546,680***
Transportation Costs																											0
Transport to Cerro Landfill	459,687	$10.27/ton				$5,315,894	$5,580,125	$5,752,899	$5,984,934	$6,226,023	$6,476,932	$6,737,952	$7,009,492	$7,291,974	$7,585,841	$7,891,550	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,623	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$170,505,925
Transport form Convenience Centers																											0
Eagle Rock	0	$5.11/ton	$165,247	$171,907	$178,835	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$515,989
Montessa Park	0	$5.11/ton	$75,399	$78,437	$81,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$235,434
Don Reservoir	0	$24.48/ton	$186,633	$194,155	$201,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$582,767
Collection Direct haul			$4,580,000	$4,925,774	$9,285,483																						
Subtotal Transportation			***$9,037,279***	***$9,370,273***	***$9,747,895***	***$5,315,894***	***$5,580,125***	***$5,752,899***	***$5,984,934***	***$6,226,023***	***$6,476,932***	***$6,737,952***	***$7,009,492***	***$7,291,974***	***$7,585,841***	***$7,891,550***	***$8,209,579***	***$8,540,425***	***$8,884,605***	***$9,242,654***	***$9,615,133***	***$10,002,623***	***$10,405,729***	***$10,825,080***	***$11,261,330***	***$11,715,162***	***$171,840,115***
New TS - Capital Investments																											
Real Estate																											
Land Purchase		$5,000,000																									
Site Permitting		$300,000																									
Construction cost		$23,700,000																									
Annualized Debt Service	0.08024	$2,326,960				$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960		$46,539,200
5% @ 20 yrs																											
Transfer Station Equipment																											
Transfer trucks	10 100,000 ea	$1,000,000																									
Transfer trailers	10 55,000 Ea	$550,000																									
Rolling Stock	350,000	$350,000																									
Annualized Equipment Cost	0.09634	$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,750.20
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station			***$0***	***$0***	***$0***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,326,960***	***$2,326,960***	***$2,326,960***	***$2,326,960***	***$2,326,960***	***$0***	***$48,284,955***
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$11,104,085	$11,416,661	$11,740,821	$12,077,001	$12,425,655	$12,787,252	$13,162,282	$13,551,251	$13,954,686	$14,373,134	$14,807,161	$15,257,359	$15,724,338	$16,208,734	$16,711,207	$17,049,392	$17,590,101	$18,151,022	$18,732,923	$19,336,601	$17,635,921	$352,463,007
Total Savings:			$0	$0	$0	$2,762,849	$2,970,730	$3,186,851	$3,411,539	$3,645,135	$3,887,993	$4,140,483	$4,402,988	$4,675,907	$4,959,654	$5,254,660	$5,561,375	$5,880,264	$6,211,812	$6,556,525	$7,097,977	$7,470,613	$7,858,050	$8,260,878	$8,679,712	$11,442,149	$118,318,144

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer truck
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range
6. All capital construction costs includes 7% gross receipts tax

JBMA *12/30/2011*

GGNA-EXHIBIT C54

Albuquerque Transfer Station

Feasibility Evaluation for Generic Site

SCENARIO # 2 - NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE - LABOR COST SAVING NOT REALIZED

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montesa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		***$3,410,000***	***$3,410,000***	***$3,512,300***	***$3,617,669***	***$3,726,199***	***$3,837,985***	***$3,953,125***	***$4,071,718***	***$4,193,870***	***$4,319,686***	***$4,449,277***	***$4,582,755***	***$4,720,237***	***$4,861,845***	***$5,007,700***	***$5,157,931***	***$5,312,669***	***$5,472,049***	***$5,636,210***	***$5,805,297***	***$5,979,456***	***$6,158,839***	***$6,343,604***	***$6,533,913***	***$6,729,930***	***$117,394,263***
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,318	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,539	$201,330	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montesa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,589	$99,426	$109,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,085	$136,378	$141,874	$147,591	$153,589	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,155
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,226	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,368	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,658,048	$10,048,973	$10,453,947	$10,875,743	$11,313,518	$11,760,447	$12,245,756	$12,737,180	$13,250,488	$13,784,483	$14,339,997	$14,917,895	$15,519,090	$16,144,530	$16,795,134	$17,471,977	$18,176,098	$18,908,595	$19,670,011	$20,463,337	$21,288,009	$336,623,230
Subtotal Transportation			***$9,007,279***	***$9,370,273***	***$9,747,895***	***$10,140,735***	***$10,549,407***	***$10,974,548***	***$11,416,822***	***$11,876,920***	***$12,355,560***	***$12,853,449***	***$13,371,484***	***$13,910,355***	***$14,470,942***	***$15,054,171***	***$15,660,803***	***$16,291,959***	***$16,948,498***	***$17,631,522***	***$18,342,079***	***$19,081,258***	***$19,850,233***	***$20,650,197***	***$21,482,400***	***$22,348,541***	***$353,346,887***
Total Existing			**$12,417,279**	**$12,882,573**	**$13,365,564**	**$13,866,934**	**$14,387,392**	**$14,927,672**	**$15,488,540**	**$16,070,790**	**$16,675,246**	**$17,302,705**	**$17,954,239**	**$18,630,593**	**$19,332,787**	**$20,061,821**	**$20,818,734**	**$21,604,602**	**$22,420,547**	**$23,267,733**	**$24,147,369**	**$25,060,714**	**$26,009,872**	**$26,993,802**	**$28,016,313**	**$29,078,071**	**$470,781,151**
New Central Transfer Station																											
Operations																											
Central Station Operations	459,687	$9,000,000				$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,711
Convenience Centers			$3,410,000	$3,512,300	$3,617,669																						$0
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montesa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			***$3,410,000***	***$3,512,300***	***$3,617,669***	***$3,278,181***	***$3,376,526***	***$3,477,822***	***$3,582,157***	***$3,689,622***	***$3,800,310***	***$3,914,320***	***$4,031,749***	***$4,152,702***	***$4,277,283***	***$4,405,601***	***$4,537,769***	***$4,673,902***	***$4,814,119***	***$4,958,543***	***$5,107,299***	***$5,260,518***	***$5,418,334***	***$5,580,884***	***$5,748,310***	***$5,920,760***	***$104,546,680***
Transportation Costs																											0
Transport to Cerro Landfill	459,687	$10.27/ton				$5,315,894	$5,530,125	$5,752,989	$5,984,834	$6,226,023	$6,476,932	$6,737,952	$7,009,492	$7,291,974	$7,585,841	$7,891,550	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$8,615,133	$10,002,623	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$170,505,925
Transport form Convenience Centers																											0
Eagle Rock	0	$5.11/ton	$165,247	$171,907	$178,835	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$515,989
Montesa Park	0	$5.11/ton	$75,399	$78,437	$81,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$235,434
Don Reservoir	0	$24.48/ton	$186,633	$194,155	$201,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$582,767
Collection Direct haul			$8,580,000	$8,925,774	$9,285,483																						
Subtotal Transportation			***$9,007,279***	***$9,370,273***	***$9,747,895***	***$5,315,894***	***$5,530,125***	***$5,752,989***	***$5,984,834***	***$6,226,023***	***$6,476,932***	***$6,737,952***	***$7,009,492***	***$7,291,974***	***$7,585,841***	***$7,891,550***	***$8,209,579***	***$8,540,425***	***$8,884,605***	***$9,242,654***	***$8,615,133***	***$10,002,623***	***$10,405,729***	***$10,825,080***	***$11,261,330***	***$11,715,162***	***$171,840,115***
Subtotal Transportation																											
New TS - Capital Investments																											
Real Estate																											
Land Purchase		$5,000,000																									
Site Permitting		$300,000																									
Construction cost		$23,700,000																									
Annualized Debt Service	0.08024	$2,328,960				$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960	$2,326,960		$46,599,200
5% @ 20 yrs																											
Transfer Station Equipment																											
Transfer trucks	10	100000 Ea	$1,000,000																								
Transfer trailers	10	55,000 Ea	$550,000																								
Rolling Stock			$350,000																								
Annualized Equipment Cost	0.09634		$183,050			$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050						$2,745,755.20
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station			***$0***	***$0***	***$0***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,510,010***	***$2,326,960***	***$2,326,960***	***$2,326,960***	***$2,326,960***	***$2,326,960***	***$0***	***$49,784,955***
Total annual Cost for New Transfer Station			**$12,417,279**	**$12,882,573**	**$13,365,564**	**$11,104,085**	**$11,416,661**	**$11,740,821**	**$12,077,001**	**$12,425,655**	**$12,787,252**	**$13,162,282**	**$13,551,251**	**$13,954,586**	**$14,373,134**	**$14,807,161**	**$15,257,359**	**$15,724,338**	**$16,208,734**	**$16,711,207**	**$17,049,392**	**$17,590,101**	**$18,151,022**	**$18,732,923**	**$19,336,601**	**$17,635,921**	**$352,463,007**
Total Savings:			**$0**	**$0**	**$0**	**$2,762,849**	**$2,970,730**	**$3,186,851**	**$3,411,539**	**$3,645,135**	**$3,887,993**	**$4,140,483**	**$4,402,988**	**$4,675,907**	**$4,959,654**	**$5,254,660**	**$5,561,375**	**$5,880,264**	**$6,211,812**	**$6,556,525**	**$7,097,977**	**$7,470,613**	**$7,858,050**	**$8,260,878**	**$8,679,712**	**$11,442,149**	**$118,318,144**
Labor:		$1,614,843				*$1,764,582*	*$1,817,520*	*$1,872,045*	*$1,928,207*	*$1,986,053*	*$2,045,634*	*$2,107,004*	*$2,170,214*	*$2,235,320*	*$2,302,380*	*$2,371,451*	*$2,442,595*	*$2,515,872*	*$2,591,349*	*$2,669,089*	*$2,749,162*	*$2,831,637*	*$2,916,586*	*$3,004,083*	*$3,094,206*	*$3,187,032*	*$50,602,018*
Savings Less Labor:						**$998,266**	**$1,153,210**	**$1,314,806**	**$1,483,332**	**$1,659,082**	**$1,842,359**	**$2,033,480**	**$2,232,775**	**$2,440,587**	**$2,657,274**	**$2,883,209**	**$3,118,780**	**$3,364,391**	**$3,620,464**	**$3,887,436**	**$4,348,815**	**$4,638,976**	**$4,941,464**	**$5,256,795**	**$5,585,507**	**$8,255,118**	**$67,716,126**

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%
Annual Labor Rate Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer truck
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range
6. All capital construction costs includes 7% gross receipts tax

JRMA *12/30/2011*

GCNA-EXHIBIT C55

Albuquerque Transfer Station

Feasibility Evaluation for Generic Site

SCENARIO # 3 - NEW TRANSFER STATION & CONVENIENCE CENTERS OPEN

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$9,410,000	$9,410,000	$9,512,300	$9,617,669	$9,726,199	$9,837,985	$9,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,894,263
Eagle Rock	32,918		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		***$9,400,000***	***$9,410,000***	***$9,512,300***	***$9,617,669***	***$9,726,199***	***$9,837,985***	***$9,953,125***	***$4,071,718***	***$4,193,870***	***$4,319,686***	***$4,449,277***	***$4,582,755***	***$4,720,237***	***$4,861,845***	***$5,007,700***	***$5,157,931***	***$5,312,669***	***$5,472,049***	***$5,636,210***	***$5,805,297***	***$5,979,456***	***$6,158,839***	***$6,343,604***	***$6,533,913***	***$6,729,930***	***$117,894,263***
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,338	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,539	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,226	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,659,688	$10,048,973	$10,453,947	$10,875,241	$11,313,513	$11,769,447	$12,243,756	$12,737,180	$13,250,488	$13,784,483	$14,339,997	$14,917,899	$15,519,090	$16,144,510	$16,795,134	$17,471,977	$18,176,098	$18,908,595	$19,670,611	$20,463,337	$21,288,009	$376,623,230
Subtotal Transportation			***$8,007,279***	***$9,370,273***	***$9,747,895***	***$10,140,735***	***$10,549,407***	***$10,974,548***	***$11,416,822***	***$11,876,970***	***$12,355,580***	***$12,853,489***	***$13,371,484***	***$13,910,355***	***$14,470,943***	***$15,054,121***	***$15,660,803***	***$16,291,933***	***$16,948,458***	***$17,631,322***	***$18,342,073***	***$19,081,258***	***$19,850,233***	***$20,650,197***	***$21,482,400***	***$22,348,141***	***$353,386,887***
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,266	$17,302,765	$17,954,239	$18,630,593	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,420,547	$23,267,733	$24,147,369	$25,060,714	$26,009,072	$26,993,802	$28,016,313	$29,078,071	$470,781,151
New Central Transfer Station																											
Operations																											
Central Station Operations	405,000	$9,000,000				$8,278,181	$3,376,526	$3,477,822	$3,582,157	$3,688,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,005,711
Convenience Centers		$9,410,000	$9,410,000	$9,512,300	$9,617,669	$9,726,199	$9,837,985	$9,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,894,263
Eagle Rock	32,818		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,748		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,823		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			***$9,410,000***	***$9,512,300***	***$9,617,669***	***$7,004,380***	***$7,214,511***	***$7,430,947***	***$7,653,875***	***$7,883,481***	***$8,119,896***	***$8,363,596***	***$8,614,504***	***$8,872,939***	***$9,139,127***	***$9,413,301***	***$9,695,700***	***$9,986,571***	***$10,286,168***	***$10,594,753***	***$10,912,596***	***$11,239,974***	***$11,577,173***	***$11,924,488***	***$12,282,223***	***$12,650,690***	***$211,400,374***
Transportation Costs																											0
Transport to Cerro Landfill	405,000	$10.27/ton				$4,683,485	$4,871,229	$5,066,580	$5,272,844	$5,485,340	$5,706,399	$5,936,367	$6,175,602	$6,424,479	$6,683,386	$6,952,736	$7,232,931	$7,524,408	$7,827,641	$8,143,095	$8,471,262	$8,812,654	$9,167,804	$9,537,266	$9,921,618	$10,321,459	$150,221,563
Transport form Convenience Centers																											0
Eagle Rock	32,818	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,538	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,154
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,226	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul			$8,580,000	$8,925,774	$9,285,483																						
Subtotal Transportation			***$9,007,279***	***$9,370,273***	***$9,747,895***	***$5,164,532***	***$5,372,663***	***$5,589,181***	***$5,814,425***	***$6,048,747***	***$6,292,511***	***$6,546,099***	***$6,809,907***	***$7,084,346***	***$7,369,845***	***$7,666,850***	***$7,975,824***	***$8,297,250***	***$8,631,629***	***$8,979,484***	***$9,341,357***	***$9,717,814***	***$10,109,442***	***$10,516,852***	***$10,940,681***	***$11,381,591***	***$166,985,220***
New TS - Capital Investments																											
Real Estate																											
Land Purchase		$5,000,000																									
Site Permitting		$300,000																									
Construction cost		$23,700,000																									
Annualized Debt Service	0.09074	$2,926,960				$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$2,926,960	$46,599,200
5% @ 20 yrs																											
Transfer Station Equipment																											
Transfer trucks	10	100,000 Ea	$1,000,000																								
Transfer trailers	10	55,000 Ea	$550,000																								
Rolling Stock		350,000	$350,000																								
Annualized Equipment Cost	0.09834		$183,050			$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$2,745,755.20
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station			***$0***	***$0***	***$0***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$3,110,010***	***$49,296,955***
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$14,678,923	$15,097,185	$15,530,138	$15,978,311	$16,442,248	$16,922,518	$17,419,706	$17,934,421	$18,467,256	$19,018,583	$19,590,162	$20,181,595	$20,793,831	$21,427,808	$22,084,247	$22,580,913	$23,284,747	$24,013,575	$24,768,360	$25,549,804	$24,032,280	$454,462,404
Total Savings:			$0	$0	$0	-$811,989	-$709,793	-$602,466	-$489,771	-$371,459	-$247,272	-$116,940	$19,818	$163,337	$313,804	$471,660	$637,139	$810,770	$992,739	$1,183,485	$1,566,456	$1,775,966	$1,995,498	$2,225,501	$2,466,449	$5,045,791	$16,318,745

JBMM 12/30/2013

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer truck
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range
6. All capital construction costs includes 7% gross receipts tax

GGNA-EXHIBIT C56

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd

SCENARIO # 1 - BASE CASE NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE 2014

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	32,918		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Manzano Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,823		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		***$3,410,000***	***$3,410,000***	***$3,512,300***	***$3,617,669***	***$3,726,199***	***$3,837,985***	***$3,953,125***	***$4,071,718***	***$4,193,870***	***$4,319,686***	***$4,449,277***	***$4,582,755***	***$4,720,237***	***$4,861,845***	***$5,007,700***	***$5,157,931***	***$5,312,669***	***$5,472,049***	***$5,636,210***	***$5,805,297***	***$5,979,456***	***$6,158,839***	***$6,343,604***	***$6,533,913***	***$6,729,930***	***$117,394,263***
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,918	$5.12/ton	$168,247	$171,907	$178,835	$186,042	$193,539	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199	$265,484	$276,183	$287,313	$298,885	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Manzano Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,585	$153,589	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,154
Don Reservoir	7,823	$34.48/ton	$166,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,098	$256,011	$266,328	$277,061	$288,226	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,389	$411,302	$427,878	$445,133	$463,068	$7,322,375
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,659,688	$10,048,973	$10,453,947	$10,875,241	$11,313,513	$11,769,447	$12,243,756	$12,737,180	$13,250,488	$13,784,483	$14,339,997	$14,917,899	$15,519,050	$16,144,510	$16,795,134	$17,471,877	$18,176,086	$18,908,995	$19,670,611	$20,463,337	$21,288,009	$356,619,780
Subtotal Transportation			***$8,807,279***	***$9,370,179***	***$9,747,895***	***$10,140,735***	***$10,549,407***	***$10,974,548***	***$11,416,822***	***$11,876,930***	***$12,355,960***	***$12,853,489***	***$13,371,484***	***$13,910,353***	***$14,470,942***	***$15,054,121***	***$15,660,885***	***$16,292,833***	***$16,948,498***	***$17,631,122***	***$18,342,079***	***$19,081,250***	***$19,850,233***	***$20,650,197***	***$21,482,409***	***$22,348,142***	***$355,386,887***
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,799	$16,675,646	$17,302,765	$17,954,239	$18,630,591	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,420,547	$23,267,733	$24,147,360	$25,060,714	$26,009,072	$26,993,802	$28,016,913	$29,078,071	$470,781,151
New Central Transfer Station																											
Operations																											
Central Station Operations	459,647	$8,000,000				$9,278,181	$9,974,534	$9,477,822	$9,582,157	$9,649,642	$9,800,910	$9,914,330	$4,091,749	$4,152,700	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,711
Convenience Centers			$3,410,000	$3,512,300	$3,617,668																						
Eagle Rock		0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Manzano Park		0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir		0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			***$3,410,000***	***$3,512,300***	***$3,617,669***	***$9,278,181***	***$9,974,534***	***$9,477,822***	***$9,582,157***	***$9,649,642***	***$9,800,910***	***$9,914,330***	***$4,091,749***	***$4,152,700***	***$4,277,283***	***$4,405,601***	***$4,537,769***	***$4,673,902***	***$4,814,119***	***$4,958,543***	***$5,107,299***	***$5,260,518***	***$5,418,334***	***$5,580,884***	***$5,748,310***	***$5,920,760***	***$94,006,711***
Transportation Costs																											0
Transport to Cerro Landfill	459,647	$10.27/ton				$5,515,894	$5,530,125	$5,752,989	$5,984,854	$6,226,023	$6,476,932	$6,737,952	$7,009,492	$7,291,974	$7,585,841	$7,891,550	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,623	$10,405,729	$10,825,080	$11,261,330	$11,715,183	$170,585,925
Transport form Convenience Centers																											0
Eagle Rock		0	$6.13/ton	$165,247	$171,907	$178,835	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$515,989
Manzano Park		0	$6.13/ton	$75,399	$78,437	$81,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$235,434
Don Reservoir		0	$34.48/ton	$166,633	$194,155	$201,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$562,767
Collection Direct haul				$8,580,000	$8,925,774	$9,285,483																					
Subtotal Transportation				***$8,807,279***	***$9,370,373***	***$9,747,895***	***$5,515,894***	***$5,530,125***	***$5,752,989***	***$5,984,854***	***$6,226,023***	***$6,476,932***	***$6,737,952***	***$7,009,492***	***$7,291,974***	***$7,585,841***	***$7,891,550***	***$8,209,579***	***$8,540,425***	***$8,884,605***	***$9,242,654***	***$9,615,133***	***$10,002,623***	***$10,405,729***	***$10,825,080***	***$11,261,330***	***$11,715,183***	***$171,949,115***
New TS - Capital Investments																											
Real Estate																											
Land Purchase			$0																								
Site Permitting			$100,000																								
Construction cost			$32,300,000																								
Annualized Debt Service		0.08034	$1,797,376				$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376		$35,947,520
5% @ 20 yrs																											
Transfer Station Equipment																											
Transfer trucks	10	100,000 ea	$1,000,000																								
Transfer trailers	10	55,000 Ea	$550,000																								
Rolling Stock		350,000	$850,000																								
Annualized Equipment Cost		0.09434	$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050						$2,745,750.30
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station				***$0***	***$0***	***$0***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,980,426***	***$1,797,376***	***$1,797,376***	***$1,797,376***	***$1,797,376***	***$1,797,376***	***$0***	***$38,698,275***
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$10,574,931	$10,887,077	$11,211,237	$11,547,417	$11,896,071	$12,257,608	$12,632,358	$13,021,667	$13,425,502	$13,843,550	$14,277,577	$14,727,775	$15,194,754	$15,679,150	$16,181,623	$16,519,808	$17,080,517	$17,621,498	$18,205,599	$18,807,027	$17,695,921	$341,871,327
Total Savings:			$0	$0	$0	$3,292,455	$3,500,314	$3,716,435	$3,941,123	$4,174,719	$4,417,577	$4,670,067	$4,932,572	$5,205,491	$5,489,238	$5,784,244	$6,090,959	$6,409,848	$6,741,396	$7,086,109	$7,627,561	$8,000,197	$8,387,684	$8,790,462	$9,208,996	$11,442,148	$128,909,824
																										JEMA	12/30/2011

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

GGNA-EXHIBIT C57

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd

SCENARIO # 2 - NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE - LABOR COST SAVING NOT REALIZED

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Existing System														
Operations														
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.11/ton	$185,347	$171,907	$178,835	$186,042	$193,589	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442
Don Reservoir	7,629	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,226
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,659,688	$10,048,973	$10,453,947	$10,875,241	$11,313,518	$11,769,447	$12,243,756	$12,737,180	$13,250,488
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$10,140,735	$10,549,407	$10,974,548	$11,416,822	$11,876,920	$12,355,560	$12,853,489	$13,371,484	$13,910,355
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,246	$17,302,765	$17,954,239	$18,630,593
New Central Transfer Station														
Operations														
Central Station Operations	458,687	$3,000,000				$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702
Convenience Centers			$3,410,000	$3,512,300	$3,617,669									
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,410,000	$3,512,300	$3,617,669	$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702
Transportation Costs														
Transport to Cerro Landfill	459,687	$10.27/ton				$5,315,894	$5,590,125	$5,752,989	$5,984,334	$6,226,023	$6,476,932	$6,737,952	$7,009,492	$7,291,974
Transport form Convenience Centers														
Eagle Rock	0	$5.11/ton	$185,347	$171,907	$178,835	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0	$5.11/ton	$75,399	$78,457	$81,558	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0	$24.44/ton	$184,633	$194,155	$201,973	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collection Direct haul			$8,580,000	$8,925,774	$9,285,483									
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$5,315,894	$5,590,125	$5,752,989	$5,984,334	$6,226,023	$6,476,932	$6,737,952	$7,009,482	$7,291,974
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$100,000												
Construction cost		$22,300,000												
Annualized Debt Service 0.08024		$1,797,376				$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376
5% @ 20 yrs														
Transfer Station Equipment														
Transfer trucks 10 100000 Ea		$1,000,000												
Transfer trailers 10 55,000 Ea		$550,000												
Rolling Stock 350,000		$350,000												
Annualized Equipment Cost 0.09634		$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs														
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$10,574,501	$10,887,077	$11,211,237	$11,547,417	$11,896,071	$12,257,668	$12,632,688	$13,021,667	$13,425,302
Total Savings:			$0	$0	$0	$3,292,433	$3,500,314	$3,716,435	$3,941,123	$4,174,719	$4,417,577	$4,670,067	$4,932,572	$5,205,491
Labor:		$1,614,843				$1,764,582	$1,817,520	$1,872,045	$1,928,207	$1,986,053	$2,045,634	$2,107,004	$2,170,214	$2,235,320
Savings Less Labor:						$1,527,850	$1,682,794	$1,844,390	$2,012,916	$2,188,666	$2,371,943	$2,563,064	$2,762,359	$2,970,171

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System													
Operations													
Convenience Centers	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Transportation Cost													
Convenience Centers													
Eagle Rock	$265,484	$276,183	$287,313	$298,891	$310,987	$323,467	$336,509	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,277
Montessa Park	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	$13,784,483	$14,339,997	$14,917,890	$15,519,090	$16,144,510	$16,795,134	$17,471,977	$18,176,094	$18,908,595	$19,670,611	$20,463,337	$21,288,009	$336,623,290
Subtotal Transportation	$14,470,942	$15,054,121	$15,660,809	$16,291,933	$16,948,498	$17,631,522	$18,342,073	$19,081,258	$19,858,233	$20,650,197	$21,482,400	$22,348,141	$353,386,887
Total Existing	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,420,547	$23,267,733	$24,147,368	$25,060,714	$26,009,072	$26,995,802	$28,016,313	$29,078,071	$470,781,153
New Central Transfer Station													
Operations													
Central Station Operations	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,713
Convenience Centers													
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,330	$5,920,760	$104,546,680
Transportation Costs													0
Transport to Cerro Landfill	$7,585,841	$7,891,556	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,623	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$170,505,925
Transport form Convenience Centers													0
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$535,989
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$235,434
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$582,767
Collection Direct haul													
Subtotal Transportation	$7,585,841	$7,891,560	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,623	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$171,840,115
New TS - Capital Investments													
Real Estate													
Land Purchase													
Site Permitting													
Construction cost													
Annualized Debt Service 0.08024	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,276	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376		$35,947,520
5% @ 20 yrs													
Transfer Station Equipment													
Transfer trucks 10 100000 Ea													
Transfer trailers 10 55,000 Ea													
Rolling Stock 350,000													
Annualized Equipment Cost 0.09634	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.30
5% @ 15 yrs													
Subtotal Capital Cost for New Transfer Station	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$0	$38,693,275
Total annual Cost for New Transfer Station	$13,843,550	$14,277,577	$14,727,775	$15,194,754	$15,679,150	$16,181,623	$16,519,808	$17,060,537	$17,621,438	$18,203,399	$18,807,017	$17,636,921	$341,871,337
Total Savings:	$5,489,238	$5,784,244	$6,090,959	$6,409,848	$6,741,396	$7,086,109	$7,627,561	$8,000,197	$8,387,634	$8,790,462	$9,209,296	$11,442,149	$128,909,824
Labor:	$2,302,380	$2,371,451	$2,442,595	$2,515,872	$2,591,349	$2,669,089	$2,749,162	$2,831,637	$2,916,586	$3,004,083	$3,094,206	$3,187,032	$50,602,018
Savings Less Labor:	$3,186,858	$3,412,793	$3,648,364	$3,893,975	$4,150,048	$4,417,010	$4,878,399	$5,168,560	$5,471,048	$5,786,379	$6,115,091	$8,255,118	$78,307,806

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%
Annual Labor Rate Increase:	3%

Assumptions
1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

JBMA 12/30/2011

GGNA-EXHIBIT C58

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd

SCENARIO # 3 - NEW TRANSFER STATION & CONVENIENCE CENTERS OPEN

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Existing System														
Operations														
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,539	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,443
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,095	$256,011	$266,328	$277,061	$288,126
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,659,688	$10,048,973	$10,453,947	$10,875,241	$11,313,513	$11,769,447	$12,243,756	$12,737,180	$13,250,488
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$10,140,735	$10,549,407	$10,974,548	$11,416,822	$11,876,920	$12,355,560	$12,853,489	$13,371,484	$13,910,355
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,246	$17,302,765	$17,954,235	$18,690,395
New Central Transfer Station														
Operations														
Central Station Operations	405,000	$3,000,000				$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,410,000	$3,512,300	$3,617,669	$7,004,380	$7,214,511	$7,430,947	$7,653,875	$7,883,492	$8,119,996	$8,363,596	$8,614,504	$8,872,939
Transportation Costs														
Transport to Cerro Landfill	405,000	$10.27/ton				$4,683,435	$4,872,229	$5,068,580	$5,272,244	$5,485,540	$5,706,399	$5,936,367	$6,175,604	$6,424,475
Transport form Convenience Centers														
Eagle Rock	32,318	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,539	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,443
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,095	$256,011	$266,328	$277,061	$288,126
Collection Direct haul			$8,580,000	$8,925,774	$9,285,483									
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$5,164,532	$5,372,683	$5,589,181	$5,814,425	$6,048,747	$6,292,511	$6,544,079	$6,809,987	$7,084,346
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$100,000												
Construction cost		$22,300,000												
Annualized Debt Service	0.08024	$1,797,376				$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376
5% @ 20 yrs														
Transfer Station Equipment														
Transfer trucks	10 100,000 Ea	$1,000,000												
Transfer trailers	10 55,000 Ea	$550,000												
Rolling Stock	350,000	$350,000												
Annualized Equipment Cost	0.09634	$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs														
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$14,148,339	$14,567,601	$15,000,354	$15,448,727	$15,912,664	$16,392,934	$16,890,122	$17,404,837	$17,937,712
Total Savings:			$0	$0	$0	-$282,405	-$180,209	-$72,883	$39,813	$158,125	$282,312	$412,644	$549,402	$692,881

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System													
Operations													
Convenience Centers	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Transportation Cost													
Convenience Centers													
Eagle Rock	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montessa Park	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	$299,842	$311,926	$324,496	$337,579	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	$13,784,483	$14,339,997	$14,917,899	$15,519,090	$16,144,510	$16,795,134	$17,471,977	$18,176,098	$18,908,595	$19,670,611	$20,463,337	$21,288,009	$336,629,230
Subtotal Transportation	$14,470,942	$15,054,121	$15,660,808	$16,291,933	$16,948,499	$17,631,522	$18,342,079	$19,081,258	$19,850,193	$20,650,197	$21,482,490	$22,348,141	$353,386,887
Total Existing	$19,332,787	$20,061,821	$20,818,794	$21,604,602	$22,420,547	$23,267,733	$24,147,566	$25,060,714	$26,009,072	$26,993,802	$28,016,313	$29,078,071	$470,781,153
New Central Transfer Station													
Operations													
Central Station Operations	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,711
Convenience Centers	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$9,139,127	$9,413,301	$9,695,700	$9,986,571	$10,286,168	$10,594,753	$10,912,596	$11,239,974	$11,577,173	$11,924,488	$12,282,223	$12,650,690	$211,400,974
Transportation Costs													0
Transport to Cerro Landfill	$6,683,385	$6,952,726	$7,232,921	$7,524,408	$7,827,641	$8,143,095	$8,471,262	$8,812,654	$9,167,804	$9,537,266	$9,921,618	$10,321,459	$150,221,563
Transport form Convenience Centers													0
Eagle Rock	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montessa Park	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul													
Subtotal Transportation	$7,369,845	$7,666,850	$7,975,324	$8,297,259	$8,631,429	$8,979,484	$9,341,357	$9,717,814	$10,109,447	$10,516,852	$10,940,881	$11,381,991	$166,885,220
New TS - Capital Investments													
Real Estate													
Land Purchase													
Site Permitting													
Construction cost													
Annualized Debt Service	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376		$35,947,520
5% @ 20 yrs													
Transfer Station Equipment													
Transfer trucks													
Transfer trailers													
Rolling Stock													
Annualized Equipment Cost	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.70
5% @ 15 yrs													
Subtotal Capital Cost for New Transfer Station	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,980,426	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$1,797,376	$0	$38,695,275
Total annual Cost for New Transfer Station	$18,489,399	$19,060,578	$19,651,951	$20,264,247	$20,898,224	$21,554,663	$22,051,329	$22,755,183	$23,483,991	$24,238,716	$25,020,280	$24,032,280	$443,870,726
Total Savings:	$843,388	$1,001,244	$1,166,783	$1,340,354	$1,522,323	$1,719,089	$2,096,040	$2,305,530	$2,525,082	$2,755,085	$2,996,033	$5,045,791	$26,910,435

JRM 12/30/2011

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer station.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

GGNA-EXHIBIT C59

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd w/ New SWD Facilities

SCENARIO # 1 - BASE CASE NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE 2014

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Existing System														
Operations														
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237
Transportation Cost														
Convenience Centers														
Eagle Rock	32,318	$5.11/ton	$165,247	$171,907	$178,835	$186,042	$193,539	$201,339	$209,453	$217,894	$226,675	$235,810	$245,313	$255,199
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442
Don Reservoir	7,623	$34.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,226
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,659,688	$10,048,973	$10,453,947	$10,875,341	$11,313,513	$11,769,447	$12,243,756	$12,737,180	$13,250,488
Subtotal Transportation			$9,007,279	$9,370,279	$9,747,895	$10,140,735	$10,548,407	$10,974,548	$11,416,827	$11,876,929	$12,355,560	$12,853,489	$13,371,484	$13,910,355
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,246	$17,302,765	$17,954,239	$18,630,593
New Central Transfer Station														
Operations														
Central Station Operations	459,687	$3,000,000				$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702
Convenience Centers			$3,410,000	$3,512,300	$3,617,669									
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,410,000	$3,512,300	$3,617,669	$3,278,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702
Transportation Costs														
Transport to Cerro Landfill	459,687	$10.27/ton				$5,315,894	$5,530,125	$5,752,989	$5,984,834	$6,226,023	$6,476,932	$6,737,952	$7,009,492	$7,291,974
Transport form Convenience Centers														
Eagle Rock	0	$5.11/ton	$165,247	$171,907	$178,835	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	0	$5.11/ton	$75,399	$78,437	$81,598	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0	$34.48/ton	$186,633	$194,155	$201,979	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collection Direct haul			$8,580,000	$8,925,774	$9,285,483									
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$5,315,894	$5,530,125	$5,752,989	$5,984,834	$6,226,023	$6,476,932	$6,737,952	$7,009,492	$7,291,974
New TS - Capital Investments														
Real Estate														
Land Purchase		$0												
Site Permitting		$100,000												
Construction cost		$34,700,000												
Annualized Debt Service	0.08024	$2,792,352				$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352
5% @ 20 yrs														
Transfer Station Equipment														
Transfer trucks	10 100,000 ea	$1,000,000												
Transfer trailers	10 55,000 Ea	$550,000												
Rolling Stock	950,000	$950,000												
Annualized Equipment Cost	0.09634	$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050
5% @ 15 yrs														
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$11,569,477	$11,882,653	$12,206,313	$12,542,399	$12,891,047	$13,252,644	$13,627,674	$14,016,643	$14,420,078
Total Savings:			$0	$0	$0	$2,297,457	$2,505,338	$2,721,459	$2,946,147	$3,179,743	$3,422,601	$3,675,091	$3,937,596	$4,210,515

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System													
Operations													
Convenience Centers	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	[illegible]	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Transportation Cost													
Convenience Centers													
Eagle Rock	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,505	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montessa Park	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	$13,784,483	$14,339,997	$14,917,899	$15,519,090	$16,144,510	$16,795,134	$17,471,977	$18,176,098	$18,908,595	$19,670,611	$20,463,337	$21,288,009	$356,623,290
Subtotal Transportation	$14,470,942	$15,054,121	$15,660,803	$16,291,933	$16,948,490	$17,631,522	$18,342,073	$19,081,258	$19,850,253	$20,650,197	$21,482,400	$22,348,141	$353,386,887
Total Existing	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,420,547	$23,267,733	$24,147,369	$25,060,714	$26,009,073	$26,993,802	$28,016,313	$29,078,071	$470,781,151
New Central Transfer Station													
Operations													
Central Station Operations	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,711
Convenience Centers													
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$104,546,680
Transportation Costs													0
Transport to Cerro Landfill	$7,585,841	$7,891,550	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,629	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$170,505,925
Transport form Convenience Centers													0
Eagle Rock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$515,989
Montessa Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$235,434
Don Reservoir	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$582,767
Collection Direct haul													
Subtotal Transportation	$7,585,841	$7,891,550	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,629	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$171,840,115
New TS - Capital Investments													
Real Estate													
Land Purchase													
Site Permitting													
Construction cost													
Annualized Debt Service	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352		$55,847,040
5% @ 20 yrs													
Transfer Station Equipment													
Transfer trucks													
Transfer trailers													
Rolling Stock													
Annualized Equipment Cost	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.30
5% @ 15 yrs													
Subtotal Capital Cost for New Transfer Station	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$0	$58,592,795
Total annual Cost for New Transfer Station	$14,838,526	$15,272,553	$15,722,751	$16,189,730	$16,674,126	$17,176,599	$17,514,704	$18,055,483	$18,616,414	$19,198,315	$19,801,993	$17,635,921	$361,770,847
Total Savings:	$4,494,262	$4,789,268	$5,095,983	$5,414,872	$5,746,420	$6,091,133	$6,632,585	$7,005,221	$7,392,658	$7,795,486	$8,214,320	$11,442,149	$308,010,304

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer truck
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range
6. All capital construction costs includes 7% gross receipts tax

JMAA 12/30/2012

GGNA-EXHIBIT C60

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd w/New SWD Facilities

SCENARIO # 2 - NEW TRANSFER STATION & CONVENIENCE CENTERS CLOSE - LABOR COST SAVING NOT REALIZED

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,363
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montoya Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		*$3,410,000*	*$3,410,000*	*$3,512,300*	*$3,617,669*	*$3,726,199*	*$3,837,985*	*$3,953,125*	*$4,071,718*	*$4,193,870*	*$4,319,686*	*$4,449,277*	*$4,582,755*	*$4,720,237*	*$4,861,845*	*$5,007,700*	*$5,157,931*	*$5,312,669*	*$5,472,049*	*$5,636,210*	*$5,805,297*	*$5,979,456*	*$6,158,839*	*$6,343,604*	*$6,533,913*	*$6,729,930*	*$117,394,363*
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,318	$5.11/ton	$165,147	$171,907	$178,835	$186,042	$191,539	$201,339	$209,453	$217,884	$226,675	$235,810	$245,113	$255,139	$265,484	$276,138	$287,213	$298,891	$310,957	$323,667	$336,503	$350,064	$364,171	$378,848	$394,116	$408,998	$6,483,227
Montoya Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,430	$103,427	$107,585	$111,891	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,075	$2,954,156
Don Reservoir	7,623	$34.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,095	$256,011	$266,325	$277,061	$288,235	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,375
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,449	$9,659,688	$10,048,973	$10,453,947	$10,875,241	$11,313,513	$11,769,447	$12,243,756	$12,737,180	$13,250,488	$13,784,483	$14,339,997	$14,917,899	$15,518,090	$16,144,510	$16,795,134	$17,471,877	$18,174,698	$18,908,595	$19,671,611	$20,463,337	$21,288,009	$336,629,250
Subtotal Transportation			*$8,807,279*	*$9,370,273*	*$9,747,895*	*$10,140,735*	*$10,548,407*	*$10,974,548*	*$11,418,822*	*$11,876,920*	*$12,355,560*	*$12,853,489*	*$13,371,484*	*$13,910,855*	*$14,470,942*	*$15,054,121*	*$15,660,888*	*$16,291,958*	*$16,948,498*	*$17,631,522*	*$18,342,879*	*$19,081,258*	*$19,850,263*	*$20,650,187*	*$21,482,480*	*$22,348,341*	*$353,386,867*
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,246	$17,302,765	$17,954,239	$18,630,593	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,420,547	$23,267,733	$24,147,369	$25,060,714	$26,009,072	$26,998,802	$29,016,819	$29,079,073	$470,781,151
New Central Transfer Station																											
Operations																											
Central Station Operations	450,887	$3,000,000				$3,778,181	$3,376,526	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,711
Convenience Centers			$3,410,000	$3,512,300	$3,617,669																						$0
Eagle Rock	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montoya Park	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			*$3,410,000*	*$3,512,300*	*$3,617,669*	*$3,778,181*	*$3,376,526*	*$3,477,822*	*$3,582,157*	*$3,689,622*	*$3,800,310*	*$3,914,320*	*$4,031,749*	*$4,152,702*	*$4,277,283*	*$4,405,601*	*$4,537,769*	*$4,673,902*	*$4,814,119*	*$4,958,543*	*$5,107,299*	*$5,260,518*	*$5,418,334*	*$5,580,884*	*$5,748,310*	*$5,920,760*	*$94,006,711*
Transportation Costs																											0
Transport to Cerro Landfill	459,687	$10.27/ton				$5,315,864	$5,530,125	$5,752,989	$5,984,834	$6,226,023	$6,476,932	$6,737,252	$7,008,452	$7,291,974	$7,585,841	$7,891,550	$8,209,579	$8,540,425	$8,884,605	$9,242,654	$9,615,133	$10,002,623	$10,405,729	$10,825,080	$11,261,330	$11,715,162	$170,585,925
Transport form Convenience Centers																											0
Eagle Rock	0	$5.11/ton	$165,147	$171,907	$178,835	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$515,989
Montoya Park	0	$5.11/ton	$75,399	$78,437	$81,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$235,434
Don Reservoir	0	$24.48/ton	$128,633	$194,155	$261,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$582,767
Collection Direct haul			$8,580,000	$8,925,774	$9,285,449																						
Subtotal Transportation			*$8,807,279*	*$9,370,273*	*$9,747,895*	*$5,315,864*	*$5,530,125*	*$5,752,989*	*$5,984,834*	*$6,226,023*	*$6,476,932*	*$6,737,252*	*$7,008,452*	*$7,291,974*	*$7,585,841*	*$7,891,550*	*$8,209,579*	*$8,540,425*	*$8,884,605*	*$9,242,654*	*$9,615,133*	*$10,002,623*	*$10,405,729*	*$10,825,080*	*$11,261,330*	*$11,715,162*	*$171,840,115*
New TS - Capital Investments																											
Real Estate																											
Land Purchase		$0																									
Site Permitting		$300,000																									
Construction cost		$34,700,000																									
Annualized Debt Service	0.08024	$2,792,352				$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$55,847,040
5% @ 20 yrs																											
Transfer Station Equipment																											
Transfer trucks	10 100000 Ea	$1,000,000																									
Transfer trailers	10 55,000 Ea	$550,000																									
Rolling Stock	350,000	$350,000																									
Annualized Equipment Cost	0.09684	$383,050				$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050	$383,050						$2,345,755.20
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station			*$0*	*$0*	*$0*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$3,175,402*	*$2,792,352*	*$2,792,352*	*$2,792,352*	*$2,792,352*	*$2,792,352*	*$0*	*$58,192,795*
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$11,569,477	$11,892,053	$12,206,213	$12,542,398	$12,891,047	$13,252,644	$13,627,674	$14,018,843	$14,430,078	$14,838,526	$15,272,553	$15,722,751	$16,189,730	$16,674,126	$17,176,599	$17,514,784	$18,055,635	$18,616,414	$19,198,315	$19,801,993	$17,695,921	$961,770,847
Total Savings:			$0	$0	$0	$2,297,457	$2,495,338	$2,721,459	$2,946,147	$3,179,743	$3,422,601	$3,675,091	$3,937,096	$4,210,515	$4,494,261	$4,789,268	$5,095,983	$5,414,872	$5,746,430	$6,091,139	$6,633,485	$7,055,221	$7,392,658	$7,795,486	$8,214,330	$11,442,148	$109,010,304
Labor:		*$1,414,843*				*$1,764,582*	*$1,817,520*	*$1,872,045*	*$1,928,207*	*$1,986,053*	*$2,045,634*	*$2,107,004*	*$2,170,214*	*$2,235,320*	*$2,302,380*	*$2,371,451*	*$2,442,595*	*$2,515,872*	*$2,591,349*	*$2,669,089*	*$2,749,162*	*$2,831,637*	*$2,916,586*	*$3,004,083*	*$3,094,206*	*$2,187,032*	*$50,602,818*
Savings Less Labor:						*$532,874*	*$687,818*	*$849,414*	*$1,017,940*	*$1,193,690*	*$1,376,967*	*$1,568,086*	*$1,767,883*	*$1,975,195*	*$2,191,882*	*$2,417,817*	*$2,653,388*	*$2,898,999*	*$3,155,072*	*$3,422,044*	*$3,884,323*	*$4,223,584*	*$4,479,072*	*$4,797,405*	*$5,120,115*	*$8,255,116*	*$58,408,286*

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%
Annual Labor Rate Increase:	3%

Assumptions

1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

JMAA 12/30/2013

GGNA-EXHIBIT C61

Albuquerque Transfer Station

Feasibility Evaluation for Edith Blvd w/New SWD Facilities

SCENARIO # 3 - NEW TRANSFER STATION & CONVENIENCE CENTERS OPEN

	Current Waste Volumes		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total for 24 years
Existing System																											
Operations																											
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations		$2,400,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Transportation Cost																											
Convenience Centers																											
Eagle Rock	32,318	$5.11/ton	$165,147	$171,907	$178,835	$186,042	$193,539	$201,939	$209,453	$217,894	$226,675	$235,830	$245,313	$255,199	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,227
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,126	$299,842	$311,926	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul	405,000	$21.19/ton	$8,580,000	$8,925,774	$9,285,483	$9,659,688	$10,048,873	$10,453,947	$10,875,341	$11,313,513	$11,769,447	$12,243,756	$12,737,180	$13,250,488	$13,784,483	$14,339,997	$14,917,899	$15,519,090	$16,144,510	$16,795,134	$17,471,977	$18,176,098	$18,908,595	$19,670,611	$20,463,337	$21,288,009	$336,623,230
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$10,140,735	$10,549,407	$10,974,548	$11,416,822	$11,876,820	$12,355,560	$12,853,489	$13,371,484	$13,910,255	$14,470,942	$15,054,121	$15,660,803	$16,291,933	$16,948,498	$17,631,522	$18,342,073	$19,081,258	$19,850,233	$20,650,197	$21,482,400	$22,348,141	$353,386,887
Total Existing			$12,417,279	$12,882,573	$13,365,564	$13,866,934	$14,387,392	$14,927,672	$15,488,540	$16,070,790	$16,675,246	$17,302,765	$17,954,239	$18,630,593	$19,332,787	$20,061,821	$20,818,734	$21,604,602	$22,430,547	$23,267,733	$24,147,369	$25,060,714	$26,009,072	$26,993,802	$28,016,313	$29,078,071	$470,781,151
New Central Transfer Station																											
Operations																											
Central Station Operations	405,000	$3,000,000				$3,278,181	$3,376,528	$3,477,822	$3,582,157	$3,689,622	$3,800,310	$3,914,320	$4,031,749	$4,152,702	$4,277,283	$4,405,601	$4,537,769	$4,673,902	$4,814,119	$4,958,543	$5,107,299	$5,260,518	$5,418,334	$5,580,884	$5,748,310	$5,920,760	$94,006,711
Convenience Centers		$3,410,000	$3,410,000	$3,512,300	$3,617,669	$3,726,199	$3,837,985	$3,953,125	$4,071,718	$4,193,870	$4,319,686	$4,449,277	$4,582,755	$4,720,237	$4,861,845	$5,007,700	$5,157,931	$5,312,669	$5,472,049	$5,636,210	$5,805,297	$5,979,456	$6,158,839	$6,343,604	$6,533,913	$6,729,930	$117,394,263
Eagle Rock	32,318		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montessa Park	14,746		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Don Reservoir	7,623		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Operations			$3,410,000	$3,512,300	$3,617,669	$7,004,380	$7,214,513	$7,430,947	$7,653,875	$7,883,491	$8,119,996	$8,363,596	$8,614,504	$8,872,939	$9,139,127	$9,413,301	$9,695,700	$9,986,571	$10,286,168	$10,594,753	$10,912,596	$11,239,974	$11,577,173	$11,924,488	$12,282,223	$12,650,690	$211,400,974
Transportation Costs																											0
Transport to Cerro Landfill	405,000	$10.27/ton				$4,683,465	$4,872,229	$5,068,550	$5,272,844	$5,485,940	$5,706,399	$5,936,367	$6,175,622	$6,424,479	$6,685,386	$6,952,776	$7,232,921	$7,524,408	$7,827,641	$8,143,095	$8,471,362	$8,812,654	$9,167,804	$9,537,266	$9,921,818	$10,321,459	$150,225,543
Transport form Convenience Centers																											0
Eagle Rock	32,318	$5.11/ton	$165,147	$171,907	$178,835	$186,042	$193,539	$201,939	$209,453	$217,894	$226,675	$235,830	$245,313	$255,199	$265,484	$276,183	$287,313	$298,891	$310,937	$323,467	$336,503	$350,064	$364,172	$378,848	$394,116	$409,998	$6,483,727
Montessa Park	14,746	$5.11/ton	$75,399	$78,437	$81,598	$84,887	$88,308	$91,867	$95,569	$99,420	$103,427	$107,595	$111,931	$116,442	$121,134	$126,016	$131,095	$136,378	$141,874	$147,591	$153,539	$159,727	$166,164	$172,860	$179,826	$187,073	$2,958,156
Don Reservoir	7,623	$24.48/ton	$186,633	$194,155	$201,979	$210,119	$218,587	$227,396	$236,560	$246,093	$256,011	$266,328	$277,061	$288,726	$299,842	$311,925	$324,496	$337,573	$351,178	$365,330	$380,053	$395,369	$411,302	$427,878	$445,121	$463,060	$7,322,275
Collection Direct haul			$8,580,000	$8,925,774	$9,285,483																						
Subtotal Transportation			$9,007,279	$9,370,273	$9,747,895	$5,164,512	$5,372,663	$5,589,181	$5,814,425	$6,048,747	$6,292,511	$6,546,100	$6,809,907	$7,084,347	$7,369,846	$7,666,851	$7,975,824	$8,297,260	$8,631,629	$8,979,484	$9,341,357	$9,717,814	$10,109,442	$10,516,852	$10,940,681	$11,381,591	$166,985,220
New TS - Capital Investments																											
Real Estate																											
Land Purchase		$0																									
Site Permitting		$100,000																									
Construction cost		$34,700,000																									
Annualized Debt Service 0.08024		$2,792,352				$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352		$55,847,040
5% @ 20 yrs																											
Transfer Station Equipment																											
Transfer trucks 10 100,000 Ea		$1,000,000																									
Transfer trailers 10 55,000 Ea		$550,000																									
Rolling Stock 350,000		$350,000																									
Annualized Equipment Cost 0.09634		$183,050				$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050	$183,050							$2,745,755.20
5% @ 15 yrs																											
Subtotal Capital Cost for New Transfer Station			$0	$0	$0	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,975,402	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$2,792,352	$0	$58,592,795
Total annual Cost for New Transfer Station			$12,417,279	$12,882,573	$13,365,564	$15,144,315	$15,562,577	$15,995,530	$16,443,703	$16,907,640	$17,387,910	$17,885,098	$18,399,813	$18,932,688	$19,484,375	$20,055,554	$20,646,927	$21,259,233	$21,893,200	$22,549,639	$23,046,305	$23,750,139	$24,478,967	$25,233,692	$26,015,256	$24,032,280	$463,770,246
Total Savings:			$0	$0	$0	-$1,277,381	-$1,175,185	-$1,067,858	-$955,163	-$836,851	-$712,664	-$582,332	-$445,574	-$302,095	-$151,588	$6,268	$171,807	$345,378	$527,347	$718,093	$1,101,064	$1,310,574	$1,530,106	$1,760,109	$2,001,057	$5,045,791	$7,010,905

Annual Generation Rate Increase:	1%
Annual Hauling Cost Increase:	3%
Annual Operations Cost Increase:	3%

Assumptions

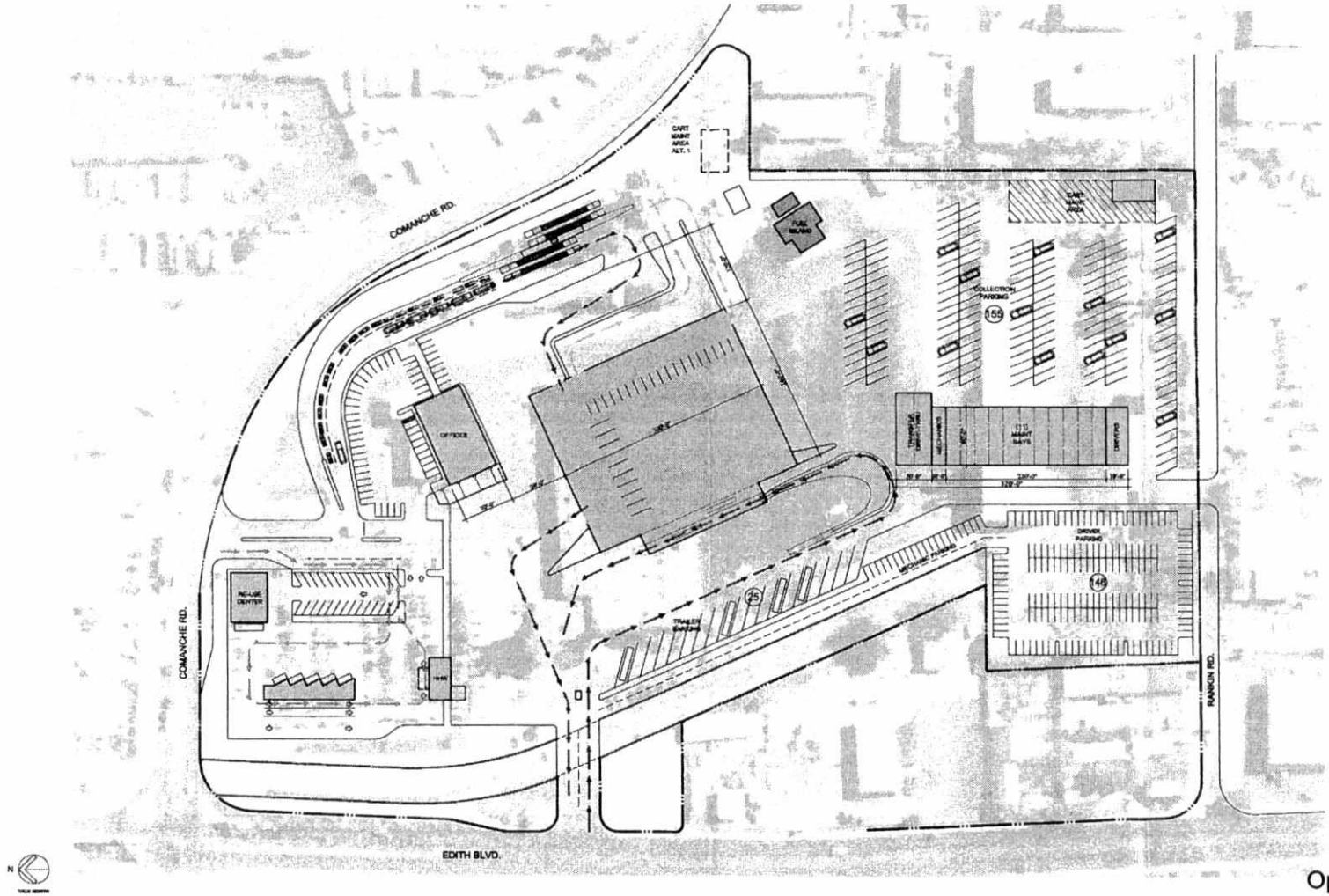
1. All transportation labor and operating expenses related to direct haul are realized. Therefore the labor savings is realized by attrition and assigning transportation labor to jobs for new services. Some drivers can be assigned to transfer trucks.
2. Labor savings from closing existing convenience centers is realized by assigning drivers to transfer trucks and for operations of the new transfer stations.
3. This scenario includes an allocation of $5,000,000 to purchase new property.
4. The City will purchase 10 new live bottom trailers and 10 new trucks - the remaining fleet of 10 trucks and 10 trailers will be provided from existing rolling stock.
5. All construction cost and projections are planning level estimates and carry a plus 15% and minus 10% range.
6. All capital construction costs includes 7% gross receipts tax

JRMA 12/30/2011

GGNA-EXHIBIT C62

Appendix D
Site Plans

GGNA-EXHIBIT C63

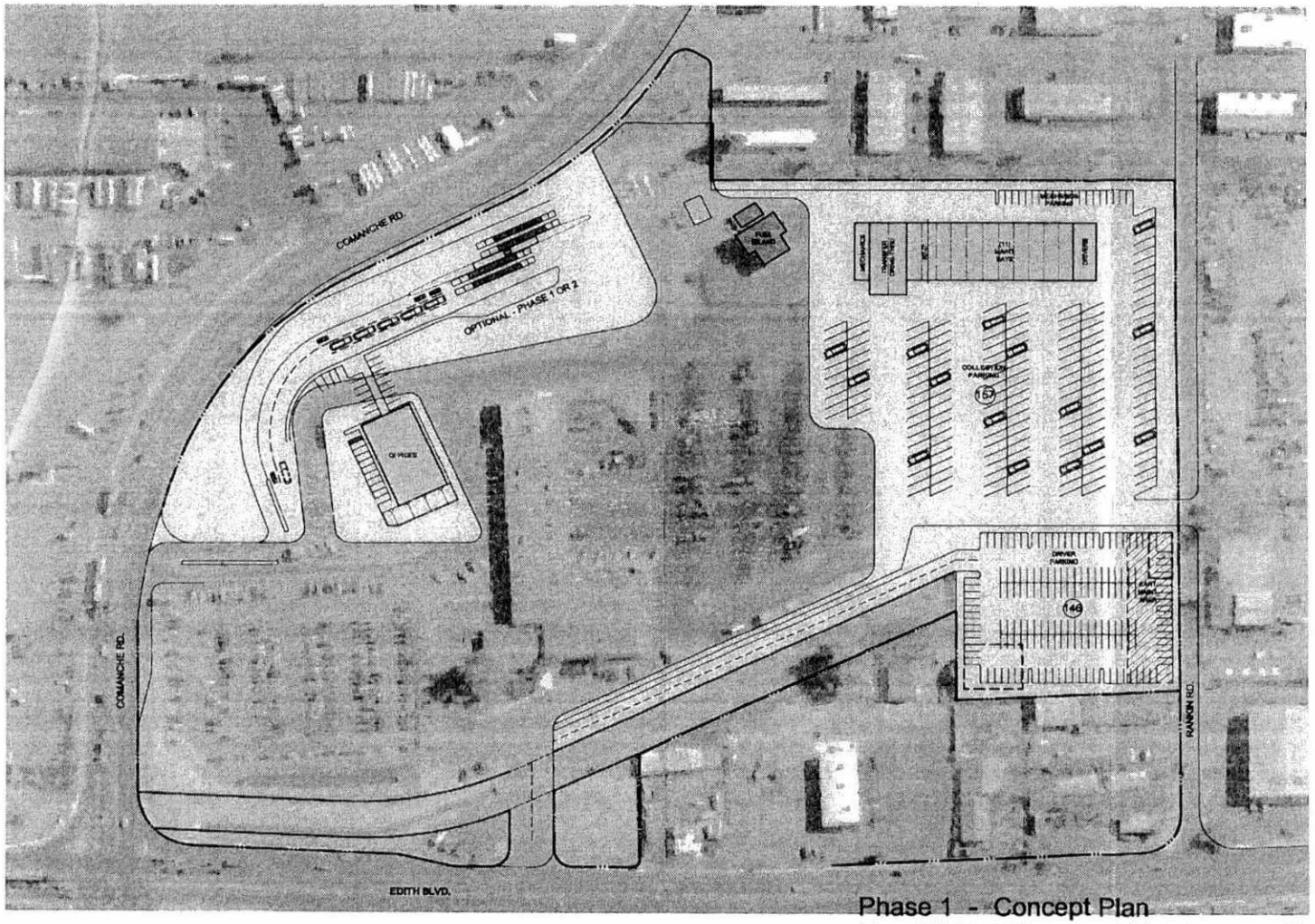


Option 4A

SOLID WASTE MANAGEMENT

SITE PLAN

GGNA-EXHIBIT C64



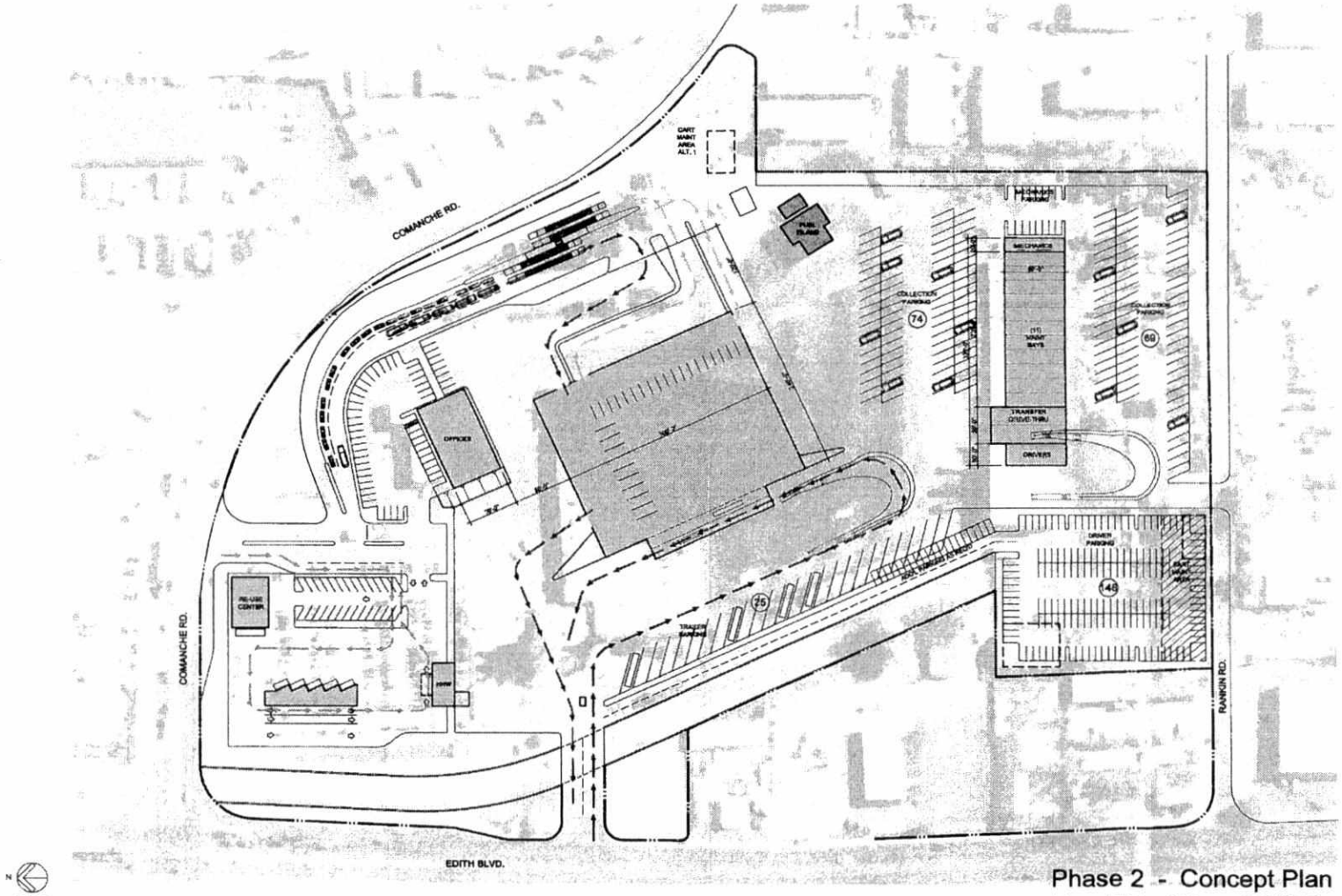
Phase 1 - Concept Plan
New SWD Offices and Maintenance Facilities
SITE PLAN

SOLID WASTE MANAGEMENT

ARCHITECTS ENGINEERS PLANNERS

JOB 84015 | 21 JULY 2011

GGNA-EXHIBIT C65



Phase 2 - Concept Plan
New TS w/ New SWD Facilities

SOLID WASTE MANAGEMENT

SITE PLAN

JOB 84316 | 21 JULY 2011

GGNA-EXHIBIT C66

GGNA-EXHIBIT C67

HARM TO SMALL BUSINESSES

GGNA-EXHIBIT D

TLC
PLUMBING & UTILITY

Lic# 51429

Karen Hudson, Chair
C/O Vincente Quevado, Planning Staff
Environmental Planning Commission
P.O. Box 1293
Albuquerque, New Mexico 87102

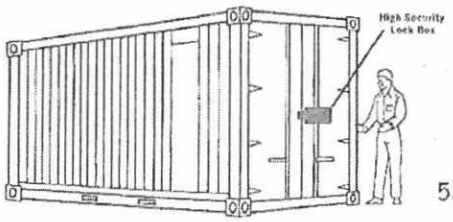
RE: Project No. 1010582/Remand from City Council

Dear Chair Hudson,

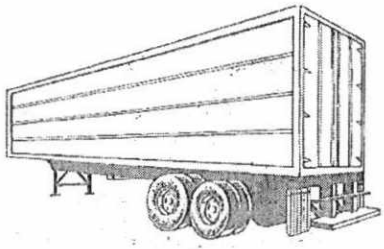
I am the owner of TLC Plumbing & Utility our property and business is around the corner from the proposed Waste Transfer Station. I am concerned about the Waste Transfer Station effecting the traffic flow in my area. I feel strongly that the heavy traffic and trash blowing around the area will decrease property values. I have 10 acres of vacant land just to the north of the proposed facility. My long term plan on that property is to build a business park. The proposed use will not be good for my properties utilization opportunities.

Sincerely,

Dale Armstrong,
President
TLC Company Inc.
505-761-5501
DArmstrong@tlcplumbing.com



MALOY
MOBILE STORAGE
535 Comanche Rd., NE, Albuquerque, NM 87107
Phone 505.344.6123 Fax 505.344.3351
www.maloystorage.com



Karen Hudson, Chair
C/O Vincente Quevado, Planning Staff
Environmental Planning Commission
P.O. Box 1293
Albuquerque, New Mexico 87102

RE: Project No. 1010582/Remand from City Council

Dear Chair Hudson,

I am the owner of Maloy Mobile Storage and our property and business is adjacent to the proposed Waste Transfer Station. My property will decrease in value 20% if permitted. It will be impossible or much more difficult to continue to operate my business because of the increase in traffic. Much of our business requires meeting potential customers outside and this would be within less than 100 feet of the idling trash trucks and private vehicles that are waiting to enter the building to offload. The increase in traffic will make access to my business more difficult and consequently I will lose business. The decrease in value will occur for the property because of the increase in traffic, the noise from the trucks idling, pollution they emit and blowing trash. I will be next door to a use that is undesirable because of noise, traffic, smell, rodents, etc.

The proposed solid waste transfer station at Edith and Griegos/Comanche will substantially hurt my small business.

Mary Beth Maloy

Mary Beth Maloy
President
Maloy Mobile Storage

GGNA-EXHIBIT D2

CENTRAL FREIGHT LINES INC

Karen Hudson, Chair
C/O Vincente Quevado, Planning Staff
Environmental Planning Commission
P.O. Box 1293
Albuquerque, New Mexico 87102

RE: Project No. 1010582/Remand from City Council

Dear Chair Hudson,

I am Michelle Worley with Central Freight Lines and we are located directly across the street from the proposed Waste Transfer Station. This property 505 Comanche will decrease in value substantially if permitted. It will be impossible or much more difficult to continue to operate Central Freight because of the increase in traffic. We may have to leave this property if the traffic increases to the level it will with the proposed Waste Transfer Station being within 75 feet. It will be mayhem with idling trash trucks and private vehicles that are waiting to enter the building to offload. The increase in traffic will make access to Central Freight more difficult and consequently we will lose business. The increase in traffic and congestion will make it unsuitable for Central Freight to do business at this location.

Michelle Worley

Michelle Worley
Property Manager
Central Freight

CONWAY

Karen Hudson, Chair
C/O Vincente Quevado, Planning Staff
Environmental Planning Commission
P.O. Box 1293
Albuquerque, New Mexico 87102

RE: Project No. 1010582/Remand from City Council

Dear Chair Hudson,

I am the owner of 567-C Comanche Lane N.E. and our property and business is adjacent to the proposed Waste Transfer Station. My property will decrease in value 9% if permitted. I will be much more difficult to continue to operate my business because of the increase in traffic. A lot of the business requires meeting potential customer outside and this would be within 60 feet of the idling trash trucks and private vehicles that are waiting to enter the building to offload. The increase in traffic will make access to my business more difficult and consequently I will lose business. The decrease in value will occur for the property because of the increase in traffic, the noise from the trucks idling, dust and because I will be next door to a use that is undesirable because of the noise, traffic, smell and rodents. Also will be hard to hire employees because of pollution as a lot of people have asthma conditions. I now have two key employees and I will lose their services.

Sincerely,

Guy Conway

567 C Comanche NE
Albuquerque, NM 87107

Phone (505) 344-6096
Fax (505) 344-6797

Collins Engine-Generator Service, Inc.

P.O. Box 6264
Albuquerque, NM 87197
Phone 505 720-9815
Fax 505 883-2785

Karen Hudson, Chair
C/O Vincente Quevado, Planning staff
Environmental Planning Commission
PO Box 1293
Albuquerque, NM 87102

RE: Project No. 1010582/Remand from City Council

Dear Chair Hudson,

I am the owner of Collins Engine Generator Service INC and our property and business is adjacent to the proposed Waste Transfer Station. My property will decrease in value of more than 20% if this project is permitted. It will be impossible or much more difficult to continue to operate my business because of the increase in traffic. Much of the business requires meeting potential customers outside and this would be within 25 feet of the idling trash trucks and private vehicles that are waiting to enter the building to offload. The increase in traffic will make access to my business more difficult and consequently I will lose business. The decrease in value will occur for the property because of the increase in traffic and the noise from the trucks idling. My place of business is located right next door and the undesirable amount of noise, traffic, smells, and rodents will cause a huge impact on the work environment. This will be a detrimental deterrent for my customer base.

Shannon Boles
Owner/President

STEPP'S CUSTOM
505-344-4447
4404 Edith Blvd. NE · Albuquerque, NM

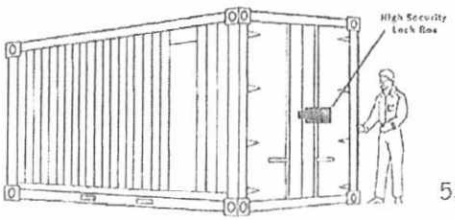
Karen Hudson, Chair
C/O Vincente Quevado, Planning staff
Environmental Planning Commission
PO Box 1293
Albuquerque, NM 87102

RE: Project No. 1010582/Remand from City Council

Dear Chair Hudson,

I am the owner of American Marine and our property and business is adjacent to the proposed Waste Transfer Station. My property will decrease in value of more than 25% if this project is permitted. It will be impossible or much more difficult to continue to operate my business because of the increase in traffic. Much of the business requires meeting potential customers outside and this would be within 10 feet of the idling trash trucks and private vehicles that are waiting to enter the building to offload. The increase in traffic will make access to my business more difficult and consequently I will lose business. The decrease in value will occur for the property because of the increase in traffic and the noise from the trucks idling. My place of business is located right next door and the undesirable amount of noise, traffic, smells, and rodents will cause a huge impact on the work environment. This will be a detrimental deterrent for my customer base.

Larry Stepp
Owner/President



MALOY
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535 Comanche Rd., NE, Albuquerque, NM 87107
Phone 505.344.6123 Fax 505.344.3351
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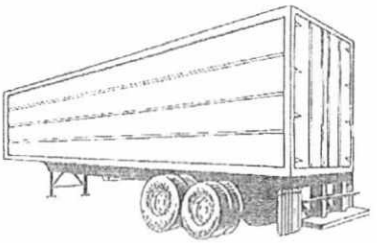

April 12, 2016

New Mexico Environment Department
Attn: Ms. Michelle Hunter, Bureau Chief
Ground Water Quality Bureau
1190 St. Francis Drive
Santa Fe, NM 87505

Dear Ms. Hunter,

My name is Mary Beth Maloy. I am the owner of Maloy Mobile Storage a business that sells and rents storage containers. My business is located at 535 Comanche which is adjacent to the City of Albuquerque, Solid Waste Maintenance Yards, located at the Southeast corner of Comanche and Edith, 4600 Edith Blvd., NE, Albuquerque, NM 87107. The site is approximately 22 acres.

1. I am concerned about soil and ground water contamination on and underlying the City's property, and the potential for the contamination to impact the environmental quality of my property.

2. Historically, the City's property was previously owned by N.C. Ribble & Co., a general construction firm that operated from the late 1950's to the late 1980's, when the City acquired the property for their Solid Waste Maintenance Yards. I don't believe the City of Albuquerque conducted an environmental assessment as part of their acquisition.

3. I understand that prior to the City's acquisition:

    a. Waste oil was regularly spread over the property to keep dust down.
    b. There was a large cleaning rack for steam cleaning large construction parts, and residue would flow from the cleaning rack to a large sand pit that was placed under the clearing rack.
    c. Sand from the pit was changed out with clean sand, but the old contaminated sand was moved to a secluded area of the property.
    d. Heating for the large N.C. Ribble *maintenance building* was floor radiant heating. Hot oil was the material used, instead of water that is commonly used today.
    e. Pipes/tubes transported the hot oil degraded, and hot oil leaked.
    f. When the City of Albuquerque acquired the property, instead of remediating the problem, they simply poured more concrete over the existing floor. I am particularly concerned about serious contamination *under* their maintenance facility because the ground water level was much higher in the 1960's thru the 1980's in the North Valley of Albuquerque; I am convinced that in addition to contaminating the soil, contamination most likely seeped into the ground water.

4. I am extremely concerned that my property is at risk for contamination because of:

    a. The history of activities that occurred on the property, prior to the City's acquisition, that could have contributed to soil and water contamination.
    b. A possibility of continued contamination on the City's property because of activities associated with the present day Solid Waste Maintenance Yard (which houses a fueling station, on-site

storage of many older garbage trucks in disrepair, a wash station for dumpsters and vehicle repair shop.)

5. The City of Albuquerque is seeking to ***substantially change*** the uses of the current site, into a complex that will house a large Transfer Station, Convenience Center, Re-use Center and Household Hazardous waste. In addition, the City plans to continue current activities associated with their Solid Waste Maintenance Yards. The Transfer station and Convenience Center will accept commercial and household was from all residents and business with in the City's geographical jurisdiction. Up to 2,500 tons of waste ***daily*** will be transported to, deposited, and transported from the Transfer Station by garbage trucks and semi-trucks.

6. I'm concerned the more intensive industrial uses associated with the Transfer Station and various Centers could compromise the environmental quality of my property.

7. If I decide to, I believe I will be unable to sell my property at market value if my property is contaminated because of the activities that are being conducted, or that have been conducted on the City's property. Other business in the area shares my concerns.

I respectfully request the New Mexico Environment Department, Ground Water Quality Bureau investigate soil contamination from the petroleum products and solvents, to ensure that the City's property is not contaminated, does not pose a threat to the environmental quality of my property and the properties of neighboring businesses, and has not contributed to ground water contamination of the immediate vicinity.

Mary Beth Maloy

Mary Beth Maloy
President
Maloy Mobile Storage Inc.

STEPP'S CUSTOM
505-344-4447
4404 Edith Blvd. NE · Albuquerque, NM

Larry Stepp

4404 Edith NE Alb NM 87107

Owner & Operator of Stepp's Custom and American Marine

Located directly in front of Solid Waste Management

Where the new transfer station and public dump have been proposed

I do not feel that I could continue my business of over 38 years serving the people of Albuquerque at this location. For many reason listed below:

- Health – Please reference the EPC report
- Noise
- Air pollution
- Traffic
- Rodents
- Black birds (crows)
- Diesel trucks running less that 10ft from my property and buildings
- Truck reverse bells all day
- Flies
- Water Run Off
- Fire hazards

Thank you for your time.

Owner/Operator
Larry Stepp

LETTERS FROM RESIDENTS CLOSEST TO TRANSFER STATION APPROXIMATELY 100 FEET

GGNA-EXHIBIT E

December 20, 2016

Mrs. Karen Hudson, Chair
Environmental Planning Commission
City of Albuquerque
P O Box 1293
Albuquerque, NM 87103

RE: **PROJECT # 1010582 EDITH TRANSFER STATION PROJECT-4600 Edith Blvd. NE**

Dear Chair Hudson:

I am writing you and your fellow Commissioners to implore you to reject the zone map amendment request for the Edith Transfer Station proposed Project.

I have lived at 4200 Edith NE-Apt B for two years and live less than 100 feet from the Solid Waste Departments yards.

The proposed more intensive use for this property will be harmful to my residence by the increased traffic, increased idling of large trucks, as well as private vehicles entering a convenience station. Bicycle traffic will also be adversely affected.

My neighbors and I already put up with a lot of noise odors and acrid odors. Now I am afraid that with up to 2,500 tons of garbage coming into the area, it will surely cause increased rodent and bird activity.

Design of the facility cannot mitigate rodents or bird activity. The City has never been a good neighbor to any of the residents of my area, in the years I have lived in the area. Public meetings have not been productive in producing design modifications.

This is inappropriate in an Urban area. It is one thing to have M-1 zoning all around me. It is quite another to have all of Albuquerque garbage coming into my living area, daily.

It seems like the little guy has to put up with the harmful, intrusive industries.

Please DENY THIS ZONE MAP CHANGE.

Thank you,

Gabriel Benavidez

GGNA-EXHIBIT E1

EXPERT OPINIONS CONCERNING HARM TO NEARBY PROPERTY

GGNA-EXHIBIT F

12/22/2016

Outstanding Agents.
Outstanding Results.®

Environmental Planning Commission
City Of Albuquerque
PO Box 1293
Albuquerque, NM

To Whom it may concern,

My name is John D. Padilla and I have been a Realtor with the Greater Albuquerque Association of Realtors for over 30 years, and have served as President for the Association in 2008. I currently have the Historic "Juan de Dios Chavez House", located at 205 Griegos NW, Albuquerque NM listed on the open market for sale to potential Buyers.

It is my understanding that the Albuquerque Solid Waste Department would like to locate a solid waste transfer station and collection yard on Edith. Locating the Transfer station this close to the Historic Property I have for Sale would have a negative impact of the Historic Value of this residence and create a major decline in the market value up to 15% or more of my clients asset.

I strongly oppose this development and voice my concerns on the impact this development will have for the area, the neighborhood and the Home Owners in this area.

Best Regards,

John D. Padilla
President of GAAR 2008
Owner/Broker
Re/Max Masters
6705 Academy Rd NE
Albuquerque, NM 87109
505-883-8979

GGNA-EXHIBIT F1

REALTY ONE of New Mexico

Ms. Karen Hudson, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Project #1010582 Edith Transfer Station project 4600 Edith Blvd. NE

Dear Chair Hudson:

My name is J. Edward Rael and I am a Licensed Real Estate Broker. I have been in the Albuquerque Metro Real Estate market for over 30 years, currently with Realty One of NM.
I have the property at 4404 Edith Blvd. NE listed for sale. It belongs to Mr. Larry Stepp.
We have had it on the market for the last five months and have had to reduce the asking price three times as we monitor the feedback from participating Realtors and potential Buyers.
We must disclose to all potential Buyers all that we know about the property that will affect the properties value whether it is positive or negative. We have had no "Serious" offers yet!
When we disclose the possibility of a City Waste Transfer Station/Convenience Center on the adjacent property the interest in the property diminishes greatly. The General Public will not invest in a property that has great potential to decrease in value. Whether the adjacent property becomes a Transfer Station or not, the Media has exposed it as a good possibility and this has already caused Mr Stepp to loose a large portion of his retirement investment that is in this property.
In my Professional Opinion I feel that any and all of the Commercial Properties in this immediate area will suffer a substantial decrease in value if the City implements a Waste Transfer Station here. The additional Dump Truck congestion, noise and exhaust along with the smell of garbage, additional rodents, etc will not complement any business in the area. This proposed use of the adjacent property is far above what normal operations would or should be in a designated M-1 Zoned area.
Also the Residential Apartments nearby may not be fit for habitation due to environmental hazards that will occur.
As a Professional Realtor, Citizen and former North Valley Resident I oppose this "Special Use" for this property as it will cause an unjust and undue burden for all of the neighbors in this area.

J. Edward Rael 12/21/2016

J. EDWARD RAEL
NMRL # 16011

J. EDWARD RAEL
ASSOC. BROKER
REALTY (1) ONE OF N.M.
505) 550-7235
505) 883-9400

870333 Agent Detail Report - Commercial Active — **4404 Edith Boulevard NE, Albuquerque, NM 87107** — **$399,500**

Area:	101 - Near North Valley	**Apx Structured SqFt:**	4,100	**On Market Date:**	07/06/2016
Zone Atlas:	G15	**Lot SqFt:**	16,117.2	**Expiration Date:**	07/05/2017
County:	Bernalillo	**Price/SqFt:**	97.44	**SqFt Source:**	Floorplan
Acres:	0.37	**Lot Size Source:**	On-Line	**Apx Lot Dim Side:**	155
Lot Description:	RECTANGLE, FLAT			**DOM/CDOM:**	167/167
Apx Lot Dim Front:	100				

DAYS ON MKT 167

Legal Desc:

Total # Stories: 1
 # Parking Spaces: 20
Property Sub-Type: Industrial Buildings
Disability Access: No
Docks: No

# of Docks: 0
HVAC: No
Occupancy: Owner Will Vacate
% Occupied: 100
Transaction Type: Sale
Lease Term/Months: 0

Cooling: Evaporative
Construction: Frame,Metal
Docs/Data Available: Disclosure Statement
Exterior Material: Metal Siding
Features: 220 Power,Security Lighting
Heating: Gas

Lease Information: Other - See Remarks
Location: Freestanding,Industrial Center
Property Access: Paved Road to Prop,W Property Line
Parking: Onsite
Showing Instructions: Appt w/Owner,Appt W/Listing Brkr,See LO/SO Remarks

Sales Info: FIRPTA: No,Trade/Xch Considered: Yes
Trade/Xch Terms: Trade for Home (L),Trade for Other RE,Trade for Pers Prop
Utilities: All City
Zoning: M-1

Finance Considered: Cash To Owner,Owner Financing,Other - See Remarks
Miscellaneous: Land Ownership: Land Owned
Income & Expenses: Annual Oper Expenses: 0; Annual Gross Income: 0; Lease Term/Months: 0

Directions: FROM I-40 AND 2ND ST. HEAD NORTH TO CANDELARIA AND TURN EAST TO EDITH. TURN NORTH ON EDITH TO 4404 ON RIGHT. IF YOU REACH GRIEGOS YOU ARE A BLOCK TOO FAR.
Prop Specific Rmks: PRICE REDUCED !!!GREAT VISIBILITY FROM BUSY STREET. BUSINESS IS RELOCATING. LARGE SHOP FOR MAINTENANCE OR REPAIR WITH SMALL HOUSE IN FRONT FOR OFFICE, STORAGE OR SECURITY. MAY CONSIDER OWNER FINANCING AND/OR TRADE FOR INCOME PRODUCING PROPERTY OR NORTH VALLEY HOME WITH LARGE LOT. POSSIBLE LEASE/PURCHASE! THE SHOP IS 3150 SQ.FT. AND THE HOUSE IS 975 SQ.FT. AND ALL SQUARE FOOTAGES AND ZONING TO BE VERIFIED BY SELLING BROKER PRIOR TO CLOSING. PROPERTY IS BEING SOLD IN "AS IS" CONDITION. SMALL HOUSE IN FRONT COULD BE OFFICE. OWNER WILL VACATE AT CLOSING.
LO/SO Remarks: CALL LARRY STEPP TO SHOW (ALLOW 24 HOUR NOTICE). LARRY 344-4447 OR EDDIE RAEL 550-7235 S/O TO VERIFY ZONING, LOT AND BLDG. SIZES BEFORE CLOSING. PROPERTY IS BEING SOLD IN "AS IS" CONDITION. POSSIBLE LEASE/PURCHASE.
Showing Instructions: Appt w/Owner; Appt W/Listing Brkr; See LO/SO Remarks

Owner Name: Larry F Stepp
Owner Phone: 505.344-4447
Owner Phone 2: 550-7235
Owner/Broker: No

Listing Member: J Edward Rael
Phone: 505-550-7235
Email: fast505eddie@aol.com

Listing Office: (RONM05)Realty One of New Mexico
Phone: 505-883-9400
Fax: 505-883-5605

UPC Code: 101506021933131748
Apx Taxes: 2,941.88

Tax Exemption: Unknown
Variable Rate Comm: No

Flood Zone: Unknown
Unconditional Comp: 3%
Buyer Exclusion: No

Original List Price: 599,950
Agreement Type: Exclusive Right To Sell
Service Type: Full Service
Status Change Date: 07/06/2016
On Market Date: 07/06/2016
Listing Date: 07/05/2016
Expiration Date: 07/05/2017
Prepared By: jedrael

Information is deemed to be reliable, but is not guaranteed. © 2016 MLS and FBS. Prepared by J Edward Rael on Tuesday, December 20, 2016 3:24 PM. The information on this sheet has been made available by the MLS and may not be the listing of the provider.

GGNA-EXHIBIT F3

Photos for MLS # 870333 4404 Edith Boulevard NE, Albuquerque, NM 87107 $399,500

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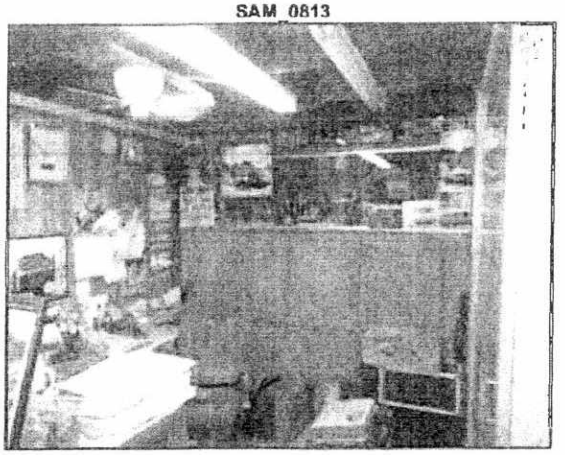
SAM_0813



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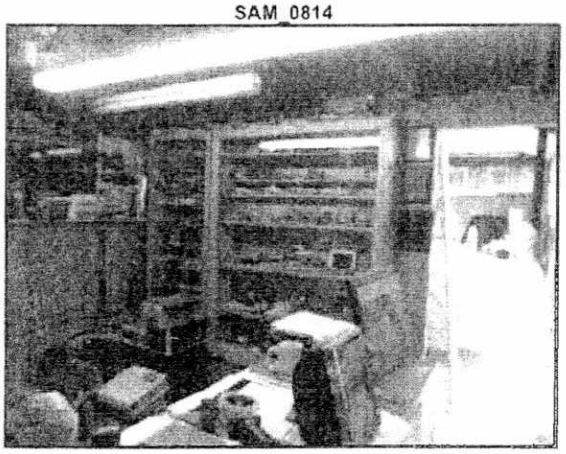

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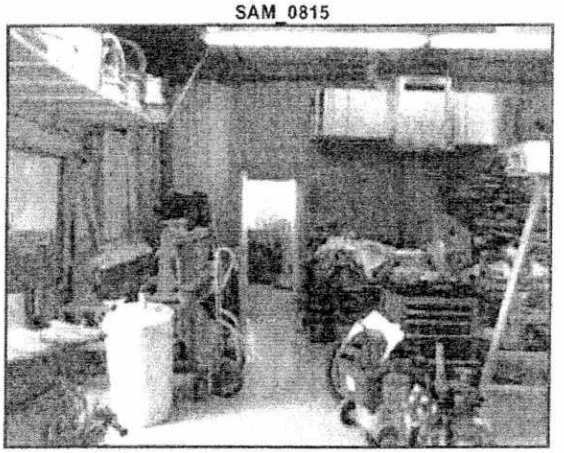

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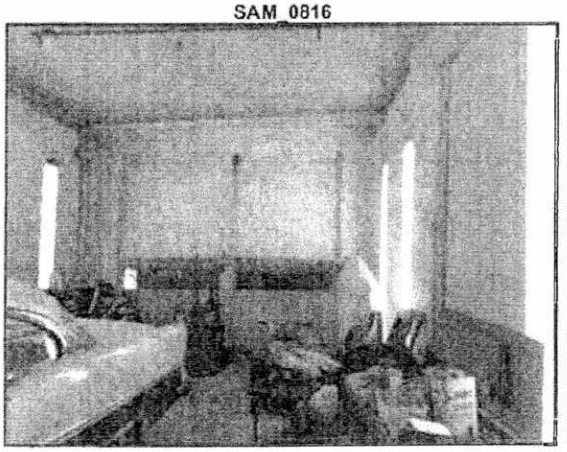

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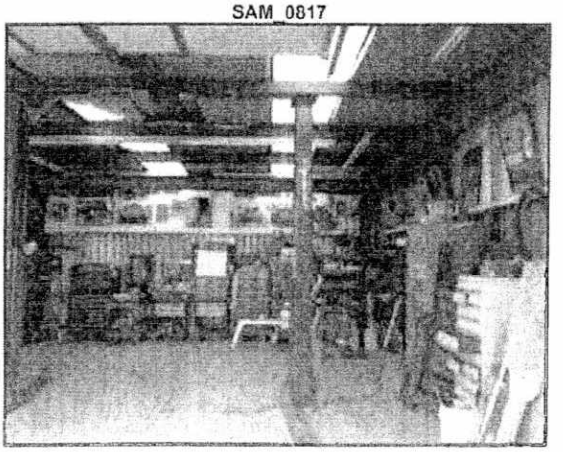

GGNA-EXHIBIT F4

MLS # 870333 4404 Edith Boulevard NE, Albuquerque, NM 87107 $399,500

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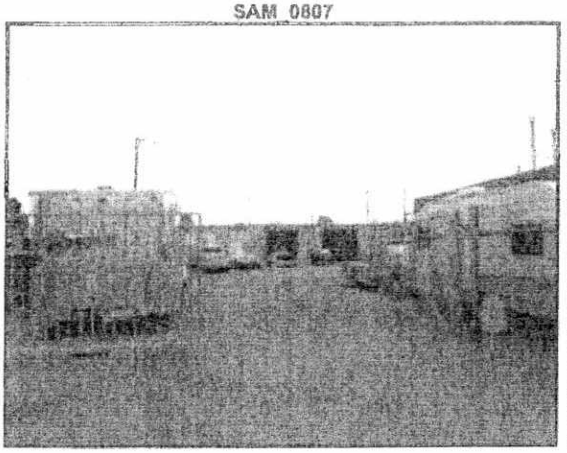

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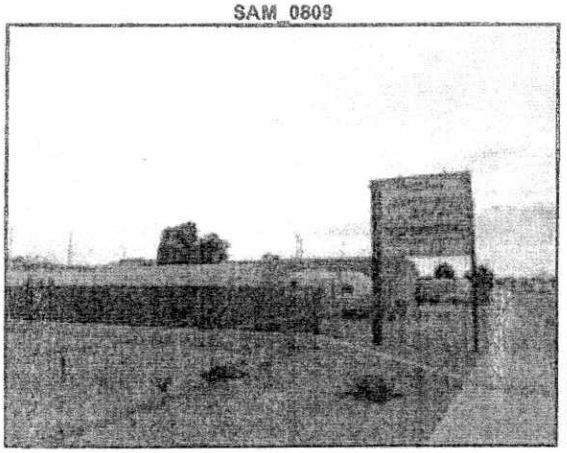

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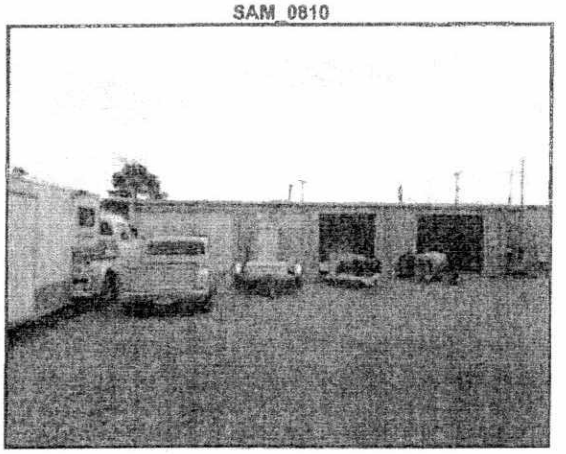

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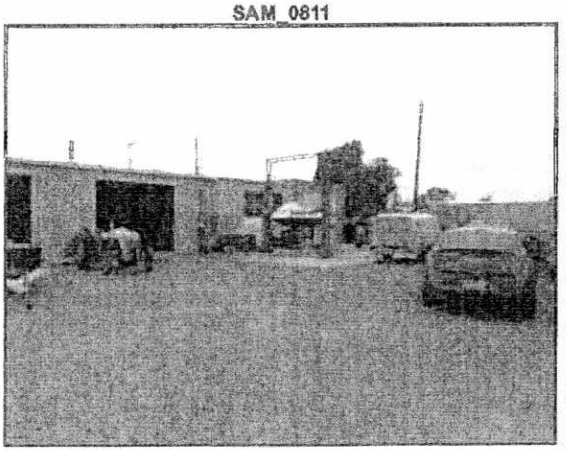

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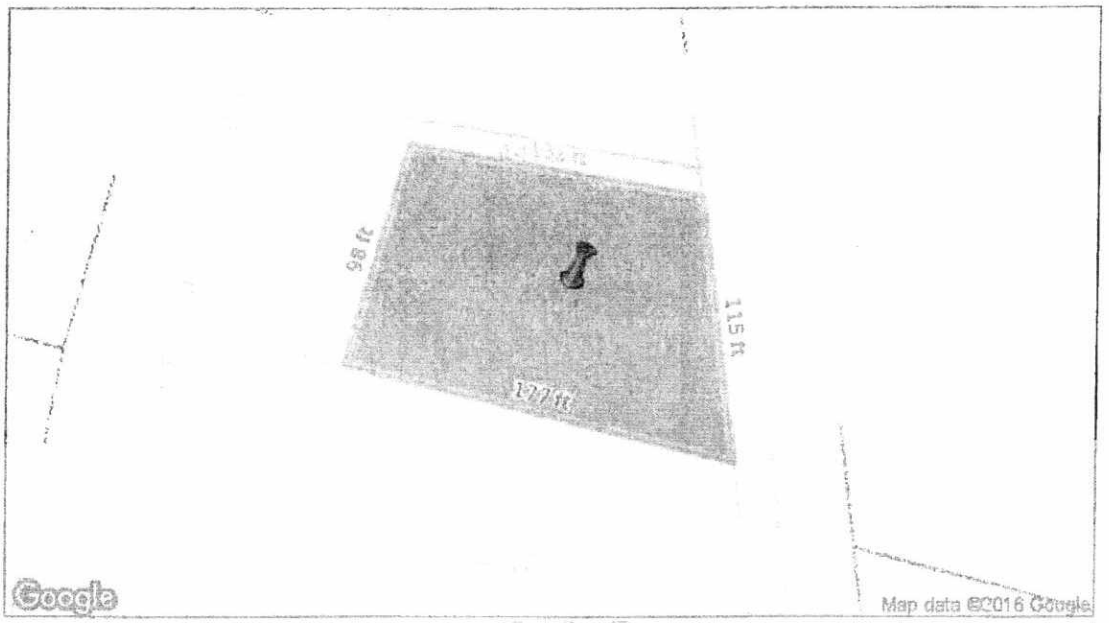
GGNA-EXHIBIT F5

Street Map for MLS # 870333 4404 Edith Boulevard NE, Albuquerque, NM 87107 $399,500



GGNA-EXHIBIT F6

INTEGRATED WASTE MANAGEMENT PLAN

GGNA-EXHIBIT G

EXECUTIVE SUMMARY

ALBUQUERQUE INTEGRATED WASTE MANAGEMENT PLAN

1.0 BACKGROUND

In May of 2008 the City of Albuquerque's Solid Waste Management Department (SWMD or the Department) began development of an *Integrated Waste Management Plan* or *IWMP*. The IWMP was pursued by the Department as an important planning tool for attaining the aggressive waste reduction / recycling (often referred to as diversion) goals of the Albuquerque City Council and Mayor. The IWMP examines both distinct solid waste practices – such as collection, disposal, and recycling – as well as how those individual elements interact as pieces of a larger management system. Analysis and assessment of how the system functions are intended to avoid the adoption of contradictory programs and policies. This perspective helps insure that near – term decisions support long – range priorities.

The IWMP reviews the current status of the City's solid waste management system including operations, rates and facilities to provide a clear understanding of the Department and its services. This also includes consideration of the City's broad environmental policy goals and priorities as they impact solid waste and performance objectives established for the Department.

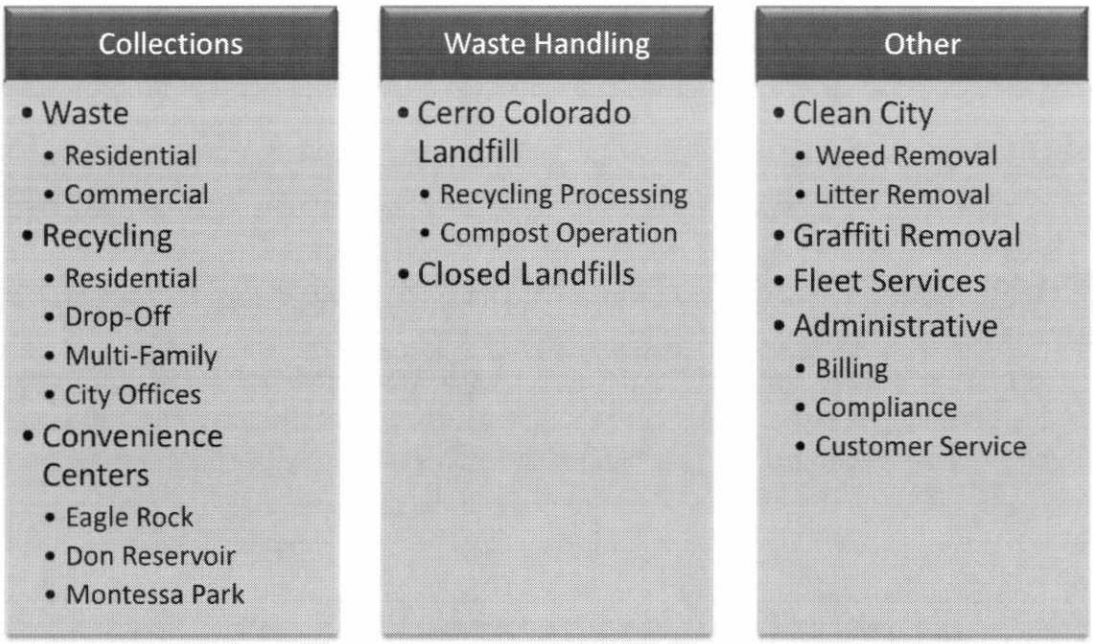
This initial system assessment produces a series of findings which demonstrate both the merits and the challenges of the existing solid waste program. These findings should be viewed as the "outcomes" or results of existing Department operations, policies, services, and procedures as presently implemented.

Finally, the IWMP offers recommendations consistent with the City's goal / priority of ending reliance on landfill disposal of solid wastes and significantly increasing diversion through various types of waste reduction / recycling initiatives.

2.0 CURRENT CONDITIONS

The City of Albuquerque's Solid Waste Management Department operates a diverse range of services, facilities, and programs. Of particular importance is the fact that the Department collects and disposes of all residential and commercial refuse generated in the City of Albuquerque. Operations for disposing, recycling, and composting are also maintained directly by the Department. This vertical integration equates to control over the flow of waste based on prevailing policy guidance and access to a large rate base for equitable distribution of costs through rates charged to customers. The figure below summarizes the scope of services, facilities, and programs that make up the City's solid waste management system.

Figure 1 – *Department Inventory*



2.1 RATES

As an *Enterprise Fund* the Department is obligated to cover all costs associated with the services, facilities, and programs noted above through revenues derived from rates paid by residents and businesses. For example, households receive a monthly bill for collection of waste and recyclables. The residential rate also incorporates fees for numerous other services as detailed in Table 1 below. It is noted that all households are charged for pickup of recyclables regardless of whether they participate in this service or not. Table 2 shows fees at the three convenience centers / transfer stations and Table 3 contains rates charged to users of the Cerro Colorado Landfill.

Table 1 - *Residential Rate Summary*

Service Class		Rate
1. Refuse Collection		$8.18
2. Recycling Collection		$1.89
3. Environmental Services		$0.68
Household Hazardous Waste	$0.22	
Dead Animal Pickup	$0.03	
Bonds / Characterization Study	$0.24	
Old Landfill Monitoring / Methane Gas	$0.09	
Clean – up of Old Landfills	$0.10	
4. Clean City (Graffiti, Weeds and Litter)		No Charge
5. 2 + Electronic Waste Recovery Events Yearly		No Charge
6. Large Item Pickup (unlimited)		No Charge
7. 2 Yard Waste Pickups/Year		No Charge
8. Landfill Disposal		No Charge
Total Monthly Residential Rate		$10.75
Plus Floating Fuel Charge & Tax		

The residential rate for waste and recycling does provide revenues commensurate with the cost of collections. It does not however, support the costs associated with the disposal of collected wastes and the several ancillary services provided to residents. For example, the provision of *Large Item Pickup* services at no charge to the user means the Department does not recover any fees to offset the costs of this service.

Table 2 - *Convenience Center Rate Summary*

Service Class	Unit	Rate
Residential Waste	Per Load (up to 4' x 8' x 2')	$3.47
Commercial Waste	Per Load (up to 4' x 8' x 2')	$9.08
Unsecured Load		$5.54

The rate structure at the convenience centers does not yield enough revenue to make this part of the Department's overall solid waste program self – supporting. A user with one or two bags of trash will pay the same fee as someone with a fully loaded pick – up truck. Thus the rates do not reflect the actual cost of the provided services and are being subsidized by other components of the system. It is also emphasized that neither the monthly residential rate nor the convenience center rates provide financial

incentives for waste reduction / recycling. In fact, they actually do the reverse by making disposal cheap and convenient.

Table 3 - *Cerro Colorado Landfill Rate Summary*

Service Class	Unit	Rate
Municipal Solid Waste	Per Ton	$28.55
Special Handling	Per Ton	$37.96
Petroleum Contaminated Soils	Per Ton	$25 – $45
Tires	Per Ton	$110.93
Hauling Permit Fee*		$12.00

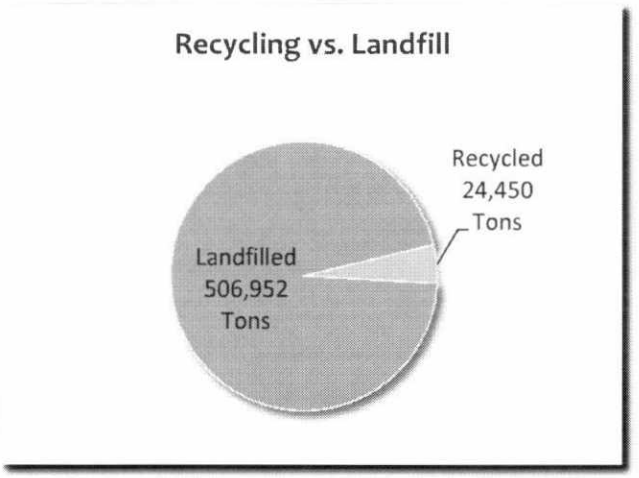
***Required on an annual basis for all commercial waste haulers using Cerro Colorado Landfill**

It should be pointed out that the fee for municipal solid waste is only assessed on material delivered by private parties, not SWMD vehicles. This material accounts for less than 30% by weight of all waste received at Cerro Colorado Landfill, with the balance being delivered by City crews. That 70% or more of the waste is disposed without any fee for service is another clear indication that some system functions are being substantially subsidized by other rates.

2.2 WASTE VOLUMES

Nearly 507,000 tons of garbage collected by SWMD personnel were landfilled in Fiscal Year 2008. City recycling activities diverted 24,450 tons from disposal for the same period. The diverted tonnage includes recyclables from single–family homes, apartment buildings, community drop–off centers, the convenience centers, City offices and such materials as electronic waste, yard waste, Christmas trees, scrap metals, and appliances. The Department's *Diversion Rate* is approximately 5%, as compared to a national average of 32% and a New Mexico average of 9%. The diversion rate is calculated according to the following formulas:

Figure 2 – *Current Diversion*

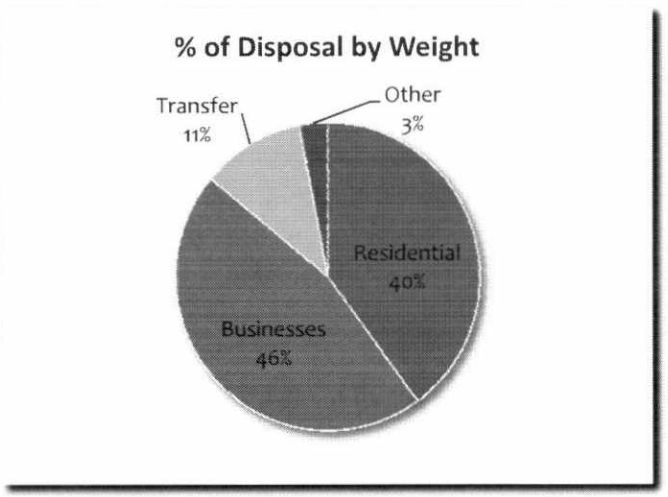


Waste Generated =
Tons Disposed + Tons Recycled

and

Diversion Rate =
Tons Recycled / Tons Generated

Figure 3 – *Waste Sources*

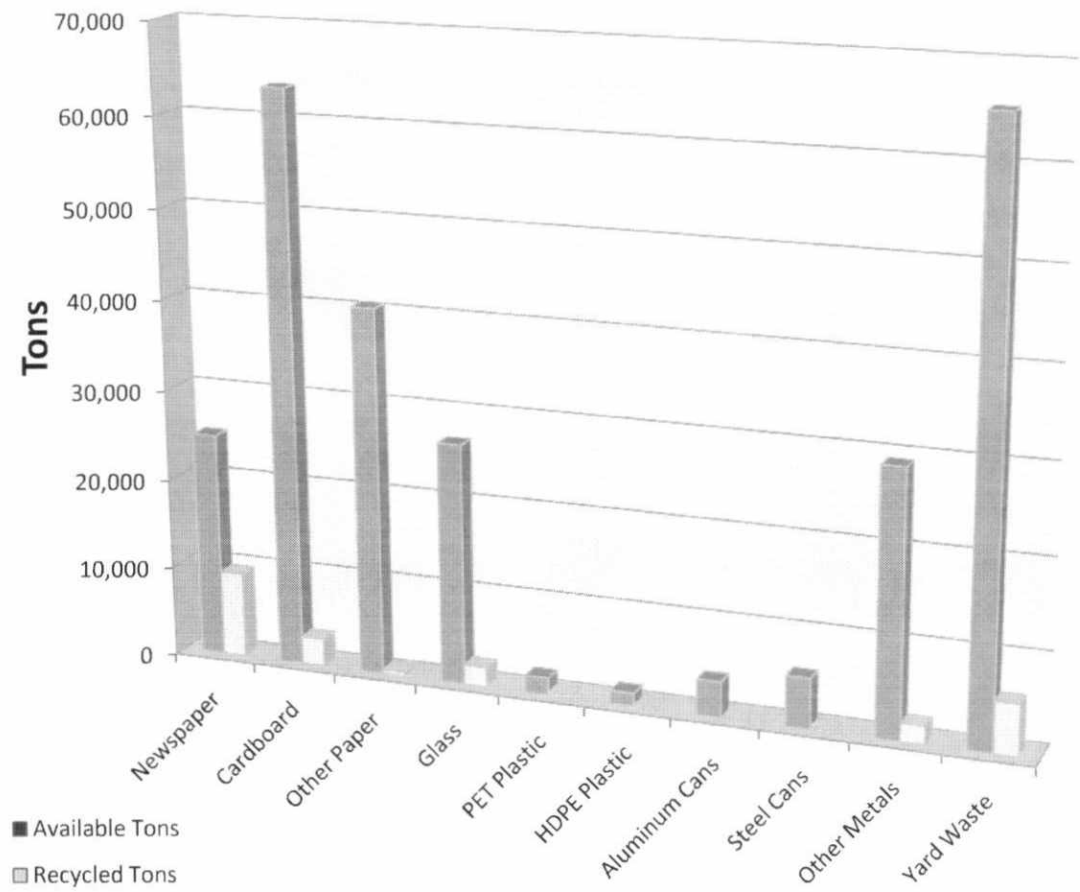


Of the 507,000 disposed tons about half comes from commercial businesses in Albuquerque and half from residents, since it is believed they make up a substantial portion of those that use the convenience centers / transfer stations.

With only a 5% diversion rate Albuquerque has ample opportunities to expand its recycling efforts for a wide variety of materials, as demonstrated by the figure which follows. The chart identifies actual volumes recycled by the Department in 2008 (in light green) and

the forecasted generation, or available quantities (in dark green) of each material based on US EPA statistics. The table accompanying the graph provides recovered and available tonnages for each material.

Figure 4 – *Diversion Opportunities*



	Newspaper	Cardboard	Other Paper	Glass	PET Plastic	HDPE Plastic	Aluminum Cans	Steel Cans	Other Metals	Yard Waste
Available Tons	24,936	63,410	40,552	26,631	1,896	1,432	3,914	5,548	29,133	65,367
Recycled Tons	9,432	3,086	445	2,196	286	257	77	259	2,032	5,693

Total Predicted Available Tons for Recycling 262,819

3.0 FINDINGS

After reviewing the existing operating services, facilities, programs, and policies of the Department, specific issues of concern and overall system strengths / weaknesses were identified. This analysis focused primarily on waste diversion since it is the stated goal / priority of the Department and the City of Albuquerque's elected leadership.

3.1 Solid Waste System Strengths

The following matrix highlights the positive assets of the Department. These system strengths provide a sound platform or foundation from which the SWMD can launch new and expanded diversion activities and make materials handling methods more efficient. As part of the goal of waste diversion, two interim objectives have been adopted - 26% diversion by 2010 and 40% diversion by 2015.

Figure 5 – *System Strengths*

Policy	Operations	Other
• Goal of Waste Diversion • Council Adopted Sustainability Goals • City Control of Waste Flow • Political and Managerial Leadership	• Commingled Collection of Residential Recyclables • Internal Recycling Collection Efforts • Multi-Family Recycling Ordinance • Drop-Off Glass Collection	• Private Sector Partners • Large Rate Base

3.2 Weaknesses

Albuquerque's solid waste management system has several notable weaknesses or challenges to overcome through a phased implementation sequence if diversion is to reach the 26% level in 2010 and 40% level in 2015. These weaknesses / challenges are listed below.

Figure 6 – *System Weaknesses*

The City's and the Department's expressed solid waste goal / priority is to greatly increase waste reduction / recycling, and in that regard several discrete but somewhat disconnected actions and policies have been undertaken, as portrayed in Section 3.1. However, there are many other factors that characterize the current system (noted in the matrix above) which seriously constrain the level of diversion. In essence, these factors make it possible for residents and businesses in Albuquerque "to dispose of practically anything for practically nothing" while at the same time making recycling options difficult and inconvenient to access. The recommendations presented in the next section are designed to address these system weaknesses in a step – by – step and comprehensive manner.

4.0 RECOMMENDATIONS

The conclusions from the evaluation of Albuquerque's solid waste management system are the basis of recommendations to the SWMD for improving operating efficiencies and advancing diversion. The recommendations are guided by the broad goal / priority of waste diversion from landfilling and would be implemented in stages. A dual strategy for change is advocated that simultaneously modifies existing operations and develops capital–intensive infrastructure resources necessary for the Department to pursue waste diversion as its new, primary responsibility.

Recommendations are initially categorized according to whether they have minimal associated capital costs or moderate to significant associated capital costs. These two classes of recommended improvements are further divided by suggested timeframes for their implementation, as follows: Immediate Term – 2010 to 2012; Mid Term – 2012 to 2015; Long Term – 2015 to 2020. The matrix below identifies several of the central recommendations and their position relative to these timeframes. Discussion of selected recommendations is then presented.

Figure 7 – *Recommendations Matrix*

Minimal Capital Cost Impact Immediate Term / 2010-2012
• Development of Permanent Education & Outreach Program Including Staff
• Rebranding of Department
• Establishment of Diversion Division w/in Department
• Promotion of *Back Yard Composting*
• Internal Auditing of All Commercial Accounts
• Analysis of Potential Sites for Transfer & Recycling Facility Development
• Convenience Center Operational Efficiency Analysis
• Adoption of Equal Space Requirement in Development Code for Storage of Recyclables
• Edith Yard Operations Efficiency Analysis
• System-Wide Rate Analysis
• Rate Setting Procedure Adoption

4.1 Minimal Capital Cost Impact – Immediate Term/2010-2012

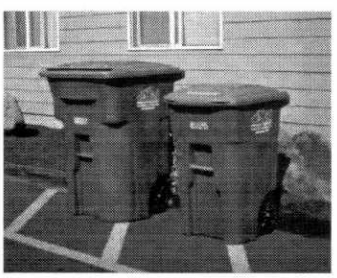
- ***Education and Outreach Program:*** Regardless of adopted system improvement, the Department must establish a program to inform customers of the services offered by the Department. This effort should include the designation of one or more FTE's to produce programs, materials and resources to support the Department's existing and future goals.
- ***Rebranding***: The Department's shift in focus from disposal to diversion should be reflected in a revised Mission Statement and emphasized in internal communications with employees and external communications with the public and targeted stakeholders.
- ***Diversion Division***: A new, separate organizational unit should be established within the Department – the Diversion Division – to clarify and centralize the operations of facilities, services, programs, and related policies connected with diversion.
- ***Convenience Center Analysis***: Allocation / utilization of enclosed space and surrounding land at the two largest convenience centers – Eagle Rock and Montessa Park – along with low rates, now favor maximizing customer access for disposal of trash. This situation needs to be thoroughly evaluated so these facilities function much more efficiently and serve as aggregation / transfer points for both refuse and recyclables. Yard waste could also be collected, stored on – site, and then transported in bulk quantities to the composting operation adjacent to Cerro Colorado Landfill. Availability of these two convenience centers should be structured according to day, time, entry / exit points, type of waste stream, and variable user charges to promote diversion rather than disposal.

- ***Equal Space Building Codes***: Building development codes should be revised to include equal space for recycling storage containers in addition to those for garbage. Adoption of an equal space requirement in the development code for designated new buildings would address a common barrier to recycling in commercial, institutional, and industrial settings as well as multi – family dwellings.

4.2 Moderate to Significant Capital Cost Impact– Immediate Term/2010-12

- ***Development of New Materials Recovery Facility (MRF):*** Prior to any effort for expanding diversion the City must develop new processing / marketing capacity for recyclable materials that is more centrally located. The City's Intermediate Processing Facility at the Cerro Colorado Landfill has limited ability to handle more tonnage due to aging equipment and space constraints. It is recommended the City proactively seek a public / private partnership where a for–profit company with a proven track record in the recycling industry establishes a processing facility in Albuquerque to support the City's collection efforts. The MRF should be capable of processing a variety of recyclable material streams from households and businesses, especially those where recyclables are commingled or mixed together. This approach has proven to be very successful in communities across the country and very recently in El Paso, TX, Denver, CO and Phoenix, AZ. To expedite such a strategy the City will need to issue a Request – for – Proposals (RFP) for these services and complete a procurement process in the near future. The new MRF should be ready to accept materials once city–wide collection of commingled residential recyclables begins (see ***Cart–Based Residential Recycling*** below). The RFP would establish the terms of the proposed partnership as well as identify the basic needs of the City.

- ***Pay–As–You–Throw (PAYT) or Variable Residential Rates***: In order to provide clear incentive for residents to "reduce, reuse, recycle", the City must revise its rate structure. A PAYT or Pay–As–You–Throw rate model charges customers on a volume or quantity basis. Much like other utilities, the consumer pays for only the level of service they use. It is recommended that households be offered either a 48 or 96 gallon refuse cart with a rate difference between these two options that provides a financial incentive for diversion. As well, the cost for a second cart should be equal to or greater than the first cart price. This policy would reverse the disincentive for waste diversion that now exists because an additional cart actually costs less.

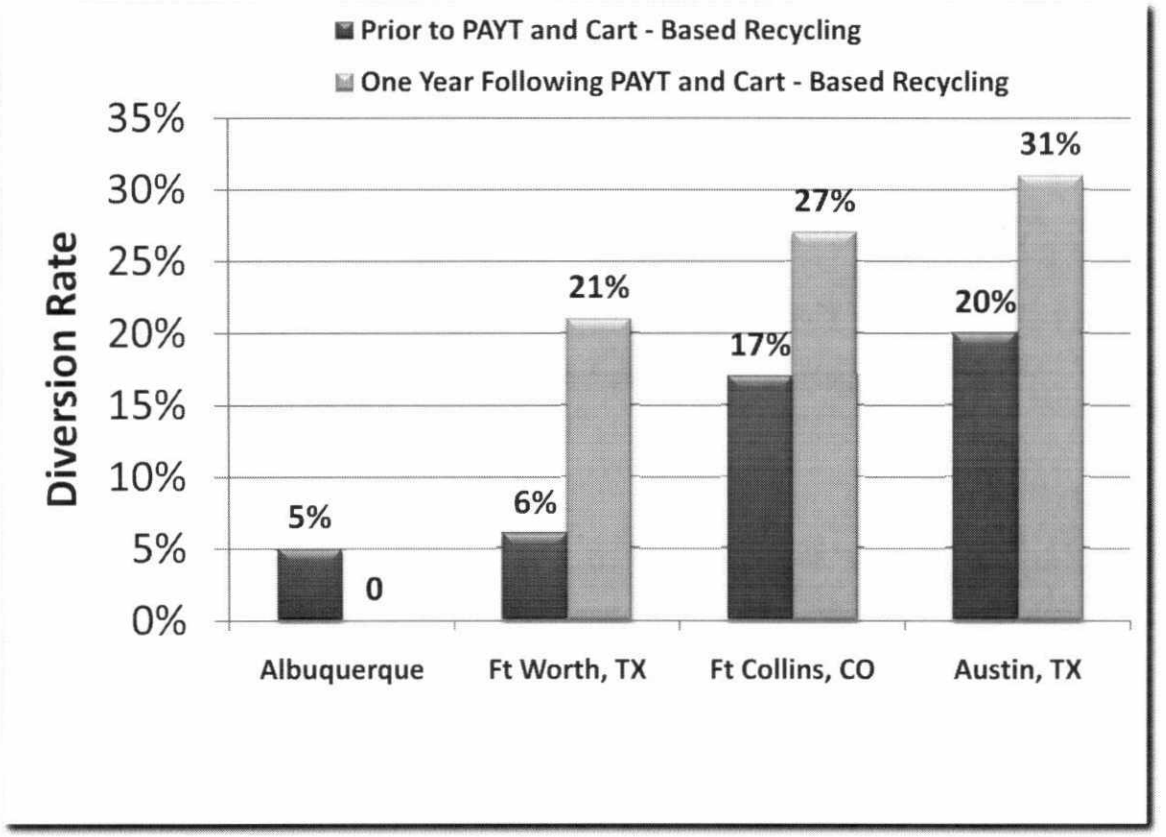


- ***Cart–Based Residential Recycling***: In conjunction with a PAYT rate structure the City must provide convenient and universal access to residential recycling service. A cart – based collection system for recycling provides residents with a simple and easy to use recycling program through

which they can divert their waste away from the landfill. With a cart, all recyclables can be commingled together, with the exception of glass which contaminates other materials due to breakage. Glass would continue to be recovered through the Department's network of community recycling drop–off centers. It is recommended each single–family home receive a 64 gallon cart for storage of mixed recyclables that would be collected weekly. When paired with PAYT, cart–based recycling has proven to be a very effective tool in attaining high diversion rates.

The graph below depicts the impacts on diversion rates following the implementation of both a PAYT rate structure and cart - based residential recycling. The diversion rate prior to the start of these programs is represented in blue and the rate after one year of program utilization is presented in green. All programs experienced significant increases in their respective diversion rates. Assuming Albuquerque vigorously promotes PAYT / Cart Based Recycling, similar results could be expected

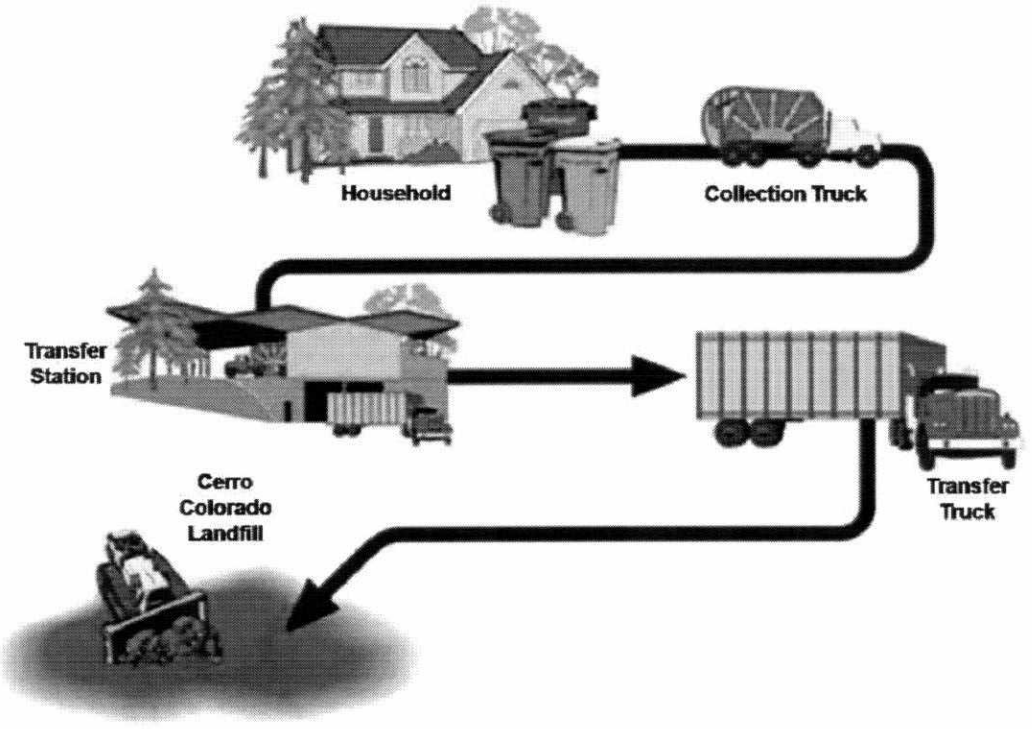
Figure 8 – *Impact of PAYT and Cart – Based Recycling*



4.3 Moderate to Significant Capital Cost Impact – Mid Term/2012-15

- ***Development of New Transfer Station:*** Current SWMD operations require that solid waste collection vehicles transport waste directly to the Cerro Colorado Landfill. These trucks are designed for collection and their co–use for long–haul transport purposes presents many problems. Foremost is unnecessary wear on the vehicles as roundtrip to the landfill requires an additional 60 to 100 miles per day of driving. The second issue of concern is lost efficiency. The time spent driving to the landfill and back is time the vehicle is not performing its primary duty, collecting waste. A new central transfer station would allow these vehicles to significantly reduce their daily mileage while also allowing them to spend more time on route collecting waste. Thus route size for refuse could be expanded potentially making trucks available for recycling collection. The new facility would also provide another refuse and recyclables drop–off point for residents and businesses. Finally, given enough land, a new transfer station could be the basis for siting enhanced management and diversion operations for such material streams as yard waste, wood waste, electronic waste, scrap metals and appliances, construction and demolition debris, household hazardous waste, and a reuse / repair exchange. The ultimate result would be a multi – faceted Resource Recovery Park.

Figure 9 – *Transfer Station Flow Diagram*



4.4 Rate Implications of Residential Recommendations

The cost ranges noted below are based on actual costs for delivery of services. The City can also choose to adjust rates for the purpose of accomplishing policy priorities. For example, the rate difference for use of a 48 versus 96 gallon refuse cart could be increased beyond what is indicated by the cost of service resulting in a substantially greater cost for the larger cart. This would provide additional economic incentive for recycling.

Figure 10 – *Estimated Rate Components*

Figure 11 – *Estimated Rate Summary*

	Program Option	48 Gallon Trash Cart	96 Gallon Trash Cart
Weekly Trash Collection	PAYT Rates with Current Recycling	$10 - $11 per month	$12 - $13 per month
	PAYT with Weekly Cart Based Recycling	$12 - $13 per month	$14 - $15 per month
	PAYT with Every Other Week Cart Based Recycling	$11 - $13 per month	$13 - $15 per month

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Technical Appendices II – see separate Table of Contents

1.0 Introduction and Overview

The 2002–2006 Vision Statement adopted by the Albuquerque City Council contains Five Year Goals and related Desired Community Conditions. Of particular relevance to the City's Solid Waste Management Department (SWMD or the Department) is Goal Statement 5 concerning "Environmental Protection and Enhancement" and Desired Community Conditions 3 and 5 (see Appendix I – A):

- # 3 / Solid wastes are produced no faster than natural systems and technology can process them.

- # 5 / Residents participate in caring for the environment and conserving natural resources.

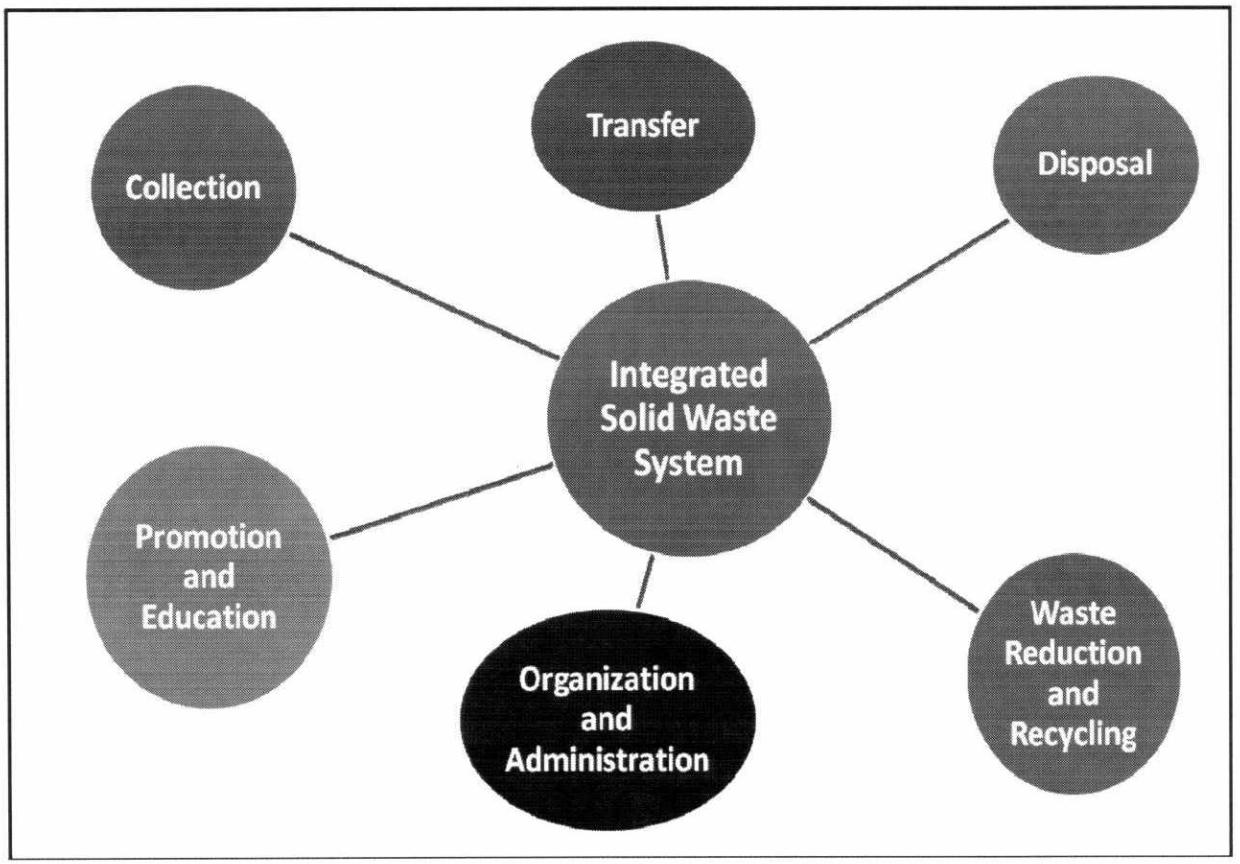
In addition, the City's primary solid waste goal / priority is to divert waste from landfill disposal as a waste management method. Two interim objectives have been defined as benchmarks for accomplishing this goal / priority – a 26 % recycling or diversion rate by 2010 and a 40 % recycling or diversion rate by 2015. This goal / priority is part of a broader, multi–faceted initiative called "Sustainable Albuquerque" or "Albuquerque Green".

Finally, the most recently adopted Fiscal Year 2009 administrative performance objectives for the Department call for completion of an Integrated Waste Management Plan (IWMP) containing recommended measures for realizing the goal / priority of waste diversion.

Thus this IWMP is guided by the unified set of policies noted above that have been set forth by the City Council and Mayor.

The Solid Waste Management Department directly operates all aspects of the refuse and materials handling system as portrayed in Figure 1– collection, transfer and transport, recycling, disposal, promotion and education, organization and administration.

Figure 1 – General Solid Waste System Components



However, while the SWMD has virtually total control over the waste stream through its vertically integrated combination of services and facilities, the system is overwhelmingly oriented toward disposal at the present time.

The purpose of the Integrated Waste Management Plan is to decisively reverse that orientation in favor of waste reduction, reuse, repair, recycling, composting and other forms of diversion consistent with the goal / priority of waste diversion. Pursuit of the waste diversion goal / priority will require a series of coordinated, cooperative efforts between the Department and the private sector over the short–term (2010 to 2012), mid–term (2012 to 2015), and long–term (2015 to 2020) to accomplish the following:

- Chart a transition in system purpose from waste disposal to resource conservation / utilization by diverting materials from disposal.

- Improve and expand waste reduction / reuse / recycling in City buildings, facilities, and operations.

- Increase the convenience and accessibility of diversion opportunities for residents, businesses, and institutions.

- Implement a combination of policy, economic, and possible regulatory incentives to encourage participation in diversion programs.

- Make significant capital investments in infrastructure for transfer and transport of refuse, collection / processing / marketing of recyclables, and other types of diversion opportunities.

- Work more closely and formally in partnerships with local and regional private companies that collect, process, market, and use recyclables.

- Establish procedures for regularly monitoring and tracking progress toward eliminating landfill disposal.

This IWMP identifies the strengths and weaknesses of the existing solid waste management system. It then recommends programs, policies, and

facilities to address system needs and gaps in order to achieve goals / objectives / priorities.

2.0 Solid Waste Management Department – Profile of Operations and Assets

Table 1 describes the various services and facilities operated by the SWMD that make up the City's solid waste management system (see next page).

Table 1 – SWMD Facilities and Services

System Element	Notes and Comments
1 / Cerro Colorado Landfill	• Located about 20 miles southwest of downtown Albuquerque • Trash trucks drive to landfill directly from routes • Capacity until 2037
2 / Residential Waste Collection	• 173,000 households served weekly • Use 95 – gallon cart with automated pickup • Base, flat rate for 1 cart; 2nd cart is cheaper than 1st
3 / Commercial Waste Collection	• Service levels & rates vary based on # / size of containers, frequency of pickup
4 / Transfer Stations / Convenience Centers	• 3 – Eagle Rock (north side), Montessa Park (south side), Don Reservoir (west side) • Serve City & County residents • Waste hauled to landfill by City transfer trailers • Limited use by City refuse vehicles only at Montessa Park
5 / Residential Recycling	• Manual collection done weekly at curb • Plastic bags provided by SWMD for storing materials • Glass not collected; is taken at recycling drop – off centers • Pilot project for automated pickup of commingled recyclables & yard waste now under way • Otherwise, yard waste picked up for no charge twice annually
6 / Commercial Recycling	• No formal, organized program offered to private sector by SWMD • SWMD does serve City buildings / facilities, some schools
7 / Composting Operation	• Located near landfill • SWMD & other City departments bring green waste to site
8 / Recycling Drop – off Centers	• 30 – 23 are open to public, 7 are for site employees only
9 / Intermediate Processing Facility	• IPF located near landfill • Receives, sorts, compacts, bales, sells, ships recyclables
10 / Household Hazardous Waste	• City has contract with Rinchem to handle HHW • Rinchem site in Albuquerque open to public 4 days / week
11 / Maintenance / Storage Yard	• Located at 4600 Edith Blvd. NE • Includes SWMD administrative offices • Collection vehicles kept here

3.0 Albuquerque Solid Waste Facts

Table 2 provides quantitative information about SWMD facilities and services (data is rounded and approximate; see Appendices I – C and E for more details).

Table 2 – Basic Department and System Data

1 / Number of full – time employees	445
2 / Number of collection vehicles	170
3 / Number of residential customers	173,000
4 / Number of commercial customers	14,190
5 / Tons of residential trash disposed per year at Cerro Colorado Landfill	168,555 (FY 2008)
6 / Tons of commercial trash disposed per year at Cerro Colorado Landfill	217,197 (FY 2008)
7 / Tons sent to Waste Management landfill in Rio Rancho	49,270 (FY 2008; 34,488 residential tons, 14,782 commercial tons)
8 / Transfer station / convenience center tons sent to Cerro Colorado Landfill	57,085 (FY 2008)
9 / Other disposed tons from Albuquerque sent to Cerro Colorado Landfill	14,845 (FY 2008; various City departments & IPF)
10 / Total tons disposed per year	506,952 (FY 2008)
11 / Tons recycled / diverted per year through City activities	24,450 (FY 2008)
12 / Miles driven per day by collection vehicle	- Residential truck – 123 - Commercial truck – 175
13 / Trips to landfill per day by collection vehicle	- Residential truck – 2 - Commercial truck – 3.6
14 / Gallons of fuel used daily by collection vehicle	- Residential truck – 35 - Commercial truck – 44

4.0 System Strengths

Broad guidance and direction for the SWMD is found in applicable policies as adopted by the City Council and Mayor referenced in Section 1. These include:

- The overall City sustainability initiative termed "Albuquerque Green".

- The 2002 – 6 Vision Statement, Five Year Goals, and Desired Community Conditions, in particular Goal Statement 5 – Environmental Protection and Enhancement and Desired Community Conditions 3 and 5.

- The waste diversion goal / priority from landfill disposal.

Other strengths of the SWMD and existing solid waste management system are discussed below.

- The City controls the flow of waste through its collection operations and thus can directly impact whether it is disposed or diverted without negotiating or contracting with private entities.

- Plenty of capacity is available at Cerro Colorado Landfill (see Appendix I – B) so the City is not faced with an imminent disposal crisis. Many capital / infrastructure investments have been made for the landfill operation. This situation allows the Department to focus on diversion.

- New leadership and upper management have been brought into the SWMD with the authority and policy support to implement diversion initiatives.

- A successful residential pilot project for collection of commingled (mixed) recyclables and yard waste in carts has been undertaken. The pilot project demonstrates conclusively that the convenience of commingling markedly increases public participation and the quantity of recovered materials. Thus the pilot project offers a sound basis to expand city – wide the cart – based collection of commingled residential recyclables as well as cart – based residential yard waste recovery.

- The City has already enacted a multi–family recycling ordinance that requires apartment building owners / managers to offer the opportunity to recycle for residents. Building owners / managers are supposed to make arrangements with SWMD personnel so containers for commingled recyclables can be place on premises. Further, the ordinance allows the Department to charge each building unit the same recycling service fee that single–family residences pay – $ 1.89 per month.

- Recycling is occurring at City buildings and the Department is seeking to upgrade and expand these internal efforts.

- Based on both formal and informal communication between SWMD personnel and industry representatives, it is clear there are several potential private sector firms that want to partner with the City in developing a major facility which would significantly increase capacity to process / market recyclables from not only the City of Albuquerque but from the surrounding region as well.

- While there are private recycling service companies operating in Albuquerque, the City itself does not have an organized business recycling program. Thus there is definite potential for much more diversion from institutional, commercial, and industrial generators.

- The SWMD has purchased equipment capable of size reducing and grinding yard waste in much larger quantities than are currently handled at the City's composting operation.

- Glass cannot be mixed with other recyclables in a cart–based recycling collection program because glass breakage contaminates these materials and makes them non–marketable. However, glass is not collected curbside now in the City but instead may be taken to community drop–off recycling centers. In essence, this alternative avoids a potential problem in implementing cart–based, commingled residential recycling city–wide.

- The City's large residential and commercial rate base is augmented by rate structures in place at Cerro Colorado Landfill and the three

convenience centers. The total rate base therefore can facilitate the equitable distribution of costs for program improvements by allocating these costs across many rate payers and operational units.

5.0 System Weaknesses

When considering the goal / priority of ending landfill disposal by 2030 and consequently how to maximize diversion in pursuit of this policy, there are a number of weaknesses or barriers in existing solid waste conditions and practices that need to be overcome. These are discussed below.

- Equipment used in all facets of the Department's operations needs to be replaced on a regular basis. In recent years this has not been done to the extent necessary, resulting in a significant backlog of outstanding capital equipment replacement / acquisition costs. The costs for unmet capital purchases are carried over to the next year. Thus it is conceivable that with scarce resources there could be competition for funds between equipment for the basic disposal functions of the SWMD and new infrastructure required for expanding diversion.

- In the past, money from the SWMD Enterprise Fund has been moved to General Fund. This undermines the Department's ability to build reserves for regular capital equipment replacement / acquisition.

- Trucks haul trash directly to the Cerro Colorado Landfill. Operations at the two larger convenience centers / transfer stations (Montessa Park and Eagle Rock) are oriented to public use almost exclusively and are only minimally available to the Department's collection fleet for off–loading and transfer of refuse or recyclables.

- As a consequence both the internal and external space at the two large convenience centers is not fully or efficiently utilized.

- Rates at the convenience centers do not cover operating costs. The facilities do not pay for themselves and are operated at a loss.

- Residential service and transfer station "flat" rates offer no economic incentive to reduce, reuse, recycle.

- There are other service and financial disincentives to reduce, reuse, recycle. For example, a second residential trash cart is cheaper than the first. Also, there is unlimited, free pickup of large items / bulky waste from residences throughout the year.

- The City does not currently have an organized, comprehensive commercial recycling program. Commercial recycling services are provided by private companies but data on the types and quantities of material recovered is limited and fragmentary.

- The current approach to residential recycling collection is inconvenient, inefficient, and ineffective. No material storage containers are offered to residents. Recyclables are handled manually by Department crews and placed into collection trucks. The residential diversion rate due to the curbside recycling program and other efforts participated in by citizens is about 5 %.

- The City's IPF or Intermediate Processing Facility for recyclables has limited capacity, outdated equipment, and is located near Cerro Colorado Landfill. In Fiscal Year 2008 about 40 % (5,725 tons) of the material delivered to the IPF was not separated or processed at all but simply baled and sold as "Super Mix".

- At the present time neither the City nor the private sector in the Albuquerque region has the ability or capacity to process / market large quantities of commingled (mixed) recyclables in the range of the 150,000 to 250,000 tons per year necessary for realizing the 26 % (by 2010) and 40 % (by 2015) diversion objectives.

- The City has had difficulty securing a stable, reliable, long–term market or end user for finished compost. Without such an outlet the equipment bought by the Department to size reduce and grind yard waste remains under–utilized. The lack of an end use market also undermines the rationale for investing in carts / trucks to recover separated yard waste at the curb and makes it hard to justify the extra cost to rate payers for such a service.

- There is one household hazardous waste site in Albuquerque, a city of approximately 500,000 people.

- Promotion / education is not regular, ongoing, or coordinated, and lacks a clear message presented through diverse media.

- Rate–setting and the rate structure are part of the Municipal Solid Waste Ordinance and thus subject to political influence and factors.

- The status of commercial accounts is not clear, including how many there are, whether the billing rates and levels of service are appropriate, and whether there might be an associated revenue loss due to these information gaps.

6.0 Key Conclusions

Based on the strengths and weaknesses of Albuquerque' solid waste management system, as discussed in Sections 4 and 5 above, the following conclusions are reached:

- Throughout the system, providing maximum customer convenience for disposal at very little cost is determining operational practices rather than those practices being guided by clear public policy goals, objectives, priorities, and initiatives. System operations and structure should reflect public policy and guide customer behavior.

- The basic message to citizens and businesses from the current solid waste system is "anybody can get rid of anything for practically nothing."

- Virtually unlimited disposal options for cheap rates is not consistent with an emphasis on diversion. The economics and operations of the system need to be changed to support the priority on diversion.

7.0 Recommendations

Major resource allocations and infrastructure development are necessary for both maintaining / upgrading basic solid waste services and reorganizing the system's emphasis from disposal to diversion. The main challenge for the Department will be to pursue both of these agendas

simultaneously. The strategy proposed for accomplishing this dual agenda is as follows:

- Modify operations to re – direct use of existing SWMD resources (personnel, land, equipment, facilities, sites) toward diversion without large allocations of money.

combined with

- Taking initial steps to make the substantial infrastructure investment required to achieve major expansion of handling capacity for refuse and recyclables so the benefits of economies of scale and operating efficiencies are realized.

Recommendations are organized according to two basic categories – implementation timeframe and capital cost impacts. The implementation timeframes are as follows: Immediate Term – 2010 to 2012; Mid Term – 2012 to 2015; Long Term – 2015 to 2020. Capital cost impacts are considered to be minimal or moderate to significant. The recommendations are designed to address the system weaknesses and analytic conclusions presented respectively in Sections 5 and 6 above. The recommendations have been formulated with consideration given to viewpoints expressed citizens at several Community Recycling Forums conducted by SWMD staff during the week of October 27, 2008 (see Appendix I – V).

7.1 Immediate Term Recommendations with Minimal Capital Cost Impacts

The recommendations identified in this section can be implemented through administrative, managerial, or procedural actions and decisions made by the SWMD and do not entail infrastructure development, construction or operation.

- The SWMD should be allowed to function as a true enterprise fund and accumulate resources on an annual basis. This in turn positions the Department to start addressing the large backlog of unmet functional equipment needs related to maintaining and upgrading basic services. To the extent feasible, politics should be removed from solid waste decision – making.

- A thorough analysis of the correlation between costs of service and rates for each operational unit of the SWMD should be performed. The purpose of this analysis is to calculate rates that make each unit self–supporting. In addition, a rate–setting methodology would be defined for annually reviewing and revising rates as needed. Primary responsibility for determining rates would be exercised by SWMD personnel rather than the City Council.

- Revise the SWMD Mission Statement to reflect a priority emphasis on the different types of diversion–waste reduction, repair, reuse, recycling, composting.

- Set up a separate "Diversion Division" in the SWMD.

- Hire a staff person within the Diversion Division to assemble, implement, and periodically revise an ongoing, multi–faceted, multi–media promotion / education / outreach program with a coherent theme and associated set of general and audience–specific messages and materials. The central focus of promotion / education / outreach would be diversion, including backyard composting. This staff person would also manage the at – cost sale and distribution of backyard composting bins.

- Existing City "Green Team" representatives are responsible for monitoring the status of waste reduction / recycling efforts in participating departments.

- Ban disposable coffee cups in City offices and provide "Waste Reduction" mugs.

- Adopt code requirements for recycling storage space in designated commercial, institutional, and multi – family buildings

- Eliminate the concept and practice of providing services for "free". In particular, define the number of large / bulky item pickups covered in the residential rate and charge for any collections over that number.

- Perform an audit of commercial accounts to answer these questions – How many are there? Are they all being billed? What is the service level? Is the billing rate consistent with the service level? Is there a revenue loss?

- Support the "33 % by 2012" statewide recycling goal proposed by the New Mexico Recycling Coalition (NMRC).

- Conduct an inventory of City–owned land according to the criteria in Appendix I – M for future siting of a transfer station, materials recovery facility, and multi – purpose Resource Recovery Park (see Appendix I – T).

- Form a Commercial Sector Advisory Group to review waste reduction / recycling options for the City and private sector.

- Determine the status of internal City recycling efforts and identify improvement / expansion actions.

- Set up a regional materials reuse / exchange service with Bernalillo, Sandoval, and Valencia Counties.

- Discuss expansion of waste reduction / recycling in public schools with School District officials.

- At the Eagle Rock and Montessa Park Convenience Centers utilize space better and organize customer behavior. Establish visible areas with proper signage for household hazardous waste (HHW), green waste recovery, recyclables drop–off, and materials reuse / exchange. Establish access procedures and a fee schedule based on type of waste stream with disposal of mixed waste the most expensive. Once these measures are in place then use these two convenience centers for the off – loading and transfer of refuse, recyclables, and green waste.

7.2 Immediate Term Recommendations with Moderate to Significant Capital Cost Impacts

- Start to meet capital equipment replacement and acquisition needs.

- Issue a Request–for–Proposals (RFP) for private sector design, construction, ownership, and operation of at least one centrally located Materials Recovery Facility (MRF) capable of processing various types of recyclable waste streams, especially those where recyclables are commingled or mixed together. The City would assist with siting and permitting the MRF and bring all City–collected recyclables to it. The MRF could also handle materials collected by other public entities or private companies. The MRF owner / operator could collect recyclables from commercial, institutional, and industrial generators in the City of Albuquerque. This arrangement minimizes the City's exposure to the capital costs and market volatility risk associated with a MRF. A revenue–sharing arrangement between the City and MRF owner / operator may be negotiated. However, for purposes of this Plan it is assumed that both the capital costs and revenues from the MRF for the City would be zero.

- Implement city–wide automated residential refuse collection using different cart sizes and variable or "Pay–As–You–Throw" (PAYT) service rates to encourage diversion. Under the PAYT approach for Albuquerque a 48 gallon cart would be offered as an alternative to the larger cart now used by single–family residences. In either case the cost for a second cart would be equal to or greater than the first cart cost. Larger carts and more carts = higher cost under a PAYT rate structure. Citizen comments / feedback from the Community Recycling Forums were supportive of the PAYT concept and emphasized the need to make the rate differential between the 48 and 96 gallon cart big enough so it would be an incentive to reduce, reuse, recycle.

- Implement city–wide a cart–based residential recycling collection program similar to the pilot project now going on. For each residence a 64 gallon cart containing commingled recyclables would be serviced weekly using a fully automated truck. Citizen comments / feedback from the Community Recycling Forums were supportive of weekly pickup and

commingling recyclables. This was favored as a higher initial priority than yard waste recovery, especially in view of the capital expenditures facing the SWMD for standard equipment replacement / acquisition, PAYT (carts, possibly trucks), and cart–based residential recycling (carts, possibly trucks). It was also pointed out by many citizens that the City is officially promoting xeriscaping and there is great variation across the City in how much yard waste is actually generated. For example, one person said they could not fill a 64 gallon cart with yard waste in a year while another person from a different area stated they could fill two such carts every week. For these reasons a regular residential collection service for yard waste recovery is not being recommended at this time.

7.3 Mid Term Recommendations with Moderate to Significant Capital Cost Impacts

- As an extension of its core responsibility to collect refuse, the SWMD should site, design, construct, own, and operate at least one centrally located transfer station for use by its waste collection fleet. The purpose would be to reduce to the absolute minimum the number of regular refuse trucks driving from their routes to the landfill. The transfer station could also be used for the off–loading and transfer of recyclables and yard waste should these functions be needed.

- Implement a subscription–based residential yard waste recovery program city – wide. Under this approach a resident would receive one or more storage carts and either pay for a specified number of collections per year on designated days, or pay per collection for an on – call service that would not have a specified number of collection days.

City of Albuquerque Integrated Waste Management Plan

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A. Applicable City Council Polices

Adopted 2002 – 2006 Vision Statement, Five Year Goals, and Desired Community Conditions

Vision Statement:

Albuquerque is a thriving high desert community of distinctive cultures coming together to create a sustainable future.

GOAL STATEMENT	DESIRED COMMUNITY or CUSTOMER CONDITIONS
Human and Family Development *People of all ages have the opportunity to participate in the community and economy and are well sheltered, safe, healthy, and educated.*	1. Residents are literate and educated and engaged in the educational processes. 2. All levels of government, educational institutions, and the community collaborate to ensure that youth achieve desired educational outcomes. 3. Residents are healthy and have access to health care, mental health care, and recreation. 4. Safe, decent and affordable housing is available. 5. The community collaborates to support the responsible social development of youth. 6. Families are healthy and stable. 7. Senior citizens live and function in optimal environments.
Public Safety *Citizens are safe, feel safe and secure, and have trust and shared responsibility for maintaining a safe environment.*	1. Residents feel safe in their neighborhoods, schools, and the community. 2. Residents are safe from crimes against persons and property. 3. Drivers, cyclists, and pedestrians operate knowledgeably, safely, and courteously, so that travel on city streets is safe. 4. Residents, including youth, and public safety agencies work together to prevent crime and respond to life safety issues in order to create a safe community. 5. Domestic animals are responsibly cared for and provided safe and healthy home environments. 6. The community is prepared to respond to emergencies, natural disasters, catastrophic acts and other events that threaten the health and safety of the public.
Public Infrastructure *Ensure that all existing communities are adequately and efficiently served with well planned, coordinated, and maintained sewer, storm, water and road systems and an integrated multi-modal regional transportation system. Ensure that new development is efficiently integrated into existing infrastructures and that the costs are balanced with the revenues generated.*	1. A reliable water system meets health and safety standards 2. Wastewater systems meet quality standards. 3. The storm water systems protect lives and property. 4. Technological infrastructure is accessible to all. 5. Residents have safe and affordable transportation options that meet the public's needs. 6. The street system is well designed and maintained.
Sustainable Community Development *Guide growth to protect the environment and the community's economic vitality and create a variety of livable, sustainable communities throughout Albuquerque.*	1. Parks, open space, recreation facilities, and public trails are available, accessible, and strategically located, designed and maintained. 2. Neighborhoods with civic and commercial destinations within walking distance are an available choice. 3. Medium to high-density neighborhoods that contribute to a more compact urban form are an available choice. 4. The downtown area is vital, active, safe, and accessible.

Environmental Protection and Enhancement *Protect and enhance Albuquerque's places and natural environment — its mountains, river, Bosque, volcanoes, arroyos, clean air and underground water supply.*	1. Air, land, and water systems protect health and safety. 2. Water resources are sustainably managed, conserved & protected to provide a long term supply & drought reserve. 3. Solid wastes are produced no faster than natural systems and technology can process them. 4. Open Space, Bosque, the River and Mountains are preserved and protected. 5. Residents participate in caring for the environment and conserving natural resources.
Economic Vitality *Achieve a vital, diverse, and sustainable economy in which businesses and residents have opportunities for success.*	1. The economy is diverse and broad-based. 2. The economy is vital, prosperous and consistent with local and regional resources. 3. There are abundant, competitive career oriented employment opportunities.
Community and Cultural Engagement *Residents are fully and effectively engaged in the life and decisions of the community to:* • *promote and enhance our pride, cultural values and resources; and,* • *ensure that Albuquerque's community institutions are effective, accountable and responsive.*	1. Residents are active participants in civic and public affairs. 2. Residents participate in community organizations and sporting and cultural events. 3. Residents are well informed of current community conditions. 4. Residents appreciate, foster, and respect Albuquerque's arts and cultures.
Governmental Excellence and Effectiveness *Government is ethical and accountable; every element of government contributes effectively to meeting public needs.*	ELECTED AND APPOINTED OFFICIALS 1. Leaders work together for the good of the community. 2. Leaders cooperate and coordinate with the other governments in the MRCOG region. 3. Government and its leaders are responsive to changing community and customer conditions. ALL LEVELS OF GOVERNMENT 4. Customers conveniently access city services and officials. 5. Customers can participate in their government by accessing information about services, policies, community conditions, regulations, etc. INTERNAL SERVICES 6. Financial assets are maximized and protected, and analyzed and reported accurately, understandably, and usefully. 7. City assets are protected while responding fairly to inappropriate City actions. 8. Products, services, and materials are obtained efficiently, fairly, and in a timely manner. 9. City services, operations, and finances are measured and audited, as needed, and meet customer needs. 10. Competent, well-trained motivated employees contribute to the achievement of City goals and objectives. 11. The work environment for employees is healthy, safe and productive. 12. City staff is empowered with information and have information processing capacity. 13. Rights of way are obtained and managed and their use maximized for the public's benefit with fair compensation for use. 14. City real property is effectively obtained and managed in the public's interests, & disposed of when public purpose has changed. 15. City fixed assets, property, and infrastructure meet City goals and objectives.

B. Landfill Life Calculation

from Gordon Environmental, Inc.

- Assume base waste acceptance rate from City of Albuquerque at approximately 450,000 tons / year or 1,200 tons / day, 7 days / week, 365 days / year
- Assume 2 % compounded annual increase in waste acceptance rate
- Assume in – place waste density of 1,200 pounds / cubic yard
- Conclusion – Phases I, II, and III (395 acres) become filled by about March, 2037

C. Municipal Solid Waste (MSW) Disposed Tons from City

DISPOSED TONNAGES (A)	
TYPE / LOCATION	**FY 2008 TOTAL TONS**
1 / Commercial	
Commercial	202,691
Roll–Off	14,506
Sub – Total	**217,197**
2 / Residential	
Automated	163,313
W & L / Large Item	5,242
Sub – Total	**168,555**
3 / Transfer Stations / Convenience Centers	
Montessa Park	17,150
Don Reservoir	9,355
Eagle Rock	30,580
Sub – Total	**57,085**
4 / Other	
Animal Control	160
City Departments	11,892
Intermediate Proc. Facility	2,793
Sub – Total	**14,845**
CERRO COLORADO LANDFILL SUB – TOTAL	**457,682**
5 / Waste Management (B) **- Residential** **- Commercial** **- Sub – Total**	 34,488 14,782 **49,270**
TOTAL TONS DISPOSED	**506,952**

(A) Attributable to City of Albuquerque

(B) City of Albuquerque tons disposed at Waste Management landfill in Rio Rancho

D. Construction and Demolition (C & D) Debris

1.0 Overview

The quantities of construction and demolition (C & D) debris being generated in the Albuquerque area on an annual basis will vary depending on economic cycles of building, reconstruction, and deconstruction. Typical C & D materials include brick, concrete, asphalt roofing materials, gypsum wall board, tree remains (e.g., stumps), and vegetative matter from clearing of land.

2.0 Current Conditions

2.1 Regional Facilities Permitted for C&D Debris Disposal

As of August 2008, six landfills in the Albuquerque metropolitan area were authorized by the New Mexico Environment Department / Solid Waste Bureau (NMED / SWB) to accept C & D debris for disposal (see **Table 1**). Of these six landfills, at least one facility (Cerro Colorado Landfill) has used a portion of the C & D debris for on-site road construction. At the present time, based on a review of information obtained from NMED / SWB files and questions posed to each landfill operator, attempts are being made to determine if it is possible to estimate quantities of C & D debris being generated within the jurisdictional limits of Albuquerque.

2.2 Additional C&D Materials in the Albuquerque Metropolitan Area

Generation and recycling of C & D debris in the Albuquerque area also occurs, but the activities are not subject to regulatory reporting. For example, when C&D debris is managed as a resource (and not a waste), beginning with generation and through recycling, information regarding these steps is not subject to mandatory reporting to NMED / SWB. Additional information regarding C & D recycling activities would be especially helpful in establishing an ongoing database and exploring options for coordinating the activities of local / regional recycling stakeholders, including the City of Albuquerque Solid Waste Management Department (COA / SWMD).

3.0 Opportunities

As shown on **Table 1**, up to 200,000 tons / year of C & D materials are disposed in the two landfills located in Bernalillo County. This rate of C & D generation illustrates the potential for improving the recycling and beneficial use of C & D materials. Evaluation of C & D recycling alternatives will require additional information pertaining to specific material types and quantities. In addition, information regarding the geographic location of generators would assist in planning future recovery strategies.

There are two items that should to be addressed early on in the C & D recycling planning process. Both items are related to the Southwest Landfill located in Bernalillo County. The Southwest Landfill is an operating landfill that is permitted by NMED / SWB to accept C & D material for disposal, and Bernalillo County has also approved a

Special Use Permit for the facility. Although the Cerro Colorado Landfill (CCLF) is also permitted by NMED / SWB to dispose of C & D material, the County's Special Use Permit precludes CCLF from disposing of C & D debris. It is unknown if the County's Special Use Permit (and restrictions) also extend to C & D recycling. Additional information regarding this issue needs to be obtained and reviewed.

Assuming COA attains a resolution with Bernalillo County regarding the C & D issues noted above, the subject of where a C & D recycling processing facility would be located also requires further investigation. While ample space may be available on land near the current CCLF operation owned by the COA, there may be other locations and relevant factors that merit consideration, especially in view of potentially competing program, policy, facility, and infrastructure priorities identified by the Integrated Waste Management Plan. Furthermore, the City may benefit from evaluating partnership opportunities with private sector companies having experience with recycling facility operations, financing, and end user markets.

TABLE 1: REGIONAL C & D DEBRIS DISPOSAL SUMMARY 2006 – 2007				
FACILITY	**YEAR**	**DISPOSED TONS (1)**	**% OF TOTAL WASTE DISPOSED AT FACILITY**	**COMMENTS**
Cerro Colorado Landfill	2006	40,618	7 %	C&D disposal data represents a combination of C&D and MSW
	2007	40,283	7 %	C&D disposal data represents a combination of C&D and MSW
Rio Rancho Sanitary Landfill	2006	129,820	37 %	
	2007	101,608	32 %	
Sandoval County Landfill	2006	175,304	89 %	
	2007	157,344	72 %	
Southwest Landfill (2)	2006	225,974	100 %	376 tons MSW and 10 tons scrap tires delivered to site and transported to Cerro Colorado Landfill for disposal
	2007	156,702	100 %	358 tons MSW delivered to site and transported to Cerro Colorado Landfill for disposal
Torrance County / Bernalillo County Landfill	2006	3,642	17 %	
	2007	4,986	19 %	
Valencia Regional Landfill & Recycling Facility	2006	0	0 %	
	2007	9,675	28 %	

Notes:

(1) C & D debris includes steel, glass, brick, concrete, asphalt roofing materials, pipe, gypsum wallboard and lumber from the construction or destruction of a structural project, as well as rocks, soil, tree remains, trees and other vegetative matter that normally results from land clearing activities (20 NMAC 9.1 Section 105.T).

(2) Permitted for C & D debris disposal only.

Source of Data: New Mexico Environment Department / Solid Waste Bureau, 2006 and 2007 Annual Reports

E. Recycling by City for Fiscal Year 2008

RECYCLED TONS FY 2008	
DESCRIPTION	**TONS**
1 / MATERIALS HANDLED AT CITY'S INTERMEDIATE PROCESSING FACILITY (IPF)	
Newspaper	5,531
Cardboard	1,810
Office Paper	63
Phone Books	108
#1 PET	168
#2 HDPE	66
#2 HDPE Mixed	85
Tin	152
Aluminum	45
Glass	40
Sand Glass	18
Super Mix	5,725
Mixed Paper	3
SUB – TOTAL (1)	**13,814**
2 / RECOVERED ORGANIC & GREEN WASTES	
Bedding (manure)	3,397
Green Waste	1,538
Commercial Green Waste	758
SUB – TOTAL (2)	**5,693**
3 / OTHER RECOVERED MATERIALS	
Commercial Roll–off	65
White Goods	628
White Goods (Transfer Stations)	1,404
Office Recycling	87
Electronic Waste	499
Christmas Trees	104
Multi–family and Miscellaneous (A)	255
Commingled Drop–off (A)	5,338
Glass Drop–off	2,156
Drop–off Overflow (A)	201
SUB – TOTAL (3)	**4,943**
TOTAL DIVERTED TONS	**24,450**

(A) Material tonnages from identified sources under # 3 are included in sub–total for # 1 but listed for illustrative purposes under # 3.

F. Residential Rate Elements

ELEMENTS OF MONTHLY RESIDENTIAL RATE	
SERVICE RATE ELEMENT	**CHARGE / $**
1 / Weekly Refuse Collection	8.18
2 / Weekly Recycling Collection	1.89
3 / Environmental Services	
- Household Hazardous Waste	.22
- Dead Animal Pickup	.03
- Bonds / Characterization Study	.24
- Old Landfill Monitoring – Methane Gas	.09
- Clean – up of Old Landfills	.10
4 / Clean City (Graffiti Removal + Weeds & Litter Removal)	No Charge
5 / Two + Electronic Waste Recovery Events Per Year	No Charge
6 / Large Item Pickup (unlimited)	No Charge
7 /Two Green Waste Pickups Per Year	No Charge
8 / Landfill Disposal	No Charge
TOTAL MONTHLY RESIDENTIAL RATE	**$ 10.75 + variable fuel charge & taxes**

G. Population Projections

CITY OF ALBUQUERQUE POPULATION PROJECTIONS		
YEAR	**ANNUAL GROWTH RATE**	**POPULATION**
2005		498,716
2006	3%	513,769
2007	3%	529,277
2008	3%	545,252
2009	3%	561,710
2010	3%	578,665
2011	2.6%	593,886
2012	2.6%	609,508
2013	2.6%	625,540
2014	2.6%	641,995
2015	2.6%	658,882
2016	2.2%	673,409
2017	2.2%	688,256
2018	2.2%	703,430
2019	2.2%	718,939
2020	2.2%	734,790
2021	1.9%	748,587
2022	1.9%	762,643
2023	1.9%	776,964
2024	1.9%	791,553
2025	1.9%	806,416
2026	1.7%	820,014
2027	1.7%	833,841
2028	1.7%	847,901
2029	1.7%	862,198
2030	1.7%	876,736

Source / Bureau of Business and Economic Research, UNM.
Growth rates are for Bernalillo County – is assumed City will grow at same rates.

H. Disposed Waste Projections

CITY OF ALBUQUERQUE DISPOSAL PROJECTIONS	
YEAR	DISPOSED TONS
2005	506,952
2006	522,161
2007	537,825
2008	553,960
2009	570,579
2010	587,696
2011	602,976
2012	618,654
2013	634,739
2014	651,242
2015	668,174
2016	682,874
2017	697,897
2018	713,251
2019	728,943
2020	744,979
2021	759,134
2022	773,558
2023	788,255
2024	803,232
2025	818,493
2026	832,408
2027	846,559
2028	860,950
2029	875,586
2030	890,471

(A) Base tonnage of 506,952 (2005) was calculated by adding 457,682 tons sent to City's landfill and 49,270 tons sent to Waste Management landfill.

(B) Assumes recycling stays at current levels.

I. Estimated Quantities of Recyclables Available from Residential Sector (See Appendix II – A)

J. Estimated Quantities of Recyclables Available from Institutional / Commercial / Industrial (ICI) Sector

MATERIAL TYPE	ANNUAL GENERATED TONNAGE	PERCENT OF WASTE STREAM BY WEIGHT
Food	33,869	14.6%
Composite Paper	28,997	12.5%
Uncoated Corrugated Cardboard	26,214	11.3%
Composite Organic	21,110	9.1%
Other Miscellaneous Paper	13,455	5.8%
Newspaper	11,135	4.8%
Composite Plastic	10,207	4.4%
Film Plastic	9,279	4.0%
Other Ferrous	9,047	3.9%
White Ledger	8,351	3.6%
Textiles	5,104	2.2%
Leaves and Grass	5,104	2.2%
Special Waste	4,872	2.1%
Magazines and Catalogs	4,872	2.1%
Paper Bags	3,712	1.6%
Tin / Steel Cans	3,248	1.4%
Composite Glass	3,248	1.4%
Colored Glass Bottles and Containers	3,016	1.3%
Rock, Soil and Fines	3,016	1.3%
Lumber	2,784	1.2%
Prunings and Trimmings	2,552	1.1%
Other Non – Ferrous	2,320	1.0%
HDPE Containers	2,320	1.0%
Clear Glass Bottles and Containers	2,088	0.9%
Computer Paper	2,088	0.9%
Household Hazardous Waste	2,088	0.9%
Miscellaneous Plastic Containers	1,856	0.8%
Other Office Paper	1,392	0.6%
Colored Ledger Paper	1,392	0.6%
Composite Construction and Demolition Debris	696	0.3%
Aluminum Cans	696	0.3%
Phone Books and Directories	696	0.3%
PET Containers	464	0.2%
Gypsum Board	232	0.1%
Manures	232	0.1%
Asphalt Paving	232	0.1%
Concrete	232	0.1%
Mixed Residue	232	0.1%

Note – % composition by material type based on data from Fresno, CA

K. Disposal Services / Operations / Facilities in Albuquerque Region

Summary of Waste Management Facilities Permitted by NMED / SWB Bernalillo, Sandoval, Torrance and Valencia Counties

Bernalillo County (9)

FACILITY	FACILITY TYPE	OWNERSHIP [1]	PERMIT DATE, DURATION
Albuquerque Composting Facility	Composting	Municipal (ABCWUA)	8/05/99, 20 years
Cerro Colorado Int. Proc. Facility (IPF)	Recycling	Municipal (COA)	8/15/99, 20 years
Don Reservoir Convenience Center	Transfer Station	Municipal (COA)	8/24/00, 20 years
Eagle Rock Convenience Center	Transfer Station	Municipal (COA)	8/7/00, 20 years
East Mountain Transfer Station	Transfer Station	Municipal (Bernalillo County)	12/02/02, 20 years
Montessa Park Convenience Center	Transfer Station	Municipal (COA)	5/11/98, 20 years
Cerro Colorado Landfill	Landfill	Municipal (COA)	6/22/00, 20 years
Southwest Landfill	Landfill	Private (Southwest Landfill, LLC)	11/14/07, 10 years
Stericycle Infectious Waste Proc. & Trans. Fac.	Processing	Private (Stericycle, Inc.)	7/15/94

Sandoval County (2)

FACILITY	FACILITY TYPE	OWNERSHIP [1]	PERMIT DATE, DURATION
Sandoval County Landfill	Landfill	Municipal (Sandoval County)	6/22/00, 20 years
Rio Rancho Sanitary Landfill	Landfill	Private (WMNM)	12/18/98, 10 years [2]

Torrance County (2)

FACILITY	FACILITY TYPE	OWNERSHIP (1)	PERMIT DATE, DURATION
Keers Asbestos Landfill	Special Waste Landfill	Private (Keers Environmental)	10/16/07, 10 years
Torrance County/Bernalillo County Landfill	Landfill	Municipal (EVSWA & Bernalillo County)	6/18/97, 20 years

Valencia County (3)

FACILITY	FACILITY TYPE	OWNERSHIP [1]	PERMIT DATE, DURATION
Los Lunas Transfer Station	Transfer Station	Municipal (City of Los Lunas)	11/17/99, 20 years
Magdalena C & D Landfill [3]	Landfill	Municipal (Village of Magdalena)	8/7/00, 20 years
Valencia Regional LF & Recy. Facility	Landfill	Private (WMNM)	11/20/06, 10 years

Notes:

1. Ownership Abbreviations:

ABCWUA – Albuquerque Bernalillo County Water Utility Authority
COA – City of Albuquerque
EVSWA – Estancia Valley Solid Waste Authority
WMNM – Waste Management of New Mexico, Inc.

2. Permit Renewal Application submitted, Public Hearing completed 6/2/08

3. Facility has not yet opened

Details Regarding Regional Solid Waste Management Facilities

Preface: The information presented below includes facilities located in Bernalillo, Sandoval, Torrance and Valencia Counties that have been issued a Permit by the New Mexico Environment Department / Solid Waste Bureau.

Bernalillo County – Nine (9) Permitted Facilities

- 1 - Composting
- 1 - Recycling
- 4 - Transfer Stations
- 2 – Landfills
- 1 – Processing

FACILITY INFORMATION	PERMIT INFORMATION
Albuquerque Composting Facility 7401 Access Rd. NW Albuquerque, NM 87102 Phone: (505) 836-8713 Authorized Materials: • GM	Owner: Albuquerque Bernalillo County Water Utility Authority Operator: Albuquerque Bernalillo County Water Utility Authority Solid Waste Facility Permit: SW 97-01(P) Permit Type: Composting Facility Permit Date: August 5, 1999 Permit Duration: 20 years
Cerro Colorado Intermediate Processing Facility 18000 Cerro Colorado SW Albuquerque, NM 87121 Phone: (505) 857-8440, 761-8326 Authorized Materials: • For Recycling/Diversion: AL, CC, G, HHW, JM, MP, N, PL. T, WG	Owner: City of Albuquerque Operator: City of Albuquerque Solid Waste Facility Permit: OP1990-03SW Permit Type: Processing Facility Permit Date: August 15, 1999 Permit Duration: 20 years
Don Reservoir Convenience Center 114th Street SW and Sunset Gardens Road Bernalillo County, NM Phone: (505) 857-8440 Fax: (505) 857-8333 Authorized Materials: • For Disposal: MSW • For Recycling/Diversion: GM, HHW	Owner: City of Albuquerque Operator: City of Albuquerque Solid Waste Facility Permit: OP1990-05TS Permit Type: Transfer Station Permit Date: August 24, 2000 Permit Duration: 20 years
Eagle Rock Convenience Center 6301 Eagle Rock Ave. NE Albuquerque, NM Phone: (505) 857-8440, 761-8326 Fax: (505) 857-8333 Authorized Materials: • For Disposal: MSW • For Recycling/Diversion: EW, GM, WG	Owner: City of Albuquerque Operator: City of Albuquerque Solid Waste Facility Permit: SWB 02-04 (P) Permit Type: Transfer Station Permit Date: December 2, 2002 Permit Duration: 20 years

Abbreviations and Descriptions of Authorized Materials

For Disposal: MSW (Municipal Solid Waste); ASB (Asbestos); ASH (Ash); CSR (Chemical Spill Residue); ISW (Industrial Solid Waste); OFF (Offal); SLM (Sludge - Municipal); SLO (Sludge - Other); PCS (Petroleum Contaminated Soils); TFCW (Treated Formerly Characteristic Waste); C & D (Construction and Demolition Debris), OCD (Oil & Conservation Division Waste)

For Recycling/Diversion: AL (Aluminum); BI (Bicycles); C (Cardboard); EW (Electronic Waste); G (Glass); GM (Green Material); HHW (Household Hazardous Waste [could include car batteries, paint cans, propane tanks, etc.); JM (Junk Mail), M (Metal); MP (Mixed Paper); N (Newspaper); PL (Plastic); T (Tires); WG (White Goods)

Bernalillo County (continued)

FACILITY INFORMATION	PERMIT INFORMATION
East Mountain Transfer Station 711 State Highway 333 Tijeras, NM 87509-7306 Phone: (505) 281-9110 Authorized Materials: • For Disposal: MSW, GM • For Recycling/Diversion: GM	Owner: Bernalillo County Operator: Bernalillo County Solid Waste Facility Permit: SWM-011002 Permit Type: Transfer Station Permit Date: December 2, 2002 Permit Duration: 20 years
Montessa Park Convenience Center 3512 Los Picaros SE Albuquerque, NM Phone: (505) 857-8440, 761-8326 Authorized Materials: • For Disposal: MSW • For Recycling/Diversion: BI, HHW	Owner: City of Albuquerque Operator: City of Albuquerque Solid Waste Facility Permit: SWM-010222 Permit Type: Transfer Station Permit Date: December 2, 2002 Permit Duration: 20 years
Cerro Colorado Landfill 18000 Cerro Colorado SW Albuquerque, NM 87121 Phone: (505) 761-8300 Authorized Materials: • For Disposal: MSW, CSR, ISW, OFF, PCS, SLM, TFCW • For Recycling/Diversion: GM	Owner: City of Albuquerque Operator: City of Albuquerque Solid Waste Facility Permit: SWM-010221 Permit Type: Landfill Permit Date: June 22, 2000 Permit Duration: 20 years
Southwest Landfill 5816 Pajarito Rd SW Albuquerque, NM 87121 Phone: (505) 242-2020 Authorized Materials: • For Disposal: Construction and Demolition Debris	Owner: Southwest Landfill, Inc. Operator: Southwest Landfill, Inc. Solid Waste Facility Permit: SWM-010136 Permit Type: Landfill Permit Date: November 14, 2007 Permit Duration: 10 years
Stericycle Infectious Waste Processing and Transfer Facility 1920 First St. NW Albuquerque, NM Phone: Authorized Materials: • For Processing: Infectious Waste	Owner: Stericycle, Inc. Operator: Stericycle, Inc Solid Waste Facility Permit: SWM-010137 Permit Type: Special Waste Processing & Transfer for Infectious Waste Permit Date: March 11, 2008 Permit Duration: 10 years

Abbreviations and Descriptions of Authorized Materials

For Disposal: MSW (Municipal Solid Waste); ASB (Asbestos); ASH (Ash); CSR (Chemical Spill Residue); ISW (Industrial Solid Waste); OFF (Offal); SLM (Sludge - Municipal); SLO (Sludge - Other); PCS (Petroleum Contaminated Soils); TFCW (Treated Formerly Characteristic Waste); C & D (Construction and Demolition Debris), OCD (Oil & Conservation Division Waste)
For Recycling/Diversion: AL (Aluminum); BI (Bicycles); C (Cardboard); EW (Electronic Waste); G (Glass); GM (Green Material); HHW (Household Hazardous Waste [could include car batteries, paint cans, propane tanks, etc.); JM (Junk Mail), M (Metal); MP (Mixed Paper); N (Newspaper); PL (Plastic); T (Tires); WG (White Goods)

Sandoval County – Two (2) Permitted Facilities

- 2 Landfills

FACILITY INFORMATION	PERMIT INFORMATION
Rio Rancho Sanitary Landfill 33rd Ave. & Northern Blvd. Rio Rancho, NM 87174 Phone: (505) 892-2055 Fax: (505) 892-2057 Authorized Materials: • For Disposal: MSW ASH, CSR, ISW, OFF, PCS, SLM, SLO, TFCW	Owner: Waste Management of New Mexico, Inc. Operator: Waste Management of New Mexico, Inc. Solid Waste Facility Permit: SWM-231402 Permit Type: Landfill Permit Date: December 18, 1998 Permit Duration: 10 years
Sandoval County Landfill 2708 Iris NE (corner of Iris and Idalia Roads) Rio Rancho, NM 87144 Phone: (505) 867-0814 Fax: (505) 867-0815 Authorized Materials: • For Disposal: MSW, PCS, SLM • For Recycling/Diversion: GM	Owner: Sandoval County Operator: Sandoval County Solid Waste Facility Permit: SWM-050304 Permit Type: Landfill Permit Date: June 17, 2005 Permit Duration: 20 years

Torrance County – Two (2) Permitted Facilities

- 2 Landfills

FACILITY INFORMATION	PERMIT INFORMATION
Torrance County/Bernalillo County Regional Landfill c/o Estancia Valley Solid Waste Authority P.O. Box 736, 515 Allen Street Estancia, NM 87016 Phone: (505) 384-4270 Fax: (505) 384-3062 Authorized Materials: For Disposal: MSW, PCS For Recycling/Diversion: M, T, WG	Owner: Estancia Valley Solid Waste Authority and Bernalillo County Operator: Estancia Valley Solid Waste Authority Solid Waste Facility Permit: SW 97-04(P) Permit Type: Landfill Permit Date: June 18, 1997 Permit Duration: 20 years
Keers Asbestos Landfill Highway 55, 14 Miles South of Mountainair Mountainair, NM Phone: (505) 847-2917 Authorized Materials: For Disposal: Asbestos Waste	Owner: Keers Environmental Operator: Keers Environmental Solid Waste Facility Permit: Permit Type: Landfill Permit Date: October 16, 2007 Permit Duration: 10 years

Abbreviations and Descriptions of Authorized Materials

For Disposal: MSW (Municipal Solid Waste); ASB (Asbestos); ASH (Ash); CSR (Chemical Spill Residue); ISW (Industrial Solid Waste); OFF (Offal); SLM (Sludge - Municipal); SLO (Sludge - Other); PCS (Petroleum Contaminated Soils); TFCW (Treated Formerly Characteristic Waste); C & D (Construction and Demolition Debris), OCD (Oil & Conservation Division Waste)
For Recycling/Diversion: AL (Aluminum); BI (Bicycles); C (Cardboard); EW (Electronic Waste); G (Glass); GM (Green Material); HHW (Household Hazardous Waste [could include car batteries, paint cans, propane tanks, etc.); JM (Junk Mail), M (Metal); MP (Mixed Paper); N (Newspaper); PL (Plastic); T (Tires); WG (White Goods)

Valencia County – Three (3) Permitted Facilities

- 1 Transfer Station
- 2 Landfills

FACILITY INFORMATION	PERMIT INFORMATION
Los Lunas Transfer Station 7480 Main St. NW (State Highway 6) Los Lunas, NM, 87031 Phone: (505) 839-3840 Fax: (505) 352-3580 Authorized Materials: • For Disposal: MSW • For Recycling/Diversion: AL, C, GM, HHW, N, M, PL, WG	Owner: City of Los Luna Operator: City of Los Lunas Solid Waste Facility Permit: 0132013TS Permit Type: Transfer Station Permit Date: November 17, 1999 Permit Duration: 20 years
Magdalena C & D Landfill ½ Mile North of Magdalena Magdalena, NM 8782 Phone: Not open yet Fax: Not open yet Authorized Materials: • For Disposal: Construction and Demolition Debris	Owner: Village of Magdalena Operator: Facility is not open yet Solid Waste Facility Permit: SWM-281402 Permit Type: Landfill Permit Date: August 7, 2000 Permit Duration: 20 years
Valencia Regional Landfill and Recycling Facility Mystic Mountain Road, 6 mile south of NM State Highway 6 Valencia County, NM Phone: (505) 892-2055 Fax: (505) 892-2057 Authorized Materials: • For Disposal: MSW, CSR, ISW, OFF, PCS, SLM, SLO, TFCW, C&D, OCD	Owner: Waste Management of New Mexico, Inc. Operator: Waste Management of New Mexico, Inc. Solid Waste Facility Permit(s): SWM-013229, SWM-013230(SP) Permit Type: Landfill Permit Date: November 20, 2006 Permit Duration: 10 years

Abbreviations and Descriptions of Authorized Materials

For Disposal: MSW (Municipal Solid Waste); ASB (Asbestos); ASH (Ash); CSR (Chemical Spill Residue); ISW (Industrial Solid Waste); OFF (Offal); SLM (Sludge - Municipal); SLO (Sludge - Other); PCS (Petroleum Contaminated Soils); TFCW (Treated Formerly Characteristic Waste); C & D (Construction and Demolition Debris), OCD (Oil & Conservation Division Waste)

For Recycling/Diversion: AL (Aluminum); BI (Bicycles); C (Cardboard); EW (Electronic Waste); G (Glass); GM (Green Material); HHW (Household Hazardous Waste [could include car batteries, paint cans, propane tanks, etc.); JM (Junk Mail), M (Metal); MP (Mixed Paper); N (Newspaper); PL (Plastic); T (Tires); WG (White Goods)

L. Diversion Services / Operations / Facilities in Albuquerque Region

1.0 Data Gathering

Data identifying quantities and types of materials recovered for recycling from the Albuquerque Metro area is limited. There is presently no reporting requirement derived from Federal, State or local statutes that would facilitate gathering such data. While some information is available, there remains a significant business sector which collects and processes recyclables in the City of Albuquerque but does not document or report their activities to any central source or entity. Therefore all data presented in this appendix must be considered incomplete and only representative of that portion of the recycling industry bound by the State of New Mexico's reporting requirements for solid waste.

The State of New Mexico does require certain recycling facilities to report their activities on an annual basis to the Environment Department's Solid Waste Bureau. This reporting requirement is established by the State of New Mexico in the Solid Waste Regulations, NMAC 20.9.5.16, which states "Owners or operators of solid waste facilities shall submit an annual report to the Department for each facility or operation, within 45 days from the end of each calendar year, describing the operations of the past year." These same regulations define a Solid Waste Facility as follows:

> "Solid waste facility" means any public or private system, facility, location, improvements on the land, structures or other appurtenances or methods used for processing, transformation, or disposal of solid waste, including landfill disposal facilities, transfer stations, resource recovery facilities, incinerators and other similar facilities not specified. Solid waste facility does not include:
>
> (a) equipment or processing methods approved by order of the Secretary to render infectious waste generated on site non-infectious;
>
> (b) a facility that is permitted pursuant to the provisions of the Hazardous Waste Act, NMSA 1978, Sections 74-4-1 through 74-4-14, as amended;
>
> (c) a facility fueled by a densified refuse-derived fuel as long as that facility accepts no other solid waste;
>
> (d) a recycling facility that accepts only source separated recyclable materials;
>
> (e) that portion of a facility that refurbishes or re-sells used clothing, furniture or appliances for reuse;
>
> (f) commercial scrap metal or auto salvage operations;
>
> (g) a composting facility that accepts only source separated compostable materials;
>
> (h) manufacturing facilities that use recyclable material in production of a new product;
>
> (i) facilities designed and operated to dispose of sewage sludge on land, such as land application or land injection;
>
> (j) landfarming of petroleum contaminated soils unless within a landfill, where "landfarming" is the remediation of petroleum contaminated soils on the land surface;

(k) any facility or location where clean fill material is accepted, stockpiled, or used, if the facility or location would not otherwise be classified as a solid waste facility;

(l) collection centers;

(m) a facility that uses tire-derived fuel for the purpose of extracting its stored energy; or

(n) air curtain incinerators.

While by definition this requirement would seem to be an effective means of gathering a complete data set related to recycling activities it excludes a large portion of the recycling sector and therefore falls significantly short of capturing the entire industry. It specifically exempts composting operations as well as recycling facilities handling source separated materials from the requirement. These two specific exclusions alone limit the scope of the data gathered from the targeted facilities / operations.

A second problem with the State reporting requirement is that those entities required to report, especially in the Albuquerque area, often gather recyclables from across New Mexico. These broad geographic service areas inherently challenge the reported data by representing material from outside Albuquerque as attributable to activities within the Albuquerque area. While the managers of this data at the Environment Department do correct the data to avoid inconsistencies related to double-counting, they are only able to address those materials reported elsewhere. Materials delivered to these companies from non-reporting sources is then attributed to Albuquerque by default.

In addition, data gathering is also hampered by the broad array of businesses and industries who perform recycling activities as an adjunct to their core, and decidedly unrelated, business. Large retailers, for instance, typically manage recyclables through in-house operations which often are supported by national materials purchasing contracts. As these materials frequently leave New Mexico via company owned transportation equipment there is no way to gather relevant data unless each individual location becomes subject to a new or expanded reporting procedure / requirement adopted by the City of Albuquerque and / or Bernalillo County.

If a comprehensive data set is deemed valuable by the City of Albuquerque it would require the codification of a strict and broad reporting mechanism. Even if implemented, however, the data would continue to be suspect as monitoring and verification of data would be cumbersome and likely ineffective. A voluntary reporting tool, similar to an annual questionnaire published and distributed via the Chamber of Commerce or internally as part of a business licensing program, may prove more effective and certainly simpler to implement.

If the data is incomplete at best, does it retain any value in informing the City of Albuquerque's solid waste decision-making process? In fact it does. The reported data does reflect some of the largest businesses providing recycling services in the greater Albuquerque region. This sample offers an introduction to the regional recycling industry and the potential role it could play, in cooperation with the City's Solid Waste Management Department (SWMD), to expand both commercial and residential recycling.

2.0 Reported Recycling

Table 1.0 portrays all recycling reported through the aforementioned State of New Mexico protocol. It identifies major participants in the recycling industry in Bernalillo County and the

materials handled by type and quantity in tons. A key is provided to further define the particular commodities.

While limited, this data clearly represents some of the largest players handling recyclables in the Albuquerque area. It indicates possible partnership opportunities between portions of the existing private sector regional recycling infrastructure and the City's SWMD. Appendix X, sections F, G, and H list additional diversion services, operations, and facilities in the Albuquerque region that are also potential partners.

Table 1.0
Recycling in Bernalillo County 2007
Source: NMED Annual Report Submissions

		OCC	ONP #7	OP	Old TD	Mixed Paper	Plas.	AL	Tin Cans	GL	MC	White Goods	Other Plas.	E – Scrap	Tex-tiles	Car. Pad	Film Plas.	Other	TOTAL
City of ABQ	Inter. Proc. Fac. (IPF)	1585	4558	56	21		124.75	46	105.5	36.5	31.73	1401	112					3932	12009.48
	Don Reservoir											242							242
	Eagle Rock											704							704
	Montessa Park											361							361
	E-Scrap Event													286.31					286.31
	Tijeras Transfer	135.11	660				11.8	180	5.75			646.61							1639.27
	Durango McKinley	40493.4	-86.04	689.75		954	94.39												42145.5
	Master Fibers	10685.1	724.9	3323.89		1569.87	252.22	1.6				867.8				401.3	299.2		18125.91
	Kirtland AFB	622.63	16.58	31.35				0.15				282.56							953.27
	UNM	150.8	28.39	49.2	20.55	299.27	5.14	2.27		5.5	6.27	68.05	1.18	9.76	1.7			260.85	908.93
Wise Recycling	ABQ							1487.85				5294.94							6782.79
	Coors							149				222.2							371.2
	Sandia							136				702.7							838.7
	Heights							154				92.2							246.2
	Juan Tabo							96				77.2							173.2
TOTAL		**53672.1**	**5901.83**	**4150.19**	**41.55**	**2823.14**	**488.3**	**2252.87**	**111.25**	**42**	**38**	**10962.3**	**113.18**	**296.07**	**1.7**	**401.3**	**299.2**	**4192.85**	**85787.76**
% OF ALL RECYCLING		**63%**	**7%**	**5%**	**0.05%**	**3%**	**1%**	**3%**	**0.13%**	**0.05%**	**0.04%**	**13%**	**0.13%**	**0.35%**	**0.00%**	**0.47%**	**0.35%**	**5%**	

Explanation of Material Abbreviations

OCC: old corrugated cardboard

ONP #7: mixed paper with minimum 70 % newsprint

OP: office paper

Old TD: old telephone directories

Mixed Paper: no specification other than paper products only

Plas.: #1 PET & #2 HDPE plastic bottles/containers

AL: aluminum cans

GL: glass bottles & jars

MC: mixed containers - plastic, tin, aluminum, glass

White Goods: appliances & scrap metal

Other Plas.: rigid non – container plastic

E - Scrap: electronic equipment

Textiles: clothing & various fabrics

Car. Pad: carpet underlayment

Film Plas.: plastic bags, shrink wrap, other film plastic

Other: undefined recycling

M. Basic Land Inventory Criteria

Below are some suggested criteria for identifying land / sites regarding future development of a transfer station, material recovery facility, or multi – purpose "Resource Recovery Park" incorporating several waste handling functions (see Appendix T for conceptual diagram):

1 / Owned by the City / within City limits

2 / Minimum 10 to 15 acres in size and preferably more so there is room for expansion / modification

3 / Zoning suitable for industrial development with no immediate residential neighbors

4 / Easily accessible by major highway or road

5 / Existing or potential rail access

6 / Existing documentation concerning environmental status of property

7 / Relatively flat topography

N. Transfer Station Analysis

CITY OF ALBUQUERQUE
SOLID WASTE MANAGEMENT DEPARTMENT
TRANSFER STATION FEASIBILITY ANALYSIS

This appendix presents the results from a draft transfer station Feasibility Analysis (February, 2006) conducted by Gordon Environmental, Inc. for the City of Albuquerque Solid Waste Management Department (SWMD). The SWMD will benefit from continuing to evaluate the feasibility of constructing and operating a transfer station to reduce waste hauling costs. Most of the SWMD collection fleet would use the transfer station to unload. This would provide efficiencies over the current practice of "direct haul" by the collection vehicles to the Cerro Colorado Landfill.

The siting of a centrally located solid waste transfer station can provide savings, typically when the distance to the disposal site exceeds 15 miles one way. The average distance from the end of SWMD collection routes to the Cerro Colorado Landfill is approximately 20 miles, and the loaded vehicles must climb Nine-Mile Hill and spend approximately thirty minutes at the landfill.

The current SWMD complex on Edith Boulevard was selected as a representative transfer station location near the centroid of waste generation for modeling purposes. Here, the collection fleet would unload on an enclosed concrete tipping floor, where equipment loads the waste onto special high-volume trailers. The transfer trailers are sized to haul the loads of at least 3 to 4 collection vehicles, providing more cost-effective waste transport. At the target rate of 1500 tons/day (tpd), this would reduce the daily truck trips to Cerro Colorado from 250 to 75. This reduced traffic can provide efficiencies at the landfill as well.

The collection fleet would have a shorter distance to the transfer station than the landfill, saving an average of 2.5 hours of travel time per day. The collection trucks would save on unloading time at the transfer station versus Cerro Colorado, and also cut down on vehicle wear-and-tear due to landfill conditions. The time savings would increase the efficiency of the collection fleet by an estimated 50%. For instance, residential trucks now serving two routes per day could more readily complete 3 routes/day. This would provide a reduction in fleet size from 124 to 82 trucks, and SWMD would be able to purchase future vehicles that are more efficient at their primary function of collection rather than long–distance hauling.

For this initial feasibility analysis a conceptual design was developed for a transfer station that would meet the City's current and future waste disposal needs. Capital costs are based on this design, and a list of equipment necessary for an initial 1500 tpd operation is provided 1n **Tables 1.1–1.3**. Operating costs are projected, including staffing transferred from the reduced solid waste collection operation to the transfer station (**Tables 2.1–2.4**). There is no net loss in staff count, as the cost savings are produced by hauling efficiencies.

The results of the Feasibility Analysis indicate that there are significant savings in annual costs when transfer replaces direct haul. Using conservative assumptions, the City would save approximately $1,000,000 per year in collection system management costs. Contracting the haul-to-landfill component to a private entity could further increase the savings based on prevailing market conditions (**Table 2.4**). The hauling cost analysis performed on a $/ton/hour basis (**Tables 3.1–3.3**) confirms the savings. The "break even" point at approximately 45 minutes per round-trip is well below the average current haul time of 90 minutes.

The cost advantage of transfer in comparison direct haul would continue to increase with the following trends:

- Fuel costs – represent approximately 15% to 20% of hauling costs. Fuel cost increases are typically addressed in hauling contracts as an escalator, i.e., "1% increase in unit hauling cost for each 7¢ increase in diesel price".
- Population/service area growth – multiplies the savings proportionately.
- Transfer payload – the current Feasibility Analysis is based on a conservative 20-ton payload for transfer haul. Payloads up to 24 tons may be achievable in a single trailer, and "pup" trailers can increase the total to over 30 tons. Higher payloads decrease the number of trips to the landfill, and the corresponding haul costs ($/ton/hour).
- Recycling – comparable savings could be achieved for the transport of recyclables using the transfer station.

A solid waste transfer at the Edith Boulevard site, or another similar central location, would offer additional advantages not considered in a strict economic evaluation:

- Overall reduction in traffic, savings in fuel use, and highway wear-and-tear.
- Potential efficiencies at the landfill through reducing traffic by over 70%.
- Environmental benefits resulting from lower engine emissions and depletion of non-renewable resources (i.e., fuel, tires).
- Opportunities to consolidate SWMD operations by co-locating the transfer station with other operations, such as receiving / processing / storing recyclable materials.
- More effective waste screening and inspection on the enclosed tipping floor versus the daily working area of the landfill.

LIST OF TABLES

1.1 Capital Cost Estimates – Site Development
1.2 Capital Cost Estimates – Equipment
1.3 Capital Cost Summary
2.1 Operating Cost – Staffing (Projected)
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2.3 Annual Operating Costs – General
2.4 Operating Cost Comparison (Annual)
3.1 Haul Cost – Collection Vehicles (6 ton payload)
3.2 Haul Cost – Transfer Vehicles (20 ton payload)
3.3 Haul Logistics

TABLE 1.1 – CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS CAPITAL COST ESTIMATES - SITE DEVELOPMENT				
TASK DESCRIPTION	**UNITS**	**QUANTITY**	**UNIT COST**	**EXTENSION**
1.0 Site Work				
1.1 Concrete				
· Roadways	sf	103,000	$7.00	$721,000
1.2 Asphalt				
· Transfer Trailer Parking	sf	78,000	$4.50	$351,000
· Misc. Parking	sf	11,000	$4.50	$49,500
1.3 Earthwork				
· Compacted Fill	yd^3	40,000	$4.00	$160,000
· Select Fill	yd^3	10,000	$10.00	$100,000
1.4 Fencing				
· 6' Chain Link and 60' Gates	ea	1	$66,000.00	$66,000
1.5 Scales				
· 11' x 70' Pitless Scale	ea	3	$85,000.00	$255,000
· 10' x 70' Pit Scale w/ Scoreboard	ea	4	$40,000.00	$160,000
· 20' x 40' Scale House	sf	800	$ 175.00	$140,000
1.6 Retaining Walls (concrete)				
· 17' H - 4' H (taper)	lf	1,200	$100.00	$120,000
1.7 Landscaping	ea	1	$25,000.00	$25,000
1.8 Site Survey	ea	1	$10,000.00	$10,000
			Site Work Subtotal:	**$2,157,500**
2.0 Transfer Station Structure				
2.1 Concrete				
· Backing Aprons (8")	sf	50,000	$7.00	$350,000
· Tipping Floor & Tunnel (15")	sf	40,000	$12.00	$480,000
· Tunnel Walls	sf	6,800	$15.00	$102,000
· Push Walls (12" x 12' H)	sf	4,600	$15.00	$69,000
· Push Walls (12" x 4' H)	sf	1,200	$15.00	$18,000
2.2 Engineered Clear-Span				
· Metal Building (28' min clearance)	sf	40,000	$15.00	$600,000
2.3 Doors				
· Roll-up Bay Doors (15'W x 28'H)	ea	20	$15,000.00	$300,000
· Roll-up Tunnel Doors (15'W x 16'H)	ea	4	$12,000.00	$48,000
2.4 Utilities Installation				
· Plumbing, electrical, ventilation, fire suppression	ea	1	250,000.00	$250,000
2.5 Amenities				
· Catch basin, slot drains, eyewash stations	ea	1	$35,000.00	$35,000
· Bollards	ea	90	$300.00	$27,000
· Restrooms	sf	1500	$150.00	$225,000
· Contingency-Equipment	ea	1	$25,000.00	$25,000
			Transfer Station Structure Subtotal:	**$2,529,000**
			Construction Subtotal:	**$4,686,500**
3.0 Contingency @ 10% of Construction Subtotal				**$468,650**
			Construction Total:	**$5,155,150**
4.0 Engineering				
4.1 Permitting	ea	1	$140,000	$140,000
4.2 Construction Plans and Specifications @ 6% of Construction Total	ea	1	$309,309	$309,309
4.3 Architecture @ 2% of Construction Total	ea	1	$103,103	$103,103
			Engineering Subtotal:	**$552,412**
5.0 Project Total				**$5,707,562**

TABLE 1.2 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS CAPITAL COST ESTIMATES - EQUIPMENT				
EQUIPMENT LIST	**UNITS**	**QUANTITY**	**UNIT COST**	**EXTENSION**
1.0 Rolling Stock				
1.1 Live-Floor Transfer Trailers	ea	40	$55,000	$2,200,000
1.2 Tractors	ea	30	$95,000	$2,850,000
Rolling Stock Total		70		
			Rolling Stock Subtotal:	**$5,050,000**
2.0 Site Equipment				
2.1 Front-End Loader (CAT 980G)	ea	5	$368,000	$1,840,000
2.2 Load Levelers				
Mobile Excavator (CAT M318) 19' Reach or	ea	3	$143,000	$429,000
Stationary Tamper (Grizzly 6369 R6) 25' Reach				
2.3 Integrated Toolcarrier IT 28G (with accessories)	ea	2	$125,000	$250,000
2.4 Yard Jockey	ea	2	$90,000	$180,000
Site Equipment Total		12		
			Site Equipment Subtotal :	**$2,699,000**
3.0 Equipment Total				**$7,749,000**

TABLE 1.3 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS CAPITAL COST SUMMARY	
DESCRIPTION	**COST ESTIMATE**
1.0 Site Development	
1.1 Site Work	$2,157,500.00
1.2 Transfer Station Structure	$2,529,000.00
1.3 Engineering and Contingency	$552,412.00
Site Development Subtotal:	$5,238,912.00
2.0 Equipment	
2.1 Rolling Stock	$5,050,000.00
2.2 Site Equipment	$2,699,000.00
Site Equipment Subtotal:	$7,749,000.00
Capital Cost Total:	**$12,987,912.00**

TABLE 2.1 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS OPERATING COST - STAFFING (PROJECTED)				
DESCRIPTION	**NUMBER REQUIRED**	**UNIT WAGES $/HR (W/BENEFITS)**	**SUBTOTAL ($/HR)**	**ANNUAL COST ($/YR)**
Transfer Station				
1. Supervisor	2	$29.16	$58.32	$121,305.60
2. Equipment Operator	10	$23.18	$231.80	$482,144.00
3. Scale Attendant (office)	3	$18.79	$56.37	$117,249.60
4. General Laborer	4	$18.79	$75.16	$156,332.80
Subtotal Transfer Station	**19**	**$89.92**	**$421.65**	**$877,032.00**
Transfer Haul				
5. Driver	25	$24.00	$600.00	$1,248,000.00
TOTAL	**44**	**$113.92**	**$1,021.65**	**$2,125,032.00**

Notes:

- Unit Wages based on current COA benefits multiplier of 1.4452
- Hours based on 2080 per employee (i.e., no overtime), overlapping shifts.
- Staffing List based on 1500 tons/day.
- Drivers for transfer haul and yard jockeys.

TABLE 2.2 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS OPERATING COST ESTIMATES- EQUIPMENT OPERATION				
EQUIPMENT	**UNITS REQUIRED**	**UNIT COSTS ($/HR)**	**ANNUAL HOURS**	**ANNUAL COST ($/YR)**
1. Front-end Loader	5	$50.00	7,000	$350,000.00
2. Mobile Excavator	3	$50.00	4,200	$210,000.00
3. Integrated Toolcarrier	2	$30.00	2,500	$75,000.00
4. Yard Jockey	3	$40.00	4,000	$160,000.00
TOTAL	**13**	**$170.00**	**17,700**	**$795,000.00**

Notes:

- Equipment operating costs do not include labor, capital cost, depreciation, or replacement.
- Hours based on 1500 tons/day.
- Fuel included.

TABLE 2.3 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS ANNUAL OPERATING COSTS - GENERAL	
DESCRIPTION	**ANNUAL COST ($/YR)**
1. Utilities, and Communications, etc.	$90,000.00
2. Materials and Supplies	$80,000.00
3. Facility Maintenance, Landscaping, etc.	$100,000.00
TOTAL	**$270,000.00**

TABLE 2.4 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS OPERATING COST COMPARISON (ANNUAL)			
DESCRIPTION	**DIRECT HAUL**	**TRANSFER**	**SUBCONTRACT HAUL**
1.0 Collection Costs			
1.1 Labor	$6,789,000	$4,526,000	$4,526,000
1.2 Maintenance	$4,527,000	$2,414,000	$2,414,000
1.3 Fuel	$2,286,000	$1,219,000	$1,219,000
1.4 Other	$2,063,000	$1,376,000	$1,376,000
Subtotal	**$15,665,000**	**$9,535,000**	**$9,535,000**
2.0 Transfer Station Costs			
2.1 Labor		$877,000	$877,000
2.2 Equipment		$795,000	$635,000
2.3 General		$270,000	$270,000
Subtotal		**$1,942,000**	**$1,782,000**
3.0 Transfer Haul Costs			**$3,120,000**
3.1 Labor		$1,248,000	
3.2 Maintenance		$1,040,000	
3.3 Fuel		$ 520,000	
3.4 Other		$ 416,000	
Subtotal		**$3,224,000**	**$3,120,000**
Totals - Collection and Transfer:	**$15,665,000**	**$14,701,000**	**$14,437,000**
Potential Savings:		**$964,000**	**$1,228,000**

TABLE 3.1 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS HAUL COST – COLLECTION VEHICLES (6 TON PAYLOAD)	
DESCRIPTION	**$/hr**
1. Labor	$ 24.00
2. Maintenance	$ 18.00
3. Fuel	$ 10.00
4. Other (Insurance, License, etc.)	$ 8.00
Total:	**$ 60.00**
Payload:	**÷ 6 tons**
Haul Cost:	**$ 10.00 ton/hr**

Note:
Equipment operating costs do not include labor, capital cost, depreciation, or replacement.

TABLE 3.2 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS HAUL COST – TRANSFER VEHICLES (20 TON PAYLOAD)	
DESCRIPTION	**$/hr**
1. Labor	$ 24.00
2. Maintenance	$ 20.00
3. Fuel	$ 15.00
4. Other (Insurance, License, etc.)	$ 8.00
Total:	**$ 67.00**
Payload:	**÷ 20 tons**
Haul Cost:	**$ 3.35 ton/hr**

Note:
Equipment operating costs do not include labor, capital cost, depreciation, or replacement.

TABLE 3.3 CITY OF ALBUQUERQUE SWMD TRANSFER STATION FEASIBILITY ANALYSIS HAUL LOGISTICS				
DESCRIPTION	**COLLECTION ROUTES (HRS)**	**TO LANDFILL (HOURS)**	**TO TRANSFER STATION (HOURS)**	**TOTAL HOURS**
1.0 Collection Vehicles				
1.1 Direct Haul (2 routes/day)				
Collection route	4			4
Travel (round-trip)		3		3
Unloading		1		1
			Direct Haul Total:	**8**
1.2 Haul to Transfer (3 routes/day)				
Collection route	6			6
Travel			0.5	0.5
Unloading			0.75	0.75
			Haul to Transfer Total:	**7.25**
2.0 Transfer Haul (3 trips/day)				
Loading			1.5	1.5
Unloading		1.5		1.5
Travel (round trip)		4.5		4.5
			Transfer Haul Total:	**7.5**

Notes:
The third trip to transfer (Travel under 1.2) does not include the third delivery because the vehicle has returned to base.

O. Cost Estimate for Materials Recovery Facility (MRF)

City of Albuquerque
Cost Estimate for MRF Stage 1 – Residential Recyclables
(see Appendix II – A)

P. Household Hazardous Waste (HHW) Program Options

1.0 Introduction

Hazardous wastes generated by residences are exempt from federal laws and regulations. These wastes are classified as household hazardous waste (HHW) and should be distinguished from daily municipal solid waste (MSW) disposed by residential, commercial, institutional, and industrial sources. HHW can include mercury and mercury–containing items (thermostats, thermometers, fluorescent bulbs), paints (latex or oil–based), electronic wastes, organic solvents, household cleaners, fuels, lead acid batteries, motor oil, antifreeze, herbicides and pesticides. The table below shows common household items containing potentially hazardous ingredients that are commonly found throughout the home.

TABLE 1: COMMON RESIDENTIAL HHW ITEMS

CLEANING PRODUCTS	INDOOR PESTICIDES	AUTOMOTIVE PRODUCTS	WORKSHOP & PAINTING SUPPLIES
Oven cleaners	Ant sprays and baits	Motor oil	Adhesives and glues
Drain cleaners	Cockroach sprays and baits	Fuel additives	Furniture strippers
Wood and metal cleaners and polishers	Flea repellents and shampoos	Carburetor and fuel injection cleaners	Paint strippers and removers
Toilet cleaners	Bug sprays	Air conditioning refrigerants	Stains and finishes
Tub, tile, shower cleaners	Houseplant insecticides	Starter fluids	Paint thinners and turpentine
Bleach (laundry)	Moth repellents	Automotive batteries	Oil or enamel based paint
Pool chemicals	Mouse and rat poisons and bait	Antifreeze	Photographic chemicals
		Transmission and brake fluid	Fixatives and other solvents

Source: Environmental Protection Agency website – www.epa.gov

TABLE 1: COMMON RESIDENTIAL HHW ITEMS (continued)

LAWN AND GARDEN PRODUCTS	MISCELLANEOUS	OTHER FLAMMABLE PRODUCTS
Herbicides	Batteries	Propane tanks and other compressed gas
Insecticides	Mercury thermostats or thermometers	Gas cylinders
Fungicides / wood preservatives	Fluorescent light bulbs	Kerosene
	Driveway sealer	Home heating oil
		Diesel fuel
		Gas / oil mixture
		Lighter fluid

HHW can harm the environment and human health if it is not properly handled and disposed. For example:

- **Product Use** – Some pesticides, when used improperly (for example, at high application rates), may enter surface waters and kill aquatic life and contaminate drinking water.
- **Product Storage** – Improperly stored products can result in accidental poisonings of children and animals. Similarly, storage of flammable products (solvents, fuels, oil–based paint) in homes may start fires, add to the fuel load of buildings, and endanger firefighter safety.
- **Waste Handling** – There have been incidents at solid waste facilities where workers have been injured or endangered as a result of hazardous waste disposal from households. For example, some pool chemicals are highly reactive and can release a poisonous gas. Alternatively, flammable products may ignite inside the collection vehicle or disposal facility.
- **Product Disposal** – Many hazardous products, unless segregated and collected separately from other wastes, can damage the environment, including contamination of soil and water, and pollution of air. Environmental damage can occur in several ways, including direct releases to the environment (dumping outside), releases from disposal sites (landfills and incinerators), and releases from wastewater treatment facilities. Used oil dumped on the ground, automotive batteries thrown in a roadside ditch, and herbicides dumped down the storm drain are all examples of direct releases that may harm the environment. Even disposal of some types of HHW in lined landfills can result in environmental damage. For example, mercury disposed of with regular garbage may eventually leach out of the landfill. If collected, the leachate is typically treated on–site or sent to a wastewater treatment facility.

2.0 Existing Programs

To deal with HHW, many communities have set up collection programs to discourage it from being disposed of in MSW landfills and incinerators. HHW collection programs ensure the materials are properly handled and sent to facilities designed to treat or dispose of hazardous waste. HHW collection programs include periodic one–day events held throughout the year, more regular collection activities, or permanent collection facilities.

3.0 Program Development

The primary goal should be to minimize environmental and health impacts associated with HHW. Efforts should be directed at educating the public about the potential hazards of household products, as well as proper handling and disposal methods.

4.0 HHW Program Options

Below are the basic types of programs that should be considered as alternatives for proper management.

4.1 Periodic Collection Programs

Periodic collection events are defined as one–day collection events that do not require permanent structures. These collections are usually operated by contractors and held at municipal facilities such as transfer stations, public works facilities, and school parking lots.

On the scheduled collection day the contractor sets up a receiving area at a pre–designated site. The event is frequently scheduled during the weekend, and is organized by employees and volunteers. In some instances, residents must pre–register so that communities can estimate the waste types and quantities that will be received. At the end of the event the collected waste is transported to a facility (or facilities) permitted to handle HHW.

One–day events have low fixed costs because they do not require a permanent structure. However, participation rates and amounts collected can be affected by weather on collection day, travel distance, promotion level, receiving area wait time, and ease of access to event location.

4.2 Semi–Permanent Collection Programs

Semi–permanent programs are defined as HHW collection operations that are held at a regularly scheduled time, but that have no permanent structures or facilities associated with that collection day. For example, a semi–permanent collection facility can be located at a landfill and operate on a year–round basis collecting wastes every Sunday. The collection site houses no permanent structures. Temporary storage lockers can be set up on–site and are maintained by entity employees or a private contractor.

4.3 Permanent Collection Programs

Permanent HHW collection programs are increasing in number across the country as many communities have transitioned to providing more convenient collection options for their residents. Permanent programs are defined as having an established location with a permanent structure(s) dedicated for the collection of HHW. It is common for permanent programs to have a covered shelter area, cabinets for storage of flammable and reactive materials, drum storage pads, and office space for managing paperwork.

Hours of operation vary depending on the size and participation rates of the community. Most permanent programs provide at least three days a week for acceptance, often operating some time during the weekends. Contractors, entity employees, or a combination of both can staff these programs. Many permanent programs also choose to continue with periodic community collection days. While this provides additional convenience for residents, it also has a significant cost factor.

5.0 Program Costs

HHW program cost savings could be realized by partnering with neighboring communities, sharing contract and marketing expenses, and establishing periodic collection events, which are generally less expensive than a permanent facility.

6.0 Public Participation

Public participation rates in communities with permanent drop–off programs tend to be higher than communities with periodic collection programs. The convenient hours of the permanent program together with the ability to drop off materials on a year–round basis provides residents with additional incentive to use the program.

7.0 HHW Program Marketing

Some of the most common types of marketing techniques used for HHW programs are Internet access as well as printed materials to communicate collection times, days, and locations. Some communities utilize public access television as well as print media advertising. Education is key to a program's success. Many people are not aware of the potential dangers of their household waste, nor do they realize that a program exists for disposal of such items. Educational materials should describe non–toxic alternatives to toxic chemical use, proper disposal methods, and HHW facility location(s) and services.

8.0 Strategies For Reduction

The best way to handle residential HHW is to reduce the amount initially generated by using the entire purchased product, giving leftover products to someone else to use, or purchasing products that are less hazardous. Below are some strategies for minimizing HHW:

- Use and store products containing hazardous substances carefully to prevent any accidents at home. Never store hazardous products in food containers; keep them in their original containers and never remove labels. However, corroding containers require special handling.
- When leftovers remain, never mix HHW with other products. Incompatible products might react, ignite, or explode, and contaminated HHW might become non–recyclable.
- Remember to follow any instructions for use and disposal provided on product labels.
- Use safer alternatives.
- Buy only what is needed and that can be used up.
- If products are left over, give them to friends, neighbors, or charitable institutions to use up.
- Recycling is an economical and environmentally sound way to handle some types of household hazardous waste, such as used automobile batteries and oil. Auto parts stores and service stations frequently accept used automobile batteries, and many of these batteries are currently recycled.

Q. "Dirty" MRFs (Material Recovery Facilities)

On April 18, 2008, the Solid Waste Management Department (SWMD) sent the Council the following response to a question posed by Council regarding curbside residential recycling alternatives.

> *Has the Department conducted a cost / benefit analysis to replace the curbside recyclable pickup program with a program that separates the recyclables at the landfill before burial?*
>
> Staff Response: The Solid Waste Management Department has visited a "Dirty MRF" plant in Canada. New technologies have made this potential more appealing in recent years. Typically, a Dirty MRF will recycle with magnets, air systems, weight systems, screeners and optical scanners. In older facilities, the extraction process has been less than desired with much of the stream landfilled. Furthermore, some models require the use of water.

This technical appendix provides an update and analysis on Dirty MRFs.

1.0 Recent Trends

Curbside residential recycling programs around the country are being upgraded to include:

- Commingling or mixing of recyclable materials to collect more materials more quickly where there is sufficient processing capacity for a wide variety of materials collected together. Larger, more sophisticated materials recovery facilities (MRFs) have been built to process commingled materials. A wide range of MRFs have been developed, with residual materials disposed of in landfills varying from 5 % of the total received materials to over 40 %. Some local governments have established contractual standards for the amount of allowable residue, thus encouraging higher levels of processing efficiency.
- Increased collection of materials, especially mixed paper, corrugated cardboard boxes, and more types of plastics.
- Co-collection of garbage, recyclables, and / or organics in the same truck, but in different compartments.
- Increasingly, communities are collecting discarded food scraps and food– soiled paper with yard trimmings, where the composting processing capacity is available to handle these materials.
- The use of automated and semi–automated collection equipment. Most commingled recycling programs collect recyclables placed in sturdy, plastic rolling carts, usually 64 to 96 gallons in size, which can be emptied with trucks using automatic, extending "arms" that grab the cart.
- Expanded collection beyond single–family residential units to also include at least some multi–family dwellings along with small businesses located along the collection routes of trucks.
- Pay-as-you-throw (PAYT) programs, which provide residents with incentives to recycle more and waste less. Residential PAYT rate structures are based on the same principle as is

typical for commercial generators – the more you put out for disposal the more you pay. For example, if you have one 35–gallon cart collected weekly you pay less than if you have three 95–gallon carts. This encourages residents to keep materials out of the garbage can and sorted for recycling and / or composting.

2.0 Dirty MRFs–Limitations and Benefits

"**Dirty MRFs**" refer to facilities that remove reusable and recyclable materials from unseparated trash or municipal solid waste (MSW). "**Clean MRFs**" upgrade and process recyclables that have been previously removed from MSW. These materials are stored either in separated or commingled form and are typically collected through residential and / or commercial recovery programs.[1]

Dirty MRFs were initially focused on sorting all of the MSW in an area. Although there were a number of such plants built, they have not been embraced by many communities. Some of the difficulties with Dirty MRFs have been:

- Dirty MRFs are not able to produce as clean products as clean MRFs. That means that these facilities are not able to sell their recycled materials for as much money as clean MRFs can.
- Dirty MRFs do not recycle as much material from the waste stream.
- Dirty MRFs have a larger amount of residue, which must still be disposed of in landfills or with other disposal techniques. That means materials are being double–handled, adding cost to the system. It means that landfill disposal capacity is still being used that is a valuable resource in itself. It also means less of a contribution to solving global warming concerns.
- Dirty MRFs do not benefit from the thousands of hours of free labor provided by residents and businesses sorting their materials to make them more recyclable, and replace those with costly sorting equipment and laborers working in questionable working conditions to sort through these materials.
- Dirty MRFs do not provide cost savings to generators, as all waste continues to be hauled as before the facility was built. This eliminates one of the major drivers for generators to recycle more.

The City of Portland, OR demonstrated the latter point when they were considering their commercial solid waste and recycling options several years ago. After a lengthy period of outreach and discussion with business leaders, businesses chose to be required to develop commercial recycling plans and implement them rather than be forced to go to a central Dirty MRF that would eliminate the benefit for them of recycling more.

The latter point is also demonstrated by Zero Waste Businesses. Zero Waste Businesses that have been documented as diverting over 90 % of their waste from landfills and incineration have saved money, reduced their liabilities, and increased their efficiency of operations.[2] They save money the most from eliminating wastefulness in the production cycle. They save some money from reusing products and using reuse systems (e.g., reusable shipping containers and

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[1] Source: http://www.ciwmb.ca.gov/schools/wastereduce/Report2000/Appendices/Glossary.htm

[2] See: http://www.grrn.org/zerowaste/business/profiles.php and http://www.earthresource.org/zerowaste.html

reusable pallets). They still save some money, but usually the least, from recycling and composting the rest of their discarded materials.

Some of the advantages of Dirty MRFs are:

- They do not require waste generators to sort their materials.
- They require very little outreach and education effort.
- Payment of municipal franchise fees for collection of materials can be controlled more.
- Once they are designed and implemented, there is a relatively constant level of recycling success, which is usually dependent on the number of workers involved in sorting and the speed at which belts travel through the facilities.

3.0 Hawthorne, CA Case Study–Options for Service Providers

A variation on the design concept of Dirty MRFs was the regulatory system established by the City of Hawthorne, CA. In the adoption of their Commercial Recycling Ordinance, the City required businesses to achieve a 50 % waste reduction target (the CA state goal), and required apartment owners to provide the opportunity to recycle to all their tenants. To implement the Commercial Recycling Ordinance two categories of recyclables collection systems were set up[3]:

> **"Clean Recyclables"** means recyclables separated at the point of generation from mixed solid waste which are not commingled with more than 3 types of recyclables (examples–papers, plastics, metals) and which contain no putrescible solid waste and less than 5 % of total weight in contaminating solid waste that is not recyclables.
>
> **"Dirty Recyclables"** means recyclables separated at the point of generation from mixed solid waste but which nevertheless contain up to 10 % of total weight in contaminating solid waste that is not recyclables for commercial recycling services and no more than 30 % of total weight in contaminating solid waste for C & D (construction and demolition) debris recycling services, including no more than 1 % of total weight in putrescible solid waste as part of the contaminating waste.

The collection of Clean Recyclables is done by a wide variety of entrepreneurs specializing in different forms of reuse and recycling activities and materials. As long as the material streams are kept clean, all those haulers are required to do is obtain a permit to operate in the City, and report on how much material they collect.

In Hawthorne, the collection of Dirty Recyclables requires a non–exclusive franchise to collect such materials. One of the goals of the Hawthorne system was to encourage both generators and haulers to keep materials separated at the source, to ensure the highest and best use of materials and the greatest value for the sale of the recovered products. The non–exclusive franchise system was designed to include a higher degree of regulation by the City on the types of materials collected, the amount and type of processing, and the payment of franchise fees to the City for the collection of commingled recyclables.

4.0 San Jose, CA Case Study – Dirty MRF for Targeted Streams, Not All MSW

San Jose, CA, is pioneering a new concept for the use of Dirty MRFs to assist with targeted waste streams, rather than being used for all the MSW in the area. These waste streams have been difficult to recycle and represent continuing challenges for the City to increase its waste

[3] http://www.cityofhawthorne.com/civica/filebank/blobdload.asp?BlobID=2136

diversion level above its current rate of diverting 62 % of all wastes from landfills and incinerators.

Beginning May 2008, GreenWaste Recovery (GWR, one of several major collection and recycling companies in San Jose) began processing municipal solid waste (MSW)[4] collected from:

- all Public Litter Cans,
- events held on City property
- public schools located within City boundaries
- Team San Jose, the current operator of the San Jose Convention Center Complex (Convention Center, Civic/Parkside Hall complex, Center for Performing Arts and the Montgomery Theater), and
- San Jose Museum of Art

Beginning November 2008, GWR committed to achieve a minimum 70 % diversion rate from processing MSW collected from these sources. Residue landfilled shall not exceed 30 %. This MSW Processing Program will be discontinued should the diversion rate fall below 50 %.

The diversion standards also do not allow the counting of "Transformation" activities (other than biomass fuel production from the woody materials in yard trimmings). The City's agreement with GWR says that they shall not "Process any Recyclable Materials [5]collected under this Agreement," nor shall they ship, transport, deliver or otherwise make available "any such Recyclable Materials to any person for the purpose of transformation."

The diversion standards also require GWR to ensure that the Recyclable Materials and MSW processed is neither disposed of in a landfill nor utilized as alternative daily cover (ADC) at a landfill or other landfill application.

GWR will process the materials at its Solid Waste Processing Facility[6] as follows:

1. Incoming loads of MSW will be weighed before being processed.

2. MSW will be fed onto the processing line using a Caterpillar-loader, which also provides a cursory mechanical sort by removing large, non-compostable items. Other non-compostable and recyclable materials will be manually removed as the material passes over the processing line. The remaining MSW will continue through a bag breaker where bags are slit and opened, which allows the sorters and screens to pull out the recyclable materials.

3. The MSW will then continue across a disc screen where 3" minus materials are removed. The larger 3" plus materials will continue across a conveyor line for additional sorting of non-

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[4] MSW is all putrescible and non-putrescible solid and semi-solid waste including garbage, rubbish, demolition and construction wastes, industrial wastes, vegetable and animal solid waste and semi-solid wastes, reusable or recyclable materials, bulky goods and other discarded waste materials, excluding hazardous waste.

[5] Newsprint (including inserts); mixed paper (including magazines, catalogs, envelopes, junk mail, corrugated cardboard, Kraft brown bags and paper, paperboard, paper egg cartons, office ledger paper, and telephone books); glass containers; aluminum beverage containers; small scrap and cast aluminum (not exceeding forty (40) pounds in weight nor two (2) feet in any dimension for any single item); steel including "tin" cans and small scrap (not exceeding forty (40) pounds in weight nor two (2) feet in any dimension for any single item); bimetal containers; mixed plastics such as plastic bags, plastic film, plastics # 1-7, and bottles including containers made of HDPE, LDPE, PET, or PVC; textiles; aseptic containers; and other materials that are capable of being recycled and that would otherwise be disposed of as MSW.

[6] This facility is located in San José, CA.

compostables and recyclables. A magnet at the end on the conveyor will remove ferrous metals for recycling. Recyclables such as metals, glass containers, and aluminum cans will be sorted into individual containers and marketed. Hazardous Waste will be sorted into appropriate containers and recycled or disposed of as required by State and local ordinances.

4. The remaining 3" minus MSW will be delivered to the Z-Best[7] Composting Facility along with all remaining Organics. Materials will arrive at the facility and be loaded into a bagging machine using a modified manure spreader truck. The bagging machine will eject the blended MSW into CTI-Bags. Each CTI-Bag shall be equipped with air distribution piping that pumps air into the bags, assuring aerobic composting at high temperatures. Retention time in the bags will be approximately 14 weeks (that is, the material remains in the bag for about 14 weeks).

5. Upon completion of the retention time, the contents of several CTI-Bags will be combined to form one windrow. Windrows will be turned for two to four weeks to thoroughly cure the materials.

6. After curing, the materials will be screened to a ¼" minus to generate the finished product.

7. Residuals remaining after screening will be disposed of at Newby Island Landfill.

8. For every five thousand cubic yards of finished compost generated, samples will be sent to an independent laboratory to test for pathogen reduction.

All expenses related to processing and marketing of Recyclables and Compostable Waste are the sole responsibility of GWR. Additional market development research may be necessary to ensure adequate markets exist for composted material.

The following products are "Approved Products" under the City's agreement for the compostable fraction of the MSW as long as they are processed to meet the State requirements for inclusion in the calculation of the landfill diversion rate.

Compost–"Compost" means organic waste that has been in a controlled decomposition process for a period of not less than twelve (12) weeks, including the U.S. EPA time–temperature relationship defined as PFRP (Process to Further Reduce Pathogens).

Top Soil Additive–"Top soil additive" means a material made from fines blended with soils where the fines are generated from stockpiled "overs" from the composting process (e.g., tree trimmings) that are placed in windrows and periodically turned and screened to produce the fines.

Co–Generation Fuel–"Co-generation fuel" means material that is produced by regrinding and screening "overs" from the pre–processing of incoming materials or from the post–processing of finished products and that is sold to the co– generation market as fuel.

Compostable Waste includes vegetable and other food scraps including meat, dairy products, kitchen grease and bones paper and cardboard that have been contaminated with food, fat or kitchen grease, compostable paper associated with food preparation or food consumption such as paper towels, paper plates, and tissue, and other materials designated by the City that are capable of being composted, that would otherwise be disposed of as garbage.

[7] The Z-Best Composting Facility is located in Gilroy, California.

5.0 CIWMB Waste Analysis of Different MRFs

The California Integrated Waste Management Board (CIWMB) published its Targeted Statewide Waste Characterization Study[8] in 2006. In this study, it analyzed some of the different diversion outcomes resulting from different types of MRFs. Specifically, the study compared the following types of facilities:

1 / **Multi–stream MRFs** that receive and process multiple types of recyclables separately. Incoming recyclables may be collected in a source separated manner or from a curbside dual–stream diversion program that separates paper from containers.

2 / **Single–stream MRFs** that sort individual recyclable materials from recyclables that have been commingled in one stream (for example, paper and containers mixed together).

3 / **Mixed Waste Processing Facilities** (MWPF, also referred to as "Dirty MRFs"), that remove one or more recyclable materials from municipal solid waste (MSW) streams.

4 / **Construction and Demolition (C&D) Processing** facilities that separate one or more materials from mixed construction and/or demolition debris.

The CIWMB study also highlighted the distinction between facilities that used "positive" or "negative" sorts[9], as follows:

- **Positively Sorted**—refers to recyclable or residual material which is physically removed, by human labor or mechanical equipment, from a processing line. Most recyclables are positively sorted into specifically targeted material categories such as aluminum cans, cardboard, and so on.
- **Negatively Sorted**—refers to recyclable or residual material which is not positively sorted or removed from the processing line either manually or mechanically. Negatively sorted material typically is discharged via conveyor belt(s) at the end of a processing line.

Key findings from the CIWMB study of MRFs are presented in the sections below[10]:

5.1 Findings for MRFs Receiving Single–Stream Recyclables

- Single-stream MRFs are the most prevalent (a total of 40, estimated at 46 percent of all MRFs statewide in CA).
- Mixed waste processing facilities or Dirty MRFs disposed of the vast majority of residuals.
- "More than 90 percent of the material processed at the host single-stream MRFs were residential recyclables...The processing technologies at single-stream MRFs ranged from a staff of laborers positively removing large residuals and recoverable material from a system of conveyor belts, to a highly mechanized and automated series of separation technologies. Each MRF used conveyor belts as the primary means of moving material through the processing system. Laborers were used at each MRF to presort large, bulky items which could potentially damage the conveyance or sorting equipment. When laborers were used, each laborer would typically target one type of material for removal. Various types of technologies utilized at single-stream host MRFs included, but were not limited to, disc screens, trommel screens, air classifiers, magnets, eddy currents, and shaker or finger screens..."

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[8] Source: http://www.ciwmb.ca.gov/LGLibrary/infoCycling/2006/Fall.htm
[9] Source: http://www.ciwmb.ca.gov/WasteChar/WasteStudies, p. 40
[10] Source: http://www.ciwmb.ca.gov/WasteChar/WasteStudies, pp. 20-33

- "Although the sorting sequence was fairly consistent, each MRF had a unique processing arrangement and procedure. In general, the order of processing / removal was large presorted residuals followed by various types of fiber or paper, plastics, metals, and glass, respectively. One facility positively removed their entire residual stream and the end-of-line discharge was recovered as mixed paper. The other facilities positively removed large residuals and recyclables and the end-of-line discharge was residual..."

- "The average annual tonnage of incoming material at single-stream Confirmed MRFs was determined to be approximately 52,900 tons. The average residual from single-stream Confirmed MRFs is 7,400 tons. The resulting proportion of residual to the total quantity of incoming material processed was approximately 14 percent, typically ranging from 2 percent to 50 percent."

- "More than 58 percent of the residual from this MRF type was determined to be either paper or plastic. A majority of the paper was miscellaneous or remainder/composite (R/C) paper, which is typically unfeasible and/or undesirable to recover. Various types of miscellaneous paper were unopened junk mail, cereal and cracker boxes, milk and juice cartons, and books. R/C paper included paper with food contamination or moisture, aseptic packages, paper towels or tissues, and photographs. Common R/C plastic items were used food/beverage trays or containers and various plastics which were attached to other types of materials or otherwise not representative of another category."

5.2 Findings for MRFs Receiving Multi–Stream Recyclables

- "Approximately 63 percent of the material processed at the host multi-stream MRFs were residential recyclables, with the remainder from commercial sources..."

- "The processing technologies were similar at both of the multi-stream MRFs which hosted sampling and sorting activities. Both of these facilities were dual-stream, with a separate line for fiber or paper and for containers. Each MRF used conveyor belts as the primary means of moving material through the processing system. Laborers were used to presort large, bulky items which could potentially damage the conveyance or sorting equipment. One MRF primarily utilized laborers to positively remove the recyclables, whereas the other was significantly more advanced although hand sorters were still largely relied upon. Various types of technologies utilized at the multi-stream host MRFs included, but were not limited to, disc screens, trommel screens, magnets, and shaker or finger screens... one of the host MRFs had two separate lines running simultaneously, and the other processed the materials on the same line at different times. For the fiber or paper line, the order of processing/removal was large presorted residuals followed by OCC, newspaper, and mixed paper, respectively. The order of container processing was not consistent between the two host MRFs. Recyclable containers from the fiber line were collected and transferred to the container line for recovery, and vice versa."

- "Multi-stream processing facilities represent approximately 18 percent of the total number of statewide Confirmed MRFs."

- "The average annual tonnage of incoming material at multi-stream Confirmed MRFs was determined to be approximately 20,900 tons. The average residual from multi-stream Confirmed MRFs is 1,300 tons. The resulting proportion of residual to the total quantity of incoming material processed was approximately 6 percent, ranging from 1 percent to 19 percent."

- "As expected, there was minimal residual generated by multi-stream processing facilities, generally due to the quality of incoming material. Less contaminants are present because such curbside programs require customers to separate fiber materials from commingled containers. Furthermore, processing can be more efficient because each stream is more homogeneous. Fiber processing typically has less moisture or food contamination."

- "Similar to single-stream residuals, more than half of the residual stream was paper or plastic. The large percentage of glass (22 percent) in the residual was most likely attributed to the significantly smaller residual quantity of multi-stream MRFs and the fact that there were less contaminants present in the incoming material."

5.3 Findings for MRFs Processing Mixed Waste Material

- "Similar to other MRF types, the processing technologies at mixed waste MRFs ranged from a staff of laborers positively removing large residuals and recoverable material from a system of conveyor belts, to a marginally mechanized and automated series of separation technologies. Each MRF used conveyor belts as the primary means of moving material through the processing system. Laborers were used at each MRF to presort large, bulky items which could potentially damage the conveyance or sorting equipment. When laborers were used, each laborer would typically target one type of material for removal. Various types of technologies utilized at mixed waste host MRFs included, but were not limited to, disc screens, trommel screens, magnets, and shaker or finger screens..."

  "Although the sorting sequence was fairly consistent, each MRF had a unique processing arrangement and procedure. In general, the order of processing/removal was large presorted residuals followed by various types of fiber or paper, plastics, metals, and glass, respectively. Each mixed waste MRF produced an end-of-line residual since the incoming material was solid waste to begin with..."

- "Mixed waste processing facilities represent approximately 24 percent of the total number of statewide Confirmed MRFs. The average annual tonnage of incoming material at mixed waste Confirmed MRFs was determined to be approximately 234,700 tons. The average residual from mixed waste Confirmed MRFs is 189,800 tons. The resulting proportion of residual to the total quantity of incoming material processed was approximately 81 percent, ranging from 27 percent to 97 percent."

- "The incoming material at mixed waste processing facilities is essentially municipal solid waste and the residual percentage is predictably much higher than any other type. Many mixed waste MRFs are increasingly accepting more commercial waste and less residential waste, as commercial waste typically has a higher degree of recoverable materials. Based on information from Confirmed mixed waste MRFs, slightly more residential waste is currently processed. These types of MRFs attempt to remove as many recyclables as possible but there is typically more moisture, food contamination, and more unrecoverable material to sort through. Since incoming quantities are much larger, these types of MRFs often load the processing line at a higher rate."

- "Although approximately the same amount of paper was present within mixed waste residual, a larger portion was R/C paper primarily due to food and/or moisture contamination. The remainder of the residual stream expectedly included larger quantities of C & D and organic material."

5.4 Findings for MRFs Processing C & D Material

- "A total of 6 MRFs were confirmed to process C&D materials throughout the state of California. C&D processing facilities represent approximately 12 percent of the total number of statewide Confirmed MRFs."
- "Almost all of the material processed at the host C & D MRFs was commercial material..."
- "Similar to other types of MRFs, the processing technologies at C&D MRFs ranged from a staff of laborers positively removing large residuals and recoverable material from a system of conveyor belts, to a moderately mechanized and automated series of separation technologies. Each MRF used conveyor belts as the primary means of moving material through the processing system. Laborers were used at each MRF to presort large, bulky items which could potentially damage the conveyance or sorting equipment. When laborers were used, each laborer would typically target one type of material for removal. Various types of technologies utilized at mixed waste host MRFs included, but were not limited to shredders or chippers, disc screens, trommel screens, magnets, and shaker or finger screens..."
- "MRFs processing C&D material are increasingly common throughout the state of California due to the growing number of acceptable uses for the materials. The C&D recycling programs in California are largely accepted as some of the most innovative and effective in the nation. Currently, C&D MRFs represent an estimated 12 percent of the total statewide MRFs by number. Many more C&D recovery facilities were identified but did not meet the specific criteria of a residual-generating MRF, usually because the material was homogeneous (such as pure loads of concrete) and did not require processing."
- "Each MRF had a unique processing arrangement and procedure. Some MRFs positively removed their entire residual stream, while others presorted large, bulky residues and recoverable materials and the end-of-the line was disposed as residual. Each host MRF recovered wood for bio-fuel at conversion plants and fines for landfill alternative daily cover (ADC)..."
- "The average annual tonnage of incoming material at Confirmed C&D MRFs was determined to be approximately 40,000 tons. The average residual from Confirmed C&D MRFs is 9,170 tons. The resulting proportion of residual to the total quantity of incoming material processed was approximately 23 percent, ranging from 1 percent to 41 percent..."
- "A significant portion (55 percent) of the C&D residual was determined to be C&D material. However, some of the materials were not recoverable because they were either treated or composite. An example of composite C&D material is wood framing members which still have metal anchors or joints attached and removal would not be cost-effective."

R. Utilization of Methane from Landfill

METHANE GAS GENERATION AND UTILIZATION OPPORTUNITIES AT CERRO COLORADO LANDFILL

I. 0 Overview

A portion of municipal solid waste (MSW) includes organic material that decomposes due to natural microbial processes. The decomposition proceeds through an aerobic (with air) phase, followed by an anaerobic (without air) phase. During the anaerobic phase, landfill gas (LFG) is produced. LFG is comprised of both organic and inorganic compounds, although organic gases dominate the mixture. Of the organic gases, methane and carbon dioxide are present in approximately equal proportions. LFG also includes the trace presence of other compounds at very low concentrations (e.g., hydrogen sulfide, which gives LFG its characteristic "rotten egg" odor).

2.0 Landfill Gas - Properties and Hazards

Both methane and carbon dioxide are odorless and colorless. Hazards posed by landfill gas can be grouped into three general categories:

- It is potentially explosive in air at concentrations between 5% and 15% due to the methane content.
- It can act as a simple asphyxiant by displacing oxygen in confined spaces, creating an oxygen-deficient atmosphere.
- It contains low-level concentrations of non-methane organic compounds (NMOCs), plus hydrogen sulfide, which are inhalation irritants and can be toxic if prolonged inhalation occurs.

Due to the hazards listed above, EPA regulations require landfills to characterize and control LFG emissions to protect human health and the environment. For example, landfills greater than a certain size that have accepted waste in excess of a specific threshold are subject to EPA's LFG emissions control regulations.

3.0 Landfill Gas - Regulatory Requirements

Based on CCLF's (CCLF = Cerro Colorado Landfill) permitted design capacity (size), amount of MSW accepted, and LFG/ NMOC emissions calculations, CCLF was required to install a landfill gas collection and control system (GCCS). Therefore, a GCCS Design Plan was submitted to the COA/Environmental Health Department (COA/EHD), and the Plan was approved on March 15, 2004 (note: COA/EHD has been provided authority by EPA to implement Clean Air Act requirements for landfills). The COA/EHD approval authorized the construction and operation of a GCCS.

4.0 GCCS Description

4.1 Summary

The GCCS is comprised of a network of LFG extraction wells connected to piping that conveys the gas to a flare for destruction. A blower is used to apply a vacuum to the extraction well/piping network and transport the LFG to the flare. The extraction well/blower/flare system

is designed to operate continuously. The approved GCCS Design Plan also requires routine monitoring, recordkeeping and reporting of GCCS information on a semi-annual basis.

4.2 Current Conditions and Future GCCS Expansion

As of August, 2008, forty (40) LFG extraction wells were in service. Additional extraction wells are planned for installation when waste deposits become five years of age (per regulatory requirements). The approved GCCS Design Plan also includes provisions for expanding the GCCS as waste disposal continues into the future.

5.0 Options for Beneficial Use

As an alternative to flaring the LFG, the energy potential of LFG can be converted for beneficial use. **Table 1** (attached) lists potential LFG to energy (LFGTE) options and associated LFG flow requirements. In addition, a preliminary list of facilities near the CCLF has been compiled to assist in evaluating potential partners and purchasers of the LFG (or electricity derived from the gas; see **Table 2**).

A successful LFGTE project requires a combination of financial and technical resources, cooperation among stakeholders, and a supportive governmental/regulatory framework. Each of these topics is briefly discussed below.

5.1 LFG Production

A successful LFGTE project requires a reliable fuel supply (LFG) for a length of time that is advantageous to both the producer of the gas and the consumer of the gas. In this context, the consumer could be an entity that agrees to one or more of the following: to either purchase the gas; purchase the electricity produced from the gas; or purchase a commodity produced from the gas. Typically, LFG must be generated at a sufficient flow rate and methane concentration for an acceptable length of time. The fuel/energy needs of the end user dictate the fuel specifications for delivery (e.g., methane content, contaminants, moisture, pressure) and consequently, the types and costs of gas processing and distribution.

Based on monthly LFG data recorded from January 2008 to June 2008, the GCCS is collecting between 265 standard cubic feet per minute (scfm) and 285 scfm. Methane concentrations recorded at the blower/flare station for this same time period range from 39% to 43%.

5.2 On-site Use of LFG

After collection and limited gas processing, LFG could be used on-site in one of following ways:

- To power an engine
- To power a turbine
- To generate electricity using a microturbine
- To produce a supplemental fuel via additional processing

The first three options utilize methane's energy potential to produce power. The fourth item refers to production of an alternative fuel or fuel supplement through additional on-site processing (e.g., production of ethanol). Potential LFGTE alternatives are summarized in **Table 1**. The LFG generation requirements in **Table 1** also show that the majority of LFGTE options require higher flow rates than those currently being generated. However, LFG generation rates are expected to increase over time.

5.3 Distribution of LFG for Off-site Use

Processing and transport of the LFG to a local user is another option for beneficial use. For a low-producing facility, a medium BTU (~500 BTU/cfm) fuel application is often the most viable option. For example, many industrial boilers (like those at the nearby jail) can be modified to burn natural gas (~1000 BTU/cfm), landfill gas (~500 BTU/cfm), or a combination of the two. To evaluate potential off-site customers of LFG, a list of nearby facilities has been compiled (see **Table 2,** attached).

5.4 Electricity Generation and Distribution

The potential for generating electricity on-site and selling it to PNM (or others) is also an option, although the cost for LFG-to-electricity infrastructure may be prohibitive. Another option is for the City to sell electricity to a distant user at a cost less than PNM's standard rates. However, the power generator (the City or its partner) would be required to pay a wheeling charge to the utility, and the charge could be prohibitive. Additional research would be required to evaluate these scenarios further.

5.5 Other Options

Consistent with the City's goal of promoting and utilizing alternative fuel vehicles, the LFG could be processed to produce compressed natural gas (CNG) for the City's fleet of vehicles. The LFG could also be processed to produce ethanol or methanol. Additional research would be necessary to assess the variables and costs related to these options.

TABLE 1 – LANDFILL GAS TO ENERGY ALTERNATIVES

ENERGY USE	DESCRIPTION	TYPICAL LFG REQUIREMENTS (CFD [1] at 50% METHANE)
1.0 Gas		
1.1 High BTU	Natural gas – pipeline quality	≥ 4,000,000
1.2 Medium BTU		
• Detention Center	Direct pipeline after processing	≥ 1,200,000
• Other Commercial Users	Direct pipeline after processing	Dependent upon demand
• On-site	Direct pipeline after processing	No current gas service
1.3 CNG/LNG	Compressed fuel – for vehicles after processing	≥ 5,000,000
1.4 Methanol	Fuel additive after processing	≥ 5,000,000
2.0 Power Production		
2.1 Internal Combustion	On-site power generation - for on- or off-site use	≥ 500,000
2.2 Microturbine	On-site power generation	≥ 100,000
2.3 Combustion Turbine	On-site power generation - for on- or off-site use	≥ 2,000,000
2.4 Steam Turbine	Off-site use	≥ 5,000,000

Note:
(1) CFD = cubic feet per day. 1,000,000 CFD is approximately 700 CFM (cubic feet per minute)

TABLE 2 – NEARBY FACILITIES INVENTORY			
FACILITY NAME	**APPROX. MILES FROM LANDFILL**	**RELATIVE DIRECTION FROM LANDFILL**	**NOTES**
Route 66 Casino/Truck Stop	3	WNW	Located across Rio Puerco, South of I-40
Wastewater Treatment Plant	3	WNW	Located across Rio Puerco, South of I-40
Exxon Service Station	3	WNW	North of I-40
Quarry/Excavation	2.5	NW	North of I-40; no apparent utilities
Metropolitan Detention Center	1 (or less)	E	Closest to blower/flare; adjacent property
Sandia Motorsports Speedway	1	NE	Uses only electricity; not adjacent site
Far West Storage	3	NE	North of I-40; no apparent utilities
Channel 7 Doppler Radar	3.5	NE	North of I-40
Enchanted Trails RV Park	4.5	NE	North of I-40
Iceberg A/C	5.5	NE	South of I-40
Ritchie Bros. Auctioneers	6	NE	South of I-40
Air Traffic Control Center	4	E	South of I-40
Microwave/Cell Tower	4	E	Building marked with faded AT & T signs

S. Utilization of Natural Gas as Vehicle Fuel

1.0 Introduction

This analysis has been prepared as a preliminary response to the following question posed by City Council to the City of Albuquerque Solid Waste Management Department (COA / SWMD):

> To further the City's goal to reduce greenhouse gas and avoid the City listed as non-containment by the EPA for PM 10, has the Department determined a cost to convert the vehicles used to pick up solid waste from customers to natural gas? Has the Department tested a natural gas vehicle for residential pick-up?

In an inter-office memorandum dated April 18, 2008, the SWMD stated:

> The Solid Waste Management Department has communicated with manufacturers of natural gas disposal vehicles to determine the feasibility of using natural gas in our vehicles. In order to properly analyze the use of natural gas in collection vehicles, SWMD has requested a vehicle demonstration. This would assist us in evaluating the effects of high altitudes as well as highway performance. Currently, the SWMD does not have the infrastructure in place to meet the fueling requirement associated with natural gas. For example, a major concern is the traveling range, fuel capacity, and time requirements for refueling based on the natural gas product.

In evaluating the feasibility of converting the City's solid waste fleet to consumption of natural gas in place of conventional diesel fuel, data from similar efforts in other parts of the country and information reported by federally funded research projects on the subject was reviewed.

The need for assessing how to reduce air emissions and diesel fuel consumption by refuse and also recycling collection trucks is clear. These trucks have very low fuel efficiency, due in part to continuously stopping and starting throughout their daily routes. Other factors which encourage an examination of this issue include: rising fuel costs, pending and more stringent diesel emissions standards, desire to limit domestic dependence on foreign oil supplies, growing availability of natural gas collection vehicles, and the reduction of noise generated by the refuse fleet as it operates in residential and commercial areas.

However, limiting the scope of inquiry to only one alternative fuel source, natural gas, would be shortsighted. The use of bio-based fuels provides many of the same benefits and can often be accomplished cost–effectively. Natural gas and diesel blends also support the goal of reducing air emissions while retaining the benefits of increased torque and fuel efficiency offered by the diesel engine.

If the goal of the City is limited to the most effective means of limiting air emissions and thereby supporting compliance with provisions of the Clean Air Act related to PM 10, the use of natural gas as a vehicle fuel is clearly advantageous when compared to the current use of conventional diesel. However, through the aforementioned research, the conversion to natural gas may present significant obstacles and challenges for the Department.

Below is an introductory discussion of the advantages and disadvantages related to three alternative fuels and their associated technologies. These fuels are: natural gas, natural gas and conventional diesel blend, and bio-diesel. Table 1 presents the emissions characteristics of natural gas and bio-diesel fuels.

2.0 Natural Gas

The City of Albuquerque currently utilizes natural gas to fuel its urban bus fleet and some passenger vehicles. These vehicles are designed and built to utilize only Compressed Natural Gas (CNG). This dedicated fuel system also requires specialized fueling infrastructure to deliver the CNG. While the City has developed four fueling stations for CNG equipped passenger vehicles and transit busses, it is likely that additional capacity will be required to undertake a fleet-wide shift to CNG by the SWMD.

Due to the specialized nature of CNG utilization it requires a significant capital investment to implement. The existing fleet could not be affordably converted to this fuel and would therefore require a complete replacement of existing equipment, at a significant cost to the City. The cost of a CNG collection vehicle can be 15% to 20% more than a comparable conventional diesel vehicle.

An often unanticipated expense of this scale of fuels conversion involves fleet maintenance costs. Existing facilities and staff are designed to service conventional diesel vehicles. A fleet-wide switch would require large investments in not only tools and equipment but would also demand a corollary investment in knowledge and training for staff to manage the new vehicles. While an incremental conversion may allow for improved maintenance preparedness, it will also place an even greater burden on current maintenance personnel as they would be managing two distinctly different fleets at once. These considerations are even more important given the logistical and space constraints already present at the Edith maintenance / storage facility.

Another financial barrier to CNG conversion involves the need for new and specialized fuel delivery infrastructure. While the City now operates four CNG fueling stations, it is likely that due to the size and fueling requirements associated with a CNG–based solid waste fleet an additional and dedicated fueling facility would be required. With estimates starting at close to $1 million, this cost could present a real economic barrier given that there are other SWMD priorities related to basic operational functions along with parallel development of resources and infrastructure for increasing material diversion through recycling, composting, and reuse.

In addition, there are also operational concerns that which must be addressed when exploring a conversion to CNG. Factors such as range and refueling time must be evaluated to ensure the conversion does not negatively impact the fleet's ability to carry out its primary functions. As well, there are physical design characteristics of CNG vehicles which may pose problems. For instance, due to the size and capacity requirements of CNG vehicles, their turning radii are greater and some collection platforms (such as front–load) may not be available with a CNG–powered chassis.

The available research on the conversion of solid waste fleets to natural gas suggests that success is found where these efforts have strong external support and motivations. For example, fleet conversions in California are driven by a stricter and more aggressive regulatory environment and are supported by a variety of economic incentives to defray the capital intensity of the conversions. The fleets are also performing within operational realities which lend themselves to the previously discussed constraints of natural gas.

3.0 Natural Gas and Diesel Blend

Starting in 2001 the US Department of Energy's Advance Vehicle Testing Activity began a two year study of a new technology which relies on a blend of conventional diesel and liquefied natural gas (LNG). This technology allows operators to retain some of the efficiency and torque benefits provided by a traditional diesel engine while gaining the emissions benefits of LNG.

Even though this equipment is not yet commercially available the success of the pilot effort has encouraged the equipment manufacturer to pursue full-scale commercial deployment. While the main challenges presented by traditional natural gas conversions remain present in this dual-fuel technology, the performance benefits may make it more advantageous for the City.

4.0 Bio–Diesel

Unlike natural gas fleet conversions, bio-diesel conversions can be accomplished with limited capital investment while attaining similar emissions benefits. Bio-diesel is typically a fuel blend of conventional diesel with some portion of vegetable-based diesel, however, fleets can utilize 100% vegetable-based diesel in place of conventional diesel.

The greatest advantage of bio-diesel over natural gas and other alternative fuels is its ability to be used in existing equipment with little or no modifications. It is simply deployed in place of conventional diesel. Many diesel engine manufacturers have recognized bio-diesel and continue to honor related warranties provided the bio-diesel being used meets ASTM standards. Existing fuel delivery systems remain uninterrupted and existing maintenance / service facilities require no upgrades or expansions.

Fleet operators involved in bio-diesel conversions have reported few negative outcomes, most of which are related to the "scrubbing" effects of the bio-diesel (one of bio-diesel's side effects is that it cleans fuel systems of corrosion and deposits and thereby impacts fuel filtration systems.) A second negative outcome, fuel gelling in cold weather, can be almost universally attributed to sub-standard fuels which do not meet the performance specifications prescribed by ASTM and others.

Bio-diesel also affords other benefits including improved fuel efficiency and the retention of the power and torque characteristics of conventional diesel. Bio-diesel is proven to be more effective at lubricating engine components thereby extending service life and reducing maintenance costs.

The most significant hurdle to implementing bio-diesel conversion is the procurement of clean and appropriately blended bio-diesel. It should be noted that finding ASTM compliant bio-diesel has sometimes been difficult in New Mexico.

Unlike ethanol, bio-diesel contains the equivalent of 3.2 times the energy required to produce it (recent reports have found that ethanol may in fact embody slightly more energy than need to produce it in contrast to earlier reports in which ethanol proved to have a significant energy deficit.) Current bio-diesel production capacity is predominantly based on surplus supplies of various vegetable oils including soy. However as bio-diesel utilization expands it is likely to experience similar challenges faced by the ethanol industry relative to the competition between food and fuels.

TABLE 1 / EMISSIONS CHARACTERISTICS OF NATURAL GAS AND BIO-DIESEL AS VEHICLE FUEL SOURCES				
FUEL	PERCENT CHANGE RELATIVE TO CONVENTIONAL DIESEL			
	NITROGEN OXIDES (NOX)	PARTICULATE MATTER (PM)	CARBON MONOXIDE (CO)	TOTAL HYDRO CARBONS (THC)
Natural Gas	-45%	-90%	+92%	-69%
B20 Bio-diesel	0.0%	-10%	-11%	-21%
B100 Bio-diesel	+10%	-50%	-50%	-88%

Source: US Department of Energy, National Renewable Energy Laboratory

References and Related Reports

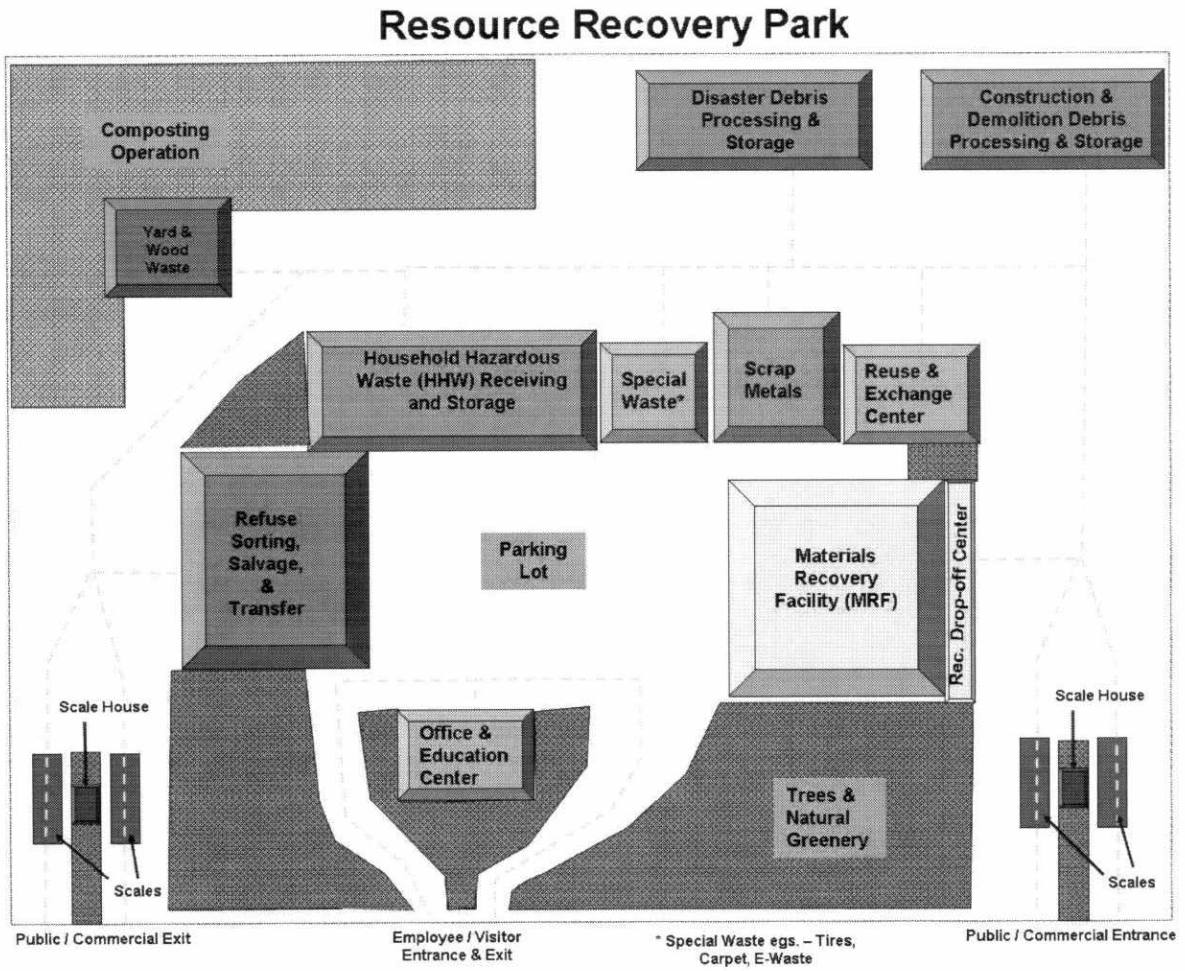
Cannon, J., 2006, *Greening Garbage Trucks: Trends in Alternative Fuel Use, 2002-2005*, INFORM Inc.

Burdelski, J., Cannon, J., Gordon, D., 2003, *Greening Garbage Trucks: New Technology for Cleaner Air*, INFORM Inc.

Chandler K., Proc K., 2004, *Norcal Prototype LNG Truck Fleet*, U.S. Department of Energy.

U.S. Department of Energy, http://www.eere.energy.gov/afdc/

T. Concept Drawing for Resource Recovery Park



U. Stakeholders

A / Regional Non – Governmental Organizations			
NAME	**ADDRESS**	**EMAIL**	**PHONE**
Alternative Fuels Vehicle	11621 San Antonio Drive		87122
Amigos Bravos	610 Gold Ave. SW	bravos@amigosbravos.org	505-452-9387
Archaeological Conservancy	5301 Central Ave. NE	tacinfo@nm.net	505-266-1540
Citizens for Alternatives	202 Harvard Dr. SE		87106
Hawk Watch International	1420 Carlisle Blvd.	hwi@hawkwatch.org	505-255-7622
Hawks Aloft	6715 Eagle Rock Ave. NE	gail@hawksaloft.org	505-828-9455
Holistic Management International	1010 Southwest Tijeras	hmi@holisticmanagement.org	505-842-5252
Nature Conservancy	1307 Rio Grande NM	nm@tnc.org	505-988-3867
NM Volunteers for the Outdoors	2403 San Mateo Blvd NE, Suite W15D	1nmvfo@nmvfo.org	505-884-1991
NM Wilderness Alliance	142 Truman St. NE b-1	Nathan@nmwild.org	505-843-8696
NM Wildlife Federation	2921 Carlisle Blvd. NE 200J	nmwildlife@nmwildlife.org	505-299-5404
Rep America	3200 Carlisle Blvd. NE	newmexico@repamerica.org	
Rural Community Assistance	3150 Carlisle BLVD. NE	edrew@rcac.org	505-421-0261
Sage Council	510 3rd Steet SW	Sage@sagecouncil.org	505-260-4696
Sierra Club NM	100 2nd Street SW	Mudd_pi@mac.com	505-884-3315
Southwest Research and Information Center	105 Stanford Drive SE	info@sric.org	505-262-1862
Tree NM	6101 Andersen Drive SW	tnm@treenm.org	
USGBC NM	320 Central Ave. SW	chrismkerlin@yahoo.com	505-227-0474
AGC	Vicki Mora	Vicki@agc-nm.org	505-842-1462
Habitat for Humanity			
Placitas Recycling Association	John Richardson	Jrichardson28@comcast.net	
NMRC	English Bird	English@recyclenewmexico.com	505-983-4470
ABQ Convention and Visitors Bureau	Novella Trujillo	novella@itsatrip.org	505-222-4307
La Montanita Coop	Michelle Franklin	mf@lamontanitacoop.com	505-217-2010
Build Green NM	Kristy Moyer	kmoyer@hbacnm.com	505-344-3294

B / Regional Counties				
NAME	**POPULATION**	**CONTACT**	**EMAIL**	**PHONE**
Bernalillo		Mike Salas	msalas@bernco.gov	505-224-1640
Sandoval		Robert Sanchez	rmsanchez@sandovalcounty.com	505-867-0814
McKinley		Kit South	ksouth@co.mckinley.nm.us	505-862-8402
Valencia		Bill Chavez		505-866-2034
Torrance (EVSWA)		Joseph Ellis	josephe@lobo.net	505-384-4270
Santa Fe				

C / Regional Towns and Cities				
NAME	**POPULATION**	**CONTACT**	**EMAIL**	**PHONE**
Edgewood			info@townofedgewood.com	505-286-4518
Moriarty				505-832-4406
Los Ranchos		Mayor Larry Abraham	mayorabraham@vllr.com	505-344-6582
Rio Rancho		Mayor Thomas Swisstack	tswissstack@ci.rio-rancho.nm.us	505-891-5001
Bernalillo				
Los Lunas		SW Dir. Bob McQueen	mcqueenb@loslunas.gov	505-352-7632
Belen		Leonard Carillo		505-864-8221
Bosque Farms		Mayor Wayne Ake	Wayne.ake@bosquefarms.us	505-869-2357
Corrales		Anissa Tallada	atallada@corrales.nm.us	505-897-0502

D / Regional Pueblos and Tribes

NAME	POPULATION	CONTACT	EMAIL	PHONE
Eight Northern Pueblos		Sage Deon	Sagedeon22@yahoo.com	505-692-8181
Acoma Pueblo		Rex Salvador	rsalvador@puebloofacoma.org	505-552-5178
Cochiti Pueblo		Mark Chalan	Mars_chalan@puebloofcochiti.org	505-465-3111
San Felipe Pueblo		Michael Romero	tribalutilities@aol.com	505-867-8645
Sandia Pueblo		Alex Puglisi	apuglisi@sandiapueblo.nm.us	505-771-5080
Santa Ana		Deborah Goss	dgoss@santaana.org	505-771-6771
Santo Domingo		Ventura Lovato	vlovato@sdutilities.com	505-465-0055

E / Regional Institutions and Large Employers

NAME	# OF EMPLOYEES	CONTACT	EMAIL	PHONE
UNM	14300	Linda McCormick	lindamcc@unm.edu	505-277-1681
CVNM	1770	Sam Romo	sromo@cnm.edu	505-363-6903
Kirtland Airforce Base	40,000	John Poland	john.poland@kirtland.af.mil	505-846-2751
Sandia National Lab	8730			
ABQ Public Schools	14480			
Intel	3500	O. Paul Gallegos	Orlando.p.gallegos@intel.com	505-893-0836
Honeywell	1100			
Eclipse Aviation	1600			
Ethicon	530			
GE	500			
PNM		John Acklen	John.acklen@pnmresources.com	505-241-2998
US DOE		Charlie Henn	chenn@doeal.gov	505-845-4396

F / Regional Large Recyclers				
NAME	***MATERIALS***	***CONTACT***	***EMAIL***	***PHONE***
Ace Metals	Scrap metal	Paul Winn		505-877-1092
Acme Iron and Metals	Scrap Metal			505-345-3471
Cintas/Roadrunner Paper		Craig Spooner	spoonerc@cintas.com	505-764-9832
Coronado Wrecking	C&D, Concrete Rubble	Keith Whale	info@coronadowrecking.com	505-877-2821
Durango McKinley Paper		Martha Reyes	mxreyes@mckinleypaper.com	505-890-6526
Envirosolve	HHW	Scott Logan	Tulsa@enviro-solve.com	505-873-0012
Interstate Battery			recycle@ibsa.com	888-USA-4001
Jai Tire				800-795-TIRE
LaFarge	Concrete rubble			
Master Fibers		Hector Valverde	hevalverde@masterfibers.com	505-345-6413
Natural Evolution		Traci Phillips	recycle@naturalevolution.com	918-836-2995
Rastra	Styrofoam	Walter Amon	walter@rastra.com	505-873-0012
Rinchem	HHW	Polly Wagner	pwagner@rinchem.com	505-345-3655
Safety-Kleen	HHW			505-884-2277
Southwest Oil Recycler				
Thermo Fluids	Oil & antifreeze			505-247-9699
Valley Proteins	Cooking oil			
Waycor	concrete			
Wise Recycling	Non ferrous metals	Aubrey McWilliams	almcwill@wiserecycling.com	410-609-9256
Wood U Recycle	C&d/greenwaste	Matt Allen	mallen@7cities.net	505-287-9469

G / Regional Small Recyclers

NAME	MATERIALS	CONTACT	EMAIL	PHONE
AAA Pumping	Cooking oil			
Absolute Computing	ewaste			
Bentley Auction Service	Ewaste			
Best Buy	Misc electronics (not ewaste)			
Best Deals Recycling	Radiators & Pb Acid Batteries			
Big D's Flooring	Carpet padding			
Bob's Appliances	Resale appliances			
Boys Appliances	Resale Appliances			
Buffalo Exchange	Resale clothing			
Checker Auto	Motor oil & antifreeze			
Computer Corner	Ewaste			
Computer Reruns/Technet	Ewaste			
Document Solutions	Paper shredding			
Earth Day Recycling	Hauler	Javier Solis	earthdayrecycling@gmail.com	505-232-9211
Electronic Surplus	Ewaste			
Enchantment Electronic Recycling	Ewaste	Joel Belding	digitalempirenm@hotmail.com	505-232-9483
Furniture on Consignment	Furniture			
Ghost Town Trading				
Glasscapes				
Greater ABQ Habitat for Humanity				
Green Planet Recycling	Carpet/padding	Charles Greenwood	Stellarivera30@msn.com	505-837-1950
Hi-Z Computer Systems	Inkjet and toner			
Highland Tire	Tires			
Jaco Environmental	White goods			

Jiffy Lube	Oil & antifreeze			
Lens Crafters	Eyeglasses			
Office Depot	Ink and toner			
Office Max	Ink and Toner			
R & M Metal	Scrap metal			
RDB Office Furniture				
Rio Grande Autos	Scrap Metal			
Rite Way Pallets	pallets			
Rudy's Downtown Recycling	Scrap Metal			

G / Regional Small Recyclers

NAME	MATERIALS	CONTACT	EMAIL	PHONE
Staples	Ink and toner, ewaste			
Tandus	Carpet			
West Silver Recycling	Scrap metals			

H / Regional Composters

NAME		CONTACT	EMAIL	PHONE
Barela Landscaping		Eddie Barela	Mbarela710@aol.com	505-877-8522
Natures Way Composting				
New Leaf Resources			Zamora.newleaf@gmail.com	505-379-1437
Soilutions		Misch Lehrer	misch@soilutions.net	505-877-0220

V. Summary of Comments from Community Recycling Forums and a List of Neighborhood Association and Other Presentations

City of Albuquerque

Solid Waste Management Department

Martin Chávez, Mayor

MEDIA ADVISORY

CITY TO HOLD COMMUNITY RECYCLING FORUMS

FOR IMMEDIATE RELEASE

The City of Albuquerque, Solid Waste Management Department is hosting five community recycling forums for public input and comments. Mayor Chavez has set forth an aggressive plan to move forward on reaching the goal of ZERO LANDFILL by 2030. The forums will outline several recycling initiatives that are being proposed toward meeting this goal. The forums will be repeated from October 27-30th at the following locations. All are invited.

Monday, October 27, 6:00–7:30 PM – Ladera Golf Course, 3401 Ladera Dr NW (Residential Focus)

Tuesday, October 28, 6:00–7:30 PM – Highland High School Library, 4700 Coal Ave SE (Residential Focus)

Wednesday, October 29, 9:00–10:30 a.m. (Business focus) - Solid Waste Management Department Training Room, 4600 Edith NE

Wednesday, October 29, 6:00–7:30 PM – Bio Park Education Center, 2601 Central Ave NW (Residential Focus)

Thursday, October 30, 6:00–7:30 PM – Eldorado High School Cafeteria, 11300 Montgomery Blvd NE (Residential Focus)

####

For More Information Contact:
Jill Holbert
City of Albuquerque
Deputy Director Solid Waste Management Department
505-761-8342 (office)
505-350-1395 (cell phone)

Compiled Comments from the Community Recycling Forums (Oct. 27-30, 2008)

(Green Waste): One of the proposed approaches is to use curbside carts for residential green waste pickup.

- *What do you feel are the benefits of this type of service?*
  - Composting options
  - Less in landfill/diversion
  - No trash bags [needed].
  - Convenient to use. More efficient for green waste
  - Benefits to ecology
  - Compost is a great thing
  - Provides education for kids
  - Garbage [cart] doesn't fill as quickly
  - Not tempted to burn it
  - NO bugs
  - Free mulch
  - Reducing methane
  - Beautify neighborhood
  - Christmas tree storage
  - Saves money
  - Planning for future
  - Local source for gardens

- *What do you feel are the obstacles or barriers to this approach?*
  - Rate structure for those who xeriscape is missing
  - Placement of 4 carts takes a lot of space
  - Fitting of large pieces of green waste into the cart- large limbs, tumbleweeds etc.
  - The increase in our rates
  - Too much green waste
  - Twice a year is not enough
  - Twice a month is too much
  - Could be easy to forget
  - Part of year you won't use service/seasons
  - Neighborhood collection site?
  - Demand will differ by sector of the city/offer services by district?
  - Not a county effort
  - Household organics not included
  - Pro rate it
  - Fee for service basis
  - Wind blows over carts

(Recycling): One of the proposed approaches is to use curbside carts for residential commingled recycling pickup.

- *What do you feel are the benefits of this type of service?*
  - Curbside cart is convenient/easier to recycle
  - Less in landfill

- Curbside reduces [amount] into garbage [cart]
- Makes you feel good
- Can throw anything in cart when in doubt what goes in
- Saves resources
- Individual carts are encouraging
- Source of income
- Won't be left behind if not packaged correctly
- Mess won't blow down the street/keeps neighborhood clean
- Encourage more people [to participate]
- No –plastic bags [needed]
- More space
- Doing the right thing
- Dogs won't get in bags
- Automation makes it an easier task
- Discourages stealing aluminum
- Security of personal info
- Recycling should start FIRST
- Diversion can save money
- Love the proposal
- Like the co-mingling
- Weekly pick-up
- Save money city wide (diversion from landfill)

- *What do you feel are the obstacles or barriers to this approach?*
  - Plastics limited to #1 & #2
  - Not enough education.
  - If recycling the item is not profitable, make it profitable.
  - Sorting must be a horrendous process.
  - Rate increases.
  - Potential to become expensive.
  - Compliance issues
  - [Cart] size can limit amount of recycling
  - What happens to old containers?
  - No parameters on what to recycle
  - Concerned about private sector
  - No penalty for throwing away recyclables
  - Hard to chop up cardboard to fit
  - Carts plus drop off
  - How many carts will we have to store?
  - 96 gallon for recycling or different rate for different sizes
  - Vandalism/repair costs?
  - No consequences
  - Consistency in packaging (commercial)

- *What do you feel are the obstacles or barriers to this approach? (continued)*
  - How do you know it gets recycled/ proof to public
  - Give incentives
  - Trying to determine plastic #1 & #2

- Why can't you recycle all plastic?
- Collection of glass NOT easy
- More collection sites for glass that are PERMANENT
- Understanding what you can and can't recycle
- Time of collections/earliness
- Add glass also
- Pickup could be hazardous
- Could encourage non-recyclables

- *Would you prefer these types of pickup once a week or every other week?*

	Weekly	Every other week	Monthly
Recycling	47	7	
Green Waste	5	35	34

(PAYT): One of the proposed approaches is to use PAYT curbside carts for residential garbage pick up.

- *What do you feel are the benefits of this type of service?*
  - Incentive to recycle.
  - Nice option for a smaller household.
  - Gives you control over you cost.
  - The smaller cart is easier to handle. Gives you a choice
  - Smaller container saves space
  - Offers a financial incentive
  - Saves fuel costs and transportation
  - May put pressure on businesses to reduce packaging
  - Have incentive to recycle
  - Personal challenge
  - Feedback where is it going
  - Realize what and how much you recycle
  - Enhance recycling
  - Puts cost where it belongs
  - Setting a trend

- *What do you feel are the obstacles or barriers to this approach?*
  - Can I trade in my old one (What is the bluebook)?
  - How often can I go form one container size to another w/o penalty?
  - Ease and timeliness of cart distribution to the customer.
  - Not enough cost disparity between small and large cart.
  - Will it impact illegal dumping?
  - May not be as effective for multi-dwelling

- *What do you feel are the obstacles or barriers to this approach? (continued)*
  - Increase of fees over the years
  - Stealing/ wrong carts

- Process of getting bigger cart
- If revenue is made from recycling price should be made to smaller cart
- Super size mentality
- Need for re-education
- Might dump trash elsewhere
- Smaller options for recycling
- Big education pushes to get participants

At this point I would like to finish our focus group by offering you the opportunity to make general comments about this evening presentation on the IWMP.

- Get education out
- More incentives for recycling?
- Use recycling trucks at night in industrial areas
- Recycling at parks ad other public places
- Other items such as: plastic bags, batteries, chip board, empty propane bottles, wood etc…
- Construction waste for homeowner
- Why can't it be tax supporting?
- Can and bottling bins at parks
- Use rail system to transfer to 1 central location
- Encourage city to follow up on pilot projects
- Neighborhood contests
- Recycling in schools
- Incentives for packaging and producing
- Commercial application
- Number of apartments (-25) for recycling
- Clarity on structure & recycling center
- What's recycled the most?
- More opportunity for glass pick- up (recycling)
- Like to know end change on recycling market/ no factories here
- Presentation notes
- What happens to large items?
- Good time management
- Very Informative
- Proposed implementation date telling us when will this take effect
- Offer other options for glass collection like deposits on glass and cans

116 Neighborhood Association (and Additional) IWMP Presentations By SWMD Staff

December 2008	January 2009	February 2009	March 2009	April 2009
Keystone Park NA	Alamosa NA	Academy Ridge East NA	Albuquerque Academy In-service	Fair West NA
La Luz Del Sol NA	Alta Monte NA	Anderson Hills NA	Alvarado Gardens NA	1st Unitarian Church
La Luz Landowners NA	Alvarado Park NA	Cottonwood Trails HOA	American Business Women Assoc.	Heart of the Heights
Zero Waste Workgrp, Climate Action Task Force	Avalon NA	Del Norte NA	Bosque Montano NA	Hodgin NA
	Barelas NA	Elder Homestead NA	Cielito Lindo NA	Los Terrazas NA
	Bel-Air NA	Glenwood Hills NA	Clayton Heights/Loma del Cielo NA	Los Volcanes NA
	Civitan International	Kiva Monte Park NA	Glenwood Hills South Casa Grande NA	Pat Hurley NA
	Countrywood Area NA	Laurelwood NA	Jerry Cline Park NA	Quintessence NA
	Downtown NA	Near North Valley NA	Loma del Rey NA	South West Alliance of Neighbors
	Estates at Desert Ridge NA	Nob Hill NA	Louisiana Purchase Condo Assoc.	West La Cueva NA
	Heritage Hills NA	North Hills NA	Lovelace Employees	Whole Foods Market Earth Day
	Highland Business NA	North Valley Coalition	McDuffie - Twin Parks NA	
	Huning Castle NA	Osuna Park NA	Nor Este N.A.	
	Indian Moon NA	Paradise Hills Civic Assoc.	North Domingo Baca NA	
	Los Duranes NA	Quail Springs NA	North Hills NA	
	Manzano Manor NA	Solid Waste Mgmt. Department Employees	North Valley Senior Center	
	Reynolds NA	South Guadalupe Trail NA	North Wyoming NA	
	Tres Volcanes NA	Thomas Village NA	Palomas Park NA	
	Villages of Parkwest NA	Tuscany NA	Pinon Creek Townhome Assoc.	
		Victory Hills NA	San Gabriel NA	
		Vista Grande NA	Sandia H.S. Area NA	
		Volcano Cliffs NA	Sierra Ranch NA	
			Siesta Hills NA	
			Sonora Assoc. HOA	
			South San Pedro NA	
			Stardust Skies NA	
			Stronghurst NA	
			Tanoan Community Assoc.	
			Ventana Ranch NA	
(4 Presentations)	(19 Presentations)	(24 Presentations)	(29 Presentations)	(11 Presentations)

116 Neighborhood Association (and Additional) IWMP Presentations By SWMD Staff

May 2009	June 2009	July 2009	August 2009	September 2009
2009 Int'l Facility Managers Assoc.	Better World Connections		Nob Hill NA	Academy Estates East
Boyds-Leslie Park NA	Elite Asset Management Team		Rancho Sereno NA	Monte Largo Hills NA
Estates at Tanoan HOA	Quailridge NA		Rotary Club of Albuquerque Del Sol	New Mexico Municipal League
Four Hills HOA	SWMD Driver Trainees		St Joseph Townhouse Assoc.	Vista Magnifica NA
Los Griegos NA				
Parkland Hills NA				
Pueblo Alto NA				
Rio Rancho Rotary Club				
Santa Barbara Martinez Town NA				
Snow Heights NA				
Sycamore NA				
(11 Presentations)	**(4 Presentations)**	**(0 Presentations)**	**(4 Presentations)**	**(4 Presentations)**

October 2009	November 2009	December 2009	January 2010	February 2010
Leadership ABQ	Eight Northern Pueblos Intertribal Resource Advisory Committee		New Mexico Society of Hazardous Materials Managers	New Mexico Chapter Air and Waste Management Association
Matheson Park NA				
Quigley Park NA				
(3 Presentations)	**(1 Presentation)**	**(0 Presentations)**	**(1 Presentation)**	**(1 Presentation)**

City of Albuquerque Integrated Waste Management Plan

Table of Contents for Technical Appendices II

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City of Albuquerque

MRF Analysis

What are the differences in cost, implementation, and processing for a private operator compared to the City of Albuquerque?

Estimation of Materials

The first step of the process was to access the amount of material that could be collected from the City of Albuquerque (CABQ) as well as the greater Albuquerque metropolitan area. From an economic perspective, it would be very expense to limit such a facility to the processing of materials collected only within the CABQ. Several neighboring jurisdictions have recycling programs that are collecting tons which could be processed at the facility and would contribute to the return on the investment.

Total Municipal Solid Waste (MSW) tons for the metropolitan area were projected using the estimated population[1] for the metropolitan area combined with the US Environmental Protection Agency (EPA) waste generation data. Tons generated by person on a daily basis (4.62 pounds)[2] were multiplied by the area's 835,000 people and then annualized. Diversion percentages were then applied to the estimated waste generation. The table below details the projected annual diversion, in tons, used for this analysis:

	Diversion Percentage of MSW tons						
Area	10%	15%	20%	25%	30%	35%	40%
CABQ	43,698	65,547	87,396	109,245	131,094	152,943	174,792
ABQ metro.	70,413	105,620	140,826	176,033	211,239	246,446	281,653

Facility Design

Production

The parameters included the projection of both residential and commercial tons based on the current waste generation amounts. The conceptual design for the MRF would process 50 tons of material an hour: 24 tons of single stream residential mix and 26 tons of commercial materials. Assuming a 6.5 hours of productive time per shift, the facility could process up to 84,500 tons. As collected material amounts increase, production could be expanded from one shift up to three shifts. A second shift would increase processing production to 169,000 tons and a third shift would maximize production to 253,500 tons of recyclables.

Facility Size

The facility will require 75,000 square feet for the material drop off and sorting area, processing equipment, and storage area for baled materials. The minimum land needed is six acres with a rail spur or access to the rail. Ideally, the land will be zoned and in close proximity to the Solid Waste Division offices on Edith Boulevard. A current review of open land turned up a 14 acre site two blocks south on the west side of Edith Boulevard.

Facility Cost

The following table details the projected build cost for this facility in 2008 dollars.

---

[1] University of New Mexico's Bureau of Business and Economic Research
[2] Excludes construction and demolition waste

Rail Spur	1,000 feet	250,000
Scales (Inbound)	2 - 30' Scales	75,000
Scales (Outbound)	1 - 70' Scale	75,000
Building Structure	75,000 sq ft @ $125 ft.	9,375,000
Permitting & Utilities		250,000
Processing Equipment	Two primary sort lines	5,860,000
Engineering & Design	10 % of build cost	1,563,500
Total Build Cost		**$17,448,500**

Labor Force

The following table represents the general composition of the labor force necessary to staff the facility based on the flow of material and equipment configuration.

Staff	1st Shift	2nd Shift	3rd Shift	Total
Material Sorters	21	21	21	63
Forklift Operator	3	3	3	9
Loader	2	2	2	6
Baler Operator	2	2	2	6
Maintenance Worker	1	1	1	1
Roll off Driver	1	1	1	3
Supervisor	1	1	1	3
Facility Manager	1			1
Administrative	2			2
Material Marketing	2			2
Total Staff	**36**	**31**	**31**	**98**

Facility Operational Cost

See MRF Stage 1 Cost worksheet for complete details.

Compare the ability to market materials, what are the advantages / disadvantages?

The main advantage of a private operator is their ability to market broad ranges of materials. Private operators with significant market standing are able to market materials which coming from a smaller public operation would be considered off-spec or contaminated. Chipboard contamination of OCC would be a clear example. RAA is able to market OCC bales with as much as 30% chipboard, while CABQ would be at best penalized and at worst rejected by the same mill. The private will also have longstanding relationships at mills for more challenging materials. Tin Cans exemplify this benefit. They can be very challenging for a small operation to market as most mills use exclusive supply agreements to control the flow of feedstocks. The small operator is rarely able to break through to direct mill marketing and therefore must rely on brokers, who in turn retain a percentage of the market value for themselves. Plastics are also subject to these limitations.

The virtue associated with public operation is the agency responsible for marketing can also apply social consideration in selecting markets. They can, for instance, choose to avoid exportation of recyclables to avoid the known pitfalls of worker and environmental exploitation in developing countries. While these criteria can also be codified in a public/private partnership agreement, the City would sacrifice direct control.

What is the difference, if quantifiable, between private processors and municipal processors?

The most apparent difference between public and private MRF operations relates to labor. Public operations typically have a higher cost of labor due to union contracts and general labor policies. This variation is due to several related factors;

a. Redundancy of staff to cover leave obligations
b. Increased costs related to expansive fringe benefits obligations
c. In New Mexico, shorter work life as a result of 25 years to retirement

Another difference, and perhaps more important between private and public operations is experience and exposure to systems. The private processors generally brings a wealth of knowledge related to the recycling and processing from operations in other regions of the United States. From acquisition of appropriate equipment to the specialized maintenance requirements of these systems, the private has a great advantage. Public operators rarely have history managing and maintaining the complex processing systems which MRF's represent. This lack of experience invariably leads to higher system costs as reliance on third parties for maintenance and service. Albuquerque's experience with their current IPF exemplifies these challenges, specifically the costs associated with the Mozely baler.

Procurement processes also hamper the effectiveness of public MRF's. Consumables such as baling wire are compelled to be acquired through time consuming bid processes. This additional step, adds cost and delays purchases of essential materials. While rigorous procurement standards protect the public from potentially fraudulent activities, they also burden the public with increased administrative costs and inflexibility.

A final factor separating these two management schemes relates to the overall philosophy of management. Private sector operations are highly motivated to find efficiencies and limit costs. Public management focuses attention from a more socialistic perspective rather than financial. In other words, there is not a strong profit motive in the public sector, which sometimes causes public operations to act in ways contradictory to efficient and effective operations.

Public Facility Ownership with Private Contractor

A third option is the public ownership of the facility with the operations provided by a private contractor. This option maintains the City's control of the system and allows an experienced contractor the opportunity to run the daily operations of the processing and broker the recyclable materials. Here are a few of the pros and cons of this alternative.

Pros:

a. City maintains control over the entire system
b. Lower cost of capital for the facility construction
c. Experienced company to reduce the operational and material revenue risks
d. Private contractor would allow the MRF to operate as a regional facility
e. Contracted operations allows all interested parties the equal opportunity to bid

Cons:

a. City will need to fund the facility build cost into the rate base
b. If the facility build costs are borne on the residential rate payer only, the cost is $1.22 per customer per month.

Projected MRF Financial Performance

Material Revenue		2,386,396	3,168,623	3,168,623	4,772,792	6,337,247	6,337,247	7,159,189	9,505,870	9,505,870
Material Throughput Tons >>			**84,500**			**169,000**			**253,500**	
		CABQ	**Private**	CABQ-Contract	CABQ	**Private**	CABQ-Contract	CABQ	**Private**	CABQ-Contract
Operating Costs	Note									
Labor	A	881,296	667,222	667,222	1,781,936	1,353,789	1,353,789	2,692,248	2,050,027	2,050,027
Payroll & Benefit Costs	B	396,583	266,889	266,889	801,871	541,516	541,516	1,211,512	820,011	820,011
Vehicle Repairs & Maint.	C	25,000	25,000	25,000	35,000	35,000	35,000	40,000	40,000	40,000
Equipment & Other R&M	D	175,000	125,000	125,000	225,000	150,000	150,000	275,000	175,000	175,000
Vehicle Op Costs	E	50,000	50,000	50,000	75,000	75,000	75,000	100,000	100,000	100,000
Facility Operating Costs	F	350,000	275,000	275,000	400,000	325,000	325,000	450,000	450,000	450,000
Safety, Insurance & Claims	G	35,000	20,000	20,000	50,000	30,000	30,000	65,000	40,000	40,000
Disposal	H	63,544	113,386	63,544	127,088	226,773	127,088	190,632	340,159	190,632
Subcontract Costs	I	22,000	62,400	62,400	22,000	104,000	104,000	22,000	145,600	145,600
Other Ops Costs	J	50,000	25,000	25,000	75,000	35,000	35,000	100,000	45,000	45,000
Total Operating Costs	K	2,048,423	1,629,898	1,580,055	3,592,895	2,876,077	2,776,392	5,146,392	4,205,797	4,056,270
Gross Profit	L	337,973	1,538,726	1,588,568	1,179,897	3,461,170	3,560,854	2,012,797	5,300,073	5,449,600
S. G. & A. Costs										
Salaries	M	400,404	486,597	486,597	400,404	486,597	486,597	400,404	486,597	486,597
Professional Fees	N	150,000	50,000	50,000	150,000	50,000	50,000	150,000	50,000	50,000
Other Expense	O	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
Allocation - SG&A	P	250,000	-		250,000	-		250,000	-	
Gross Recipts Tax (6.75%)	Q			151,312			232,064			318,456
Total S.G.&A Costs	R	925,404	661,597	812,909	925,404	661,597	893,661	925,404	661,597	980,053
EBITDA	S	(587,431)	877,128	775,659	254,493	2,799,572	2,667,193	1,087,393	4,638,476	4,469,547
Depreciation & Amortization										
Depreciation Bldg	T		571,925			571,925			571,925	
Depreciation Equipment	U		601,000			601,000			601,000	
Amortized Interest Bldg	V		664,409			664,409			664,409	
Amortized Interest Equip	W		236,374			236,374			236,374	
Building Principal & Interest	X	1,914,099		1,914,099	1,914,099		1,914,099	1,914,099		1,914,099
Equipment Principal & Interest	Y	840,723		840,723	840,723		840,723	840,723		840,723
Total Dep. & Amort	Z	2,754,823	2,073,709	2,754,823	2,754,823	2,073,709	2,754,823	2,754,823	2,073,709	2,754,823
EBIT	AA	(3,342,254)	(1,196,580)	(1,979,163)	(2,500,329)	725,864	(87,630)	(1,667,430)	2,564,767	1,714,724
Cost per ton	BB	$ (39.55)	$ (14.16)	$ (23.42)	$ (14.79)	$ 4.30	$ (0.52)	$ (9.87)	$ 15.18	$ 10.15
Cost per Resident per Month	CC	**$ 1.61**	**$ -**	**$ 0.95**	**$ 1.21**	**$ -**	**$ 0.042**	**$ 0.80**	**$ -**	**$ (0.83)**

Notes

Revenue is calculated based on the projected tons by material type . See the Facility Parameter tab for complete details

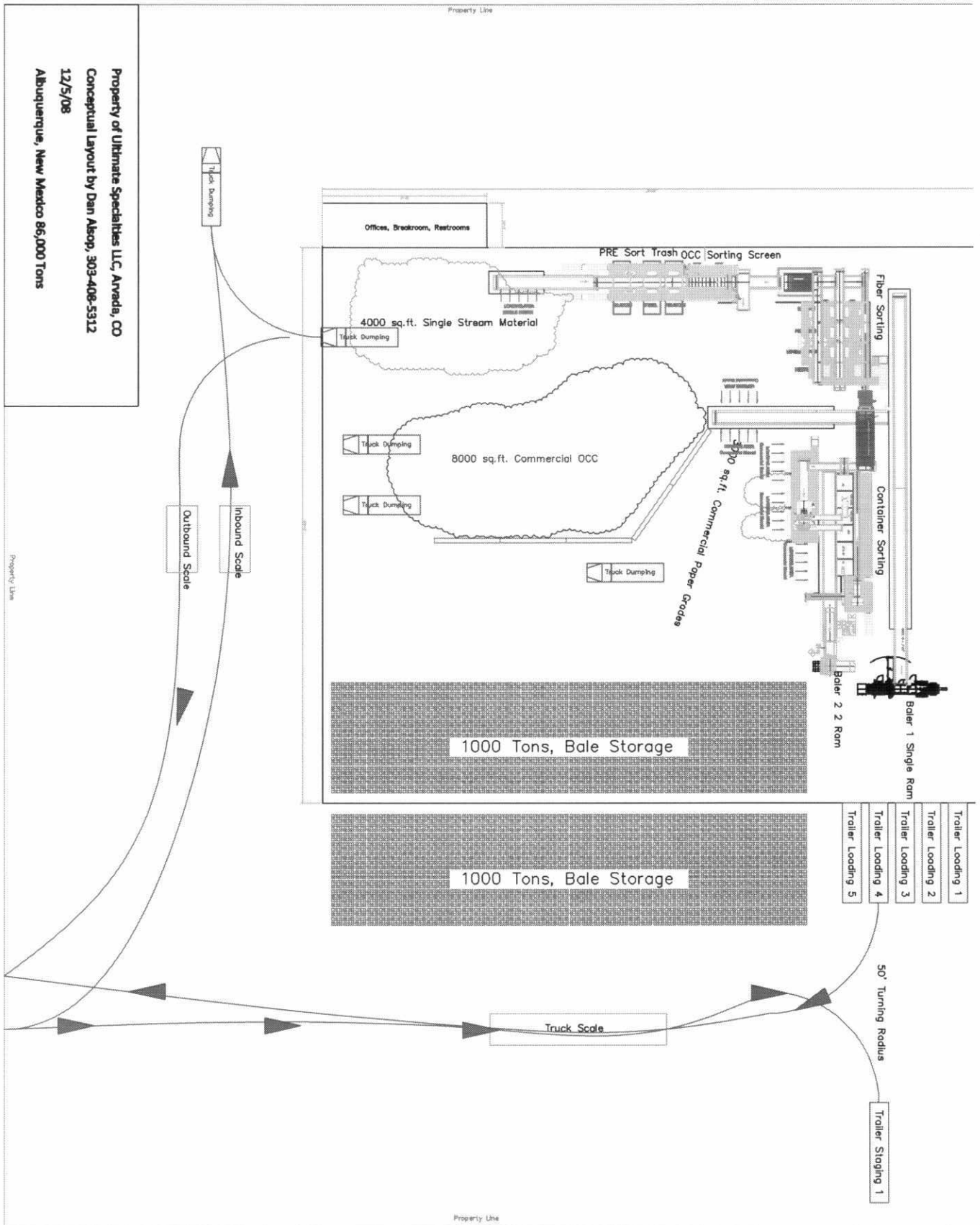
A: Labor costs are calculated on the labor tab
B: Benefits costs are calculated on the labor tab
C: Assumed the same for both enterprises
D: Lower cost for the private due to prior experience with similar facilities
E: Assumed the same for both enterprises
F: Lower cost for the private due to prior experience with similar facilities
G: Lower cost for the private due to prior experience with similar facilities
H: Disposal costs calculated on the Facility Parameter tab
I: Subcontract costs for private are higher for temporary labor
J : Lower cost for the private due to prior experience with similar facilities
K: Sum of items A through K
L: Revenue less Total Operating Costs
M: Overhead salaries calculated on the Labor Costs tab
N: Lower cost for the private due to prior experience with similar facilities
O: Assumed the same for both enterprises
P: City overhead costs allocated to MRF
Q: Gross Receipts Tax on contractor services at 6.75%
R: Sum of items N through Q
S: Gross profit less Total SG&A costs
T: Building cost depreciated over a 20 year life, see Cost Sum tab for details
U: Equipment cost depreciated over a 10 year life, see Cost Sum tab for details
V: Interest cost amortized over a 20 year life using the straight line method, see Cost Sum for details
W: Interest cost amortized over a 10 year life using the straight line method, see Cost Sum for details
X: Building Principal and Interest amortized on a straight line basis over 12 years
Y: Equipment principal and interest amortized on a straight line basis over 10 years
Z: Sum of items S through X
AA: EBITDA line less Total Depreciation and Amortization
BB: EBIT line divided by estimated material tons (84,500 or 169,000 or 253,500) delivered to the MRF
CC: EBIT line divided by 172,800 residential customers and then divided by 12 months

Projected MRF Financial Performance

Material Revenue		$ 2,386,396	$ 3,168,623	$ 3,168,623	$ 4,772,792	$ 6,337,247	$ 6,337,247	$ 7,159,189	$ 9,505,870	$ 9,505,870
Material Throughput Tons >>			**84,500**			**169,000**			**253,500**	
		CABQ	**Private**	**CABQ-Contract**	CABQ	**Private**	**CABQ-Contract**	CABQ	**Private**	**CABQ-Contract**
Operating Costs	Adjust									
Labor	3%	881,296	667,222	667,222	1,781,936	1,353,789	1,353,789	2,692,248	2,050,027	2,050,027
Payroll & Benefit Costs	5%	396,583	266,889	266,889	801,871	541,516	541,516	1,211,512	820,011	820,011
Vehicle Repairs & Maint.	0%	25,000	25,000	25,000	35,000	35,000	35,000	40,000	40,000	40,000
Equipment & Other R&M	0%	175,000	125,000	125,000	225,000	150,000	150,000	275,000	175,000	175,000
Vehicle Op Costs	0%	50,000	50,000	50,000	75,000	75,000	75,000	100,000	100,000	100,000
Facility Operating Costs	0%	350,000	275,000	275,000	400,000	325,000	325,000	450,000	450,000	450,000
Safety, Insurance & Claims	0%	35,000	20,000	20,000	50,000	30,000	30,000	65,000	40,000	40,000
Disposal	0%	63,544	113,386	63,544	127,088	226,773	127,088	190,632	340,159	190,632
Subcontract Costs	0%	22,000	62,400	62,400	22,000	104,000	104,000	22,000	145,600	145,600
Other Ops Costs	0%	50,000	25,000	25,000	75,000	35,000	35,000	100,000	45,000	45,000
Total Operating Costs		2,048,423	1,629,898	1,580,055	3,592,895	2,876,077	2,776,392	5,146,392	4,205,797	4,056,270
Gross Profit		337,973	1,538,726	1,588,568	1,179,897	3,461,170	3,560,854	2,012,797	5,300,073	5,449,600
S. G. & A. Costs										
Salaries	3%	400,404	486,597	486,597	400,404	486,597	486,597	400,404	486,597	486,597
Professional Fees	0%	150,000	50,000	50,000	150,000	50,000	50,000	150,000	50,000	50,000
Other Expense	0%	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
Allocation - SG&A	0%	250,000	-		250,000	-		250,000	-	
Gross Recipts Tax (6.75%)	0%			151,312			232,064			318,456
Total S.G.&A Costs		925,404	661,597	812,909	925,404	661,597	893,661	925,404	661,597	980,053
EBITDA		(587,431)	877,128	775,659	254,493	2,799,572	2,667,193	1,087,393	4,638,476	4,469,547
Depreciation & Amortization										
Depreciation Bldg	0%		571,925			571,925			571,925	
Depreciation Equipment	0%		601,000			601,000			601,000	
Amortized Interest Bldg	0%		664,409			664,409			664,409	
Amortized Interest Equip	0%		236,374			236,374			236,374	
Building Principal & Interest	0%	1,914,099		1,914,099	1,914,099		1,914,099	1,914,099		1,914,099
Equipment Principal & Interest	0%	840,723		840,723	840,723		840,723	840,723		840,723
Total Dep. & Amort		2,754,823	2,073,709	2,754,823	2,754,823	2,073,709	2,754,823	2,754,823	2,073,709	2,754,823
EBIT		(3,342,254)	(1,196,580)	(1,979,163)	(2,500,329)	725,864	(87,630)	(1,667,430)	2,564,767	1,714,724
Cost per ton		$ (39.55)	$ (14.16)	$ (23.42)	$ (14.79)	$ 4.30	$ (0.52)	$ (6.58)	$ 10.12	$ 6.76
Cost per Resident per Month		**$ 1.61**	**$ -**	**$ 0.95**	**$ 1.21**	**$ -**	**$ 0.04**	**$ 0.80**	**$ -**	**$ (0.83)**

Projected MRF Financial Performance

		Projected 2010 with 3% Labor Increase			Projected 2010 with 3% Labor Increase			Projected 2010 with 3% Labor Increase		
Material Revenue		$ 2,386,396	$ 3,168,623	$ 3,168,623	$ 4,772,792	$ 6,337,247	$ 6,337,247	$ 7,159,189	$ 9,505,870	$ 9,505,870
Material Throughput Tons >>		84,500			169,000			253,500		
		CABQ	Private	CABQ-Contract	CABQ	Private	CABQ-Contract	CABQ	Private	CABQ-Contract
Operating Costs	Adjust									
Labor	3%	907,735	687,239	687,239	1,835,394	1,394,402	1,394,402	2,773,015	2,111,528	2,111,528
Payroll & Benefit Costs	5%	416,412	280,233	280,233	841,965	568,591	568,591	1,272,087	861,011	861,011
Vehicle Repairs & Maint.	0%	25,000	25,000	25,000	35,000	35,000	35,000	40,000	40,000	40,000
Equipment & Other R&M	0%	175,000	125,000	125,000	225,000	150,000	150,000	275,000	175,000	175,000
Vehicle Op Costs	0%	50,000	50,000	50,000	75,000	75,000	75,000	100,000	100,000	100,000
Facility Operating Costs	0%	350,000	275,000	275,000	400,000	325,000	325,000	450,000	450,000	450,000
Safety, Insurance & Claims	0%	35,000	20,000	20,000	50,000	30,000	30,000	65,000	40,000	40,000
Disposal	0%	63,544	113,386	63,544	127,088	226,773	127,088	190,632	340,159	190,632
Subcontract Costs	0%	22,000	62,400	62,400	22,000	104,000	104,000	22,000	145,600	145,600
Other Ops Costs	0%	50,000	25,000	25,000	75,000	35,000	35,000	100,000	45,000	45,000
Total Operating Costs		2,094,691	1,663,259	1,613,416	3,686,447	2,943,766	2,844,082	5,287,735	4,308,298	4,158,771
Gross Profit		291,705	1,505,364	1,555,207	1,086,346	3,393,480	3,493,165	1,871,454	5,197,571	5,347,098
S. G. & A. Costs										
Salaries	3%	412,416	501,195	501,195	412,416	501,195	501,195	412,416	501,195	501,195
Professional Fees	0%	150,000	50,000	50,000	150,000	50,000	50,000	150,000	50,000	50,000
Other Expense	0%	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
Allocation - SG&A	0%	250,000	-	-	250,000	-	-	250,000	-	-
Gross Recipts Tax (6.75%)	0%			154,549			237,619			326,360
Total S.G.&A Costs		937,416	676,195	830,744	937,416	676,195	913,814	937,416	676,195	1,002,555
EBITDA		(645,711)	829,169	724,463	148,929	2,717,285	2,579,351	934,038	4,521,376	4,344,543
Depreciation & Amortization										
Depreciation Bldg	0%		571,925			571,925			571,925	
Depreciation Equipment	0%		601,000			601,000			601,000	
Amortized Interest Bldg	0%		664,409			664,409			664,409	
Amortized Interest Equip	0%		236,374			236,374			236,374	
Building Principal & Interest	0%	1,914,099		1,914,099	1,914,099		1,914,099	1,914,099		1,914,099
Equipment Principal & Interest	0%	840,723		840,723	840,723		840,723	840,723		840,723
Total Dep. & Amort		2,754,823	2,073,709	2,754,823	2,754,823	2,073,709	2,754,823	2,754,823	2,073,709	2,754,823
EBIT		(3,400,534)	(1,244,539)	(2,030,360)	(2,605,893)	643,576	(175,471)	(1,820,785)	2,447,668	1,589,721
Cost per ton		$ (40.24)	$ (14.73)	$ (24.03)	$ (15.42)	$ 3.81	$ (1.04)	$ (7.18)	$ 9.66	$ 6.27
Cost per Resident per Month		**$ 1.64**	**$ -**	**$ 0.98**	**$ 1.26**	**$ -**	**$ 0.08**	**$ 0.88**	**$ -**	**$ (0.77)**


Property of Ultimate Specialties LLC, Arvada, CO
Conceptual Layout by Dan Alsop, 303-408-5312
12/5/08
Albuquerque, New Mexico 86,000 Tons
Property Line
Truck Dumping
Offices, Breakroom, Restrooms
PRE Sort Trash
OCC Sorting Screen
Fiber Sorting
4000 sq.ft. Single Stream Material
Truck Dumping
Truck Dumping
8000 sq.ft. Commercial OCC
Truck Dumping
Truck Dumping
3000 sq.ft. Commercial Paper Grades
Container Sorting
Outbound Scale
Inbound Scale
Baler 2 2 Ram
Baler 1 Single Ram
1000 Tons, Bale Storage
1000 Tons, Bale Storage
Trailer Loading 1
Trailer Loading 2
Trailer Loading 3
Trailer Loading 4
Trailer Loading 5
50' Turning Radius
Truck Scale
Trailer Staging 1
Property Line

City of Albuquerque

Yard Waste Supporting Data

A	Residential Customers	172,828
B	Residential SW Tons	203,043
C	Annual SW Pounds per Resident	2,350
	Current Yard Debris Pilot	
D	Residential Customers	700
E	Residential SW Tons	822
F	2008 YTD Weekly Set Out Percentage	24%
G	Cart Weight per Set Out	28
H	Projected Yard Debris Tons	121
I	Annual Yard Debris Pounds per Resident	346
	City Projection based on Waste Composition Studies	
A	Residential Customers	172,828
B	Residential SW Tons	203,043
J	Yard Debris as a % of waste	16.8%
K	Projected Yard Debris Tons	34,064
L	Annual Yard Debris Pounds per Resident	394
M	Average of Item I and Item L	370

Notes

A: Reported residential customers as of June 2008
B: Reported total solid waste tons collected in FY 2007-08
C: Annual pounds was calculated by multiplying the total residential tons by 2,000 pounds per ton and dividing by the total residential customers (203,043 x 2,000) / 172,828
D: Households that are participating in the pilot study
E: Estimated garbage tons based on the 700 participating customers (700 x 2,350 pounds) / 2,000
F: Average set out percentage recorded in calendar year 2008
G: Average set out weight for each cart
H: Projected yard debris tons collected based on the pilot results ((700 customers x 24% set out rate) x 28.1 pounds per set out) / 2,000 pound per ton x 52 weeks
I: Projected annual weight of yard debris collected per pilot resident
J: The average percentage of yard debris in the residential waste stream. Three waste composition studies (City of Phoenix, Yakima County Washington (high desert terrain similar to Albuquerque), and US EPA) were used to calculate the percentage.
K: Total SW tons multiplied by the percentage of yard debris (203,043 x 16.8%)
L: Projected yard debris tons multiplied by 2,000 pound per ton and divided by the total residential customer base (34,064 x 2,000) / 172,828
M: Average of Item I and Item L

Material	Phoenix	Yakima	EPA	Average
Paper	18.3%	16.7%	34.1%	23.0%
Plastic	8.3%	12.7%	11.9%	11.0%
Glass	2.5%	4.3%	5.2%	4.0%
Metal	4.4%	10.9%	7.6%	7.6%
Hazardous Waste	0.4%	1.3%	0.0%	0.6%
C&D Wastes	7.3%	17.5%	5.7%	10.2%
Other Materials	14.0%	16.8%	10.7%	13.8%
Leaves and Grass	28.0%	9.2%	13.1%	16.8%
Food Wastes	16.8%	10.5%	11.7%	13.0%
Total Waste	100.0%	100.0%	100.0%	100.0%

Cerro Colorado Landfill Disposal Costs

FY 2009 Landfill Budget		Cost per Ton	
Labor	1,580,311		
Operations	1,428,670		
IF transfers	103,369		
Truck R&M Expense	1,002,513		
Allocated Fund Transfers	2,223,809		
Administrative Expense	1,113,172		
Total Operational Costs	**$ 7,451,844**	$	13.86
Capital Replacement Cost	**$ 932,725**	$	1.74
Equipment (3 year av.)			
Cell 8 build costs (in 2011 $)	**$ 1,976,433**	$	1.82
Projected tons (2009 to 2011)	1,088,505		
Landfill Gas Recovery		$	0.21
Closure/Post Closure Costs		$	0.55
Total Disposal Cost per Ton		**$**	**18.17**

Landfilled Waste Tons

Year	Tons
2005	541,354
2006	563,567
2007	581,441
2008	605,207
2009	638,021
2010	537,533
2011	550,972
2012	564,746

Cerro Colorado Closure Costs

Regulator Requirement
The Cerro Colorado operating methods are documented in operating, closure, and post-closure plans as part of the landfill operation permit filed with the New Mexico Environment Department. The Cerro Colorado operates on a "cell' basis; that is, only a portion or cell of the landfill is used at a time. Certain materials and equipment used to contain the waste and monitor the environmental effect of landfill operations, such as liners and leachate collection systems, are installed before the cell is ready to receive waste in accordance with state and federal, requirements. Final cover is applied to each cell once it is filled to capacity. Monitoring and collection systems are put into place only when the regulation requiring these systems comes into effect. A final cover might not be applied until the entire landfill stops accepting solid waste.

As owner of the Cerro Colorado Landfill, the City of Albuquerque is required to estimate these future liabilities and accrue the amounts necessary under the direction of Statement Number 18 of the Governmental Accounting Standards Board (GASB) released in August 1993. Statement Number 18 is commonly referred to as GASB 18 and is officially titled Accounting for Municipal Solid Waste Landfill Closure and Post-closure Care Costs. Page 2 of the pronouncement states:

Landfill owners and operators are required to incur a variety of costs to provide for protection of the environment both during the period of landfill operation and during the post-closure period. The estimated total current cost of landfill closure and post-closure care, based on applicable federal, state, or local laws or regulations, should include:

> *a. The cost of equipment expected to be installed and facilities expected to be constructed (based on the landfill operating plan) near or after the date that the landfill stops accepting solid waste and during the post-closure period.*
>
> *b. The cost of final cover (capping) expected to be applied near or after the date that the landfill stops accepting solid waste.*
>
> *c. The cost of monitoring and maintaining the expected landfill area during the post-closure period. Post-closure care may include maintaining the final cover; monitoring groundwater; monitoring or collecting methane and other gases; collecting, treating, and transporting leachate; repairing or replacing equipment and facilities; and remedying or containing environmental hazards.*

After the initial calculation of estimated total ***current cost*** *of landfill closure and post-closure care, current cost should be adjusted each year for the effects of inflation or deflation. In addition, current cost should be adjusted when changes in the closure or post-closure care plan or landfill operating conditions increase or decrease estimated costs.*

In accordance with GASB 18 the City has completed regular landfill cost assessments with the last one completed in May of 2008 by Gordon Environmental. It is critical to understand that the engineer's report assumes all of the costs of closure and post closure would be incurred in one year; however, the expected lifespan of waste disposal for the Cerro Colorado landfill is 29 years (2038) and then it will require a minimum 30 years of monitoring after year 2038. The following table details the total current costs for what is expected to be over 60 years of required regulated activities.

Task	Schedule	Cost
Phase I & II Assessment	2 events	$422,950
Landfill Closure Cover	3 phases	$5,126,550
Post Closure Maintenance	30 yrs. (annual)	$402,600
3.1 Gas Monitoring	30 yrs.(annual)	$1,600
3.2 Mgmt & Maintenance	15 yrs.(every-other-year)	$34,700
3.3 Landfill Decommission	1 time (1st year of closure)	$29,000
3.4 Ground Water Monitor minor.	24 yrs.(every year except full)	$8,000
3.5 Ground Water Monitor full	6 yrs.(every 6th year)	$12,000
3.6 NPDES Monitor	30 yrs.(annual)	$3,600

Cerro Colorado Closure

The Cerro Colorado Landfill is divided into three phases. Each phase has six separate cells. Phase I, cell six will reach capacity in the later part of 2010 with 10,345,917 tons of waste in place. The remaining cells in phase II and phase III are expected to reach capacity from 2010 to 2138 with 30,609,693 tons of waste in place. Closure for the landfill will be conducted in three phases starting in 2011 with closure of phase I and ceasing in 2038 with the closure of cell 18. Assuming the landfill was to close all 395 acres in 2008, which is the year the cost assessment, the total cost would be $5,126,550. The closure cost per acre is $12,979. Since the landfill will be closed in phases over the next 28 years, the cost to close each phase needs to be adjusted to account for inflation. In addition, phase I and phase II will require an engineer's assessment in conjunction with the closure. The following table summarizes the projected year of closure for each of the three phases and the closure cost adjusted for inflation.

Phase	Acres	Closure Year	Closure Cost	Assessment Cost	Total Closure & Assessment Costs
Phase I	99	2011	$1,383,178	$453,075	$1,836,253
Phase II	123	2026	$2,857,407	$813,122	$3,670,529
Phase III	173	2038	$6,083,232	n/a	$6,083,232
Totals	395		$10,323,817	$1,266,197	$11,590,014

Although the estimated closure cost is $5,126,550 in 2008 dollars, adjusting for inflation during the life of the landfill increases the cost of closure by 226% to $11,590,014.

Post-Closure activities commence with the final cover of the landfill and have an expected life of at least 30 years. Again, the costs provided in the engineer's assessment assume all the costs will be incurred in the year of the estimate. The following table details the required activity by year and costs assuming a 3.5% CPI and starting in year 2039.

Date	Closure Year	3.3 Landfill Decom-mission	Inspections	3.1 Gas Monitoring	3.2 Mgmt. & Maint.	3.4 Water Monitoring (short list)	3.5 Water Monitoring (full list)	3.6 NPDES Monitoring	Total Annual Cost
2039	Year 1	$206,062	$37,667	$4,491		$22,454		$10,104	$280,779
2040	Year 2		$38,986	$4,648	$100,805	$23,240		$10,458	$178,137
2041	Year 3		$40,350	$4,811		$24,054		$10,824	$80,039
2042	Year 4		$41,762	$4,979	$107,984	$24,896		$11,203	$190,824
2043	Year 5		$43,224	$5,153		$25,767		$11,595	$85,739
2044	Year 6		$44,737	$5,334	$115,676	$-	$40,003	$12,001	$217,750
2045	Year 7		$46,303	$5,520		$27,602		$12,421	$91,846
2046	Year 8		$47,923	$5,714	$123,915	$28,568		$12,856	$218,975
2047	Year 9		$49,600	$5,914		$29,568		$13,306	$98,388
2048	Year 10		$51,336	$6,121	$132,740	$30,603		$13,771	$234,572
2049	Year 11		$53,133	$6,335		$31,674		$14,253	$105,395
2050	Year 12		$54,993	$6,557	$142,195	$-	$49,174	$14,752	$267,671
2051	Year 13		$56,918	$6,786		$33,930		$15,269	$112,902
2052	Year 14		$58,910	$7,024	$152,323	$35,118		$15,803	$269,177
2053	Year 15		$60,972	$7,269		$36,347		$16,356	$120,944
2054	Year 16		$63,106	$7,524	$163,172	$37,619		$16,928	$288,349
2055	Year 17		$65,314	$7,787		$38,936		$17,521	$129,558
2056	Year 18		$67,600	$8,060	$174,794	$-	$60,447	$18,134	$329,035
2057	Year 19		$69,966	$8,342		$41,709		$18,769	$138,786
2058	Year 20		$72,415	$8,634	$187,243	$43,169		$19,426	$330,887
2059	Year 21		$74,950	$8,936		$44,679		$20,106	$148,671
2060	Year 22		$77,573	$9,249	$200,580	$46,243		$20,809	$354,454
2061	Year 23		$80,288	$9,572		$47,862		$21,538	$159,260
2062	Year 24		$83,098	$9,907	$214,866	$-	$74,305	$22,292	$404,469
2063	Year 25		$86,007	$10,254		$51,271		$23,072	$170,603
2064	Year 26		$89,017	$10,613	$230,170	$53,065		$23,879	$406,744
2065	Year 27		$92,132	$10,984		$54,922		$24,715	$182,754
2066	Year 28		$95,357	$11,369	$246,564	$56,845		$25,580	$435,715
2067	Year 29		$98,694	$11,767		$58,834		$26,475	$195,771
2068	Year 30		$102,149	$12,179	$264,125	$-	$91,340	$27,402	$497,195
	Totals	$206,062	$1,944,480	$231,831	$2,557,151	$948,974	$315,270	$521,619	**$6,725,387**

The required cost to close and monitor the Cerro Colorado is $18,315,401, which is the sum of the closure cost ($11,590,014) and the post-closure cost ($ 6,725,387). The City has accrued closure costs for Cerro Colorado since the start of disposal operations with a current balance of $1,580,708. The difference between the projected closure and post-closure costs and the current balance is the amount the City needs to collect over the remaining life of the landfill. Dividing this remaining amount by the remaining landfill tons (30,609,693) is the amount the City needs to collect on each ton of waste placed into the landfill. The following table summarizes the calculation of the per ton closure cost:

A	Cost to Cover 395 Acres	$ 11,590,014
B	Post-Closure Costs (30 years)	$ 6,725,387
C	Total Cost to Close (A + B = C)	$18,315,401
D	Less Current Balance	$(1,580,708)
E	Remaining Accrual (C – D = E)	$16,734,692
F	Estimated Tons	30,609,693
G	Closure Cost per Ton (E / F = G)	**$0.55**

1.0 Planning Context

The City's Solid Waste Management Department (the Department) contracted with Zia Engineering & Environmental Consultants and its sub consultants to prepare an Integrated Waste Management Plan. Part of this planning process involved evaluating the cost of providing collection and disposal services and to conclude if the fees charged impeded or enhanced the Department's and City's goals. The conclusion reached relative to the current fiscal position of the Department is that it is barely able to fund existing trash collection and disposal operations plus a marginally effective residential recycling program.

The current fiscal condition has become a primary barrier to implementation of the IWMP waste diversion initiatives The Department is not in a position to construct a large–scale transfer station or recycling processing facility; upgrade and modernize the maintenance yard; expand residential recycling or undertake commercial recycling; carry out multi–faceted promotion / education activities to stimulate more waste diversion; hire related staff; or even replace aging equipment used for garbage collection and disposal.

The rates are imbedded in the Solid Waste Ordinance and are subject to final approval and authorization from the City Council. The City's solid waste management system is municipally controlled and vertically integrated – the Department collects all residential and commercial refuse, maintains public convenience centers, and operates a landfill. Thus it has access to a large rate base and various sources of revenue.

However, through successive administrations and City Councils the pattern has been for the technical and economic rationale justifying rate adjustments to be undermined by the inevitable political conflicts and considerations that characterize administration / City Council relationships. Inaction over the last four years by City Administration has depleted the Department's ability to maintain basic functions much less fund improvements. Past mayors, mayoral staff, and Council members have historically not wanted to be seen as responsible for raising rates.

Until and unless the rate issue – that is, both the rate – setting mechanism and the rate levels themselves – is resolved, the waste diversion initiatives in the IWMP are nothing more than empty rhetoric...and will continue to remain so.

1.1 Cost of Service Rate Setting Approach

Setting rates based on actual cost of service is a practice that is not widely used in New Mexico. In the past, the Department budget was completed and if the projected revenues did not support the expenses, the additional revenue required in the rates was assessed and the increase was allocated as a flat percentage over the residential and commercial customers. The cost of service study was a thorough evaluation of each service provided by the Department. The adopted FY 2010 budget was the base line for the study costs. The Department budget is segregated into five divisions: Collection, Disposal, Recycling, Clean City, and Administration. Each division was evaluated to understand the various services, internal and external customers, fixed and variable costs, and sources of revenue. Performance and customer statistics were collected from numerous sources within the Department. These statistics were then used to assign costs to various services within the Department and to allocate costs to the specific customers. Actual costs that are incurred by a specific service, such as equipment replacement, were directly assigned.

The cost of capital repair and replacement is a separate cost component in each of the proposed rates. The future equipment needs for each division was analyzed based on the current level of service and the remaining useful lives of the assets in service. Replacement costs were researched and replacement schedules were completed based on the estimated useful life of each asset. To illustrate this method, the cost of replacing a residential collection truck today with a useful life of seven years is $235,500. Because this truck has a seven year life, the Department needs to collect $33,643 or 1/7 of the value of the truck every year for future replacement. The annual replacement cost for all capital assets which include trucks, carts, and commercial containers was then allocated to the customer base and added to the rate.

Repair to departmental facilities and buildings such as the convenience centers and administrative office were assigned based on 2% of the replacement value. These costs were also added to the respective services within the proposed rates.

To summarize this approach within the study, the cost of disposal is illustrated. Budgeted amounts from account 5415000 are the daily operational costs of the Cerro Colorado Landfill. The landfill is also a user of internal department services such as vehicle and equipment repair from account 5417000; therefore, a portion of the cost of this internal service fund was assigned to the landfill based on the value of the equipment. Administrative services from account 5418000 were also assigned using a similar approach. The sum of the three services is the total operational costs of the landfill. A capital repair and replacement schedule of costs for the landfill was completed as well as the cost of constructing a replacement cell in 2011. Plumbing the current cells to remove methane gas is a direct cost that was assigned to the landfill. Future landfill cost projections of closing and monitoring the landfill were also added to the current cost. Once the assignment of these internal and external costs was completed and summarized, the total cost of the landfill was allocated over future waste tons to calculate the cost per ton.

The standard approach to setting collection rates is to calculate the cost of providing the collection service and the disposal cost independently and then add the results together to arrive at the fee. Waste tons collected by service (residential, commercial, and roll off drop box) in 2009 were used to calculate the cost of disposal. In 2009, the Department collected 170,337.95 tons of solid waste from the City residential customers. The cost of disposal at the landfill was calculated at $18.17 per ton, so the total disposal cost from residential collection was $3,095,041 (170,337.95 tons x $18.17). To calculate the cost in the rate, $3,095,041 was divided over 12 months and then divided over the 175,162 residential customers to arrive at a monthly cost of $1.47 per customer per month.

The following pages explain in detail the cost of service fee approach and the costs for each service components.

2.0 Department Expenses

The Solid Waste Management Department has five separate divisions that provide ten specific services, as portrayed in the first table below. Eight of these services are provided to the public and two are internal – Vehicle Maintenance and Central Services.

Vehicle Maintenance provides repair and maintenance to the entire fleet of collection and service vehicles plus the heavy equipment at the landfill and convenience centers. Central Services provides the administration, payroll, accounting, and reporting for the Department. The cost of Vehicle Maintenance is allocated to the eight public services whereas the cost of Central Services is allocated to collections and disposal.

Each division has its own budget. Approximately 75 % of the Department's costs are incurred by the divisions. In addition to the divisional budgets, the Department incurs approximately 25 % of its annual costs in the form of inter–fund transfers to other departments within the City.

The following tables detail the division, service provided by each, and the 2009–2010 budgeted expenses and inter–fund transfers for the SWMD.

Division	Divisional Service	Amount	Expense %
Collections	Commercial Generators	$ 10,210,858	18 %
Collections	Residential Generators	$ 7,646,142	14 %
Disposal	Landfill	$ 3,312,350	6 %
Disposal	Convenience Centers	$ 2,862,650	5 %
Admin. Services	Vehicle Maintenance	$ 3,768,547	7 %
Admin. Services	Central Services	$ 4,114,453	7 %
Recycling	Curbside Residential Recycling	$ 1,838,464	3 %
Recycling	Intermediate Processing Facility (IPF)	$ 1,694,536	3 %
Clean City	Weed & Litter Removal	$ 4,438,819	8 %
Clean City	Graffiti Removal	$ 1,302,181	2 %
	Fund Transfers Out	$ 14,789,000	26 %
	Total Expenses	**$ 55,978,000**	**100%**

The table below shows the specific inter–fund transfers out of the Department:

Destination of Transfer	Reasons for Transfer	Amount
General Fund	Payment in lieu of taxes and overhead	$ 2,976,000
Debt Service	Long – term debt on equipment	$ 4,999,000
Capital Acquisition	Capital equipment purchases	$ 3,818,000
Environmental Health Department	Household Hazardous Waste program, and Capital expenses	$ 1,312,000
Animal Services	Dead animal pick-up	$ 123,000
Water Department	Invoicing for collection services	$ 997,000
Dept of Municipal Dev.	Security at solid waste facilities	$ 436,000
Planning Department	Code enforcement (2 FTEs)	$ 128,000
	Total	**$ 14,789,000**

The Department has a restricted cash account dedicated to the closure costs for the Cerro Colorado Landfill. Funds are annually allocated to this account to pay for the closure and post – closure costs of the landfill once it has reached capacity.

2.1 Costs for Disposal

Waste disposal costs are comprised of three primary expenses: landfill operations, landfill cell construction, and landfill closure costs. Daily operations at the landfill have an approximate cost of $ 7.6 million per year or $14.18 per ton of garbage disposed. These costs include labor, daily operation, equipment replacement, and administration of the activities at the Cerro Colorado Landfill. During fiscal year 2008 – 09, the landfill accepted approximately 534,000 tons of municipal solid waste and 170,000 tons of remediated soil. The active cell being used for disposal is projected to reach capacity in late 2011. For the current fiscal year it is estimated 538,000 tons of municipal solid waste will be disposed at the landfill. The table to the right summarizes past and projected tons disposed at Cerro Colorado Landfill.

Landfilled Waste Tons	
Year	**Tons**
2005	541,354
2006	563,567
2007	581,441
2008	605,207
2009	638,021
2010	537,533
2011	550,972
2012	564,746

Excavation of the new cell (Cell 8) has begun with an estimated completion of early 2011. The projected cost for Cell 8 at Cerro Colorado Landfill is $ 2.0 million. Over the next two years, the City would need to collect an additional $1.82 per ton of disposed waste above the existing tipping fee to pay for the new cell.

The costs to cover and monitor a closed landfill cell are known as closure and post – closure costs. While these costs will be incurred in the future the revenue needs to be collected now and encumbered in a separate account for this purpose. The estimated cost to close the current cells in 2010 (Cells 1 through 7) is $ 1.6 million and the amount that needs to be in the bank in 2010 for the 30 years of post – closure care for the same cells is estimated at $ 2.6 million. The amount of closure and post – closure costs to be collected today amounts to a charge of approximately $0.55 per ton. The table below summarizes the current costs of disposal services for the Cerro Colorado Landfill.

Description	Notes	Data / Cost	
Estimated FY 2010 SW Tons	A	537,533	
FY 2009-10 Landfill Budget		**Cost / Data**	**$ per Ton**
Operations Labor	B	$ 1,580,311	
Operating Expense	C	$ 1,428,670	
Interfund Expenses	D	$ 103,369	
Truck R&M Expense	E	$ 1,002,513	
Interfund Allocations	F	$ 2,223,809	
Administrative Expense	G	$ 1,113,172	
Total Operations Cost (Sum of Items B through G)	H	**$7,451,845**	$13.86
Capital Replacement Cost	I	$932,725	$1.74
Projected tons (2010 to 2011)	J	1,088,505	
Cell 8 build costs (in 2011 $)	K	$1,976,433	$1.82
Landfill Gas Plumbing	L	$225,000	$0.21
Closure & Post Closure Costs	M		$0.55
Total Disposal Cost per Ton	N		**$18.17**

Table Notes and Calculations on the following page

A: Projected waste tons for the Cerro Colorado Landfill based on past disposal plus the increase in population for the City of Albuquerque. The cost per ton is the line item cost divided by the waste tons from Item A.
B: Landfill labor budget for FY 2009-10
C: Landfill (Cerro Colorado) operating budget for FY 2009-10
D: Landfill interfund transfer budgets for FY 2009-10
E: Vehicle and equipment repair and maintenance costs allocated to landfill operations.
F: Interfund transfers from the SW Division allocated to landfill.
G: SW Division administrative costs allocated to landfill.
H: Sum of Items B through Item G
I : Three year average equipment replacement cost
J: Projected waste tons disposed at Cerro Colorado from 2010 to 2011
K: Estimated cell 8 construction cost in 2011
L: Engineer's estimate to plumb cell divided by projected tons from 2010 to 2011.
M: Closure and post-closure cost per ton
N: Sum of Item H + Item I + Item K + Item L + Item M

2.2 Costs of the Intermediate Processing Facility (IPF)

Recyclable materials dropped off at the City's recycling depots and recovered through the curbside residential recycling program are delivered to the IPF for sorting, storage, and eventual sale. The IPF is limited in design to handle the current number of material tons delivered. Therefore approximately 25 % of the commingled loads are baled and wholesaled as "super mix" to other regional processors. For example, in fiscal year 2008-09 the IPF processed 12,065 tons of curbside recyclables and 6,891 tons of depot materials. There were 5,855 tons of curbside materials shipped to regional processors including 5,607 tons to the Friedman facility in Phoenix, 237 tons shipped to the BuRRT in Santa Fe, and 11 tons to Masters Fibers in Albuquerque. The following table details the costs of operating the IPF and the per ton cost of processing materials.

Description	Notes	Cost / Data
Estimated FY 2010 Material Tons	A	21,400
Residual Waste	B	14%
FY 2009-10 Landfill Budget		
Operations Labor	C	$ 1,165,664
Operating Expense	D	$ 491,699
Interfund Expenses	E	$ 37,173
Truck R&M Expense	F	$ 36,569
Fund Transfers Out	G	$ 165,844
Disposal Costs	H	$ 56,030
Facility Replacement	I	$114,000
Equipment Replacement	J	$159,861
Total IPF Processing Cost (Sum of Items C through J)	K	**$2,226,841**
Operational Cost per Recycle Ton	L	$104.06
Operations	M	$1,896,950
Equipment & Facility	N	$273,861
Disposal Expense on Residual Waste	O	$ 56,030
Less Material Value	P	$(840,658)
Total Cost	Q	$1,386,183
Cost per Ton	R	$64.77

Table Notes and Calculations

A: Prior year material tons processed at the IPF

B: Residual waste (garbage separated from the recycle stream) is based on prior years results of 14%.

C: IPF labor budgets for FY 2009-10

D: IPF operating budgets for FY 2009-10

E: IPF interfund transfer budgets for FY 2009-10

F: Vehicle and equipment repair and maintenance costs allocated to the IPF.

G: Interfund transfers from the SW Division allocated to the IPF.

H: Estimated waste tons (Item A) multiplied by residual waste percentage (Item B) then multiplied by the cost of disposal from the Landfill Disposal Cost tab.

I: Facility repair and replacement costs (2% of the replacement cost for each facility).

J: Convenience center equipment repair and replacement cost (10% of the equipment replacement cost).

K: Sum of Items C through J.

L: Total IPF Processing Cost (Item K) divided by Material Tons (Item A).

M: Operations cost (sum of Items C through G)

N: Equipment replacement costs (Items I+ and J).

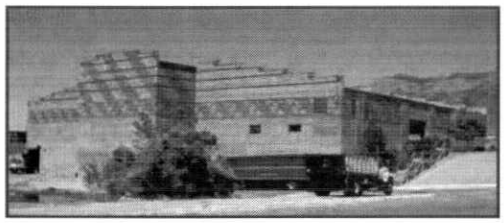
O: Disposal Expense (Item H).

P: Less budgeted revenge from the sale of recyclable materials

Q: Sum of Items M through P. Allocated 75% to residential and 25% to commercial

R: Total Cost (Item Q) divided by Material Tons (Item A).

2.3 Costs for Convenience Centers



The operations of the three centers as well as subsequent transport and disposal of the refuse delivered to them are the primary costs of these facilities. The convenience centers cater to the residential and small commercial self – haul customer. None of the sites have scales to weigh inbound waste loads, so each residential customer pays a flat $ 3.47 per load and commercial customers are charged $ 9.08 per load. In the previous fiscal year over 257,000 trips were made by both residents and non–residents of Albuquerque to the facilities. Total waste disposed was 51,363 tons or approximately 391 pounds per visit. The table below summarizes the current service costs for the convenience centers.

The Average Cost per Customer Visit assumes that every customer is dropping off 391 pounds of waste for disposal at a cost of $ 102.03 per ton (Item M). The operational cost per ton includes disposal at Cerro Colorado at $ 18.17 / ton. The cost of operating the facilities and transporting waste to Cerro Colorado Landfill is $ 83.58 per ton ($ 101.75 - $18.17). The budgeted revenue from the fees assessed at the convenience centers is $ 885,000, which only covers 15 % of the operations costs for the facilities. The revenue shortfall for the current fiscal year is therefore $ 5,103,000. Bluntly stated, the convenience centers are places where "anyone can throw away anything for practically nothing". As well, it should be emphasized that residents from outside Albuquerque enjoy the same low rates for disposal at the convenience centers as City residents do.

Description	Note	Cost
Estimated FY 2010 Customers	A	263,000
Estimated FY 2010 Waste Tons		58,400
Less Rat Pak Route Truck Tons		(619)
Less Clean City Tons		(94)
Less R/O Waste Tons		(6,323)
Net Self Haul Waste Tons	B	51,363
FY 2009-10 Landfill Budget		
Operations Labor	C	$ 2,259,741
Operating Expense	D	$ 445,940
Interfund Expenses	E	$ 156,969
Truck R&M Expense	F	$ 313,396
Interfund Allocations	G	$ 636,433
Administrative Expense	H	$ 455,632
Disposal Costs	I	$ 933,139
Facility Replacement Costs	J	$ 250,643
Facility Equipment Replacement	K	$ 490,582
Total Operations Cost (Sum of Items C through K)	L	**$ 5,942,475**
Operational Cost per Waste Ton	M	$ 101.75
Operational Cost per Customer	N	$ 22.59
Current Residential Rate	O	$ 3.47
Current Commercial Rate	P	$ 9.08
Average Pounds Disposed per Visit	Q	391
Revenue at the Cost of Service	R	$ 5,942,475
Revenue at $9.00 per customer	S	$ 2,367,000

Table Notes and Calculations

A: Prior year customer count increased by 2%

B: 2009 reported tonnage increased by 2% less waste tons collected on route and transferred to the landfill via the Convenience Centers.

C: Convenience Center labor budgets for FY 2009-10

D: Convenience Center operating budgets for FY 2009-10

E: Convenience Center interfund transfer budgets for FY 2009-10
F: Vehicle and equipment repair and maintenance costs allocated to the convenience centers.
G: Interfund transfers from the SW Division allocated to the convenience centers.
H: SW Division administrative and vehicle maintenance costs allocated to the convenience centers.
I: Estimated waste tons from Item B multiplied by the cost of disposal
J: Facility repair and replacement costs (2% of the replacement cost for each facility).
K: Convenience center equipment repair and replacement cost (10% of the equipment replacement cost).
L: Sum of Items C through K.
M: Total Cost from Item L divided by Estimated Tons from Item B
N: Total Cost from Item L divided by the Estimated Customers from Item A
O: Current rate assessed at the convenience centers
P: Current commercial rate assessed at the convenience centers
Q: Net waste tons (Item B) multiplied by 2,000 pounds per ton divided by estimated 2010 customers (Item A).
R: Estimated 2010 customers (Item A) multiplied by the Cost per Customer (Item N)
S: Estimated 2010 customers (Item A) multiplied by $ 9.00.

2.4 Costs for Clean City Program – Weed, Litter and Graffiti Removal

The Clean City Division employs 36 people for the weed and litter patrols and another 20 for graffiti removal. In addition to City staffing there are also alternative sources of labor from community service providers and inmate work crews. The Division is responsible for keeping the major thoroughfares within the City clear of litter and weeds. The Division also responds to clean–up requests from Zoning Enforcement personnel, cleans illegal dumpsites, and organizes neighborhood clean–up events. As well, Clean City workers are responsible for removal of graffiti from public and private property.

The annual costs of these services (FY 2009–10) are $ 5.3 million for weed / litter removal and $ 1.6 million for graffiti removal. That funding has been steadily cut back. Clean City activities are not invoiced to residential or commercial customers. Instead the Department has provided supplemental funds by shifting money designated for equipment replacement to ongoing operations. The cost of the program has been allocated evenly to residential and commercial collections. The following table summarizes the cost of the Clean City Program.

	Weed & Litter	Graffiti	Total
Service Cost	$ 5,315,447	$ 1,595,139	$ 6,910,586
Disposal Cost	$ 9,035	-	$ 9,035
Asset Replacement	$ 415,249	$ 68,375	$ 483,624
Total	**$ 5,739,731**	**$ 1,663,514**	**$ 7,403,245**

2.5 Costs for Collection of Residential Trash and Recyclables

The Solid Waste Department services approximately 175,200 residential customers with solid waste and recycling collection. The monthly costs per residential account for this service are comprised of six elements – collection, disposal, recyclable material processing, collection equipment replacement costs (trucks and carts), the Clean City Program, and Clean City Special Reserve are also included in the monthly rate. The table on the following page details the cost calculation of the residential collection rate.

		Collection Cost			Cost per Customer per Month		
Residential Customers:	Notes						
175,162	A	Garbage	Recycling	Total	Garbage	Recycling	Total
Collection Labor	B	$ 4,141,579	$ 1,277,902	$ 5,419,481	$ 1.97	$ 0.61	$ 2.58
Operating Expense	C	$ 2,653,959	$ 524,933	$ 3,178,892	$ 1.26	$ 0.25	$ 1.51
Interfund Expenses	D	$ 850,604	$ 35,629	$ 886,233	$ 0.40	$ 0.02	$ 0.42
Truck R&M Expense	E	$ 902,507	$ 225,627	$ 1,128,134	$ 0.43	$ 0.11	$ 0.54
Interfund Allocations	F	$ 3,012,549	$ 391,919	$ 3,404,467	$ 1.43	$ 0.19	$ 1.62
Administrative Expense	G	$ 1,458,137		$ 1,458,137	$ 0.69		$ 0.69
Total Collection Cost	H	**$13,019,334**	**$2,456,010**	**$15,475,344**	**$6.19**	**$1.17**	**$7.36**
Disposal Cost	I	3,095,041		$ 3,095,041	$ 1.47		$ 1.47
Material Processing	J		$ 1,039,637	$ 1,039,637		$ 0.49	$ 0.49
Total Disposal Cost	K	$3,095,041	$1,039,637	$4,134,677	$1.47	$0.49	$1.97
Daily Collection Routes	L	48	12				
Required Trucks	M	56	14				
Annual Truck Replace (7 yr.)	N	$ 1,650,200	$ 593,526				
Annual Cart Replace (10 yr.)	O	$ 765,000					
Annual Capital Cost	P	$2,415,200	$593,526	$3,008,726	$1.15	$0.28	$1.43
Clean City Allocation Cost	Q	$3,455,293		$ 3,455,293	$1.64		$1.64
Clean City Asset Replace	Q	$241,812			$0.12		$0.12
Cost to Collect (H+K+P+Q)	R	$22,226,680	$4,089,172	$26,315,852	$10.57	$1.95	$12.52
Clean City Special Reserve (1.5% of Item R)	S	$333,400	$61,338	$394,738	$0.16	$0.03	$0.19
Total Collection Rate (R+S)	T						**$12.71**
Current Rate	U						$10.75
Increase for Cost of Service	V						$1.96
% Increase	W						**18.21%**

Table Notes and Calculations

Per customer per month cost is calculated by dividing the total budgeted or allocated cost by 12 months and then by the customer count.

A: Residential collection customers from August 2009 billing report.
B: Residential garbage and curbside collection labor budgets for FY 2009-10
C: Residential garbage and curbside collection operating budgets for FY 2009-10
D: Residential garbage and curbside interfund transfer budgets for FY 2009-10
E: Vehicle repair and maintenance costs allocated to residential collection.
F: Interfund transfers from the SW Division allocated to residential collection.
G: SW Division administrative costs allocated to residential collection.
H: Sum of Items B through Item G
I : Waste tons collected in CY 2009 multiplied by the disposal cost per ton.
J: IPF department costs are 75% of those cost allocated to residential recycling.
K: Sum of item I + Item J
L: Reported collection routes.
M: Collection routes plus one back up per 6 collection routes.
N: Annual cost to replace residential collection trucks.
O: Annual cost to replace residential roll carts.
P: Annual amount to accrue for truck and cart replacement.
Q: Half of the annual cost of the Clean City program is allocated to residential collection.
R: Sum of Item H + Item K + Item P + Item Q.
S: Additional amount to accrue to fund the clean city special reserve.
T: Sum of Item R (Total Cost per Customer per Month) plus Item S (Fund Reserve Cost).
U: Current monthly residential collection rate.
V: Difference between cost of service (Item T) and Current Rate (Item U).
W: Percentage change from Current Rate to the cost of service.

2.6 Costs for Commercial Collection

There are approximately 9,300 commercial customers with the City that are serviced by a variety of collection options: front or rear load containers, front load compactors, roll off drop boxes, or roll off compactors. The frequency of collection service varies from once a month to six times a week. Budgeted costs for container and roll off collection were allocated based on route performance. The following table summarizes the allocation method and the percentage used to allocate the costs:

Direct Costs	Allocation	Container Allocation %	Roll Off Allocation %
Labor Expense	Labor Hrs	71%	29%
Operating Expenses	Routes	65%	35%
Interfund Transfers	Labor Hrs	71%	29%
Fund Transfers Out	Revenues	75%	25%
Vehicle Maintenance	Trucks	64%	36%
Central Services	Revenues	75%	25%

Once the method of allocation was determined, budgeted costs were then allocated to either container collection or roll off. The table below is the second step of the allocation of costs for the purpose of determining the cost of service and thus setting the appropriate rate.

Direct Costs	Allocation	Total Commercial	Container	Roll Off
Labor Expense	Labor Hrs	$ 5,643,780	$ 4,033,052	$ 1,610,728
Operating Expenses	Routes	$ 3,377,520	$ 2,205,254	$ 1,172,266
Interfund Transfers	Labor Hrs	$ 1,190,009	$ 850,382	$ 339,627
Fund Transfers Out	Revenues	$ 3,095,435	$ 2,318,169	$ 777,266
Vehicle Maintenance	Trucks	$ 1,315,511	$ 845,686	$ 469,825
Central Services	Revenues	$ 1,661,361	$ 1,244,192	$ 417,169
Total Costs		**$16,283,616**	**$11,496,735**	**$4,786,881**

2.7 Costs for Roll-off Drop Box and Compactor Collection

The rates for drop box service trend in an illogical progression when compared to other waste services: the greater the amount disposed, the lower the rate. The fees proposed for drop box service are the cost of providing drop box service plus disposal. If the customer utilizes a City owned drop box, then there is an additional rental charge. The service fee is based on the average time to provide the service multiplied by the cost per hour. The average time per pull is one hour and 20 minutes and the operational cost per hour is $112. The table on the following page details the rate method.

Direct Costs	Drop Box / Compactor	Notes
Labor Expense	$ 1,610,728	A
Operating Expenses	$ 1,172,266	B
Interfund Transfers	$ 339,627	C
Fund Transfers Out	$ 777,266	D
Vehicle Maintenance	$ 469,825	F
Central Services	$ 417,169	G
Total Costs (Sum of A through G)	**$ 4,786,881**	H
Equipment Replacement	$ 497,567	I
Estimated Truck Hours	47,268	J
Annual Pulls	28,600	
Operational Cost per Truck Hour	$ 84.83	K
Fund Transfers Out Cost per Hr	$ 16.44	L
Equipment Replacement	$ 10.53	M
Total Cost per Truck Hour	$ 111.80	N
Average Time per Pull: 1 hour, 20 minutes	1.3	O
Exchange / Compactor Service	$ 145	P
Assumes 1 hour and 20 minutes per pull		
Delivery Charge	$ 74.50	Q
Assumes 40 minutes		
30 Yard Drop Box Rental (per month)	$ 68	R

Table Notes and Calculations

A: Commercial collection labor budgets for FY 2009-10

B: Commercial collection operating budgets for FY 2009-10

C: Commercial interfund transfer budgets for FY 2009-10

D: Interfund transfers from the SW Division allocated to commercial collection.

F: Vehicle repair and maintenance costs allocated to commercial collection.

G: SW Division administrative costs allocated to commercial collection.

H: Sum of Items A through G

I : Truck and equipment replacement costs (2% of the replacement cost).

J: Estimated time spent servicing and dumping drop boxes over a 12 month period

K: Operational costs divided by truck hours: Sum of Items A+B+C+F+G divided by Truck Hours (Item J)

L: Fund transfers out of the SW Department (Items D and E) divided by Truck Hours (Item J).

M: Equipment Replacement costs (Item I) divided by Truck Hours (Item J)

N: Sum of Items K through M

O: This is the average time to service one box or compactor

P: Assumes a drop box pull will take one hour and 20 minutes; therefore, the rate is set at the cost of providing service is the same as Item O x Item N.

Q: Assumes the delivery of a drop box is 40 minutes; therefore, Item N is multiplied by 66%.

R: Monthly cost of a drop box over a 7year life at 4%

Disposal Costs for open top drop boxes and compactors were calculated based on the averages box weights multiplied by the current disposal fee. All

special open box waste tons delivered to the landfill in 2009 were collected in City owned 30 yard drop boxes. During the year, there were 2,259 trips to the landfill to deliver 8,626 tons of waste. The average weight per yard of waste was 255 pounds ((8,626 tons x 2,000 pounds) / 2,259 pulls / 30 yards per box). An adjustment of 10% was added to open top pulls to account for heavier summer pulls. Specific weight data for roll off compactors was not collected by the Department; therefore, compactor weights from previous audit was used for the 462 pounds per yard assumption for compactor disposal. The table below summarizes the disposal calculations for both services followed by a rate comparison of current and proposed rates:

Description	Open Top	Compactor
Average pounds per yard (30 yd box)	254.56	461.88
Disposal Cost per Ton	$ 18.17	$ 18.17
Seasonality Adjustment	10%	0%
Disposal Cost per Drop Box Yard	$ 2.54	$ 4.20

Service	Current Rate	Proposed Rate	Change	% ▲
30 yard open top 1x per week	$ 910	$ 1,042	$ 132	15%
20 yd compactor 1x per week	$ 793	$ 1,008	$ 216	27%
30 yd compactor 1x per week	$ 863	$ 1,193	$ 330	38%
34 yd compactor 2x per week	$ 1,783	$ 2,533	$ 751	42%

2.8 Costs for Solid Waste Container Collection

In the same manner as drop box service, the rates for commercial container collection service trend in an illogical progression: the greater the amount disposed, the lower the rate. Container collection service has the largest combination of collection rates because the City has six classes of service with containers varying in size from 32 gallons to 8 yards. Rates for each service class are comprised of the six components and allocated on a specific service parameter.

1. Truck Costs were allocated on the frequency a container was picked up for disposal
2. Labor and Operational Cost were allocated on the number of container yards collected
3. Asset Replacement Cost is allocated on the frequency a container is picked up for disposal
4. IPF Cost is allocated on the number of container yards collected
5. Clean City Cost is allocated on the number of container yards collected
6. Disposal Cost is allocated on the number of container yards collected

Additional costs include a 1.5% Convenience Center and Contingency program and rent if the container is furnished by the City. The table on the following page details the calculation of the rate components:

Direct Costs	Total Container	Single Driver	Crew Served	Notes
Labor Expense	$ 4,033,052	$ 2,809,325	$ 1,223,728	A
Operating Expenses	$ 2,205,254	$ 1,648,137	$ 557,117	B
Interfund Transfers	$ 850,382	$ 592,355	$ 258,027	C
Fund Transfers Out	$ 2,318,169	$ 1,710,721	$ 607,447	D
Vehicle Maintenance	$ 845,686	$ 709,772	$ 135,914	E
Central Services	$ 1,244,192	$ 918,167	$ 326,025	F
Total Costs (Sum of A through F)	**$ 11,496,735**	**$ 8,388,477**	**$ 3,108,258**	G
Equipment Replacement	$ 1,118,275			H
Estimated Truck Hours	93,574			I
Operational Cost per Truck Hour	$ 98.09			J
Fund Transfers Out Cost per Hr	$ 24.77			K
Equipment Replacement	$ 11.95			L
Total Cost per Truck Hour	$ 134.81			M
Annual Lifts	977,028	785,867	191,161	N
Annual Yards	5,085,909	4,151,788	934,121	O
Commercial Customers	9,335			P
Truck Cost per Lift	$ 3.12	$ 3.75	$ 4.98	Q
Operational Cost per Yard	$ 1.42	$ 1.03	$ 1.87	R
Central Services Cost per Customer	$ 11.11	$ 11.11	$ 11.11	S
Equipment Replacement per Lift	$ 1.14			T
IPF Allocated Cost per Yard		$ 0.07	$ 0.07	t
Clean City Costs	$ 6,910,586			U
Clean City Asset Replacement	$ 483,624			V
Commercial Allocation (50%)	$ 3,697,105			W
Clean City per Container Yard	$ 0.73	$ 0.73	$ 0.73	X
Weight per Container Yard	110			Y
Disposal Cost per SW Ton	$ 18.17			Z
Disposal Cost per Container Yard	$ 1.00			AA

Table Notes and Calculations

A: Commercial collection labor budgets for FY 2009-10 (Accts 510400 to 516400).
B: Commercial collection operating budgets for FY 2009-10 (Accts 520500 to 589000).
C: Commercial interfund transfer budgets for FY 2009-10 (Accts 571100 to 572300).
D: Interfund transfers from the SW Division allocated to commercial collection.
E: Vehicle repair and maintenance costs allocated to commercial collection.
F: SW Division administrative costs allocated to commercial collection.
G: Sum of Items A through F

Allocations are from reported operations

H: Truck and equipment replacement costs (see separate schedule for details).
I: Estimated time spent collecting commercial waste over a 12 month period
J: Operational costs divided by truck hours: Sum of Items A+B+C+E+F divided by Truck Hours (Item I)

K: Fund transfers out of the SW Department (Items D) divided by Truck Hours (Item I).
L: Equipment Replacement costs (Item H) divided by Truck Hours (Item I)
M: Sum of Items J through L
N: Annual container lifts segregated by regular routes and routes requiring two person crews
O: Annual container yards segregated by regular routes and routes requiring two person crews
P: Reported commercial customers in November 2009
Q: Truck costs (Item B +Item C + Item E) divided by annual lifts
R: Operational costs (Item A + Item D) divided by annual container yards
S: Central services costs divided by 12 months and then divided by the customer count
T: Equipment replacement cost (Item H) divided by Annual Lifts (Item N)
t: IPF allocated cost $346,546 (25% of total IPF costs) divided by Annual Yards (Item O)
U: Clean City Program costs
V: Clean City asset replacement costs
W: Half of the cost of the Clean City program is allocated to commercial customers
X: Clean City allocation (Item W) divided by Annual Container Yards (Item O).
Y: Weight per container yard is 110 pounds
Z: Disposal cost per ton
AA: Cost per yard (110/2000) x $18.17

Here is the method for setting the rate on a 2 yard front load container owned by the City and collected weekly:

Component	Cost	Lifts	Yards	Total Costs
Truck	$ 3.75	4.33		$ 16.24
Labor	$ 1.03		8.66	$ 8.92
Asset	$ 1.14	4.33		$ 4.94
IPF	$ 0.07		8.66	$ 0.61
Clean City	$ 0.73		8.66	$ 6.32
Disposal	$ 1.00		8.66	$ 8.66
Container				$ 5.50
Total of Rate Costs				$ 51.19
Convenience Center and Contingency @ 1.5%				$ 0.77
Collection Rate (Rate Cost + 1.5%)				**$ 51.96**

3.0 Department Revenues

The primary sources of revenue for the Solid Waste Department come from residential and commercial collection services. The following table shows the budgeted revenue for the Department by source for fiscal year 2009 – 10:

Source	Amount	Revenue %
Commercial Collection	$ 23,776,885	45 %
Residential Collection	$ 22,941,516	43 %
Landfill Disposal	$ 1,085,871	2 %
Convenience Centers	$ 885,327	2 %
Recycling (a)	$ 1,840,586	3 %
Other / Fuel Surcharge	$ 1,388,756	3 %
Inter – fund Transfer (b)	$ 1,000,000	2 %
Total	**$ 52,918,941**	100 %

(a) *Recycling revenues are from two sources – the recycling service charge for multi – family dwellings ($956,453) and projected sales of recyclable materials ($ 884,133). Actual sales revenues for FY 2009–10 may be greater or lesser than what was projected.*

(b) *Although the interfund transfer was budgeted, the payment from the General Fund to the SW Fund was suspended in mid FY 2010 due to the shortage of resources.*

The preceding table shows that nearly 90 % of the SWMD revenue is derived from rates for residential and commercial refuse collection even though ten distinct services are offered by the Department (see expense table in Section 2.0). Clearly most of the operational units are not self–sustaining enterprises but are instead being largely subsidized by residential and commercial rate payers.

Furthermore, by contrasting the expense table in Section 2.0 with the revenue table above, it is also clear that for fiscal year 2009–10 the expenses exceed the budgeted revenue by $ 3,059,059 or 5 % of expenses. The budget deficit will draw down the operational reserve balance to about 4 % of operational expenses (4 % x $55,000,000 = $ 2,200,000). This provides the Department with15 days of operational cash. A best practice for municipal enterprise operations is 60 days of cash, or approximately 15 % of the projected fund expenditures (15 % x $ 55,000,000 = $ 8,250,000). It should be noted that if revenues from the sale of recyclable materials are less than projected, as it appears they will be at this point in time, the budget deficit will increase.

The reason for the shortfall is escalating costs without a comparable increase in collection and disposal fees. Rates were last adjusted in May 2006. Some of the larger expenses that have been incurred by the SWMD over the past four years are described below:

- **Clean City Program** – Partial funding of the program followed from the General Fund but most of the costs were not considered in early 2006 when rates were last adjusted. The burden of funding this program has come at the expense of asset replacement within the Department. For the current fiscal year the $ 5.7 million program cost was not offset by a budgeted $ 1 million transfer from the General Fund. This transfer was scheduled to end in the 2010 – 11 fiscal year.

- **Refuse Vehicles** – Collection trucks have increased in costs due to new EPA clean engine requirements as well as steel price increases. In May 2006 the Department purchased seven automated trucks used for residential collection at a cost of $ 181,956 each. In August 2008 six replacement trucks for the residential fleet were purchased. The cost of a comparably equipped automated truck rose to $ 225,200, an increase of $ 43,214 or 24 %. The price of a diesel truck will increase by approximately $ 9,600 in 2010 for the additional emission controls required by the US EPA.

- **Collection Personnel** – Collection labor costs have increased by 13.6%, from $14.61 in 2006 to $16.59 in 2010 plus the cost of benefits such as medical and retirement.

4.0 Revised Rate Setting Process

For the SWMD to function as a true enterprise fund it is essential to set rates that pay for service delivery costs, both ongoing and anticipated. This has proven to be difficult in Albuquerque because rate setting has historically been unduly influenced by political factors. A better approach would be to reduce the exposure of the rate setting process to the political arena and redefine it as an annual administrative function of the Solid Waste Management Department conducted with structured input from the City administration and the Budget Office. A primary process of the annual rate review would be to assess the performance of the Department by establishing benchmarks.

Benchmarking has been widely embraced by both the private and public sectors as an essential business measurement practice for continuous performance improvement. Managers rely on benchmarking data to objectively measure the quality and levels of the services they provide and to identify and implement best practices that will enable the management of costs and improve services. Operational benchmarks should accurately reflect whether the SW Department is providing the desired services in a cost-effective manner. If performance benchmarks are not achieved and costs are higher than necessary, then the consequence would be to freeze the rate until the desired outcome is attained.

The costs to provide current levels of service would be calculated and the rates for each of the ten lines of business conducted by the Department would be adjusted annually based on controllable and uncontrollable expenses. New programs or significant program changes could be reviewed and approved by City administration and City Council before implementation. Once the new or amended program was approved the rates would be adjusted accordingly. To assure the integrity of the process the rates and the adjustment method could also be reviewed by the City's Office of Management and Budget which is independent of the Solid Waste Department.

It is essential all involved parties understand and agree that fees have to be adjusted on a regular basis to continue the existing level of service delivery and replace aging equipment. Regular but measured rate increases are particularly critical if the Department is going to pursue new initiatives that are capital – intensive and / or represent major changes in policy direction. The SW Department has to be financially solvent to implement future programs that will increase waste diversion and increase collection efficiency that will require an initial investment for future benefits. The SW Department has to be financially solvent It makes no sense at all to commit to programs, infrastructure, and operations designed to achieve those initiatives / policies when the resources necessary for implementation and support are not available. In such a situation the accountability and credibility of the Albuquerque City government suffers.

NORTH VALLEY AREA PLAN

GGNA-EXHIBIT H

The Greater Gardner Neighborhood Association submitted the full text of the North Valley Area Plan as part of their exhibits (Exhibit H).

The staff report contains a standard finding that states that the applicable plans are incorporated herein by reference and made part of the record for all purposes. Therefore, the full text was not included.

ALBUQUERQUE/
BERNALILLO COUNTY
2002 COMPREHENSIVE PLAN
(EXCERPTS)

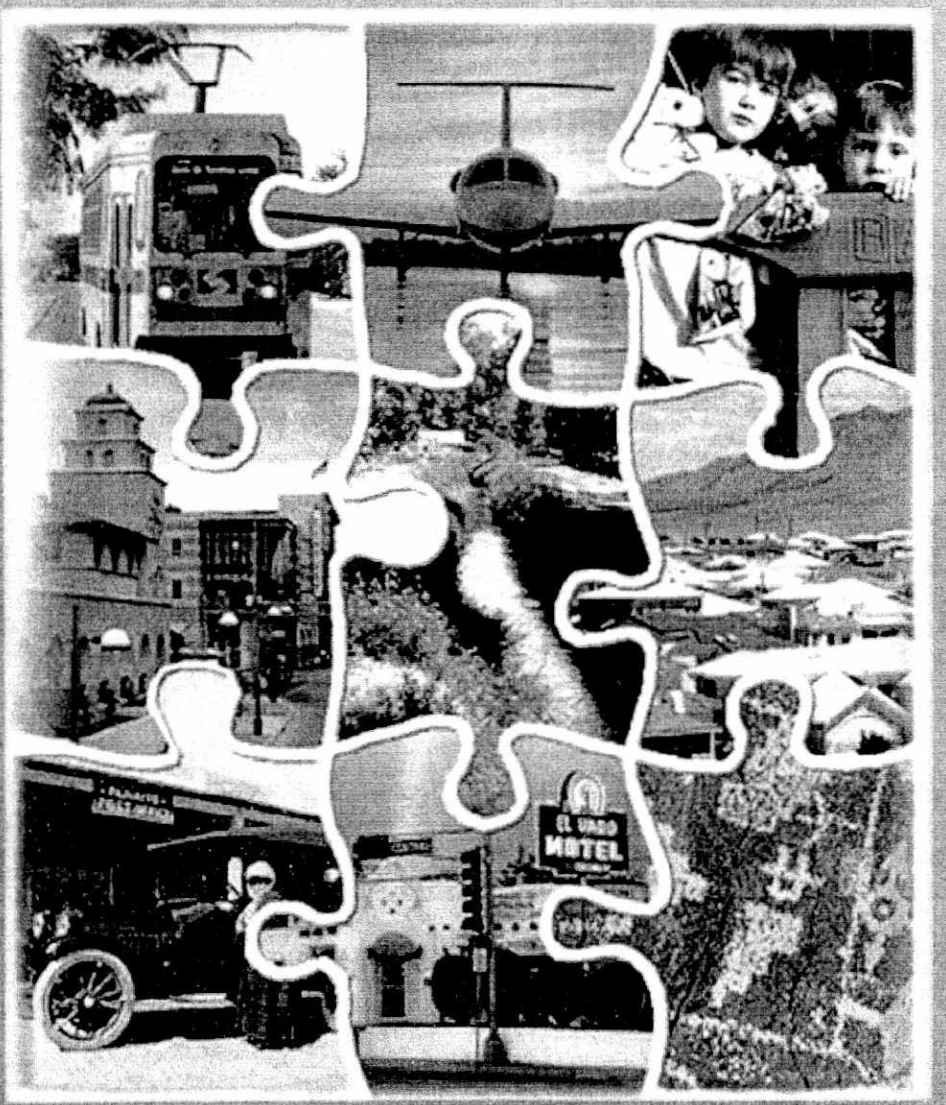
GGNA-EXHIBIT I

Albuquerque/ Bernalillo County

As Amended

2002

COMPREHENSIVE



PLAN

C. ENVIRONMENTAL PROTECTION AND HERITAGE CONSERVATION

1. AIR QUALITY

The City's climate and air quality are among its most attractive but least tangible environmental resources. However, Albuquerque periodically experiences air pollution problems which include high carbon monoxide and suspended particulate levels, and the "Brown Cloud." Primary sources of air pollutants include vehicular emissions, residential wood burning, dust from unpaved roads and construction sites and, to a lesser degree, industrial operations. The geographic location in a river valley bounded by a high mountain range to the east, the mile-high altitude and meteorological conditions exacerbate Albuquerque's air pollution problems, particularly in the winter months. Frequent winter temperature inversions result in limited vertical mixing and poor dispersion of pollutants into the air. Mountain down slope and valley drainage winds can also affect pollutant concentrations.

Pollutant concentrations are monitored to determine the effect of Albuquerque's growth on the airshed and the population. The monitored pollutants include suspended particulate matter, carbon monoxide, nitrogen dioxide, lead and ozone. The continuing development of the comprehensive monitoring system enables planners to use forecasting and modeling techniques to predict how location and type of development will affect air quality. This monitoring system will help prevent further air quality degradation, shaping proposed development to have less impact.

Land use and urban form have an effect upon both automobile emissions and air quality. Land use/ transportation decision-making should integrate air quality analyses findings by incorporating appropriate mitigation measures into the project development process. If, for example, a new development is adequately served by the transportation system, excessive and prolonged traffic congestion, with its adverse air quality effects, will not result. Project densities should be high enough to encourage mass or paratransit use with a minimum journey to work but not so high as to cause local traffic congestion which aggravates air quality. Development which integrates work, shopping and leisure activities reduces distances that individuals must travel. In addition, the provision of space and facilities for bicycling, walking and use of transit or paratransit will encourage use of the travel alternatives.

Vehicular emissions can also be decreased through transportation system management techniques such as signal synchronization and limited access arterials which maintain vehicular speeds. An auto emissions testing and maintenance program could reduce pollution in the metropolitan area.

Residential wood burning has an adverse effect on local air quality, because it contributes to the emission of inhalable particulates which are a public health risk. The city's wintertime "Brown Cloud" is another consequence of wood burning, a phenomenon which affects the distant views characteristic of Albuquerque. Overall, residential wood burning in the winter months constitutes an estimated 52 percent of the visibility impairment and mobile sources an estimated 45 percent. Albuquerque's 1984 wood fuel consumption was estimated to be 35,000 cords, a 185 percent increase in five years. Population growth and alternative fuel price raises will contribute to wood burning's future expansion in the metropolitan area. Public education, detailing wood burning's health hazards, may discourage future use.

New construction excavation and travel on dirt roads are other sources of particulate pollution. Use of top soil disturbance permits and dust control plans for construction sites and the paving or surfacing of dirt roads will reduce dust from these sources. In addition, landscaping of bare areas and/or retention of native vegetation in areas not under active construction will reduce dust.

There is evidence that air indoors, where citizens spend 80 to 90 percent of their time, is frequently much more polluted than outside air; consequently it too poses a public health threat. Polluted indoor air can be evident in energy efficient homes if they are not designed and constructed with proper ventilation. The City Environmental Health Department's indoor air pollution program is a service available to citizens who wish to have home air quality assessed and then take measures to prevent or reduce any health risks.

2. WATER QUALITY

Water quality in the metropolitan area is a factor in determining the amount of growth the area can sustain. Planning efforts must look at water as a finite and valuable resource. Declining water quality is already a problem in parts of the metropolitan area, particularly in the South Valley, the site of numerous water quality studies. The State's Environmental Improvement Division (April, 1986) found groundwater health hazards caused by nitrates, volatile organics, and gasoline in the area. The South Valley's water problems occur elsewhere in the metropolitan area and the state, making solid and liquid wastes and hazardous materials an increasing public concern.

The extension of water and sanitary sewer facilities alone will not eliminate groundwater contamination or public health risks. Utility service to outlying areas is recommended because it will minimize domestic use of shallow groundwater which may be contaminated by waste discharges. A variety of public health and environmental concerns make simultaneous water and sewer service extension the preferred alternative. Water service, without sanitary sewer service, may lead to a number of interrelated problems such as shallow groundwater degradation due to higher wastewater volume flowing through on-site disposal systems, higher housing densities, a rising water table and increased groundwater flow velocities. These factors, individually or collectively, can adversely affect groundwater quality. Long term conservation and wastewater treatment measures such as those being formulated in the City's Water Resource Management Plan will ensure that future supply and quality demands are met.

A regional groundwater quality monitoring program will identify sites with contamination problems. Well depth, groundwater source, and the affects of man's activities on the aquifer contribute to variations in Albuquerque's groundwater quality. Shallow groundwater supplies near the Rio Grande are generally of poor quality and may contain excessive concentrations of total dissolved solids, iron, manganese, nitrates, and in some cases, petroleum products. Poor water quality and shallow well susceptibility to contamination from uncontrolled pollutants justifies the development of a comprehensive program that identifies, monitors and corrects contamination problems.

Some contamination problems are a consequence of leaking underground storage tanks which housed petroleum products or other hazardous materials. There are approximately 2,400 underground storage tanks in Bernalillo County and it is not known exactly how many are a threat to groundwater by leaking. However, the New Mexico Environmental Improvement Division concludes Albuquerque is similar to the rest of the nation in which 5 to 15 percent of the underground steel storage tanks have leaked or are leaking. Health threats from underground storage tanks will increase unless a program is established to solve the problem. The program should assess the condition of existing tanks, their influence upon the environment, establish tank design and installation requirements, and institute land use regulations governing their use.

Other sources of contamination which threaten groundwater quality include septic tanks, agricultural activities, petroleum handling facilities, solid waste disposal sites, illegal discharges, dumping and other anthropogenic activities. It is important to identify these sources, quantify their effects, initiate remedial action where appropriate, and take steps to prevent future contamination.

3. SOLID WASTE

Albuquerque's growth will increase the quantities of both non-hazardous and hazardous solid wastes generated in the area. An effective and comprehensive long-range waste management plan for the region will ensure that storage, collection, disposal and recycling of wastes are done in an environmentally and economically acceptable manner.

Solid waste transfer stations located throughout the county area would not only provide residents the opportunity to dispose of their refuse more conveniently, and it would help curb illegal dumping. Private refuse collection and transfer systems may provide an alternative which will improve efficiency while decreasing public expenditures. Advanced technology also should be applied to treat wastes wherever feasible.

Reducing the sources of solid waste is a logical step in dealing with the problems associated with disposal. It is in the community's long-term interest to support measures which reduce waste generation such as recycling plastics, glass, aluminum and paper which reduce waste generation.

Additionally, actions are needed to identify and manage both old and new landfill sites. Some areas currently slated for development were once sanitary landfill sites that now pose special problems such as subsidence and methane generation. These issues must be addressed before development can proceed on these sites. Ground subsidence, groundwater contamination from leachate and methane gas production are a few of the factors that must be considered either in developing former landfill sites or in selecting, establishing and operating new ones. Groundwater contamination from landfills can be limited or prevented through various environmental management measures such as proper siting, preventing water in excess of natural precipitation from entering the landfill and by monitoring groundwater quality in the landfill's vicinity. In some cases, depending upon geology of the chosen site, more extensive measures such as liners and leachate collection systems may be needed to protect groundwater quality.

Continuation of the program that addresses proper hazardous waste management is also necessary if Albuquerque is to protect the public and the environment from unregulated waste disposal. The absence of hazardous waste management facilities in the metropolitan area presents, in some cases, an economic disincentive to businesses to properly dispose of hazardous waste. The community's long-term interests would be served by the establishment of a commercial hazardous waste storage/transfer facility. Such a facility would enable the City to develop strategies to deal with hazardous waste from small quantity generators, households and other unregulated producers, which threaten the environment with improperly disposed materials.

4. NOISE

Albuquerque's rapid growth and its concomitant increase in vehicular and air traffic have resulted in urban noise levels affecting the population's health, welfare, and quality of life. Locating noise producing activities adjacent to residential or other noise sensitive uses also increased the number of noise conflicts.

Guidelines developed by several federal agencies including the Federal Highway Administration, the Federal Aviation Administration, the Environmental Protection Agency and the Department of Housing and Urban Development stipulate residential land use sound levels not exceed 55-65 decibels (Ldn or Leq). Schools, hospitals, lodging and certain recreational facilities are also noise sensitive uses which should be protected from a variety of environmental and public health problems.

Noise is a problem with many direct and indirect effects. Noise above recommended levels can increase general morbidity and either induce or aggravate a gamut of health disorders such as hypertension, cardiac disease, digestive disorders and general neuropsychological disturbances. Excessive noise levels can contribute to learning difficulties in school children.

Field surveys and computer modelling have located numerous areas in the City which exceed recommended federal noise levels. These studies have been bolstered by numerous complaints to the City Environmental Health Department. Residential properties near the Albuquerque International Airport, Interstates 25 and 40, arterial streets and industrial areas are affected by excessive noise levels.

Several methods can be employed to protect the public from noise's adverse effects. The location of noisy activities can be accomplished through the zoning. Other noise problems can be ameliorated by construction and design measures. Spatial separation, berm and barrier construction, placement of non-sensitive uses to buffer sensitive uses, and proper building orientation, layout and construction are a few methods that can be utilized to minimize noise effects. Furthermore, evaluation of potential noise conflicts in new or expanded transportation facilities (e.g. roadways and airports) can incorporate noise mitigation measures in the design.

NM STATUTES

GGNA EXHIBIT J

3-18-10 Power of eminent domain; purposes; proceedings.

A. Both within the municipal boundary and for a distance not extending beyond the planning and platting jurisdiction of the municipal boundary, a municipality has the power and right of condemnation of private property for public use for the purpose of:

(1) laying out, opening and widening streets, alleys and highways or their approaches; or

(2) constructing, maintaining and operating:

(a) storm drains; or

(b) garbage and refuse disposal areas and plants.

B. A municipality may acquire by eminent domain any property within the municipality:

(1) for park purposes;

(2) to establish cemeteries or mausoleums or to acquire existing cemeteries or mausoleums; or

(3) for the purpose of correcting obsolete or impractical planning and platting of subdivisions. For the purpose of this paragraph, "obsolete or impractical planning and platting" applies only to property that:

(a) was platted prior to 1971;

(b) has remained vacant and unimproved; and

(c) threatens the health, safety and welfare of persons or property due to erosion, flooding and inadequate drainage.

C. Condemnation proceedings pursuant to this section shall be in the manner provided by law.

History: 1953 Comp., § 14-17-8, enacted by Laws 1973, ch. 395, § 1; 2007, ch. 329, § 1; 2007, ch. 330, § 1.

3-19-5 Planning and platting jurisdiction.

A. Each municipality shall have planning and platting jurisdiction within its municipal boundary. Except as provided in Subsection B of this section, the planning and platting jurisdiction of a municipality:

(1) having a population of twenty-five thousand or more persons includes all territory within five miles of its boundary and not within the boundary of another municipality; or

(2) having a population of fewer than twenty-five thousand persons includes all territory within three miles of its boundary and not within the boundary of another municipality.

B. A municipality located in a class A county with a population of more than three hundred thousand persons shall not have planning and platting jurisdiction in the unincorporated area of the county.

C. If territory not lying within the boundary of a municipality is within the planning and platting jurisdiction of more than one municipality, the planning and platting jurisdiction of each municipality shall terminate equidistant from the boundary of each municipality unless one municipality has a population of fewer than two thousand five hundred persons and another municipality has a population of more than two thousand five hundred persons according to the most recent census. Then the planning and platting jurisdiction of the municipality having the greatest population extends to such territory.

History: 1953 Comp., § 14-18-5, enacted by Laws 1965, ch. 300; 1966, ch. 64, § 5; 1998, ch. 42, § 3; 2003, ch. 438, § 3.

fast

3-21-6 Zoning; mode of determining regulations, restrictions and boundaries of district; public hearing required; notice.

A. The zoning authority within its jurisdiction shall provide by ordinance for the manner in which zoning regulations, restrictions and the boundaries of districts are:

(1) determined, established and enforced; and

(2) amended, supplemented or repealed.

B. No zoning regulation, restriction or boundary shall become effective, amended, supplemented or repealed until after a public hearing at which all parties in interest and citizens shall have an opportunity to be heard. Notice of the time and place of the public hearing shall be published, at least fifteen days prior to the date of the hearing, within its respective jurisdiction. Whenever a change in zoning is proposed for an area of one block or less, notice of the public hearing shall be mailed by certified mail, return receipt requested, to the owners, as shown by the records of the county treasurer, of lots of land within the area proposed to be changed by a zoning regulation and within one hundred feet, excluding public right-of-way, of the area proposed to be changed by zoning regulation. Whenever a change in zoning is proposed for an area of more than one block, notice of the public hearing shall be mailed by first class mail to the owners, as shown by the records of the county treasurer, of lots or [of] land within the area proposed to be changed by a zoning regulation and within one hundred feet, excluding public right-of-way, of the area proposed to be changed by zoning regulation. If the notice by first class mail to the owner is returned undelivered, the zoning authority shall attempt to discover the owner's most recent address and shall remit the notice by certified mail, return receipt requested, to that address.

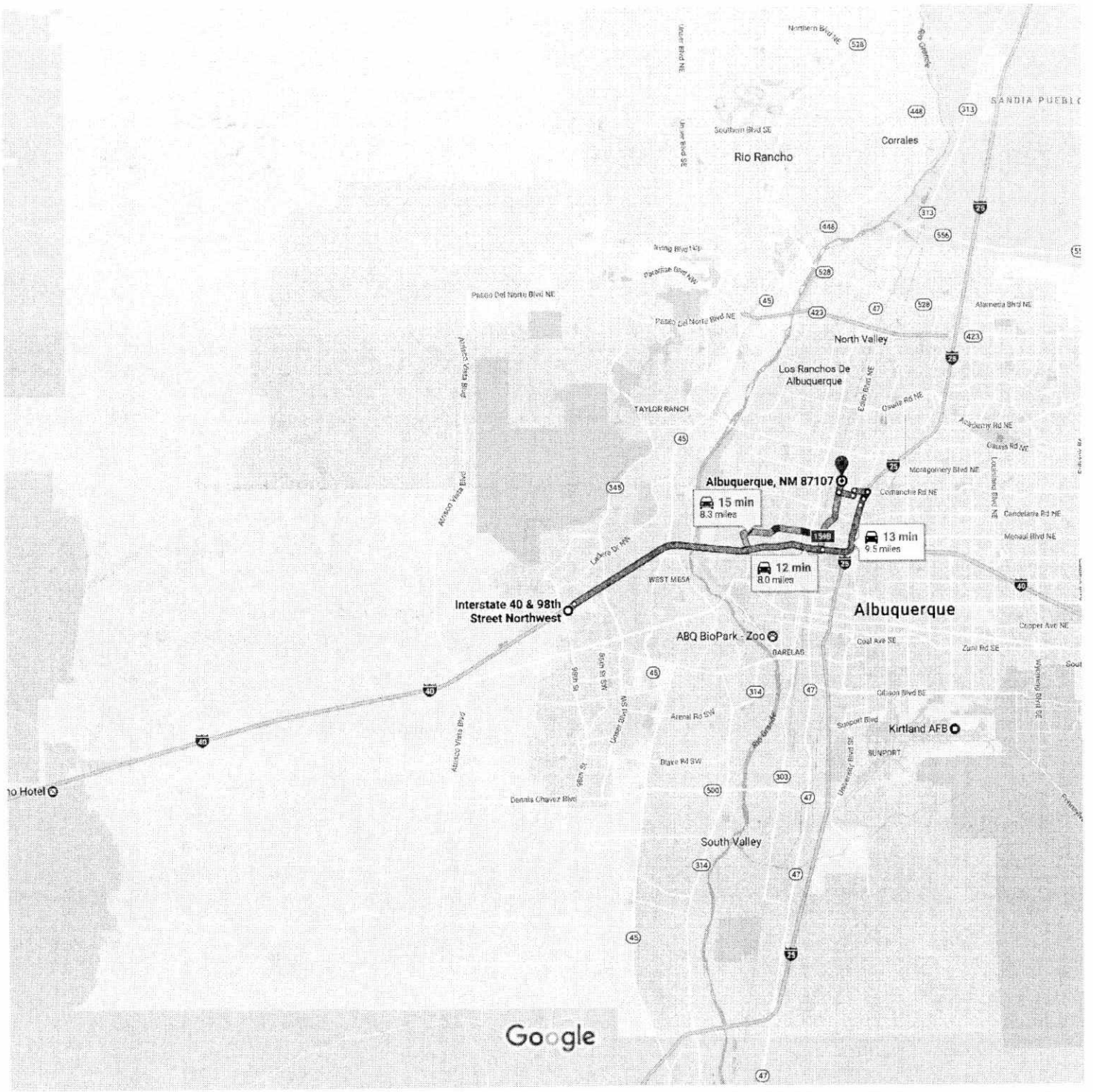
C. If the owners of twenty percent or more of the area of the lots and [of] land included in the area proposed to be changed by a zoning regulation or within one hundred feet, excluding public right-of-way, of the area proposed to be changed by a zoning regulation, protest in writing the proposed change in the zoning regulation, the proposed change in zoning shall not become effective unless the change is approved by a majority vote of all the members of the governing body of the municipality or by a two-thirds vote of all the members of the board of county commissioners.

History: 1953 Comp., § 14-20-4, enacted by Laws 1965, ch. 300; 1979, ch. 319, § 1; 1981, ch. 91, § 1.

MILEAGE MAP

GGNA-EXHIBIT K

I-40, 98th St NW, Albuquerque, NM to Albuquerque, New Mexico 87107 Drive 9.5 miles, 13 min



Map data ©2016 Google 2 mi

via I-40 E — 12 min

Fastest route, the usual traffic — 8.0 miles

via I-40 E and I-25 N — 13 min

9.5 miles

GGNA-EXHIBIT K1

CITY ORDINANCES
BIKEWAYS AND TRAILS FACILITY PLAN

GGNA-EXHIBIT L

R-270-1980: POLICIES FOR ZONE MAP CHANGE APPLICATIONS

The following policies for deciding zone map change applications pursuant to the Comprehensive City Zoning Code are hereby adopted:

(A) A proposed zone change must be found to be consistent with the health, safety, morals, and general welfare of the city.

(B) Stability of land use and zoning is desirable; therefore the applicant must provide a sound justification for the change. The burden is on the applicant to show why the change should be made, not on the city to show why the change should not be made.

(C) A proposed change shall not be in significant conflict with adopted elements of the Comprehensive Plan or other city master plans and amendments there, to, including privately developed area plans which have been adopted by the city.

(D) The applicant must demonstrate that the existing zoning is inappropriate because:

1. There was an error when the existing zone map pattern was created; or
2. Changed neighborhood or community conditions justify the change; or
3. A different use category is more advantageous to the community, as articulated in the Comprehensive Plan or other city master plan, even though (D)1. or (D)2. above do not apply.

(E) A change of zone shall not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood, or the community.

(F) A proposed zone change which, to be utilized through land development, requires major and unprogrammed capital expenditures by the city may be:

1. Denied due to lack of capital funds; or
2. Granted with the implicit understanding that the city is not bound to provide the capital improvements on any special schedule.

(G) The cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone.

(H) Location on a collector or major street is not in itself sufficient justification for apartment, office, or commercial zoning.

(I) A zone change request which would give a zone different from surrounding zoning to one small area, especially when only one premise is involved, is generally called a "spot zone." Such a change of zone may be approved only when:

1. The change will clearly facilitate realization of the Comprehensive Plan and any applicable adopted sector development plan or area development plan; or
2. The area of the proposed zone change is different from surrounding land because it could function as a transition between adjacent zones; because the site is not suitable for the uses allowed in any adjacent zone due to topography, traffic, or special adverse land uses nearby; or because the nature of structures already on the premises makes the site unsuitable for the uses allowed in any adjacent zone.

(J) A zone change request which would give a zone different from surrounding zoning to a strip of land along a street is generally called "strip zoning." Strip commercial zoning will be approved only where:

1. The change will clearly facilitate realization of the Comprehensive Plan and any adopted sector development plan or area development plan; and
2. The area of the proposed zone change is different from surrounding land because it could function as a transition between adjacent zones or because the site is not suitable for the uses allowed in any adjacent zone due to traffic or special adverse land uses nearby.

(Res. 270-1980, approved 12-30-80)

§ 14-16-4-1 AMENDMENT PROCEDURE.

(A) *Application.*

(1) Prospective applicants should discuss their situation with the Planning Director before making application for an amendment to the map or text of this Zoning Code so as to familiarize themselves with city plans and policies.

(2) Amendments to the map or text of this Zoning Code are initiated by application to the city on prescribed forms. Each application for an amendment to a zone map shall be accompanied by sufficient copies of an accurate site plan, building development plan, sketch, evidence of interest in property, or other related information as may be required by the city. Where a zone map amendment is proposed to be accomplished by the adoption or amendment of a sector development plan the procedures of § 14-16-4-3 shall be followed for making such application. Submission of inaccurate information with an application is grounds for denial. An application relating to unplatted land shall be accompanied by a plat delineating the boundaries of the area requested to be amended.

(3) Applications for amendment of the official zone map may be made only by the Mayor or his designated representative, a City Councilor or a designee of the City Council or by a person with direct financial, contractual, or proprietary interest in the affected property. The Planning Commission may not be an applicant for an amendment of the official zone map.

(4) Applications for amendment of the text of this Zoning Code may be made by the city or by any person. A City Councilor shall make such application by introduction to the City Council of an ordinance amending this Zoning Code..

(5) An application to amend zoning for the same property or to make the same text change may not be filed within 12 months from the date of final action by the city on a prior application. However, this limitation shall not apply to applications by a representative of the city.

(6) Application for zoning of an area to be annexed to the city is an application for a map amendment and must be filed and processed concurrently with the annexation action.

(B) *Fee.* An application fee shall be charged as follows except to representatives of the city:

(1) Map amendment, as follows:

(a) No fee for the establishment of city zoning for parcels being annexed.

(b) Less than one acre, $240.

(c) One to ten acres, $240 plus $55 per acre or portion thereof.

(d) More than ten acres, $685 plus $10 per acre or portion thereof.

(e) For an overlay zone, one-fourth of the above rates.

(f) Deferral requested by the applicant, $110.

(2) Text Amendment, $565.

(3) Site Development Plan:

(a) Original Plan approval at either the related zone map amendment public hearing or at a separate public hearing, $385.

(b) Amendment approved by Planning Director without interdepartmental review, $45.

(c) Amendment requiring a public hearing and interdepartmental review, $255.

(d) Deferral at the request of the applicant, $110.

(4) When an application is withdrawn after it has been advertised for public hearing by the city, the application fee shall not be refunded. When the application is withdrawn before such advertisement, all but $40 of the fee shall be refunded.

(C) *Hearing and Decision on Proposed Zone Map Amendments.*

(1) Prior to hearing, the Planning Director shall request interested city departments and other agencies to comment on the application. Comments received shall be submitted to the Planning Commission.

(2) In cases where the City Council is authorized to approve the zone map amendment the Planning Commission shall make a recommendation to the City Council as provided for at § 14-13-2-5(C)(2). Such consideration shall be at a public meeting at a time and place contained in a public notice in a daily newspaper of general circulation in the city at least 15 days before the date of the meeting. The notice shall give the location of the property, the present zoning, the requested zoning, and the place where copies of the application may be examined.

(3) In all cases the Planning Director shall cause a staff report to be prepared that recommends approval or denial of the proposed zone map amendment and the justification for the recommendation.

(4) The Planning Commission in cases where it is authorized to approve the zone map amendment or the City Council in cases where it is authorized to approve the zone map amendment shall consider the proposal at a public hearing at a time and place contained in a public notice published in a daily newspaper of general circulation in the city at least 15 days before the date of the hearing. The notice shall give the location of the property, the present zoning, the requested zoning, and the place where copies of the application may be examined. When the area of the zone map amendment is for 40 acres or more or where the amendment is through the adoption or amendment of a Sector Development Plan, the published notice shall include an additional display advertisement of no less than nine square inches, including a map of the area of the application.

(5) The Planning Director shall notify the applicant by certified mail of the date, time, and place of hearing.

(6) Applications for change to the zone map for an area of one block or less:

(a) The applicant must post and maintain one or more signs, as provided and where instructed by the Planning Director, at least 15 days before the date of the hearing. The applicant is responsible for removing such signs within five days after the hearing is completed. Failure to properly post signs is grounds for deferral or denial of the application. No one, except the applicant or an agent of the applicant or the city, shall remove or tamper with any such required sign during the period it is required to be maintained under this division (a).

(b) At the expense of the applicant, the Planning Director shall mail written notice by certified mail, return receipt requested not less than 15 days prior to the date of the hearing to all owners of property within the area proposed to be changed and to all owners of property within 100 feet of the exterior boundaries of the area proposed to be changed, excluding public right-of-way, using for this purpose the last known name and address of the owners shown in the records of the County Assessor. Notice shall include the date, time, and place of the hearing.

(7) For applications for change to the zone map for an area of over one block but less than 40 acres where the area is not covered by a concurrently proposed Sector Development Plan, signs shall be posted as provided in division (6)(a) above.

(8) Whenever a change in zoning is proposed for an area of more than one block, the Planning Director, at the applicant's expense, shall mail notice of the public hearing by first class mail to the owners, as shown by the records of the County Assessor, of lots or of land within the area proposed to be changed by a zoning regulation and within one hundred feet, excluding public right-of-way, of the area proposed to be changed by zoning regulation. If the notice by first class mail to the owner is returned undelivered, the Planning Director shall attempt to discover the owner's most recent address and shall, at the applicant's expense, remit the notice by certified mail, return receipt requested, to that address.

(9) In addition to the above notification requirements, all applicants requesting a zone map amendment for an area of any size that includes a mobile home development shall post and maintain a minimum of one sign at each entrance to the mobile home development, to include both vehicular and pedestrian entrances. These signs shall be in addition to signs required in division (6)(a) above and shall be maintained throughout the time period specified in that division. Such an applicant shall also provide, at the time of application, a list of all current mobile home development residents and their addresses within the subject area proposed to be changed. Failure by an applicant to provide this list shall be grounds for rejection, deferral, or denial of the application. The Planning Director shall mail written notice of the date, time and place of the zone map amendment hearing not less than 15 days prior to the date of the hearing to all mobile home development residents within the subject area to be changed, using for this purpose the list of current residents provided by the applicant. The applicant shall reimburse the Planning Department for costs related to notification of the residents. For cases in which the mobile home development owner is not party to the zone map amendment request (e.g. the city is the applicant) and the applicant is unable to obtain a current list of residents and their addresses either from the mobile home development owner or from the County Assessor records, the sign posting requirements of this division and of division (6)(a) above shall be considered adequate notice.

(10) An advertised hearing may be continued to a time and place announced at the hearing without advertising or reposting of signs.

(11) The Planning Commission may prescribe regulations pertaining to the submission of documentary evidence into the record of any application prior to the advertised hearing date for said application.

(12) City ordinances, rules and regulations with respect to the standards for a zone map amendment establish the standards that must be met before an amendment may be approved. Compliance with ordinances, rules and regulations regarding standards for a zone map amendment do not create any right to an amendment. The approval of a zone map amendment is discretionary.

(13) The zoning map and any related Sector Development Plan may be amended at the conclusion of a public hearing on the basis of plans, ordinances and policies adopted by the City Council. In making a decision, the key findings of fact shall be stated. Additional, satisfactory submissions may be made a condition of approval. Approval of a zone more intensive than the advertised or a change of zoning outside the area advertised for hearing is possible only after appropriately readvertising and reposting signs.

(14) When a zone map amendment which is inconsistent with an adopted Rank 2 or Rank 3 city plan is requested, the Planning Director shall not process it unless an appropriate plan amendment is also requested; the Planning Commission shall then consider the applications and make a decision on the application if it has authority to make the plan amendment, or make recommendations if the City Council has the plan-change authority.

(15) The Planning Commission has the authority to amend the zone map except in the following situations. The City Council has the sole authority, in its discretion, to:

(a) Amend the zoning map imposing or eliminating SU-2 or SU-3 zoning;

(b) Amend the zoning map imposing or eliminating HO, UCO, or DO overlay zoning;

(c) Amend an SU-2 or SU-3 Sector Development Plan for an area over one block, or for any city-owned property within a Sector Development Plan that has primarily been used for a municipal purpose, including parks or properties that contains a structure such as a fire station, police substation, community center, or other facility out of which a city service has been provided, and been deemed non-essential for municipal purposes. City Council approval is not required when establishing or changing the zoning of excess rights-of-way that have been vacated;

(d) Amend the general preservation guidelines or design regulations for an area where HO, UCO, or DO overlay zoning has been imposed;

(e) Amend the zoning map as to land being concurrently annexed;

(f) Amend the zoning map pursuant to deciding an appeal of a zone change decision; or

(g) Amend zoning regulations when all the equitable owners of land which comprises at least 20% of the area proposed for change or 20% of the area within 100 feet, excluding public right-of-way, of the area proposed to be changed in zoning regulation, protest in writing the proposed change in the zoning regulation. For purposes of this division (g) the definition of a "change in zoning regulation" at § 14-16-4-4(E)(5)(d) shall apply. When there is a protest duly based on this division (g), the proposed change in zoning regulation shall require approval by a majority of all Councilors. When such protest is filed after action of the Planning Commission, it shall be processed as an appeal. It is the burden of the persons asserting the applicability of this division (g) to show that it applies through clear and convincing evidence.

(16) (a) An approval of a change to the zone map does not become official until the Planning Director signs Certification of Zoning and sends it to the applicant and any other person who requests such notification on the specific case. Such certification shall be signed immediately after appeal possibilities have been concluded and after all requirements prerequisite to this certification are met. A Certification of Zoning is not required for zone map amendments for which the city is the applicant.

(b) If such requirements are not met within six months after the date final city approval is voted, the approval is void; however, the Planning Director may extend this time limit up to an additional six months.

(17) When only a site development plan is requested to be amended, the zoning classification is not open to amendment, whether in the original decision or on appeal.

(D) *Hearing and Decision on Proposed Ordinance Text Changes.*

(1) Prior to City Council hearing on a text change, including those initiated by the City Council or an official of the city, an application for a text change shall generally be evaluated by the Planning Director and the Planning Commission.

(2) The Planning Director shall notify the applicant of the date, time, and place of hearing.

(3) The City Council may consider any application for text amendment and shall consider any such application which receives a positive recommendation from the Planning Commission. Such consideration shall be at a public hearing.

(E) *Hearing and Decision on Approval of Development Plans.* Hearings by the Planning Commission in initial approval or amendment to a Sector Development Plan or Site Development Plan specified under a zone in this Zoning Code shall abide by the provisions of division (C) of this section.

(F) *Comprehensive Review of Zone Map*. Within the one-year period immediately preceding December 1, 1980, and within each one-year period immediately preceding July 1 of every fourth year thereafter, the Planning Director, after completely reviewing the zone map then in effect, shall recommend to the Planning Commission a version to the official zone map, revised to the extent appropriate to advance the accomplishment of the master plan.

('74 Code, § 7-14-41) (Ord. 80-1975; Am. Ord. 6-1977; Am. Ord. 31-1977; Am. Ord. 45-1977; Am. Ord. 21-1978; Am. Ord. 38-1978; Am. Ord. 21-1979; Am. Ord. 53-1980; Am. Ord. 100-1980; Am. Ord. 72-1981; Am. Ord. 62-1982; Am. Ord. 23-1984; Am. Ord. 60-1986; Am. Ord. 49-1987; Am. Ord. 58-1987; Am. Ord. 73-1989; Am. Ord. 12-1990; Am. Ord. 16-1992; Am. Ord. 32-1995; Am. Ord. 23-2001; Am. Ord. 30-2002; Am. Ord. 7-2008; Am. Ord. 19-2010; Am. Ord. 2012-036)

§ 14-16-2-20 M-1 LIGHT MANUFACTURING ZONE.

This zone provides suitable sites for heavy commercial and light manufacturing uses.

(A) *Permissive Uses.*

(1) Uses first listed as permissive and as regulated in the C-3 zone (§ 14-16-2-18(A)).

(2) Uses permissive and as regulated in the IP zone.

(3) Antenna, without limit as to height.

(4) Automotive sales, rentals, service, repair, and storage, provided:

(a) The area meets all of the specifications for a parking lot as defined in this Zoning Code.

(b) Major automotive repair is conducted within a completely enclosed building.

(5) Automobile dismantling, provided:

(a) All activities are conducted in a completely enclosed building or are enclosed by a solid wall or fence at least six feet high.

(b) Inoperative automobile bodies may be stacked to a height that does not exceed the height of the required wall.

(6) Commercial agricultural activity and incidental structures. Animals permissive are cattle, horses, goats, and sheep, provided the number of head of cattle or horses does not exceed one for each 10,000 square feet of open lot area, or one sheep or goat for each 4,000 square feet of open lot area, or equivalent combination. Animals shall be so controlled that they cannot graze on any other premises. Animals under four months old are not counted.

(7) Emergency shelter, provided that the standards of § 14-16-3-13 of this Zoning Code are met.

(8) Manufacturing, assembling, treating, repairing, or rebuilding articles, except those conditional or otherwise limited in this zone or specifically listed as permissive or conditional in the M-2 zone, provided all manufacturing is conducted within a completely enclosed building.

(9) Incidental uses within a building, most of which is occupied by offices, including news, cigar or candy stand, personal-service establishment and the like, provided:

(a) The use is intended primarily for the use of occupants of the building.

(b) The use is limited to a maximum of 10% of the total floor area.

(10) Parking lot, as regulated in the 0-1 zone.

(11) Recycling bin as an accessory use on the site, as provided in § 14-16-3-15 of this Zoning Code.

(12) Sign, off-premise, as provided in the C-2 zone and § 14-16-3-5 of this Zoning Code, except:

(a) Size. Free-standing sign area of any one sign shall not exceed 672 square feet. An additional add-on sign area of 34 square feet is permitted.

(b) Height.

1. Sign height shall not exceed 29 feet except:

a. As provided in division 2. below; and

b. the height of an add-on sign may be up to but shall not exceed 34 feet.

2. Within 150 feet of a moving through lane of an Interstate Highway, excluding interchange ramps, the height of the highest point of the sign shall not exceed 29 feet, measured either from grade or from the elevation of the Interstate Highway at its closest point, except the height of an add-on sign may be up to but shall not exceed 34 feet, measured in the same way.

(13) Sign, on-premise, as provided in the C-2 zone and in § 14-16-3-5 of this Zoning Code.

(14) Storage structure or yard for equipment, material or activity incidental to a specific construction project, provided it is of a temporary nature and is moved after the specific construction project is completed, or work on the project has been dormant for a period of six or more months, and further provided that it is limited to a period of one year, unless the time is extended by the Planning Director.

(15) Trailer sales, rentals, service, repair, and storage, provided:

(a) Paving shall be maintained level and serviceable. The lot must be graded and surfaced with one of the following:

1. Gravel: Two inches of compacted gravel (3/8 inch to one inch size) at least 1/2 inch of which shall be maintained on the surface; gravel shall be kept off of the right-of-way; or

2. A hard surface superior to division 1. above.

(b) A fence or wall which prevents vehicles from extending beyond the property line shall be erected.

(c) A solid wall or fence at least six feet high shall be erected on sides which abut land, other than public right-of-way land, in a residential zone. However, if the wall or fence plus retaining wall would have an effective height of over eight feet on the residential side, the Zoning Hearing Examiner shall decide the required height; such decision shall be made by the same process and criteria required for a conditional use.

(16) The following uses, provided all activities are conducted within a completely enclosed building and provided that noxious fumes, odors, or dust shall not be emitted from the premises:

(a) Blacksmith shop.

(b) Poultry or rabbit live storage or killing and dressing.

(17) Uses which must be conducted in a completely enclosed building or within an area enclosed on all sides by a wall or fence at least six feet high which is maintained in a state of good repair and which must be solid when it faces or abuts land not zoned C-2, C-3, M-1, or M-2:

(a) Concrete or cement products manufacturing, batching plant, processing of stone.

(b) Gravel, sand, or dirt removal, stockpiling, processing, or distribution.

(c) Truck terminal, tractor, trailer, or truck storage, including maintenance facilities.

(B) *Conditional Uses.*

(1) If so approved, the following uses may be conducted in an area not completely enclosed by a wall or fence:

(a) Air separation plant not otherwise allowed as a permissive use.

(b) Animal raising, other than those animals which are permissive in this section.

(c) Building material storage or sales.

(d) Concrete or cement products manufacturing, batching plant, processing of stone.

(e) Contractor's equipment storage, or contractor's plant.

(f) Feed or fuel storage or sales.

(g) Gravel, sand, or dirt removal activity, stockpiling, processing, or distribution.

(h) Rental, sales, display, and repair of operative contractor's and heavy farm equipment.

(i) Salvage yard for storage and sale of used material provided the yard is enclosed on all sides by a solid wall or fence at least six feet high.

(j) Truck terminal, tractor, trailer, or truck storage, including maintenance facilities.

(2) Community residential corrections program: up to 15 client residents, provided that the standards of § 14-16-3-12 of this Zoning Code are met.

(3) Community residential program for substance abusers with up to 15 client residents, provided that the standards of § 14-16-3-12 of this Zoning Code are met.

(4) Public utility structure which is not permissive.

(5) Retailing which is not permissive, provided retailing shall not include the sale of alcoholic drink for consumption off premises within 500 feet of a pre-elementary, elementary or secondary school, a religious institution, a residential zone, a city owned park or city owned major public open space if the alcoholic drink is in a broken package or in the following package except the retailing of alcoholic drink, for on or off premise consumption, within 500 feet of a community residential program or hospital for treatment of substance abusers, is prohibited pursuant to § 14-16-3-12(A)(11) ROA 1994 and further provided that such sales shall not include:

(a) distilled spirits, as defined in the New Mexico Liquor Control Act, in any package that contains less than 750 milliliters;

(b) beer, as defined in the New Mexico Liquor Control Act, in any single container; and

(c) fortified wines with a volume of alcohol of more than 13.5 percent.

(6) Uses or activities in a tent, if the uses or activities are listed elsewhere in this section, provided there is sufficient paved off-street parking available on the premises to meet parking requirements for all uses on the premises, including the activity in the tent, and provided that the City Fire Marshal [i.e., the Chief of the Fire Prevention Bureau] or his authorized representative gives prior approval of the tent as meeting the requirements of Chapter 14, Article 2, Fire Code.

(7) Wireless Telecommunications Facility, Roof-Mounted, up to 20 feet above the parapet of the building on which it is placed, provided that the requirements of § 14-16-3-17 of this Zoning Code are met.

(C) *Height.*

(1) Structure height up to 36 feet is permitted at any legal location. The height and width of the structure over 36 feet high shall fall within a 45° plane drawn from the horizontal at the mean grade along each boundary of the premises, but a structure shall not exceed a height of 120 feet.

(2) Exceptions to the above are provided in § 14-16-3-3 of this Zoning Code, and, for sign height, as provided in the C-2 zone.

(D) *Lot Size.* No requirements.

(E) *Setback.* Setback shall be as provided in the O-1 zone.

(F) *Off-Street Parking.* Off-street parking shall be as provided in § 14-16-3-1 of this Zoning Code.

(G) *Large Retail Facility Regulations.* Any site containing a large retail facility, as defined in § 14-16-1-5 of the Zoning Code, is subject to special

development regulations. The large retail facility regulations are provided in § 14-16-3-2 of the Zoning Code.
('74 Code, § 7-14-25) (Ord. 80-1975; Am. Ord. 40-1976; Am. Ord. 13-1977; Am. Ord. 26-1977; Am. Ord. 74-1977; Am. Ord. 38-1978; Am. Ord. 34-1981; Am. Ord. 74-1985; Am. Ord. 41-1987; Am. Ord. 3-1990; Am. Ord. 12-1990; Am. Ord. 47-1990; Am. Ord. 2-1991; Am. Ord. 43-1991; Am. Ord. 22-1997; Am. Ord. 9-1999; Am. Ord. 11-2002; Am. Ord. 42-2004; Am. Ord. 4-2005; Am. Ord. 43-2005; Am. Ord. 23-2007; Am. Ord. 19-2010)

§ 14-16-2-22 SU-1 SPECIAL USE ZONE.

This zone provides suitable sites for uses which are special because of infrequent occurrence, effect on surrounding property, safety, hazard, or other reasons, and in which the appropriateness of the use to a specific location is partly or entirely dependent on the character of the site design.

(A) *Procedure.*

(1) Development within the SU-1 zone may only occur in conformance with an approved Site Development Plan. An application for a change to SU-1 zoning shall state the proposed use and must be accompanied by a plan including, at a minimum, all the elements of a Site Development Plan for Subdivision Purposes. As part of the zone amendment action, a Site Development Plan may be approved; alternatively a plan may be approved later. If an approved Site Development Plan is a specified condition of zone change approval, such plan must be approved within the time period specified in § 14-16-4-1(C)(11) of this Zoning Code. No building permit shall be approved unless it is consistent with a complete site development plan for building permit and landscaping plan for the lot in question, approved by the Planning Commission or its designee; at the Planning Commission's discretion, approval of detailed plans may be required for the entire SU-1 zone area prior to issuing a building permit.

(2) A decision implementing a change to the zone map to SU-1 zoning shall designate the specific use permitted, and a building permit shall be issued only for the specific use and in accordance with an approved Site Development Plan. The specific use shall be recorded on the zone map.

(3) In approving an application, the Planning Commission may impose requirements as may be necessary to implement the purpose of this Zoning Code. However, for an adult amusement establishment or adult store on an SU-1 zoned site, no conditions may be imposed on the adult uses that would prevent them from existing on the site if the uses are allowed under the applicable Zoning Code distance requirements.

(4) A certified copy of the Site Development Plan shall be kept in the Planning Department records so that it may be reviewed against an application for a building permit for any part or all of a special use.

(5) The Planning Commission may review the application, plan, and progress of development at least every four years until it is fully implemented to determine if it should be amended.

(6) The Planning Director may approve minor changes to an approved Site Development Plan or Landscaping Plan if it is consistent with the use and other written requirements approved by the Planning Commission, if the

buildings are of the same general configuration, if the total building square footage is not greater than 10% than the approved plan, the vehicular circulation is similar in its effect on adjacent property and streets, and the approving official finds that neither the city nor any person will be substantially aggrieved by the altered plan. If the Planning Director believes there might be a person substantially aggrieved by the altered plan or if the total building square footage would be increased more than 2%, he shall give mailed notice of the proposed change to owners of adjacent property and to neighborhood associations entitled to notice of zone change proposals there.

(7) The Planning Director or a designee may approve site plans for temporary park-and-ride facilities.

(B) *Special Uses.*

(1) Accessory use customarily associated with a use permitted in this zone, provided it is incidental to the major use. Signs as permitted and regulated by the Planning Commission.

(2) Adult amusement establishment or adult store provided:

(a) The use is located at least 1,000 feet from any adult amusement establishment or adult store; and

(b) The use is located at least 500 feet from the nearest residential zone, or from any church or pre-elementary, elementary or secondary school. Signs as regulated in the C-2 zone.

(3) Airport. Signs as permitted and regulated by the Planning Commission.

(4) Antenna (commercial).

(5) Amusement facility of a permanent character, including but not limited to kiddieland, baseball batting range, or golf driving range.

(6) Automobile dismantling yard or similar use. Signs as regulated in the C-1 zone.

(7) Bed and Breakfast Establishment. A Bed and Breakfast establishment with five to eight guest rooms shall abut a collector street, minor arterial street, or major arterial street, except a site of one acre or greater may abut a local street.

(8) Campground, provided it meets the requirements of § 14-16-3-7 of this Zoning Code. Signs as regulated in the C-2 zone.

(9) Cemetery, including columbarium, mausoleum, or crematory, provided the site contains at least 30 acres. Signs as regulated in the O-1 zone.

(10) Church or other place of worship, including incidental recreational and educational uses; such an incidental use must be operated by the church rather than a business entity and must continue to be operated by the church,

unless the resolution governing the SU-1 zone specifically allows operation of a specified incidental use by an entity other than the church itself. Incidental uses allowed include but are not limited to an emergency shelter operated by the church on the church's principal premises which is used regularly for public worship, notwithstanding special limitations elsewhere in this Zoning Code. Signs as permitted and regulated by the Planning Commission.

(11) Park-and-Ride temporary facilities.

(12) Drilling, production, or refining of petroleum gas or hydrocarbons. Signs as regulated in the O-1 zone.

(13) Drive-in theater, provided:

(a) Reservoir off-street standing space or side service road space is provided at any entrance sufficient to accommodate at least 30% of the vehicular capacity of the theater.

(b) A screen less than 500 feet from an arterial street is so located or shielded that the picture surface cannot be seen from the arterial street.

(c) The theater is enclosed with a solid wall or fence at least six feet high.

(14) Fire station. Signs as regulated in the O-1 zone.

(15) Golf course. Signs as regulated in the O-1 zone.

(16) Gravel, sand, or dirt removal activity, stockpiling, processing, or distribution and batching plant. Signs as regulated in the O-1 zone.

(17) Helipad, other than a medical helipad or a law enforcement helipad, provided it complies with Federal, State and Local regulations including City noise regulations; and further provided that:

(a) Helipads are a minimum of 650 feet from the nearest residential zone as measured from the edge of the helipad unless it is demonstrated the helipad will not be injurious to adjacent property, the neighborhood, or the community, but in no case shall a helipad be located less than 350 feet from the nearest residential zone, as measured from the edge of the helipad.

(b) The total number of helicopter operations (a landing and a takeoff is one operation) shall not exceed 3 on any day. The operations per day do not accumulate if not used.

(c) Helicopter landing and takeoff operations are prohibited between 10 P.M. and 7 A.M.

(d) Written documentation of helipad operations, including, but not limited to, flight path usage and the date and time of all landings and takeoffs, shall be maintained by the helipad owner and made available upon request for public inspection.

(e) Helipad operations that assist in medical emergencies, police emergencies, or search and rescue emergencies, when solicited by agencies which respond to such emergencies, shall not be limited to three operations per day nor to time of day limitations.

(18) Hospital for human beings, including medical helipad, provided that the traffic generated, ambulance noise, nor medical helipad will have serious adverse effects on the neighborhood. Medical helipads shall be sited and buffered to minimize impacts on surrounding properties. Written documentation of medical helipad operations, including date and time of all landings and takeoffs, shall be maintained and made available upon request for public inspection. Signs as regulated in the C-1 zone.

(19) Institution, correctional or mental. Signs as regulated in the O-1 zone.

(20) Law Enforcement Helipad, provided that such helipads are sited and buffered to minimize impacts on surrounding properties. Written documentation of law enforcement helipad operations, including date and time of all landings and takeoffs, shall be maintained and made available upon request for public inspection.

(21) Major public open space as defined and administered pursuant to Chapter 5, Article 8, ROA 1994 of this code of ordinances.

(22) Open market. Signs as regulated in the C-1 zone.

(23) Ore reduction, smelting. Signs as regulated in the O-1 zone.

(24) Planned development area, including residential development and mobile home development, in which special use, height, area, setback, or other regulations should be imposed, provided the site contains at least three acres. Signs as permitted and regulated by the Planning Commission.

(25) Planned Residential Development (PRD), provided:

(a) Allowed uses include single-family houses, townhouses, apartments, associated accessory structures and home occupations as regulated by the R-1 zone. Residence/work spaces are allowed as approved by the Planning Commission. O-1 permissive and C-1 permissive uses may be allowed, up to 25% of the total gross floor area of the development, as approved by the Planning Commission.

(b) A Site Development Plan for Subdivision (§14-16-1-5(B)) is required for approval by the Planning Commission in conjunction with a zone map amendment and prior to building permit approval, with specific design requirements that include, but are not limited to: maximum and minimum number of dwelling units and/or density; maximum and minimum lot size(s); maximum building height; minimum building setbacks; architectural design standards, including but not limited to exterior wall

materials and colors, roof materials and colors; placement of mechanical units; preliminary grading and drainage plan; landscape design standards; parking; site lighting; design of walls and fences visible from public rights-of-way; and pedestrian amenities.

(c) The PRD uses and development are compatible with adjacent properties, including public open spaces, public trails and existing neighborhoods and communities. The standards for compatibility shall include the design requirements in subsection (b).

(d) Upon approval of a Site Development Plan for Subdivision with design requirements by the Planning Commission, individual site plans for building permit may be submitted for building permit approved unless the Planning Commission specifies additional review.

(e) Signs as permitted and regulated by the Planning Commission.

(26) Public utility structure. Signs as regulated by the Planning Commission.

(27) Police Station. Signs as regulated in the O-1 zone.

(28) Race track. Signs as regulated in the C-2 zone.

(29) Stadium. Signs as regulated in the C-2 zone.

(30) Swimming pool. Signs as regulated in the O-1 zone.

(31) Transit facilities.

(32) Truck plaza.

(33) A concealed wireless tele-communications facility may be allowed in conjunction with an approved use, provided the requirements of § 14-16-3-17 are met.

(34) Wireless Telecommunications Facility, provided that the requirements of § 14-16-3-17 of this Zoning Code are met, and as specifically allowed below:

(a) A concealed wireless telecommunications facility, up to 65 feet in height.

(b) A collocated free-standing wireless telecommunications facility, up to 75 feet in height.

(c) A face-mounted wireless telecommunications facility.

(d) A roof-mounted free-standing wireless telecommunications facility, up to 20 feet above the parapet of the building on which it is placed.

(e) A wireless telecommunications facility, the antennas of which are all mounted on an existing vertical structure.

(35) Use combinations not adequately allowed and controlled in other zones, relative to a specific site. Signs as permitted and regulated by the Planning Commission.

(36) Hospital for treatment of substance abusers.

(37) Form based zones (TOD-MAC, TOD-COM, MX, ID and PND), provided:

(a) The form based zones shall comply with the standards of § 14-16-3-22 Form Based Zones. The provisions of § 14-16-3-22 shall control where inconsistent with § 14-16-2-22.

(b) A site development plan for a form based zone is required for approval by the Planning Commission in conjunction with a zone map amendment and prior to building permit approval, with specific submittal requirements that include, but are not limited to:

1. An accurate site plan at a scale of at least 1 inch to 100 feet showing: building placement, parking location, street layout, lot layout, placement of mechanical equipment, lighting and signage, public amenities, walls, and required usable open space;
2. A preliminary grading plan;
3. A preliminary utility plan;
4. A landscape plan showing landscape areas, plant material, water harvesting areas; and
5. Building elevations demonstrating building types, frontage types, heights, fenestration, shading elements, articulation, ground story clear height.

(c) The form based zones shall meet the eligibility requirements set forth in § 14-16-3-22(B).

(d) Modifications to any of the standards of the (§ 14-16-3-22) Form Based Zones may be granted by the Environmental Planning Commission or other City Council designated approval body, as set forth in § 14-16-3-22(A)(6).

(C) *Off-Street Parking*. Off-street parking shall be provided as required by the Planning Commission.

(D) *Height*. The same regulations apply as in the R-2 zone unless modified by the Planning Commission.

(E) *Open Space*. If the SU-1 zone is mapped in an area not designated by the master plan as Rede-veloping or Established Urban, 2,400 or more square feet of open space per dwelling shall be preserved. Of the total 2,400 square feet, the following minimum amounts shall be usable open space on the lot with the dwelling: 200 square feet for each efficiency or one-bedroom dwelling, 250 square feet for each two-bedroom dwelling, and 300 square feet for each dwelling containing three or more bedrooms. The remaining requirement may be met by the alternatives listed in § 14-16-3-8(A) of this Zoning Code.

(F) *Variances*. If the resolution approving SU-1 references the regulations of another zone or if the adopted site development plan specifically incorporates such regulations, the referenced zone regulations shall apply unless a variance is approved.

(G) Any special use that would allow the sale or dispensing of alcoholic drink for consumption off premises shall be subject to the restrictions set forth in the C-2 zone (§ 14-16-2-17 of this Zoning Code) for sales of alcoholic drink for consumption off premises except any retailing of alcoholic drink, for on or off premise consumption, within 500 feet of a community residential program or hospital for treatment of substance abusers, is prohibited pursuant to § 14-16-3-12(A)(11) ROA 1994.

(H) *Large Retail Facility Regulations*. Any site containing a large retail facility, as defined in § 14-16-1-5 of the Zoning Code, is subject to special development regulations. The large retail facility regulations are provided in § 14-16-3-2 of the Zoning Code.

('74 Code, § 7-14-30) (Ord. 80-1975; Am. Ord. 48-1976; Am. Ord. 6-1977; Am. Ord. 26-1977; Am. Ord. 38-1978; Am. Ord. 68-1979; Am. Ord. 40-1980; Am. Ord. 49-1980; Am. Ord. 42-1981; Am. Ord. 14-1984; Am. Ord. 77-1984; Am. Ord. 11-1986; Am. Ord. 41-1987; Am. Ord. 12-1990; Am. Ord. 30-1990; Am. Ord. 47-1990; Am. Ord. 69-1990; Am. Ord. 45-1992; Am. Ord. 43-1994; Am. Ord. 8-1995; Am. Ord. 58-1995; Am. Ord. 17-1997; Am. Ord. 33-1997; Am. Ord. 9-1999; Am. Ord. 8-2000; Am. Ord. 35-2000; Am. Ord. 11-2002; Am. Ord. 50-2002; Am. Ord. 48-2003; Am. Ord. 16-2004; Am. Ord. 42-2004; Am. Ord. 4-2005; Am. Ord. 30-2005; Am. Ord. 23-2007; Am. Ord. 5-2008; Am. Ord. 7-2008; Am. Ord. 9-2009; Am. Ord. 19-2010)

Section 9-9-11 REFUSE COLLECTION. (back to contents)

No person shall collect refuse with a refuse collection vehicle except during the following hours

A. Noise-sensitive property or property adjacent to noise-sensitive property or separated by an alleyway from noise-sensitive property:
    - Monday through Friday 700 a.m. to 800 p.m.
    - Saturday, Sunday, holiday: 700 a.m. to 1000 p.m.

B. Areas not specified in (A)
    - Monday through Friday: 600 a.m. to 1000 p.m.
    - Saturday, Sunday, holiday: 700 a.m. to 1200 p.m.

§ 14-13-1-1 FINDINGS.

(A) The City has authority to adopt a comprehensive "master" plan as granted under Chapter 3, Article 19, NMSA 1978 and by the City Charter as provided under Home Rule provisions of the Constitution of New Mexico.

(B) In response to a variety of concerns expressed by the public and local elected officials with regard to the environmental, economic, social, and fiscal impact (the costs and benefits) of growth and development in the metropolitan area, and the concern that the Albuquerque/Bernalillo County Comprehensive Plan and other policy and implementation tools in use are not a fully effective growth management system, the City and the County of Bernalillo began a joint effort in 1998 culminating in the two volume Planned Growth Strategy report that was completed in the Fall of 2001.

(C) The Planned Growth Strategy report was developed with the assistance of consultants, including Parsons Brinckerhoff; Camp Dresser & McKee; Ch2M-Hill; Wilson and Company; Freilich, Leitner & Carlisle; Friedmann Resources; Growth Management Analysts; Lora Lucero, Esq.; Michael McKee, Ph.D.; and Sites Southwest.

(D) The Planned Growth Strategy project was assisted by planning and engineering professionals from City and County government, the Middle Rio Grande Council of Governments, other local governments, and by individual citizens.

(E) The Planned Growth Strategy report was guided by the counsel received from participants at Town Halls held in 1998 and 1999 organized by Shared Vision, Inc., and also by the findings of citizen surveys carried out by the City's Office of Management and Operations Improvement.

(F) The Planned Growth Strategy development process was assisted by advice and comments from the PGS Advisory Committee that included representatives of the business community, developers, Albuquerque Public Schools, neighborhood associations, and a planning advocacy group.

(G) The Planned Growth Strategy report was reviewed at important junctures by a Policy Committee consisting of elected officials from the Albuquerque City Council and the Bernalillo County Commission, the Bernalillo County Manager, and the Chief Administrative Officer of the City.

(H) The Planned Growth Strategy report contains a comprehensive and integrated growth management policy analysis and program for the urban area of Bernalillo County, and implementation of the Planned Growth Strategy as defined herein should include coordination with Bernalillo County.

(I) The Planned Growth Strategy report found that the Albuquerque area faces critical challenges related to deteriorated infrastructure; back-log of infrastructure rehabilitation and deficiency correction projects; natural resource conservation and preservation related to land, water, and air quality; traffic congestion; timely provision of infrastructure, parks, schools and other facilities to support new development; and the decline of some older neighborhoods.

(J) The existing City/County Comprehensive Plan and sector, redevelopment, and area plans contain valuable policies and vision to guide the City's actions.

(K) There are inconsistencies between adopted community plans and the structure of development regulations, design and infrastructure standards, charges and fees, and approval processes that result in an undesirable gap between conditions and our best aspirations for the community.

(L) Economic growth and development, i.e., new and well-paid jobs, should remain a priority of the City in order to ensure that the City continues to remain a vibrant and thriving community with opportunities for its citizens now and in the future.

(M) Recognized comprehensive community-building principles have not been and should be incorporated into the routine planning, standards, and functioning of City departments and into their joint efforts with other governmental agencies and public and private organizations.

(N) Various work activities identified in the City's FY 03 Performance Plan are in progress which aim to reform zoning, land use and design requirements in keeping with principles of the Planned Growth Strategy.

(O) The Planned Growth Strategy implementation approach shall be based on a concerned, informed and engaged community, an open and dynamic process of improvement, systematic public comment, and confidence that conditions can be made better through local action.

(P) In order to achieve the long term goals of the policies described in the Planned Growth Strategy report and the City/County Comprehensive Plan, a number of near- and long-term actions are needed.

§ 14-13-3-2 DUTIES, RESPONSIBILITIES, AND POWERS.

(A) *Delegation by City Council.* There is hereby delegated to the EPC the following power and authority:

(1) Study. The EPC shall study urban and regional planning and means of protecting and improving the environment. The EPC may request assistance of staff of the city by request to the Mayor.

(2) Advisory Functions. The EPC shall advise the Mayor, City Council, and city staff concerning the development and revision of community goals, plans for urban development and protection of the environment, policies on development and on protection of the environment, ordinances appropriate for effecting such plans and policies, annexation to the city, programming of capital improvements for the city, the designation of land desirable and needed for public purposes, the adoption of air and water quality standards, and other appropriate matters.

(3) Public Education. The EPC shall promote the understanding of planning and environmental matters among public officials as well as residents of Albuquerque and its environs.

(4) Environmental and Economic **Impact** Analyses. The EPC shall review all environmental and economic **impact** analyses prepared by the city or required of others by the city, or submitted to the EPC by other interested parties on matters under consideration by the EPC.

(5) Approval of Extraordinary Facilities in City Parks and Open Space. If extraordinary facilities are proposed for city-controlled parks or open space, EPC approval of a site development plan is required before installation or construction. Before considering approval of such facilities, the EPC shall seek the recommendation of the Metropolitan Parks Advisory Board and/or the Open Space Advisory Board, according to their jurisdiction over the area. The decision of the EPC may be appealed to the City Council if appeal is filed with the Planning Director within 15 days of the decision. For the purpose of this division (5):

§ 14-16-3-18 GENERAL BUILDING AND SITE DESIGN REGULATIONS FOR NON-RESIDENTIAL USES.

(A) *General Intent.* The building and site design regulations in this section are intended to enhance the visual appearance of non-residential development; to promote street and neighborhood character; and to strengthen the pedestrian environment. Regulations for large-scale development are also provided to mitigate the negative visual **impacts** arising from the scale, bulk and mass inherent to large commercial buildings.

(B) *Applicability.*

(1) Provisions of this section shall apply to all non-residential uses unless otherwise specified.

(2) Provisions of this section shall apply to the following:

(a) Construction of a new building.

(b) Construction of a building addition that increases the existing square footage by 50% or by 15,000 square feet, whichever is less. Application of the provisions shall be required of the building addition and the existing building(s).

(c) Change of use. Where use changes from manufacturing or warehouse to office or commercial, typical design requirements related to office/institutional or commercial retail/service uses shall be required.

(3) With the exception of public sidewalks, the area of all required sidewalks, seating areas, patio or other usable outdoor areas may be applied in meeting up to 1/3 of the landscape requirements for the overall site as required in § 14-16-3-10(E)(1).

(C) *Design Standards -- Office/Institutional and Commercial Retail/ Service Uses.* (Note: Sites 5 acres and greater will be required to comply with the following design standards in addition to any other design requirements that the Environmental Planning Commission may deem necessary.)

(1) Sidewalks. Pedestrian sidewalks, a minimum of 8 feet in width, shall be provided along the entire length of major facades containing primary entrances. The width of the sidewalk shall be increased as follows:

(a) Ten feet in width for buildings 10,000 to 30,000 square feet;

(b) For buildings greater than 30,000 square feet, the width of the sidewalk shall increase at the rate of one foot in width per 10,000 square feet of building size to a maximum required width of 15 feet.

(c) The width of the required sidewalk may vary along the entire length of the facade provided the average required width is maintained and provided the width of the sidewalk along the facade does not fall below 8 feet.

(d) A six-foot wide clear path shall be maintained along the sidewalk at all times. Site amenities, cars, landscaping and other uses of the sidewalk may not encroach upon the six-foot clear width.

(e) The building's overall footprint will be considered the area for calculation of sidewalk width. A collection of smaller buildings linked by common walls will be considered as one building.

(f) Site amenities, landscaping, vending and customer pick-up may be incorporated into the width of the sidewalk provided they do not encroach upon the clear width as stated above.

(g) Exceptions.

1. Where primary entrances are located adjacent to a public sidewalk, the width of the public sidewalk may be included in the calculation provided a pedestrian connection is provided to connect the public sidewalk with the entrance(s).

2. Where a vestibule or other projecting entryway is provided, the depth of the vestibule or entryway may be included in the sidewalk calculation, provided 6 feet of sidewalk is located in front of the vestibule or projecting entryway in order to allow pedestrian connectivity along the entire length of the facade.

(2) Pedestrian Features. Major facades shall incorporate at least one or a combination of the following features along no less than 50% of the length of the facade. Such features shall be distributed along the length of the facade in order to avoid creating a blank facade greater than 30 feet in length.

(a) Display windows, provided the sill height does not exceed 45 inches above the finished floor and the overall glass height is a minimum of 48 inches. Where windows are provided, they shall not be mirrored or opaque along the ground floor.

(b) Doors/Entrances.

(c) Portals, arcades, canopies, trellises, awnings associated with windows (windows do not have to comply with dimensions specified in (a) above), or other three dimensional elements that provide shade and/or weather protection.

(d) Raised planters a minimum of 12 inches and a maximum of 28 inches in height, located adjacent to the facade, with living, vegetative materials such as ornamental grasses, vines, spreading shrubs, flowers, or trees over at least 75% of the planter. Coverage shall be calculated from the mature spread of the plants.

(e) A minimum 15-foot wide landscaped area planted adjacent to the facade. One shade tree for every 50 linear feet of facade shall be provided in the landscaped area. Shrubs and/or groundcover shall cover at least 75% of the landscaped area measured from the mature spread of the plants.

(f) Shade trees, provided at one tree for every 30 linear feet of the entire facade, which may be evenly spaced or clustered along the facade. Trees shall be placed within defined planting areas that have a minimum interior dimension of 36 square feet and a minimum width of four feet. Provision of trees will not fulfill off-street parking or street tree requirements.

(g) Any other treatment that meets the intent of this section and that meets the approval of the Planning Director or his designee.

(h) Exception. Major facades containing service areas will not be required to provide pedestrian features in front of the service area.

(3) Major Facades Greater Than 100 Feet In Length. In addition to the requirements set forth in subsection (C)(2) above, buildings containing major facades greater than 100 feet in length shall incorporate outdoor seating adjacent to at least one of the facades, a minimum of one seat per 25 linear feet of building facade. Each seat shall be a minimum of 24 inches in width and 15 inches in height. Benches, raised planters, ledges or similar seating features may be counted as seating space. If the outdoor seating is located on the south or west side of the building, at least 25% of the seating area shall be shaded.

(4) Public Space. (Applicable to buildings 60,000 square feet or greater. A collection of smaller buildings linked by common walls shall be considered one building.) One public space area, a minimum of 400 square feet, shall be provided for every 30,000 square feet of building space. The public space area shall be privately owned and maintained and should typically contain seating and shade. Public space areas are prioritized so that (a) below is required of the first 30,000 square feet. In addition to (a), public space areas may contain one or a combination of the following features:

(a) Outdoor plaza, patio, or courtyard with seating and shade covering a minimum of 25% of the area.

(b) Pocket park with seating and shade covering a minimum of 25% of the area.

(c) Sculpture or other artwork.

(d) Fountain or some other water feature.

(e) Playground or other recreational amenity.

(f) Any other amenity that meets the intent of this section and that meets the approval of the Planning Director or his designee.

(5) An aggregate of buildings 125,000 square feet or greater shall provide pedestrian plaza space in the amount of 400 square feet for every 20,000 square feet of building space. A minimum of 50% of the required public space shall be provided in the form of aggregate space that encourages its use and that serves as the focal point for the development. The aggregate space shall:

(a) Be linked to the main entrance of the principal structure and the public sidewalk or internal driveway;

(b) Include adequate seating areas. Benches, steps, and planter ledges can be counted for seating space;

(c) Have a portion (generally at least 40%) of the square footage of the plaza area landscaped with plant materials, including trees;

(d) Be designed for security and visible from the public right-of-way as much as possible;

(e) Have pedestrian scale lighting and pedestrian amenities such as trash receptacles, kiosks, etc.

(6) Screening.

(a) Roof-mounted mechanical equipment shall be screened from the public right-of-way by parapet walls or structural features. The minimum height of the parapet walls or structural features shall be as follows:

1. 42" if the roof top equipment is within 10 feet of the building wall;
2. 30" if the roof top equipment is within 20 feet of the building wall;
3. 18" if the roof top equipment is beyond 20 feet of the building wall.

(b) Wall-mounted mechanical and electrical equipment on major facades is discouraged. If used, it shall be screened by dense evergreen foliage or by other acceptable screening devices. Wall-mounted mechanical equipment on non-major facades shall be painted to match the color of the subject building or screened by other acceptable screening devices.

(c) Ground-mounted mechanical and electrical equipment, excluding transformers, adjacent to a major facade shall be screened through use of walls, earth berms, dense evergreen foliage or other acceptable screening devices.

(d) Loading areas which face a public street or residentially-zoned property and which are not separated from the public street or a residentially-zoned property by intervening buildings, landscaping or by a distance of at least 100 feet, shall be screened with solid walls which are a minimum of six feet in height when measured from the finished grade exterior to the loading area. The distance of the screening wall from the loading area shall not exceed 100 feet.

(D) *Design Standards – All Non-Residential Uses.*

(1) Building Entrances. Primary entrances along major facades shall be clearly defined with facade variations, porticos, roof variations, recesses or projections, or other integral building forms.

(2) Break up the Mass. Major facades greater than 100 feet in length shall break up building mass by including at least two of the following architectural features:

(a) Wall plane projections or recesses of at least 2 feet in depth, occurring at least every 100 feet and extending at least 25% of the length of the facade;

(b) A vertical change in color, texture, or material occurring every 50 linear feet and extending at least 20% of the length of the facade;

(c) An offset, reveal, pilaster, or projecting element, no less than two feet in width and projecting from the facade by at least six inches and repeating at minimum intervals of 30 feet;

(d) Three dimensional cornice or base treatments;

(e) Art such as murals or sculpture to be coordinated through the City Arts Program;

(f) A change in visible roof plane or parapet height for every 100 feet in length, however, each distinct roof plane does not have to equal 100 feet in length;

(g) Any other treatment that meets the intent of this section and that meets the approval of the Planning Director or his designee.

(h) Exception. In cases where the applicant has provided pedestrian amenities according to subsection (C)(2) above, the applicant need only provide one of the above-listed treatments.

(3) Provisions for Employees. Buildings requiring six or more water closets, pursuant to the Uniform Building Code, shall provide outdoor gathering space for employees. Such space shall be a minimum of 300 square feet, with seating and shade covering a minimum of 25% of the area.

(a) Exception. The provision for employees will not be required if an outdoor plaza, patio, courtyard or pocket park are provided as part of the development plan in accordance with subsection (C)(4) above.

(4) Accessory Buildings. All accessory buildings visible from a public street shall be similar in color and material to the major building on a site.

(5) Drive-Up Service Windows. Drive-up service windows shall be oriented away from pedestrian areas, residentially-zoned areas and public streets where possible. In cases where drive-up service windows face these areas, screening shall be provided. Screening may be in the form of walls, earth berms, or evergreen landscaping, or a combination thereof and shall be a minimum of three feet in height. Where walls are provided, a minimum 3-foot wide planting strip with live vegetation shall also be provided on the pedestrian or residential or public street side.

(6) Gas Fueling Canopies. Gas fueling canopies and canopy fascia shall be similar in color and texture to the major building on a site. All under-canopy lighting shall be recessed so that no light lens projects below the canopy ceiling. The canopy fascia shall not be internally illuminated.

Bikeways & Trails Facilities Plan

Albuquerque, NM

May 2015

GGNA-EXHIBIT L24

CITY of ALBUQUERQUE
TWENTY-FIRST COUNCIL

COUNCIL BILL NO. F/S R-14-142 ENACTMENT NO. R-2015-045

SPONSORED BY: Isaac Benton, by request

RESOLUTION

ADOPTING THE BIKEWAYS & TRAILS FACILITY PLAN (BTFP) AS A RANK II FACILITY PLAN. THE SCOPE OF THE BIKEWAYS AND TRAILS FACILITY PLAN IS CITY-WIDE.

WHEREAS, the City Council, the governing body of the City of Albuquerque, has the authority to adopt facility plans to promote the health, safety, and general welfare of the residents of Albuquerque, Section 3-19-1 et. Seq., NMSA 1978, and by its home rule powers; and

WHEREAS, people use both bikeways and trails for a variety of activities, including recreation, commuting, exercise, and utilitarian travel; and

WHEREAS, funding for both facilities comes from the same sources; and

WHEREAS, the City has determined that consolidating these plans into one document will help the City better manage the growth of the bikeways and multi-use trails system; and

WHEREAS, the primary goal of the *Bikeways & Trails Facility Plan* is to ensure a well-connected, enjoyable, and comfortable non-motorized transportation and recreation system throughout the metropolitan area; and

WHEREAS, the *Bikeways & Trails Facility Plan* intends to guide future investment in the bikeways & trails system, including facility improvements, new facilities, maintenance, and education/outreach programs; and

WHEREAS, the *Bikeways & Trails Facility Plan* is consistent with the applicable goals and policies of the *Albuquerque/Bernalillo County Comprehensive Plan*, the *Major Open Space Facility Plan*, and the *Facility Plan for Arroyos*; and

WHEREAS, on October 9, 2014, the Environmental Planning Commission (EPC), in its advisory role, voted that a Recommendation of Approval be

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forwarded to City Council for Project 1008887, 14EPC-40054, a request for an Adoption of a Rank II *Bikeways & Trails Facility Plan*, as recommended in the findings within the staff report (see Record).

BE IT RESOLVED BY THE COUNCIL, THE GOVERNING BODY OF THE CITY OF ALBUQUERQUE:

Section 1. The City Council adopts the Following Findings:

1. The Rank II *Bikeways & Trails Facility Plan* updates, consolidates, and replaces the *Trails and Bikeways Facility Plan* (1993) and the *Comprehensive On-Street Bicycle Plan* (2000). Rank II facility plans describe the existing facilities, policies, recommendations, and proposed projects.

2. The scope of the *Bikeways and Trails Facility Plan* is City-wide. It also shows trails within Bernalillo County's jurisdiction to demonstrate regional connectivity, but which are not included as City proposed projects.

3. The purpose of the plan is to ensure a well-connected, enjoyable, and safe non-motorized transportation and recreation system throughout the metropolitan area. Updating the Plan is a reasonable exercise in local self-government consistent with the City Charter.

4. The *Albuquerque/Bernalillo County Comprehensive Plan*, the City of Albuquerque Zoning Code, the *Major Open Space Facility Plan*, the *Facility Plan for Arroyos*, the *Trails and Bikeways Facility Plan*, and the *Comprehensive On-Street Bicycle Plan* are incorporated herein by reference and made part of the record for all purposes.

5. The proposed plan supports the following applicable Goals and Policies of the Rank I *Albuquerque/Bernalillo County Comprehensive Plan*:

a. The Plan furthers the Open Space Network Goal and Policy II.B.1f by updating trail-related policy, design guidelines, and proposed trails projects. Part of the overarching vision of the plan is to provide recreation opportunities; the plan also recommends trails along arroyos and appropriate ditches as connections between natural areas and open spaces.

b. The Plan furthers the Semi-Urban Area Policy II.B.4b through designation of trails and trail corridor development policies for semi-urban areas.

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c. The Plan furthers the Developing and Established Urban Areas Goal and Policy II.B.5g because the plan will help guide development of a system that contributes to creating a quality urban environment and that will increase choices in transportation and life styles. The plan will guide development of trail corridors in appropriate locations.

d. The Plan furthers the Environmental Protection Policy II.C.1d and the Transportation and Transit Goal by setting direction for investments in multi-modal transportation infrastructure, which will help protect air quality through a balanced circulation system that supports and encourages alternative means of transportation.

e. The Plan is generally consistent with Policy II.D.4h. A metropolitan area-wide recreational and commuter bicycle and trail network which emphasizes connections among Activity Centers shall be constructed and promoted. The proposed alignments have been evaluated to provide connection to and within most designated activity centers.

f. The Plan is generally consistent with Policy II.D.4i. Street and highway projects shall include paralleling paths and safe crossings for bicycles, pedestrians, and equestrians where appropriate. The Plan includes a Complete Streets Policy for bikeways and trails projects to be considered on all streets, as appropriate, throughout the street network. One of the critiques of the Plan is that it does not recommend access along major arterial streets, which have been demonstrated to have the highest bicycle and pedestrian crash rates.

g. The Plan is generally consistent with Policy II.D.4h. Efficient, safe access and transfer capability shall be provided between all modes of transportation. The City currently has excellent transfer capabilities between bicycle, train, and bus. Both the train and all City busses have capacity to hold multiple bicycles each. The Plan does not specifically address how to provide safe and convenient access to each bus stop, which is typically located on a major arterial street.

h. The Plan is generally consistent with Policy II.D.4q. Transportation investments should emphasize overall mobility needs and choice among modes in the regional and intra-city movement of people and goods. The Plan

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sets direction for investments in multi-modal transportation infrastructure and programs to enhance bicycling and walking options.

6. The proposed Plan is generally consistent with the key themes of the 2035 Metropolitan Transportation Plan (MTP) through its multi-modal vision, policies, and proposed facilities for pedestrians and cyclists throughout the City. The proposed facility map is consistent with the current LRBS map and will provide updates to the LRBS map when it is amended for the 2040 MTP.

7. Key City departments, including Municipal Development, Parks & Recreation, and Planning, coordinated as part of this facility planning effort.

8. There is general support among the reviewing agencies and members of the public that the City should adopt the proposed *Bikeways & Trails Facility Plan*.

9. The City's Advisory Groups for trail and bicycle facilities, The Greater Albuquerque Bicycle Advisory Committee and the Greater Albuquerque Recreational Trails Committee, should meet biannually to review implementation of the BTFP and consider any updates or changes that may be necessary.

Section 2. In order to implement the policies of the *Albuquerque/Bernalillo County Comprehensive Plan*, applicable Rank II and Rank III Plans, and the *Metropolitan Transportation Plan*, the *Bikeways & Trails Facility Plan*, with Appendices, attached hereto as Exhibit A, is hereby adopted and the *Trails & Bikeways Facility Plan* (1993) and the *Comprehensive On-Street Bicycle Plan* (2000) are repealed.

Section 3. EFFECTIVE DATE. This resolution shall take effect five days after publication by title and general summary.

Section 4. SEVERABILITY CLAUSE. If any section paragraph, sentence, clause, word, or phrase of this resolution is for any reason held to be invalid or unenforceable by any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions of this resolution. The Council hereby declares that it would have passed this resolution and each section, paragraph, sentence, clause, word or phrase thereof irrespective of any provisions being declared unconstitutional or otherwise invalid.

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PASSED AND ADOPTED THIS 18th DAY OF May, 2015
BY A VOTE OF: 8 FOR 0 AGAINST.

Excused: Peña

Rey Garduño, President
City Council

APPROVED THIS _____ DAY OF _____, 2015

Bill No. F/S R-14-142

Richard J. Berry, Mayor
City of Albuquerque

ATTEST:

Natalie Y. Howard, City Clerk

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City of Albuquerque

Office of the City Clerk

Richard J. Berry, Mayor **Trina Gurule, Interim City Clerk**

Interoffice Memorandum

June 3, 2015

To: CITY COUNCIL

From: NATALIE Y. HOWARD, CITY CLERK

Subject: BILL NO. C/S R-14-142; ENACTMENT NO. R-2015-045

I hereby certify that on June 2, 2015, the Office of the City Clerk received Bill No. C/S R-14-142 as signed by the president of the City Council, Rey Garduño. Enactment No. R-2015-045 was passed at the May 18, 2015 City Council meeting. Mayor Berry did not sign the approved Resolution within the 10 days allowed for his signature and did not exercise his veto power. Pursuant to the Albuquerque City Charter Article XI, Section 3, this Resolution is in full effect without Mayor's approval or signature. This memorandum shall be placed in the permanent file for Bill No. C/S R-14-142.

Sincerely,

Natalie Y. Howard
City Clerk

CHAPTER 2: PLANNING & POLICY FRAMEWORK

A. Bikeways & Trails System Vision, Goals, and Policies

This section defines the vision statement, goals, and policies for the City's bikeways and trails system. Plan objectives and action items/strategies, along with methods to measure success in implementing the Plan, are included in **Chapter 6, Implementation Strategies**. A project management team consisting of members from public agencies and plan development team members adapted the *Trails & Bikeways Facility Plan* and the *Albuquerque Comprehensive On-Street Bicycle Plan* goals and objectives to reflect current issues and concerns about the bikeway and trail system.

1. Vision

The City of Albuquerque envisions a system of bikeways and trails that connect throughout the city to support active transportation and recreation. The city envisions the bikeways and trails network to be an integral part of its system of Parks, Open Space and Trails, which is one of Albuquerque's most valuable assets and is an integral part of attracting economic growth. The bikeways and trails will allow people of all ages and abilities to experience the city using active transportation, such as walking, biking, or skating. The City aims to increase the numbers of shopping, dining, school, and recreational trips made via bikeways and trails in order to improve public health, air quality, congestion management, and quality of life for residents of Albuquerque.

> ***The City will provide access for cyclists, pedestrians, and trail users to all areas of Albuquerque to encourage cycling and walking as viable transportation options and to provide recreation opportunities, which result in an improved quality of life in the Albuquerque Metropolitan Area.***

This Plan will foster the construction and preservation of bikeways and trails to reinforce bicycle and pedestrian rights to be in the roadway and on sidewalks or trails; promote improved connectivity; and encourage healthy, outdoor activity. The system will be implemented in partnership with multiple agencies and will be based on consensus and sensitivity to the diverse viewpoints within the community.

With over 620 miles of bikeways, paved trails, and unpaved trails already constructed, the City recognizes that improving the continuity, maintenance, and quality of existing routes should generally take precedence over investment in new routes.

2. Goals & Principles

The goals and principles section provides general guidance for the development of the bikeways & trails system. Goals are outcome statements that define what the City is trying to accomplish in its Bikeways & Trails system. Principles define how we will go about "doing business" to achieve the plan's goals. The goals and principles are visionary in nature, and relatively long-term in time horizon. For more detailed implementation strategies and actions related to these goals, please see **Chapter 6, Implementation Strategies,** and in particular, **Section F, the Implementation Matrix.**

1. **Improve and enhance cycling and pedestrian opportunities.**
    a. **Principle:** Develop a legible and predictable trail and bikeway system through planning, design, and implementation of physical improvements.

GGNA-EXHIBIT L31

b. **Principle:** Provide engineering and multi-disciplinary staff reviews for new and reconstructed bicycle and pedestrian facilities, including in the project scoping phases.

c. **Principle:** Study, pilot, test, and implement best practices and designs that have been found successful in other communities to respond to the rapidly changing state of bicycle and pedestrian practices. Implementation of this plan should allow flexibility to include new projects and techniques that are highly consistent with the plan goals.

d. **Principle:** Improve the utility of trail and bikeway facilities through programmatic activities, such as facility audits and assessments, education, outreach, and maintenance practices.

e. **Principle:** Provide a welcoming and comfortable environment for all travelers along roadways and trails, which encourages more legitimate users on these facilities to help reduce crime. Focus on providing convenience, comfort, and protection from hazard and injury.

f. **Principle:** Balance the need to discourage unauthorized motorized vehicle access on trails with the need to provide the trail users a facility without unnecessary obstructions through application of the best practice guidance for bollard placement in the design guidelines.

2. **Develop a continuous, interconnected, and comprehensive system of bikeways and trails.**

a. **Principle:** Develop, construct, and promote an integrated system of bikeways and trails, with facilities distributed City-wide. The metropolitan area-wide recreational and commuter bicycle and trail network should emphasize connections among Comprehensive Plan Activity Centers.

a. **Principle:** Focus on achieving connectivity of the existing bikeway and trail system when planning and programming trail and bikeway improvements.

b. **Principle:** Work toward addressing and improving challenging intersections and physical barriers, and consider pedestrian and bicycle movement in the planning stages for new or reconstructed facilities.

c. **Principle:** Provide access to destinations, such as activity centers, schools, parks, Major Public Open Space, shopping areas, and employment areas, for pedestrians and cyclists as part of a multi-modal approach.

d. **Principle:** Consider connections between transit and bicycle and pedestrian facilities and reduce barriers where possible.

e. **Principle:** Reduce implementation costs by including bicycle facilities as appropriate in all new and rehabilitation street projects.

f. **Principle:** Include parallel paths and improve crossings for bicycles, pedestrians, and equestrians where appropriate in street and highway projects.

g. **Principle:** Create a multi-purpose network of open areas and trail corridors along arroyos and appropriate ditches. Acquire, regulate, or appropriately manage trail corridors to protect natural features, views, drainage and other functions or to link other areas within the Major Public Open Space network.

3. **Enhance maintenance of all bikeways and trails.**

GGNA-EXHIBIT L32

a. **Principle:** Develop maintenance practices appropriate for each facility type.

b. **Principle:** Implement priority maintenance as appropriate for each facility type, including trail corridors and bikeways, based on the recommendations in **Chapter 6.C, Maintenance and Operations.**

4. **Increase use of the bikeway and trails network.**

a. **Principle:** Increase the number of people who walk and bicycle by aiming to attract new users and to encourage incidental users to walk and bicycle more frequently.

b. **Principle:** Support the development of an integrated bikeways and trails system that serves the interests and needs of transportation and recreation.

c. **Principle:** Support use of non-motorized infrastructure as part of everyday life for daily activities, and aim for a mode share of 5% of all trips by walking or biking.

d. **Principle:** Accommodate all types, ages, and abilities of users in a comfortable manner throughout the system, while recognizing that all modes of travel and/or level of user ability may not necessarily be accommodated on every road or trail.

e. **Principle:** Support the development of bikeways and trails as in integral part of the City's transportation infrastructure.

f. **Principle:** Facilitate and encourage commuter cycling and utilitarian trips by developing performance measures to better understand the impacts of programs and projects.

g. **Principle:** Reduce conflicts between vehicular traffic, cyclists, and trail users.

h. **Principle:** Reduce conflicts between different types of trail users.

i. **Principle:** Accommodate the following users in the trail system recognizing that not all can be accommodated on every trail: cyclists (including upright, recumbent, and children), pedestrians (including walkers, runners, people using wheelchairs, people with baby strollers, people walking dogs), skaters, equestrians, and people with disabilities.

j. **Principle:** Support the development of bikeways and trails as in integral part of the recreation Parks, Open Space, and Trails system (POST), including recreational loops, secondary trails, and neighborhood-scale connecting routes.

k. **Principle:** Connect the bikeways and trails network with public transit, providing flexibility and choice for travel options and enhancing recreational opportunities.

5. **Increase public awareness and education related to bikeways and trails.**

a. **Principle:** Implement a comprehensive program to increase public awareness of bicycling and trail use and to encourage healthy living and active lifestyles through use of the City's trail and bikeway system.

b. **Principle:** Educate bicyclists, pedestrians, and other trail users on safe and lawful facility use, predictable behavior, including the rights and responsibilities of each mode of travel.

c. **Principle:** Educate motorists on the rights of pedestrians and cyclists.

6. **Recognize and leverage the bikeway and trail network as an integral part of economic development and quality of life in Albuquerque.**

   a. **Principle:** Plan, design, construct, operate, and maintain City roads to promote convenient access to all legal users of roads, streets, and highways in a manner that promotes efficient movement of people and goods whether by car, truck, transit, assistive device, foot, or bicycle.

   b. **Principle:** Promote bikeway and trail use as a non-polluting, cost-effective, and healthy mode of transportation and recreation.

   c. **Principle:** Promote pedestrian and cycling opportunities and integrate into development to foster pleasant non-motorized travel conditions.

   d. **Principle:** Dedicate a local funding source for construction and maintenance of bikeways and trails. Establish specific budget line items to support the provision of on-street and off-street bicycle systems and programs.

   e. **Principle:** Increase the attractiveness and activity along this system through enhanced streetscape and trail aesthetics, landscaping, and amenities along bikeways and trails where feasible.

   f. **Principle:** Promote walking and bicycling as legitimate forms of transportation in all planning, design, and programming efforts.

7. **Streamline administrative practices and coordination.**

   a. **Principle:** Provide adequate staff to implement the *Bikeways & Trails Facility Plan* with appropriate office budgets to promote bicycling and trail use.

   b. **Principle:** Foster ongoing coordination among critical departments within the City to communicate and coordinate activities related to design of bikeways and trails.

   c. **Principle:** Organize and coordinate implementation of this Plan among City Departments and other agencies to produce well-designed facilities and a connected network of bikeways and trails for the public to use.

   d. **Principle:** Coordinate with Bernalillo County, NMDOT, AMAFCA, MRGCD, and MRCOG and other local jurisdictions as appropriate regarding connectivity, design, implementation, and maintenance.

   e. **Principle:** Develop and maintain databases useful for trail and bikeway planning, inventory, prioritization of improvements, and crash reduction.

   f. **Principle:** Coordinate with APD to develop and implement a traffic law education and enforcement program that teaches pedestrians, bicyclists, and motorists about relevant laws for each mode of travel.

   g. **Principle:** Create and support opportunities for public and user input and engagement into the bikeways and trail system. Advisory groups and/or ad hoc committees should support the City's efforts to implement these policies and this Plan.

   h. **Principle:** Regularly accommodate bicycles and pedestrians recognizing that not all facilities may be appropriate on every roadway. Bicycles and pedestrians should be considered in the planning of every road project and by all departments when setting policy and programs.

GGNA-EXHIBIT L34

B. Relationship to Other Plans

This section summarizes relevant documents and policies that regulate and establish a framework for bicycling and walking in Albuquerque. Plans and policies are considered relevant if they directly address bicycle or trail facilities or land-use patterns that directly affect non-motorized transportation. The chapter consists of the following sections:

Existing Bicycle and Trail Plans provides a summary of plans that have led to the current bike and trail facilities, policies, and programs in Albuquerque.

City Plans and Policies summarizes relevant Albuquerque plans and provides specific policies related to biking, walking, and riding in the City.

Regional Plans summarizes regional plans relevant to the *Bikeways & Trails Facility Plan*.

1. Applicable City Plans, Regulations & Guidance

Comprehensive Plan (2012)

The Rank I *Albuquerque/Bernalillo County Comprehensive Plan* sets forth goals and policies to guide future land use and development in the city/county. Based on the vision of the community, the plan establishes a long-range plan for growth in a coordinated and coherent urban form to best promote the needs of the city. The plan incorporates goals and policies that support bicycle and trail facilities in all three areas; Land Use, Environmental Protection and Heritage Conservation, and Community Resource Management. These Comprehensive Plan policies were reviewed by the project team, and reflected as appropriate through this Plan. This Plan is consistent with the policy direction set in the Comprehensive Plan.

Trails & Bikeways Facility Plan (1993, amended 1996)

The City of Albuquerque and the County of Bernalillo jointly adopted the Rank II *Bikeways & Trails Facility Plan* in 1993. This plan established long-range policies for off-street, multi-use trails, and bicycle facilities. The plan identified funding sources (implemented later) and recommended two new positions: a bicycle/pedestrian/trail coordinator in Public Works (now DMD) and a trail coordinator position (Parks).

Recommended Facilities. The *Trails & Bikeway Facility Plan* developed a hierarchy of trail types as well as design standards. Primary trails serve the regional transportation network and also provide secondary recreational benefits. Primary trails were hard surfaced trails that encouraged separation of recreational trail users and commuter cyclists (though rarely accomplished due to right-of-way and budget constraints). Secondary trails provided access to the primary trails and could be either hard- or soft-surfaced trails. Finally, the Plan identified Trail Study Corridors with desirable trail connections but no proposed alignment. The *Trails & Bikeway Facility Plan* incorporated alignments proposed in the Rank II *Facility Plan for Arroyos* and Rank III *Arroyo Corridor Plans*. It also identified the need for an on-street bicycle facility plan (later completed) and a plan for preserving and utilizing the acequia system in the valley for a trail network (not accomplished).

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5. Give increased priority to achieving connectivity of the bikeway network when planning and programming all roadway and bikeway improvements as appropriate.
6. Plan, program, and implement special provisions for crossings of high-volume, multi-lane streets. Review successful treatments utilized within other communities for difficult crossings.
7. Concentrate bicycle improvements for a five-mile radius ("hub and spoke") around major employment centers, schools, parks, and other activity centers.
8. Coordinate and develop interconnected bikeway improvements and standards between the City and adjacent jurisdictions, including Bernalillo County, Sandoval County, Los Ranchos, Rio Rancho, Corrales, and KAFB.
9. Monitor the implementation of elements within the *Bikeways & Trails Facility Plan* and update the Plan at four year intervals.

Objective 3: Use Bicycle and Pedestrian Friendly Standards and Procedures for On-Street Bicycle Facilities and Multi-Use Trails

1. Restripe collector and arterial roadways (where designated on the Bikeways Map and per NACTO and AASHTO guidelines) to provide bike lanes, or minimum outside lane width of 14 feet.
2. Provide a striped bicycle lane or shoulder as described in chapter 23, section 5, subsection N of the City's Development Process Manual, in conjunction with NACTO and AASHTO bicycle facility design guidelines, on all new, rehabilitated or reconstructed roadways, as indicated in the *Facility Plan*.
3. Provide striped lanes/shoulders of at least five feet wide, from face of curb where curb and gutter exist, on all new or reconstructed bridges, underpasses, and overpasses, where not otherwise constrained or to the extent feasible.
4. Selectively plan and design for bicycle travel with all intersection improvements - include 5-foot bike lanes or minimum curb lane widths of 15 feet through intersections.
5. Include a through phase for all traffic signal timing plans at signalized intersections on roadways having designated bicycle networks.
6. Modify existing or install new traffic signal detection equipment (i.e., inductive loop, video detection, or pushbutton) to make all traffic signals bicyclist-responsive within need-based areas and as resources permit.
7. Implement other design considerations, per the current versions of the NACTO Urban Bikeway Design Guide, the AASHTO Guide for the Development of Bicycle Facilities, the "Design Guidelines" section of this plan and other appropriate design reference guidelines.
8. Evaluate and adjust traffic signal timing of the vehicle phase change and clearance interval to provide adequate time for bicycles at signalized intersections on designated bicycle networks.
9. On all trails, develop strategies and use design techniques on available right-of-way to minimize conflict of use.

Objective 4: Provide an Elevated Emphasis on Maintenance along Roadways & Trails

1. With On-Street Bikeway and Multi-Use Trails, improve and fully fund the street maintenance and sweeping program. Establish the highest priority for allocation of street sweeping resources to

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20.9.2.1 NMAC

20.9.4.1 NMAC

GGNA EXHIBIT M

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 9 SOLID WASTE
PART 2 SOLID WASTE MANAGEMENT GENERAL REQUIREMENTS

20.9.2.1 ISSUING AGENCY. New Mexico Environmental Improvement Board.
[20.9.2.1 NMAC - Rp, 20 NMAC 9.1.I.001, 08/02/07]

20.9.2.2 SCOPE. This part applies to the transportation, storage, transfer, processing, transformation, recycling, composting, nuisance abatement and disposal of solid waste.
[20.9.2.2 NMAC - Rp, 20 NMAC 9.1.I.002, 08/02/07]

20.9.2.3 STATUTORY AUTHORITY. NMSA 1978, Sections 74-1-1 to 74-1-15, NMSA 1978, Sections 74-9-1 to 74-9-43, and NMSA 1978 Sections 74-13-1 to 74-13-20.
[20.9.2.3 NMAC - Rp, 20 NMAC 9.1.I.003, 08/02/07]

20.9.2.4 DURATION. Permanent.
[20.9.2.4 NMAC - Rp, 20 NMAC 9.1.I.004, 08/02/07]

20.9.2.5 EFFECTIVE DATE. August 2, 2007, unless a later date is cited at the end of a section.
[20.9.2.5 NMAC - Rp, 20 NMAC 9.1.I.005, 08/02/07]

20.9.2.6 OBJECTIVE. The objective of Part 2 of Chapter 9 is to establish regulations in the following areas of solid waste management:

A. general requirements;
B. requirements for public entities;
C. prohibited acts and exceptions;
D. entry by the department; and
E. procedures for exemptions, specific approvals, waivers for small municipal landfills and variances.

[20.9.2.6 NMAC - Rp, 20 NMAC 9.1.I.006, 08/02/07]

20.9.2.7 DEFINITIONS. Whenever a term used in 20.9.2 - 20.9.10 NMAC is defined in the Solid Waste Act, the term shall have the meaning given in the Solid Waste Act, unless otherwise defined in this part.

A. Terms starting with the letter 'A' are defined as follows.

(1) "Act" means the Solid Waste Act, NMSA 1978, Sections 74-9-1, et seq.

(2) "Active life" means the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities in accordance with 20.9.6 NMAC.

(3) "Active portion" means that part of a facility that has received or is receiving wastes and that has not been closed in accordance with 20.9.6 NMAC.

(4) "Air curtain incinerator" means an incineration facility used for burning yard refuse that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs, controls emission of the combustion products, is not designed to burn more than ten tons of yard refuse per hour, and has obtained an air quality permit or registration.

(5) "Airport" means public use airports open to the public without prior permission and without restrictions within the physical capacities of available facilities, but does not include aero-club airports operated on a military installation.

(6) "Alluvial fan" means a low, outspread, relatively flat to gentle sloping mass of loose sediment, shaped like an open fan or a segment of a cone, deposited by a stream at a place where it issues from a narrow mountain valley upon a plain or broad valley.

(7) "Antineoplastic drug" means cancer chemotherapy drugs previously called cytotoxics or anti-cancer drugs that have the ability to kill or stop growth in living cells.

(8) "Aquifer" means a geologic formation, group of formations, or portions of a formation capable of yielding ground water to wells or springs. The uppermost aquifer is the aquifer nearest the natural ground surface including lower aquifers that are hydraulically interconnected with this aquifer.

(9) "Areas susceptible to mass movement" means those areas of influence (i.e., areas characterized as

having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the landfill unit, because of natural or man-induced events, results in the down slope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, solifluction, block sliding, and rock fall.

(10) "Asbestos waste" means a solid waste that contains more than 1 percent asbestos:

(a) "friable asbestos material" means any material containing more than 1 percent asbestos, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure;

(b) "category I non-friable asbestos containing material" means asbestos containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos;

(c) "category II non-friable asbestos containing material" means any material, excluding category I non-friable asbestos containing material, containing more than one percent asbestos, that, when dry, cannot be crumbled, pulverized , or reduced to powder by hand; and

(d) "regulated asbestos waste" means friable asbestos material; category I non-friable asbestos containing material that has become friable; category I non-friable asbestos containing material that will be or has been subjected to sanding, grinding, cutting or abrading; or category II non-friable asbestos containing material that has a high probability of becoming or has become broken, crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of excavation, renovation, demolition, storage, transportation, or while exposed during disposal operations.

(11) "Ash" means the ash that results from the incineration or transformation of solid waste at a power generating facility or solid waste facility and includes both fly ash and bottom ash, and ash from the incineration of densified-refuse-derived fuel and refuse-derived fuel, but does not include residue from structure fires, fireplaces, air curtain incinerators, or small animal crematoria or ash generated by the combustion of yard waste for energy production, or fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels and wastes produced in conjunction with the combustion of fossil fuels that are necessarily associated with the production of energy and that traditionally have been and actually are mixed with and are disposed of or treated at the same time with fly ash, bottom ash, boiler slag or flue gas emission control wastes from coal combustion.

B. Terms starting with the letter 'B' are defined as follows.

(1) "Background" means, for purposes of 20.9.2 - 20.9.10 NMAC, the amount of ground water contaminants naturally occurring from undisturbed geologic sources or level of water contamination that the owner or operator establishes is from a source other than the responsible person's facility. This definition shall not prevent the secretary from requiring abatement of commingled plumes of pollution, shall not prevent the owner or operator from seeking contribution or other legal or equitable relief from other persons, and shall not preclude the secretary from exercising enforcement authority under any applicable statute, regulation or common law.

(2) "Biologicals" means preparations made from living organisms or their products, including vaccines, cultures, or other biological products intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining to these activities.

(3) "Biological conversion" means, as a form of transformation, the conversion of organic waste materials into an energy source by an aerobic or anaerobic process other than composting.

C. Terms starting with the letter 'C' are defined as follows.

(1) "Cell" means a confined area engineered for the disposal of solid waste.

(2) "Certified operator" means any individual who meets the experience and training requirements of 20.9.7 NMAC, has successfully completed the testing requirement of the department, and has been issued a New Mexico certificate.

(3) "Change in ownership" means the sale or other transfer of a partner's interest in a partnership, a change in controlling interest of a partnership, corporation, limited liability company or limited liability partnership or the sale or other transfer of a sole proprietorship.

(4) "Clean fill" means broken concrete, brick, rock, stone, glass, reclaimed asphalt pavement, or soil that is uncontaminated, meaning the fill has not been mixed with any waste other than the foregoing and has not been subjected to any known spill or release of chemical contaminants, including petroleum product, nor treated to remediate such contamination; reinforcement materials which are an integral part, such as rebar, may be included as clean fill; clean fill must be free of other solid waste, to include land clearing debris, construction and demolition debris, municipal solid waste, radioactive waste, hazardous waste or special waste.

(5) "Closed cell" means a cell at finished grade which has been covered with intermediate cover or final cover.

(6) "Collection center" means a facility managed for the collection and accumulation of solid waste with an operational rate of less than 240 cubic yards per day monthly average and that serves the general public.

(7) "Commercial hauler" means any person transporting solid waste for hire by whatever means for the purpose of transferring, processing, storing or disposing of the solid waste in a solid waste facility, except that the term does not include an individual transporting solid waste generated on his residential or business premises for the purpose of disposing of it in a solid waste facility.

(8) "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding household and industrial solid wastes.

(9) "Commission" means the New Mexico water quality control commission.

(10) "Commission regulations" means the regulations of the New Mexico water quality control commission, including 20.6.1 NMAC and 20.6.2 NMAC.

(11) "Community" for purposes of preparation of a community impact assessment, means an area of human habitation within a four mile radius around a proposed landfill, transformation facility or existing landfill that is proposing a lateral or vertical expansion.

(12) "Compost" means organic material that has undergone a controlled process of biological decomposition and pathogen reduction, and has been stabilized to a degree that the final product is potentially beneficial to plant growth and can be used as a soil amendment, growing medium amendment or other similar uses. Compost does not include final product that contains sewage sludge that fails to meet the requirements of 40 CFR 503.

(13) "Composting" means the process by which biological decomposition of organic material is carried out under controlled conditions. The process stabilizes the organic fraction into a material which can be easily and safely stored, handled and used in an environmentally acceptable manner.

(14) "Composting facility" means a facility, other than a transformation facility, that is capable of providing biological stabilization of organic material.

(15) "Construction and demolition landfill" means a landfill that receives only construction and demolition debris in quantities equal to or less than 50 tons per day monthly average. Any landfill that receives more than 50 tons per day monthly average of construction and demolition debris waste in any month is defined as a municipal landfill.

(16) "Cooperative association" means a refuse disposal district created pursuant to the Refuse Disposal Act, NMSA 1978, Sections 4-52-1 through 4-52-15, or a sanitation district created pursuant to the Water and Sanitation District Act, NMSA 1978, Sections 73-21-1 through 73-21-54, a special district created pursuant to the Special District Procedures Act, NMSA 1978, Sections 4-53-1 through 4-53-11, a solid waste authority created pursuant to the Solid Waste Authority Act, NMSA 1978, Sections 74-10-1 through 74-10-100, or other such association created pursuant to the Joint Powers Act, NMSA 1978, Sections 11-1-1 through 11-1-7.

D. Terms starting with the letter 'D' are defined as follows.

(1) "Dangerous drug" also known as a "prescription drug" means a drug other than a controlled substance enumerated in schedule I of the Controlled Substance Act, that because of potentiality for harmful effect or the method of its use or the collateral measures necessary to its use is not safe except under the supervision of a practitioner licensed by law to direct the use of such drug and hence for which adequate directions for use (directions under which the layman can use a drug or device safely and for the purposes for which intended) cannot be prepared.

(2) "Department" means the New Mexico environment department.

(3) "Discharge" means spilling, leaking, pumping, pouring, emitting, emptying, or dumping into water or in a location and manner where there is a reasonable probability that the discharged substance will reach surface or ground water.

(4) "Disease vectors" means any rodents, flies, mosquitoes, or other animals and insects, capable of transmitting disease to humans.

(5) "Displacement of a fault" means the relative movement of any two sides of a fault fracture measured in any direction.

(6) "Dispose or disposal" means causing, allowing, or maintaining the abandonment, discharge, deposit, placement, injection, dumping, burning, spilling, or leaking of any solid waste into or on any land or water.

(7) "Distillation" means a process by which components in a chemical mixture are purified or separated by the application and removal of heat and the separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(8) "Drug" means articles:

(a) recognized as drugs in any official compendium or supplement thereto, designated from time to time by the New Mexico board of pharmacy for the use in the diagnosis, cure, mitigation, treatment or prevention of

disease in humans or other animals;

(b) intended for use in the diagnosis, cure mitigation, treatment or prevention of disease in humans or other animals;

(c) other than food, intended to affect the structure or any function of the body of humans or other animals; or

(d) intended for use as a component of any articles specified in Paragraphs (1), (2), (3) or (4) of Subsection N of 16.19.8.7 NMAC.

(9) "Drug enforcement administration" means the drug enforcement administration of the United States department of justice.

E. Terms starting with the letter 'E' are defined as follows.

(1) "Economically stressed household" means a household that reports at or less than 150 percent of the poverty level as set forth in the most recent federal department of health and human services poverty guidelines for a family of four.

(2) "Environmental justice" is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

F. Terms starting with the letter 'F' are defined as follows.

(1) "Fault" means a fracture or a zone of fractures in lithified rock or unconsolidated sediments along which material on one side has been displaced with respect to that on the other side.

(2) "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters that are inundated by the 100 year flood. The 100 year flood has a one percent chance of recurring in any given year or a flood of magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

G. Terms starting with the letter 'G' are defined as follows.

(1) "Gasification" means a thermal process for the generation of combustible gas from a solid waste material.

(2) "Generator" means any person, whose act or process produces solid waste or whose act first causes solid waste to become subject to regulation.

(3) "Geosynthetic" means the generic classification of all synthetic materials used in geotechnical applications, including the following classifications:

(a) "geocomposite" means a manufactured material using geotextiles, geogrids, geomembranes, or combinations thereof, in a laminated or composite form;

(b) "geogrid" means a deformed or non-deformed netlike polymeric material used to provide reinforcement to soil slopes;

(c) "geomembrane" means an essentially impermeable membrane used as an integral part of an engineered structure or system designed to limit the movement of liquid or gas in the system;

(d) "geonet" means a type of a geogrid that allows planar flow of liquids and serves as a drainage system;

(e) "geosynthetic clay liner (GCL)" means a layer of sodium bentonite which is held between or on carrier layers of geotextiles or a geomembrane; and

(f) "geotextile" means any permeable textile used as an integral part of an engineered structure or system to serve as a filter to prevent the movement of soil fines into drainage systems, to provide planar flow for drainage, or to serve as a cushion to protect geomembranes, or to provide structural support.

(4) "Ground water" means interstitial water which occurs in the earth's saturated zone and which is capable of entering a well in sufficient amounts to be utilized as a water supply.

(5) "Ground water scientist" means a scientist or engineer who has received a baccalaureate or post graduate degree in the natural sciences or engineering and has sufficient training and experience in ground water hydrology and related fields as may be demonstrated by state registration, professional certifications or completion of accredited university programs that enable that individual to make sound professional judgments regarding ground water monitoring, contaminant fate and transport, and corrective action.

H. Terms starting with the letter 'H' are defined as follows.

(1) "Hauler" means any person transporting solid waste.

(2) "Hazardous constituent" means any constituent listed in 40 CFR 258 Appendix I or II or Subsection A of 20.6.2.3103 NMAC, and any potential toxic pollutant listed in 20.6.2.7 NMAC.

(3) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3.

(4) "Hot waste" means any waste which is on fire or smoldering when delivered to the solid waste facility.

(5) "Household pharmaceutical waste" means solid waste consisting of unused or expired drugs or dangerous drugs.

(6) "Household waste" means any solid waste including garbage and trash, derived from households including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day use recreation areas.

I. Terms starting with the letter 'I' are defined as follows.

(1) "Impact" means a present or future effect on the environment or the health of residents of a community.

(2) "Incineration" means the reduction of combustible solid wastes by burning in an enclosed device under conditions of controlled airflow and temperature.

(3) "Incinerator" means an enclosed device using controlled flame combustion, the primary purpose of which is to thermally break down solid waste, including, but not limited to, rotary kiln, fluidized bed, and liquid injection incinerators, but does not include air curtain incinerators or small animal crematoria.

(4) "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not hazardous waste regulated under Subtitle C of RCRA. Such waste may include, but is not limited to, waste resulting from the following processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals, plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment, and water treatment. This term does not include mining waste or commercial solid waste.

(5) "Infectious waste" means a solid waste that carries a probable risk of transmitting disease to humans or animals, and includes the following which shall be considered infectious waste:

(a) cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stock of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines except for residue in emptied containers; and culture dishes, assemblies and devices used to conduct diagnostic tests or to transfer, inoculate, and mix cultures;

(b) human pathological wastes, including tissues, organs, and body parts that are removed during surgery, autopsy, other medical procedures, or laboratory procedures, but not including hair, or nails;

(c) human and body fluid waste, including:

(i) liquid waste human blood;

(ii) blood products;

(iii) items with human blood (caking, flaking, saturated or dripping);

(iv) items with human blood, including serum, plasma, and other blood components, which were used or intended for use in patient care, specimen testing, or the development of biological products or pharmaceuticals;

(v) intravenous bags that have been used for blood transfusions;

(vi) items, including dialysate, that have been in contact with the blood of patients undergoing hemodialysis at hospitals or independent treatment centers;

(vii) items contaminated by body fluids from persons at trauma scenes, during surgery, autopsy, other medical procedures, or laboratory procedures;

(viii) specimens of blood products, and their containers; and

(ix) other potentially infectious materials as defined by the U.S. department of labor occupational safety and health administration at 29 CFR 1910.1030(b), including the following body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;

(d) contaminated animal carcasses, body parts, blood, blood products, secretions, excretions, and bedding of animals that were known to have been exposed to zoonotic infectious agents or non-zoonotic human pathogens, including during research (including research in veterinary schools and hospitals), production of biologicals, or testing of pharmaceuticals;

(e) biological wastes and waste contaminated with bloody excretions, exudates, or secretions from:

(i) humans who are isolated to protect others from rare diseases such as viral hemorrhagic fevers (Ebola, Lassa, Marburg) or other emerging infectious diseases whose biological wastes and waste contaminated with bloody excretions, exudates, or secretions are deemed infectious waste as described by advisory agencies such as the center

for disease control (CDC);

(ii) isolated animals known or suspected to be infected with rare diseases such as bovine spongiform encephalopathy (BSE) or other emerging infectious diseases identified by an advisory agency;

(f) discarded sharps, used or unused (unless in original packaging), generated at a facility, that have, or are likely to have, come in contact with infectious agents while involved in human or animal patient care, treatment, or research, including hypodermic needles, syringes (with the attached needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, culture dishes, suture needles, slides, cover slips, and other broken or unbroken glass or plasticware, unless properly treated or otherwise specifically exempted;

(g) infectious waste does not include:

(i) wastes generated in a household (except for infectious wastes generated by home health care professionals);

(ii) human corpses, remains, and anatomical parts that are intended for interment or incineration as specified in Paragraphs (4) and (5) of Subsection E of 20.9.8.13 NMAC, or are donated and used for scientific or medical education, research, or treatment;

(iii) etiological agents being transported for purposes other than waste processing or disposal pursuant to the requirements of the United States department of transportation (49 CFR 171.1-190) and the New Mexico department of transportation and other applicable shipping requirements;

(iv) reusable or recyclable containers or other non-disposable materials, if they are cleaned and disinfected by a method approved by the secretary pursuant to NMSA 1978 74-9-3 P, or if there has been no direct contact between the surface of the container and materials identified as "infectious waste;"

(v) soiled diapers that do not contain materials identified as infectious waste;

(vi) body excretions such as feces and secretions such as nasal discharges, saliva, sputum, sweat, tears, urine, and vomitus unless visibly contaminated with blood or waste from a person or animal as described in Subparagraph (e) of Paragraph (5) of Subsection I of 20.9.2.7 NMAC; or

(vii) used or unused syringes that have not come into contact with human blood or other bodily fluids or infectious agents and do not have a needle attached.

J. Terms starting with the letter 'J'. [RESERVED]

K. Terms starting with the letter 'K'. [RESERVED]

L. Terms starting with the letter 'L' are defined as follows.

(1) "Landfill" means a solid waste facility that receives solid waste for disposal and includes the following categories and classifications:

(a) "category 1 landfill" means a landfill that closed between April 11, 1974 and May 14, 1989;

(b) "category 2 landfill" means a landfill that stopped receiving waste between May 14, 1989, and October 9, 1993

(c) "category 3 landfill" means a landfill that began operations before October 9, 1993 and continued to operate after October 9, 1993;

(d) "category 4 landfill" means a landfill that began operations after October 9, 1993;

(e) "category 5 landfill" means a landfill that began operations after the effective date of these rules;

(f) "municipal landfill";

(g) "construction and demolition landfill";

(h) "special waste landfill"; and

(i) "monofill."

(2) "Lateral expansion" means a horizontal expansion of the permitted waste boundaries of a landfill.

(3) "Law enforcement household pharmaceutical take-back program" means a service or limited-duration event sponsored by a law enforcement agency, state, municipality, county or cooperative association that collects and properly disposes of household pharmaceutical waste for which the presence of law enforcement personnel is required.

(4) "Law enforcement pharmaceutical incinerator" means a stationary or mobile incinerator that meets the requirements of the solid waste rules, is owned or operated by a law enforcement agency and is used to destroy household pharmaceutical waste collected during a law enforcement household pharmaceutical take-back program.

(5) "Leachate" means the liquid that has passed through, or emerged from solid waste and contains soluble, suspended, or miscible materials removed from that solid waste.

(6) "Lift" means an accumulation of solid waste which is compacted into a cell and over which compacted cover is placed.

(7) "Liner" means a continuous layer constructed of natural or man-made materials beneath and on the sides

of a surface impoundment, landfill, or landfill cell that restricts the downward and lateral movement of solid waste, gases or leachate.

(8) "Liquid waste" means any waste material that is determined to contain free liquids, defined by the Paint Filter Liquids Test, described in "Test Methods for Evaluating Solid Waste" referenced in Paragraph (5) of Subsection C of 20.9.8.11 NMAC.

(9) "Lithified earth material" means all rock, including metamorphic, igneous, and sedimentary.

(10) "Locked facility" means any solid waste facility which has permanently stopped receiving solid waste, but has not yet met the requirements of 20.9.6 NMAC.

(11) "Lower explosive limit" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25 degrees C and atmospheric pressure.

M. Terms starting with the letter 'M' are defined as follows.

(1) "Manure" means an agricultural waste composed of excreta of animals, residual bedding materials, or other materials that have been used for sanitary or feeding purposes for such animals.

(2) "Maximum contaminant level" (MCL) means, the level that has been promulgated under Section 1412 of the Safe Drinking Water Act (42 U.S.C. Sections 300f, et seq.) at 40 CFR Part 141.

(3) "Maximum horizontal acceleration in lithified earth material" means the maximum expected horizontal acceleration as depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(4) "Modify" means:

(a) to change material terms or any conditions of a permit, including:

(i) types of solid waste included in the permit;

(ii) except as provided in Items (v) and (vi) of Subparagraph (b) of Paragraph (4) of this subsection, to change pollution control systems or water, soil, or gas monitoring programs from those permitted;

(iii) any change in the fundamental design or method of operation of a solid waste facility from that permitted;

(iv) any lateral or vertical expansion beyond permitted waste boundaries;

(v) any change in the facility boundary; or

(vi) any change in the approved process or method for the treatment of infectious waste; but

(b) "modify" does not include:

(i) routine maintenance, repair, or replacement;

(ii) an increase in the disposal rate or process rate, if such increase does not exceed the design capacity of the solid waste facility;

(iii) a change in the hours of operation, unless such hours are specified in a permit condition;

(iv) a change in the operating plan that is not the subject of a permit condition;

(v) substitution, addition, or elimination of a construction material or operational process that provides equivalent or greater environmental protection than the permitted design or process, if specifically approved in writing by the secretary under 20.9.2.13 NMAC;

(vi) installation of a gas collection and control system required by 40 CFR Part 60, Subparts Cc and WWW or 20.9.4.16 NMAC and 20.9.5.9 NMAC;

(vii) a permit transfer approved pursuant to 20.9.3.23 NMAC;

(viii) any approval granted under the provisions of 20.9.2.13;

(ix) temporary changes allowed by the secretary under Subsection C of 20.9.5.8 NMAC when there is an imminent danger to public health, welfare, or the environment;

(x) changes to comply with an order of the secretary approving or withdrawing approval of an infectious waste treatment method under Paragraph (4) of Subsection F of 20.9.8.13 NMAC and Subsection G of 20.9.8.13 NMAC;

(xi) changes to implement a remedy selected by the secretary under 20.9.9.16 NMAC;

(xii) changes to implement interim measures ordered by the secretary under Subsection F of 20.9.9.15 NMAC; or

(xiii) addition of a type of solid waste (except for a special waste) if the type is within the definition of construction and demolition debris, and there will be no adverse effect on health and the environment, unless the permit or 20.9.2 - 20.9.10 NMAC specifically excludes the type of waste.

(5) "Monofill" means a landfill or cell that receives only scrap tires or only asbestos waste.

(6) "Mulch" means a protective covering spread and left upon the ground to reduce evaporation, maintain

even soil temperature, prevent erosion, or control weeds.

(7) "Municipal landfill" means a discrete area of land or an excavation that receives municipal solid waste and that is not a land application unit, surface impoundment, injection well or waste pile as these terms are defined in 40 CFR 257.2; "municipal landfill" may include a landfill that is designed to receive other types of RCRA Subtitle D waste such as construction and demolition debris, conditionally exempt small quantity generator waste, industrial solid waste, and special wastes as defined in Paragraph (13) of Subsection S of this section.

(8) "Municipal solid waste" means household solid waste, commercial solid waste, and industrial solid waste or petroleum contaminated soils that are not a special waste.

N. Terms starting with the letter 'N'. [RESERVED]

O. Terms starting with the letter 'O' are defined as follows.

(1) "Open burning" means the combustion of solid waste without:

(a) control of combustion air to maintain adequate temperature for efficient combustion;

(b) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(c) control of the emission of the combustion products.

(2) "Operator" means the person(s) responsible for the overall operation of all or any portion of a solid waste facility.

(3) "Owner" means the person(s) who owns all or part of a solid waste facility.

P. Terms starting with the letter 'P' are defined as follows.

(1) "Permitted waste boundary" means the outside boundary of the proposed cells over the expected life of a landfill as specified in the permit or registration.

(2) "Person" means any individual, partnership, company, corporation, firm, association, trust, estate, state or federal agency, government instrumentality or agency, institution, county, city, town, village, or municipal authority, or other legal entity however organized.

(3) "Petroleum waste" means those liquids and sludges that are accumulated as a result of exploration or production activities regulated under the New Mexico Oil and Gas Act.

(4) "Pharmacist" means a person duly licensed by the New Mexico board of pharmacy to engage in the practice of pharmacy pursuant to the Pharmacy Act, NMSA 1978, Section 61-11-1.

(5) "Poor foundation conditions" means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill.

(6) "Practical quantitation limit" or "PQL" means the lowest concentration of analytes in ground waters that can be reliably determined within specified limits of precision and accuracy under routine laboratory operating conditions.

(7) "Processing" means techniques to change the physical, chemical, biological, or pathological character or composition of solid waste, but does not include composting, transformation, grinding or chipping of yard refuse, compaction, or incineration.

(8) "Processing facility" means a facility where processing of solid waste occurs.

(9) "Putrescible" means organic material subject to decomposition by microorganisms.

(10) "Pyrolysis" means the process whereby solid waste is thermally decomposed in an oxygen-deficient atmosphere.

Q. Terms starting with the letter 'Q' are defined as follows. "Quasi-judicial proceeding" means a public hearing held after notice reasonably calculated to reach people interested in the subject matter of the proceeding that affords all people with a significant interest in the proceeding (parties) an opportunity to present their views as well as to cross-examine other parties. Other interested individuals also have an opportunity to state their views. Testimony is taken under oath or affirmation and is included in a record of proceedings. The planning and zoning commission or the governing body of the local government is required to make its decision based upon the testimony and evidence contained in the record of the hearing. The proceeding must consider whether the facility at issue would result in a disproportionate effect on the health or environment of a particular socioeconomic group or in an unreasonable concentration of regulated facilities.

R. Terms starting with the letter 'R' are defined as follows.

(1) "Radioactive waste" means:

(a) high-level radioactive waste or spent nuclear fuel as defined in Section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101(12));

(b) transuranic waste as defined in Section 11(ee) of the Atomic Energy Act of 1954, 42 U.S.C. 2014(ee);

(c) waste source material as defined in Section 11(z) of the Atomic Energy Act of 1954, 42 U.S.C. 2014(z);

(d) waste special nuclear material as defined in Section 11(aa) of the Atomic Energy Act of 1954, 42 U.S.C. 2014(aa);

(e) waste by-product material as defined in Section 11e of the Atomic Energy Act of 1954, 42 U.S.C. 2014(e);

(f) material the nuclear regulatory commission, consistent with existing law, classifies as low level radioactive waste; and

(g) waste radioactive material that requires licensure in accordance with the New Mexico radiation protection rules, 20.3.3 NMAC.

(2) "RCRA" means the federal Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901, et seq., as amended.

(3) "Recyclable materials" means materials that would otherwise become solid waste if not recycled and that can be collected, separated, processed, reclaimed or composted and placed in use in the form of raw materials, products or densified-refuse-derived fuels.

(4) "Recycling" means any process by which recyclable materials are collected, separated, processed, reclaimed or composted and reused or returned to use in the form of raw materials or products.

(5) "Recycling facility" means a facility that collects, transfers, or processes recyclable materials for recycling, but does not include a composting facility.

(6) "Regulated facility" means a facility that is:

(a) a solid waste facility permitted to construct, operate, or close pursuant to the Solid Waste Act, NMSA 1978, Sections 74-9-1, et. seq. and 20.9.2 - 20.9.10 NMAC, or pursuant to the laws or regulations of a neighboring state;

(b) a hazardous waste facility authorized to operate pursuant to interim status or permitted to construct, operate, or close pursuant to the Hazardous Waste Act, NMSA 1978, Sections 74-4-1, et. seq. and the New Mexico hazardous waste management rules, 20.4.1 NMAC, or pursuant to the laws or regulations of a neighboring state, including all units or areas subject to corrective action requirements under the facility permit or order;

(c) a site listed on the National Priorities List pursuant 42 U.S.C. 9605 or a federal facility required to take response or remedial action pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601, et. seq.;

(d) a facility that has, or is required to obtain a Title V air quality permit, 42 U.S.C. 7661 et seq. and 20.7.2.70 NMAC.

(7) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a solid waste facility.

(8) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a solid waste facility.

S. Terms starting with the letter 'S' are defined as follows.

(1) "Saturated zone" means that part of the earth's crust in which all voids are filled with water.

(2) "Scavenging" means the uncontrolled removal of solid waste from a solid waste facility.

(3) "Secretary" means the secretary of the New Mexico environment department or her or his designee.

(4) "Seismic impact zone" means an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull, will exceed 0.10g in 250 years.

(5) "Septage" means the residual wastes and water periodically pumped from a liquid waste treatment unit or from a holding tank, as defined in 20.7.3.7 NMAC.

(6) "Sewage sludge" means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes domestic septage, scum or solids removed in primary, secondary, or advanced wastewater treatment processes, and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

(7) "Sludge" means any solid, semi-solid, or liquid waste generated by a municipal, commercial, or industrial waste water treatment plant, water supply treatment plant, or air pollution control facility, but does not include treated effluent from a waste water treatment plant.

(8) "Small animal crematoria" means a multi-chambered facility designed for the purpose of cremating dead

animals and animal parts with a charging capacity of less than five tons per day.

(9) "Solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, construction, demolition and agricultural operations and from community activities, but does not include:

(a) drilling fluids, produced waters and other non-domestic wastes associated with the exploration, development or production, transportation, storage, treatment or refinement of crude oil, natural gas, carbon dioxide gas or geothermal energy, except for waste that has been authorized for disposal at a solid waste facility under provisions of 19.15.9.712 NMAC and has been delivered to a solid waste facility permitted to receive such waste;

(b) fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels and wastes produced in conjunction with the combustion of fossil fuels that are necessarily associated with the production of energy and that traditionally have been and actually are mixed with and are disposed of or treated at the same time with fly ash, bottom ash, boiler slag or flue gas emission control wastes from coal combustion;

(c) waste from the extraction, beneficiation and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore, coal, copper, molybdenum and other ores and minerals;

(d) agricultural waste, including, but not limited to, manures and crop residues converted to beneficial value added products such as energy products or building materials or returned to the soil as fertilizer or soil conditioner;

(e) cement kiln dust waste;

(f) sand and gravel;

(g) solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under Section 402 of the federal Water Pollution Control Act, 33 U.S.C. Section 1342;

(h) source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, 42 U.S.C. Sections 2011, et seq., as amended;

(i) densified-refuse-derived fuel;

(j) any material regulated by Subtitle C or Subtitle I of RCRA (except petroleum contaminated soils);

(k) substances other than asbestos regulated by the federal Toxic Substances Control Act, 15 U.S.C. Sections 2601, et seq., as amended;

(l) radioactive waste;

(m) whole or processed scrap tires that are stored or used in compliance with provisions of the New Mexico Tire Recycling rule, 20.9.20 NMAC, and applicable law;

(n) any recyclable material in transit or temporary storage;

(o) compost; or

(p) materials, other than those that are regulated as hazardous, toxic or special waste, that are retained as evidence in a criminal proceeding and that are required to be destroyed or managed in accordance with a court or administrative order.

(10) "Solid waste disposal area" means an area where solid waste has been disposed and includes all landfills, and areas where more than 120 cubic yards of solid waste have been disposed but does not include landfills and areas identified as solid waste management units in a hazardous waste facility permit or administrative order.

(11) "Solid waste facility" means any public or private system, facility, location, improvements on the land, structures or other appurtenances or methods used for processing, transformation, or disposal of solid waste, including landfill disposal facilities, transfer stations, resource recovery facilities, incinerators and other similar facilities not specified. Solid waste facility does not include:

(a) equipment or processing methods approved by order of the secretary to render infectious waste generated on site non-infectious;

(b) a facility that is permitted pursuant to the provisions of the Hazardous Waste Act, NMSA 1978, Sections 74-4-1 through 74-4-14, as amended;

(c) a facility fueled by a densified-refuse-derived fuel as long as that facility accepts no other solid waste;

(d) a recycling facility that accepts only source separated recyclable materials;

(e) that portion of a facility that refurbishes or re-sells used clothing, furniture or appliances for reuse;

(f) commercial scrap metal or auto salvage operations;

(g) a composting facility that accepts only source separated compostable materials;

(h) manufacturing facilities that use recyclable material in production of a new product;

(i) facilities designed and operated to dispose of sewage sludge on land, such as land application or land injection;

(j) landfarming of petroleum contaminated soils unless within a landfill, where "landfarming" is the remediation of petroleum contaminated soils on the land surface;

(k) any facility or location where clean fill material is accepted, stockpiled, or used, if the facility or location would not otherwise be classified as a solid waste facility;

(l) collection centers;

(m) a facility that uses tire-derived fuel for the purpose of extracting its stored energy; or

(n) air curtain incinerators.

(12) "Source separation" means the separation of recyclable or compostable materials from solid waste at the point of generation by the generator.

(13) "Special waste" means solid waste that has unique handling, transportation, or disposal requirements to assure protection of the environment and the public health, welfare and safety, including:

(a) treated formerly characteristic hazardous wastes (TFCH);

(b) packing house and killing plant offal;

(c) regulated asbestos waste;

(d) ash, except ash produced by a law enforcement pharmaceutical incinerator from the incineration of household pharmaceutical waste;

(e) infectious waste;

(f) sludge, except; sludge that is land applied under 40 CFR Part 503 as intermediate or final cover at a landfill and meets the requirements of Subpart B of 40 CFR Part 503;

(g) industrial solid waste that, unless specially handled or disposed, may harm the environment or endanger the public health or safety;

(h) spill of a chemical substance or commercial product that, unless specially handled or disposed, may harm the environment or endanger the public health or safety; and

(i) petroleum contaminated soils, that have a sum of benzene, toluene, ethylbenzene, and xylene isomer concentrations of greater than 50 mg/kg, or benzene individually greater than 10 mg/kg, or a total petroleum hydrocarbon concentration of greater than 100 mg/kg.

(14) "Special waste landfill" means a landfill that receives one or more types of special wastes as defined in Paragraph 13 of Subsection S of this section.

(15) "Stabilized" means, for composting, that the biological decomposition of the wastes has ceased or diminished to a level such that decomposition no longer poses a health, odor, or safety hazard and does not violate any provisions of these or other applicable rules.

(16) "Storage" means the accumulation of solid waste for the purpose of transfer, processing or disposal.

(17) "Structural components" means liners, leachate collection systems, final covers, run-on/run-off systems, gas collection and control systems, and any other component used in the construction or operation of the landfill that is necessary for protection of public health, welfare and the environment.

T. Terms starting with the letter 'T' are defined as follows.

(1) "Tire-derived fuel" means a fuel product derived from scrap tires that is suitable for efficient combustion.

(2) "Transfer" means the handling and storage of solid waste for reshipment, resale, or disposal, or for waste reduction or resource conservation.

(3) "Transfer station" means a facility managed for the collection and accumulation of solid waste with an operational rate of greater than 240 cubic yards per day monthly average.

(4) "Transformation facility" means a facility used for the transformation of solid waste, but does not include air curtain incinerators or small animal crematoria, and law enforcement pharmaceutical incinerators.

U. Terms starting with the letter 'U' are defined as follows. "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Examples of unstable areas are poor foundation conditions, areas susceptible to mass movements, and Karst terrain areas where Karst topography, with its characteristic surface and subterranean features, is developed as a result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in Karst terrains include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

V. Terms starting with the letter 'V' are defined as follows.

(1) "Vadose zone" means earth material below the land surface and above ground water, or in between bodies of ground water.

(2) "Vertical expansion" means an upward or downward expansion of the permitted waste boundaries of a landfill.

(3) "Vulnerable area" means an area within a four mile radius from the geographic center of a facility or proposed facility, and:

(a) has a percentage of economically stressed households greater than the state percentage based on the most recent actual census bureau data within any square mile within the four mile radius surrounding the facility or proposed facility; and

(b) where the New Mexico portion has a population of 50 people or more within any square mile within the four mile radius; and

(c) has within it 3 or more regulated facilities not including the applicant's facility.

W. Terms starting with the letter 'W' are defined as follows.

(1) "Waste management unit boundary" means a vertical surface located at the hydraulically down gradient limit of the landfill. This vertical surface extends down into the uppermost aquifer.

(2) "Watercourse" means any river, creek, arroyo, canyon, draw, or wash, or any other channel having definite banks and beds, with visible evidence of continuous or intermittent flow of water.

(3) "Water table" means that surface in unconfined ground water at which the pressure is atmospheric; defined by the levels at which water stands in wells that penetrate the water just far enough to hold standing water.

(4) "Well" means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension.

(5) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(6) "White goods" means large household appliances (such as ovens, washers, dryers, freezers, water heaters and refrigerators) that have been discarded for disposal or recycling.

X. Terms starting with the letter 'X'. [RESERVED]

Y. Terms starting with the letter 'Y'. [RESERVED]

Z. Terms starting with the letter 'Z'. [RESERVED]

[20.9.2.7 NMAC - Rp, 20 NMAC 9.1.I.105, 08/02/07; A, 07/30/11]

20.9.2.8 GENERAL REQUIREMENTS.

A. Any person who hauls solid waste or recyclable materials or provides solid waste or recyclable collection services shall only haul to a permitted or registered facility, and shall use vehicles that have covers or enclosures to prevent the solid waste or recyclable materials from blowing from the vehicle during collection and transportation, and that are cleaned at such times and in such manner as to prevent offensive odors and unsightliness, and that use devices to retain or control free liquids.

B. Any person who generates solid waste shall store the solid waste in suitable storage containers for the solid waste, unless the solid waste is construction and demolition debris, yard refuse, or white goods. Storage containers shall prevent insect and rodent harborage and shall be kept covered and reasonably clean. Outside containers shall also prevent blowing litter, be leak-proof and shall:

(1) if manually handled by a commercial or municipal hauler, be of sufficient size and weight bearing capacity to be safely handled without presenting undue risk of harm to human health or the environment, with safe, usable handles, or shall be bags that are not filled to an extent that they rupture with normal handling; or

(2) if mechanically handled, be compatible with collection vehicles.

C. Any person who stores solid waste, recyclable materials, yard refuse or white goods shall store such materials in a manner that prevents blowing litter, insect and rodent harborage and does not create a public nuisance or public health hazard.

D. Any person who generates, stores, processes, transports or disposes of solid waste shall do so in a manner that does not create a public nuisance.

E. All notifications to the department required by 20.9.2 - 20.9.10 NMAC shall be directed to the bureau chief of the solid waste bureau.

F. Soil, water, and special waste testing methods used to demonstrate compliance with the Solid Waste

Act or 20.9.2 - 20.9.10 NMAC shall conform with permit requirements or otherwise be specifically approved by the department prior to use.

G. Any person who excavates a closed cell or solid waste disposal area in response to an emergency situation shall notify the department of such excavation within 48 hours.

H. Any person who accepts, stockpiles, or uses clean fill material shall:

(1) manage the material in a manner that does not create a public nuisance or potential safety hazard, or adversely impact the environment;

(2) not place the material in a watercourse or wetland unless appropriate permits are obtained; and

(3) cover the material with two feet of clean earth within 30 days after being deposited, unless the clean fill material is clean soil, or unless a longer period or alternative material or depth is specifically approved by the department.

[20.9.2.8 NMAC - Rp, 20 NMAC 9.1.I.106, 08/02/07]

20.9.2.9 REQUIREMENTS FOR PUBLIC ENTITIES.

A. Any municipality with a population greater than 3,000 shall provide solid waste collection services at least once weekly or as often as otherwise necessary to comply with the requirements of 20.9.2 - 20.9.10 NMAC.

B. The state, and each municipality, county, or cooperative association shall provide a means to dispose of solid waste generated within its respective jurisdiction that has been approved by the secretary and complies with 20.9.2 - 20.9.10 NMAC.

C. The state, municipality, county, or cooperative association may contract with any person for the collection, transportation, recycling, or disposal of solid waste. Contracting for the collection, transportation, recycling, or disposal of solid waste does not relieve the state, municipality, county or cooperative association of the responsibility for compliance with 20.9.2 - 20.9.10 NMAC.

[20.9.2.9 NMAC - Rp, 20 NMAC 9.1.I.106, 08/02/07]

20.9.2.10 PROHIBITED ACTS.

A. In addition to the prohibited acts identified in Section 74-9-31(A) and Section 74-13-4(J), and subject to the exemptions in Section 74-9-31(B) of the Solid Waste Act, no person shall:

(1) store, process, or dispose of solid waste except by means approved by the secretary and in accordance with board rules;

(2) dispose of any solid waste in this state in a manner that the person knows or should know will harm the environment or endangers the public health, welfare or safety;

(3) dispose of any solid waste in a place other than a solid waste facility that meets the requirements of 20.9.2 - 20.9.10 NMAC;

(4) dispose of any solid waste, including special waste, in a solid waste facility when that facility's permit does not authorize the disposal of the particular type of solid waste in that facility;

(5) construct, operate, modify or close a solid waste facility unless the facility has approval under 20.9.2 - 20.9.10 NMAC from the department for the described action;

(6) modify permit conditions or modify a solid waste facility unless the facility has applied for and received permission from the secretary for the modification pursuant to 20.1.4 NMAC Permit Procedures - Environment Department;

(7) dispose of petroleum waste, sludge which that does not meet the analytical criteria of 20.9.8.16 NMAC, septage, domestic sewage, or treated domestic sewage at any solid waste facility;

(8) dispose of hazardous wastes which are subject to regulation under Subtitle C of the Resource Conservation and Recovery Act, 42 USC 6901 et seq, at any solid waste facility, unless the facility is permitted for the disposal of hazardous wastes;

(9) dispose of liquid waste at any landfill unless:

(a) the liquid waste is household waste other than septic waste and is in a small container similar in size to that normally found in household waste and the container is designed to hold liquids for use other than storage;

(b) the liquid waste is leachate or landfill gas condensate generated on-site which is recirculated in accordance with applicable laws and rules; or

(c) the liquid waste is managed in accordance with an approval issued by the secretary;

(d) the use of uncontaminated water for dust control or to improve vegetation on a final or intermediate cover is not considered disposal;

(10) process, recycle, transfer, transform, or dispose of radioactive waste in a solid waste facility;

(11) dispose of lead-acid batteries at any landfill or incinerator;

(12) dispose of any infectious waste in a landfill;

(13) dispose of any material regulated under the federal Toxic Substances Control Act, 15 U.S.C. Sections 2601-2692, except in a solid waste facility, registered facility or operation authorized to accept such waste;

(14) allow open burning at a solid waste facility;

(15) excavate or trench a closed cell or solid waste disposal area without written approval by the department and a determination whether an excavation plan will be required, unless in response to an emergency situation; excavation and trenching do not include excavations or trenches of less than 120 cubic yards or exploratory borings for the purpose of waste characterization, site investigation or mapping, nor does it include removal of waste for routine maintenance on gas collection and control and venting systems;

(16) violate a term or condition of a closure and post-closure care plan, a registration, or conditions contained in an approval of the department under 20.9.2.17 NMAC;

(17) allow liquid extraction from sludge at a solid waste facility unless authorized by permit; or

(18) process, transfer, store, dispose, or allow the disposal of special waste at a collection center;

(19) dispose at a solid waste facility any type of non-hazardous material that is excluded from the definition of solid waste, unless permitted to do so, except that a landfill may dispose of non-hazardous excluded waste listed under the following subparagraphs of Paragraph (9) of Subsection S of 20.9.2.7 NMAC unless prohibited from doing so in its permit; Subparagraphs (d) (agricultural), (f) (sand and gravel), (i) (densified refuse derived fuel), (m) (scrap tires), (n) (recyclable materials), (o) (compost), and (p) (materials, other than those that are regulated as hazardous, toxic or special waste, that are retained as evidence in a criminal proceeding and that are required to be destroyed or managed in accordance with a court or administrative order, and ash derived from such materials).

B. Any person who generates, stores, processes, transports or disposes of solid waste shall take reasonable measures to determine the characteristics of the waste being handled to assure that no prohibited act is being performed.

C. A Subtitle C facility authorized to accept special waste for disposal may accept solid waste if allowed under its permit.

D. Nothing in this section shall prohibit a person for whom a drug or dangerous drug has been dispensed in accordance with a valid prescription from transferring the drug or dangerous drug to a law enforcement agency that collects, stores, transports, or disposes of drugs or dangerous drugs pursuant to a program in compliance with applicable state or federal law or a law enforcement household pharmaceutical take-back program that complies with the solid waste rules.

E. Household pharmaceutical waste collected through a law enforcement household pharmaceutical take-back program may only be disposed of or incinerated in accordance with the solid waste rules.

[20.9.2.10 NMAC - Rp, 20 NMAC 9.1.I.107, 08/02/07; A, 07/30/11]

20.9.2.11 EXCEPTIONS. 20.9.2 - 20-9-10 NMAC does not apply to:

A. disposal of solid waste by a homeowner, residential lessee or tenant, or agricultural enterprise, on the property she or he owns, rents or leases, if the waste was generated on that property, and the disposal by the homeowner, residential lessee or tenant, or agricultural enterprise of the solid waste does not harm the environment or endanger the public health, welfare or safety and does not violate any provision of 20.9.2 - 20.9.10 NMAC;

B. on-site disposal of domestic solid waste generated by a person residing and occupying that same property only if that property is located in a place where it is not feasible, as determined by the department, to dispose of the solid waste in a permitted solid waste facility and the disposal of the solid waste does not harm the environment or endanger the public health, welfare or safety and does not violate any provision of 20.9.2 - 20.9.10 NMAC; or

C. disposal of construction and demolition debris or yard refuse by a person in possession of property if the material was generated on the property and if the disposal of the solid waste does not violate any provision of 20.9.2 - 20.9.10 NMAC.

[20.9.2.11 NMAC - Rp, 20 NMAC 9.1.I.108, 08/02/07]

20.9.2.12 SOLID WASTE FACILITIES; ENTRY BY DEPARTMENT; AVAILABILITY OF RECORDS TO DEPARTMENT. The secretary or any authorized representative, employee or agent of the department may enter, inspect, monitor, sample, or obtain records of a solid waste facility, or commercial hauler as provided in Section 74-9-33 of the Solid Waste Act.

[20.9.2.12 NMAC - Rp, 20 NMAC 9.1.I.111, 08/02/07]

[(Facilities, entry by the department and availability of records was formerly in 20 NMAC 9.1.I.111; recordkeeping was

moved to 20.9.5.16 NMAC)]

20.9.2.13 SPECIFIC APPROVALS.

A. Where a specific approval or authorization for an alternative time period, test method or other requirement is allowed under 20.9.2 - 20.9.10 NMAC, the following procedures apply.

(1) The owner or operator shall submit a written request to the department seeking the specific approval or authorization and indicate the regulatory provision allowing the approval or authorization. If the requested approval is for a background ground water quality determination, the request shall include all sample results, approved practical quantitation limits, and a detailed explanation supporting the requested levels. If the request is for an alternative time period, test method or other requirement under 20.9.2 - 20.9.10 NMAC, the request shall explain why the proposed alternative is at least as protective of the public health, safety and welfare as the requirement for which an alternative is requested. In addition, the request shall provide any technical information required in the section allowing the specific approval. The department may request further information prior to acting on the request.

(2) The department shall approve, approve with terms and conditions, or deny the request in writing.

(3) Any affected person who is dissatisfied with action taken by the department on a request for a specific approval or authorization may appeal to the secretary. The request must be made in writing to the secretary within fifteen (15) days after notice of the department's action has been issued. Unless an appeal is received by the secretary within fifteen (15) days after notice to the applicant of the department's action the decision of the department shall be final.

B. If an appeal is received within the fifteen (15) day time limit, the secretary shall hold a hearing within fifteen (15) days after receipt of the request, unless extended for good cause. The secretary shall notify the person who requested the hearing of the date, time and place of the hearing by certified mail.

C. In the appeal hearing, the burden of proof is on the person who requested the hearing.

D. Appeal hearings shall be held at a place designated by the secretary. The secretary may designate a person to conduct the hearing and make a final decision or make recommendations for a final decision. The secretary's hearing notice shall indicate who will conduct the hearing and make the final decision.

E. Upon request the hearing shall be recorded or transcribed by a court reporter. The person who requests the recording or transcription shall pay recording or transcription costs. A request for recording or transcription shall be made at least 5 working days prior to the hearing.

F. In appeal hearings, the rules governing civil procedure and evidence in district court do not apply. Hearings shall be conducted so that all relevant views, arguments and testimony are amply and fairly presented without undue repetition. The secretary shall allow department staff and the hearing requestor to call and examine witnesses, to submit written and oral evidence and arguments, to introduce exhibits, and to cross-examine persons who testify. All testimony shall be taken under oath. At the end of the hearing, the secretary or his designee shall decide and announce if the hearing record will remain open and for how long and for what reason it will be left open.

G. Based upon the evidence presented at the hearing, the secretary shall sustain, modify or reverse the action of the department. The secretary's decision shall be by written order within fifteen (15) days following the close of the hearing record. The decision shall state the reasons therefore and shall be sent by certified mail to the hearing requestor and any other affected person who requests notice. Appeals from the secretary's final decision are by Rule 1-075 NMRA. [20.9.2.13 NMAC - N, 08/02/07]

20.9.2.14 WAIVERS FOR SMALL MUNICIPAL LANDFILLS.

A. Owners or operators of new or existing municipal landfills that dispose of less than 20 tons of solid waste daily, based on an annual average, and do not accept any special waste other than regulated asbestos, may apply in the permit application or for a specific approval for a waiver from the design requirements of 20.9.4.13 - 20.9.4.15 NMAC and ground water monitoring requirements in 20.9.9.8 - 20.9.9.11 NMAC. To obtain a waiver, the owner or operator must demonstrate that:

(1) the groundwater protection standards for constituents listed or referenced in 20.9.9.20 NMAC will not be exceeded in the uppermost aquifer, and, for an existing landfill, there is no groundwater contamination attributable to the landfill;

(2) the community has no practicable waste management alternative; and

(3) the landfill is located in an area that receives, on average, 25 inches or less annual precipitation.

B. If a waiver is granted under this section, then the secretary may require the owner or operator to submit a ground water monitoring system plan and ground water monitoring plan for approval, and to conduct periodic ground water and vadose zone monitoring, at any time during the active life or post-closure period to demonstrate the landfill is

not contaminating ground water. The secretary may also require a ground water monitoring system plan and a ground water monitoring plan to be submitted in the application. If ground water contamination from the landfill is detected after a waiver has been granted under this section, the waiver is revoked and the requirements of 20.9.4.13 - 20.9.4.15 NMAC and 20.9.9.8 - 20.9.9.11 NMAC shall thereafter apply.
[20.9.2.14 NMAC - Rp, 20 NMAC 9.1.I.110, 08/02/07]

20.9.2.15 VARIANCES.

A. Any person seeking a variance from any requirements of 20.9.2 - 20.9.10 NMAC shall do so in accordance with Permit Procedures - Environment Department, 20.1.4 NMAC.

B. Variance petitions shall be accompanied by proof of public notice as in accordance with the Solid Waste Act and with Permit Procedures - Environment Department, 20.1.4 NMAC. The public notice shall:

(1) contain the name of the owner and operator of the solid waste facility;

(2) address and telephone number at which interested persons may obtain further information;

(3) briefly describe for what the variance is being sought and the proposed alternative;

(4) state the time period for which the variance is sought;

(5) be provided by certified mail to the owners of record, as shown by the most recent property tax schedule and tax exempt entities of record, of all properties:

(a) within one hundred feet of the property on which the facility is located if the facility is in a class A or H class county or a municipality with a population of more than 2,500 persons; or

(b) within one-half mile of the property on which the facility is located in a county or municipality other than those specified in Subparagraph (a) of Paragraph (5) of Subsection B of this section;

(6) be provided by certified mail to all municipalities and counties within a 10 mile radius of the property on which the facility is located;

(7) be published once in a newspaper of general circulation in each county in which the property on which the facility is located; this notice shall appear in either the classified or legal advertisements section of the newspaper and at one other place in the newspaper calculated to give the general public the most effective notice and, and when appropriate shall be printed in both English and Spanish; and

(8) be posted in at least four publicly accessible and conspicuous places, including the existing facility entrance on the property on which the facility is located.

C. The secretary shall deny the variance petition unless the petitioner establishes evidence that:

(1) application of the regulation would result in an arbitrary and unreasonable taking of the applicant's property or would impose an undue economic burden upon any lawful business, occupation or activity; and

(2) granting the variance will not result in any condition injurious to public health, safety or welfare or the environment.

D. No variance shall be granted until the secretary has considered the relative interests of the applicant, other owners of property likely to be affected, and the general public.

E. Variance or renewal of a variance shall be granted for time periods and under conditions consistent with reasons for the variance but within the following limitations:

(1) if the variance is granted on the grounds that there are no practicable means known or available for the adequate prevention of degradation of the environment or the risk to the public health, safety or welfare, it shall continue only until the necessary means for the prevention of the degradation or risk become known and available;

(2) if the variance is granted on the grounds that it is justified to relieve or prevent hardship of a kind other than that provided for in Paragraph (1) of this subsection, it shall not be granted for more than one year.

F. Any variance granted by the secretary shall be reviewed for consistency with existing federal regulations.
[20.9.2.15 NMAC - Rp, 20 NMAC 9.1.X.1001, 08/02/07]

20.9.2.16 EXEMPTIONS.

A. Any person seeking an exemption pursuant to NMSA 1978, Section 74-9-32 shall do so by filing a written petition with the board, and serving a copy of the petition to the secretary. The petition shall be reviewed in accordance with Adjudicatory Procedures - Environmental Improvement Board, 20.1.2 NMAC.

B. A petition for exemption shall:

(1) state each provision of the Solid Waste Act or 20.9.2 - 20.9.10 NMAC from which exemption is sought;

(2) cite, and have attached as exhibits, each provision of applicable federal or state law the petitioner alleges

that imposes as stringent or more stringent requirements than those imposed by the Solid Waste Act or 20.9.2 - 20.9.10 NMAC;

(3) be signed by the petitioner or the petitioner's representative; and

(4) contain proof of public notice in accordance with the Solid Waste Act's requirements for applications for solid waste facility permits.

C. Each petition filed with the board for an exemption shall include proof that the applicant has provided notice of the filing of the petition to the public and other affected individuals and entities. The notice shall be:

(1) provided by certified mail to the owners of record, as shown by the most recent property tax schedule and tax exempt entities of record, of all properties:

(a) within one hundred feet of the property on which the facility is located or proposed to be located if the facility is or will be in a class A or H county or a municipality with a population of more than 2,500 persons; or

(b) within one-half mile of the property on which the facility is located or proposed to be located if the facility is or will be in a county or municipality other than those specified in Subparagraph (a) of this paragraph;

(2) provided by certified mail to all municipalities, counties, and tribal governments in which the facility is or will be located and to all municipalities, counties, and tribal governments within a ten mile radius of the property on which the facility is proposed to be constructed, operated or closed;

(3) published once in a newspaper of general circulation in each county in which the property in which the facility is proposed to be constructed, operated or closed is located; this notice shall appear in either the classified or legal advertisements section of the newspaper and at one other place in the newspaper calculated to give the general public the most effective notice and, when appropriate, shall be printed in both English and Spanish; and

(4) posted in at least four publicly accessible and conspicuous places, including the proposed or existing facility entrance on the property on which the facility is or is proposed to be located.

[20.9.2.16 NMAC - Rp, 20 NMAC 9.1.X.1002, 08/02/07]

20.9.2.17 SEVERABILITY. If any provision or application of 20.9.2 - 20.9.10 NMAC is held invalid by a court of competent jurisdiction, the remainder, or its application to other situations or persons, shall not be affected.

[20.9.2.17 NMAC - Rp, 20 NMAC 9.1.X.1003, 08/02/07]

20.9.2.18 COMPLIANCE WITH OTHER REGULATIONS. Compliance with 20.9.2 - 20.9.10 NMAC does not relieve a person of the obligation to comply with other applicable local, state and federal laws.

[20.9.2.18 NMAC - Rp, 20 NMAC 9.1.X.1004, 08/02/07]

20.9.2.19 SAVINGS CLAUSE. 20.9.2 - 20.9.10 NMAC does not apply to pending litigation or affect violations of prior, effective regulations, permits, registrations, closure and post-closure care plans.

[20.9.2.19 NMAC - Rp, 20 NMAC 9.1.X.1005, 08/02/07]

20.9.2.20 INTERPRETATION. 20.9.2 - 20.9.10 NMAC shall be liberally construed to carry out its purpose.

[20.9.2.20 NMAC - Rp, 20 NMAC 9.1.X.1006, 08/02/07]

20.9.2.21 CONTINUING EFFECT OF PRIOR ACTIONS; EXCEPTIONS.

A. All permits and certificates of registration issued, and all closure and post-closure care plans approved, pursuant to previous regulations shall remain in effect until they expire or they are suspended, revoked, or otherwise modified.

B. Landfills that were in operation prior to May 14, 1989 may continue to operate without a permit until final action is taken upon a permit application or closure plan. Such landfills are not allowed to construct or operate a lateral expansion until permitted to do so.

C. If a permit application, permit renewal application, permit modification application, closure plan, or registration application has been submitted to the department prior to the effective date of this part, the relevant sections of permit application, permit renewal application, permit modification application, closure plan or registration application requirements under 20 NMAC 9.1.201 - 208, 210, 212, 213, and 501-505 shall remain in effect for that application or closure plan. However, all other requirements of 20.9.2 - 20.9.10 NMAC shall apply.

[20.9.2.21 NMAC, Rp, 20 NMAC 9.1.X.1008, 08/02/07]

20.9.2.22 DOCUMENTS. Copies of all documents cited in 20.9.2 - 20.9.10 NMAC may be viewed at the

department's Solid Waste Bureau, 1190 St. Francis Drive, Santa Fe, New Mexico.
[20.9.2.22 NMAC - Rp, 20 NMAC 9.1.X.1009, 08/02/07]

HISTORY OF 20.9.2 NMAC:
Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records - state records center.
EIB 74-1, Solid Waste Management Regulations, filed 5/3/74.
EIB/SWMR-2, Solid Waste Management Regulations, filed 4/14/89.
EIB/SWMR-3, Solid Waste Management Regulations, filed 12/31/91.
EIB/SWMR-4, Solid Waste Management Regulations, filed 7/18/94.

History of Repealed Material: 20 NMAC 9.1, Solid Waste Management Regulations (filed 10/27/95) repealed 08/02/07.

Other History:
EIB/SWMR-4, Solid Waste Management Regulations (filed 7/18/94) was **renumbered** into first version of the New Mexico Administrative Code as 20 NMAC 9.1, Solid Waste Management Regulations, effective 11/30/95.
Those applicable portions of 20 NMAC 9.1, Subpart I and Subpart X, Solid Waste Management Regulations, General Provisions and Miscellaneous, (filed 10/27/95), were **renumbered, reformatted and replaced** by 20.9.2 NMAC, Solid Waste Management General Requirements, effective 08/02/07.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 9 SOLID WASTE
PART 4 SOLID WASTE AND REGISTERED FACILITY MAXIMUM SIZE, SITING CRITERIA, AND DESIGN CRITERIA

20.9.4.1 ISSUING AGENCY. New Mexico Environmental Improvement Board.
[20.9.4.1 NMAC - Rp, 20 NMAC 9.1.I.001, 08/02/07]

20.9.4.2 SCOPE. This part applies to the transportation, storage, transfer, processing, transformation, recycling, composting, nuisance abatement and disposal of solid waste.
[20.9.4.2 NMAC - Rp, 20 NMAC 9.1.I.002, 08/02/07]

20.9.4.3 STATUTORY AUTHORITY. NMSA 1978, Sections 74-1-1 to 74-1-15, NMSA 1978, Sections 74-9-1 to 74-9-43, and NMSA 1978 Sections 74-13-1 to 74-13-20.
[20.9.4.3 NMAC - Rp, 20 NMAC 9.1.I.003, 08/02/07]

20.9.4.4 DURATION. Permanent.
[20.9.4.4 NMAC - Rp, 20 NMAC 9.1.I.004, 08/02/07]

20.9.4.5 EFFECTIVE DATE. August 2, 2007, unless a later date is cited at the end of a section.
[20.9.4.5 NMAC - Rp, 20 NMAC 9.1.I.005, 08/02/07]

20.9.4.6 OBJECTIVE. The objective of Part 4 of Chapter 9 is to establish regulations governing solid waste and registered facility size, siting criteria and design criteria.
[20.9.4.6 NMAC - Rp, 20 NMAC 9.1.I.006, 08/02/07]

20.9.4.7 DEFINITIONS. [RESERVED]
[See 20.9.2.7 NMAC for Definitions.]

20.9.4.8 MAXIMUM SIZE. The secretary shall not issue a permit for any solid waste facility larger than 500 acres.
[20.9.4.8 NMAC - Rp, 20 NMAC 9.1.III.301, 08/02/07]

20.9.4.9 SITING CRITERIA FOR MUNICIPAL, OR SPECIAL WASTE, CONSTRUCTION AND DEMOLITION LANDFILLS, AND MONOFILLS.

A. No municipal, construction and demolition, or special waste landfill or monofill shall be located where, on the date of the first public notice as required in 20.9.3 NMAC, any portion of the proposed disposal area is:

(1) in a floodplain, within 500 feet of a wetlands, or within 200 feet of a watercourse unless the watercourse has been altered pursuant to an approval from the army corps of engineers or other appropriate authority;

(2) where the top of the uppermost aquifer will be closer than 100 feet to the bottom of the fill, or for construction and demolition landfills that do not accept more than 25 tons per day annual average, where the top of the uppermost aquifer will be closer than 50 feet to the bottom of the fill;

(3) where new, abandoned, or exploration subsurface mines registered with the New Mexico department of energy, minerals and natural resources a may pose a risk of subsidence or instability;

(4) within 200 feet of a fault that has had a displacement within Holocene time (i.e., the past 11,000 years), unless the owner or operator demonstrates to the secretary that an alternative setback of less than 200 feet will prevent damage to the structural integrity of the facility and will be protective of public health, welfare and the environment;

(5) within historically or archaeologically significant sites, unless in compliance with the Cultural Properties Act, NMSA 1978, Sections 18-6-1 to 18-6-23 and the Prehistoric and Historic Sites Preservation Act, NMSA 1978, Sections 18-8-1 to 18-8-8;

(6) within 1,000 feet of a public water supply well or a private drinking water supply well with a sustainable yield of 100 gallons per minute or more, unless, in the case of registered unpermitted landfills, the well was constructed after the landfill began operations;

(7) within 350 feet of a public water supply well or private well with a maximum sustainable yield of less than 100 gallons per minute, unless the well was constructed after the landfill began operations or the well was installed by the landfill owner or operator for operational use;

(8) within the distance to airports set by the federal aviation administration unless the landfill owner or operator demonstrates that the federal aviation administration does not object to construction and operation of the landfill at the proposed site;

(9) within 50 feet of the facility property boundaries nor within 500 feet of a permanent residence, school, hospital, institution or church, or unless, in the case of registered unpermitted landfills, the permanent residence, school, hospital, institution or place of worship was constructed after the landfill began operations;

(10) in an active alluvial fan (i.e., areas being currently aggraded by either permanent or intermittent streams;

(11) within areas that will result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in either 50 CFR Part 17 or by the New Mexico department of game and fish in its most recent biennial review;

(12) within seismic impact zones, unless the owner or operator demonstrates that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site; or

(13) within an unstable area, unless the owner or operator demonstrates that engineering measures have been incorporated into the landfill design to ensure that the integrity of the structural components of the landfill will not be disrupted.

B. Category 3 landfills that cannot make the demonstration specified in Paragraph (1) of Subsection A of this section pertaining to floodplains or Paragraph (8) of Subsection A of this section pertaining to airports, or Paragraph (13) of Subsection A of this section, pertaining to unstable areas, shall close in accordance with the closure and post-closure provisions in 20.9.6 NMAC.

[20.9.4.9 NMAC - Rp, 20 NMAC 9.1.III.302, 08/02/07]

20.9.4.10 SITING CRITERIA FOR COMPOSTING FACILITIES THAT ACCEPT SOLID WASTE. No composting facility that accepts solid waste shall be located:

A. in a floodplain, within 500 feet of a wetland, or within 200 feet of a watercourse, unless the watercourse has been altered pursuant to an approval from the army corps of engineers or other appropriate authority; or

B. within 500 feet of any permanent residence, school, hospital, institution or place of worship in existence at the time the permit application for the facility is filed.

[20.9.4.10 NMAC - Rp, 20 NMAC 9.1.III.304, 08/02/07]

20.9.4.11 SITING CRITERIA FOR TRANSFORMATION FACILITIES.

A. No transformation facility shall be located:

(1) in a floodplain, within 500 feet of a wetland, or within 200 feet of a watercourse unless the watercourse has been altered pursuant to an approval from the army corps of engineers or other appropriate authority;

(2) where new, abandoned or exploration subsurface mines may pose a risk of subsidence, instability, or ground water contamination;

(3) within historically or archaeologically significant sites, unless in compliance with the Cultural Properties Act, NMSA 1978, Sections 18-6-1 to 18-6-23 and the Prehistoric and Historic Sites Preservation Act, NMSA 1978, Sections 18-8-1 to 18-8-8;

(4) within 150 feet of the facility property boundaries; nor

(5) within an unstable area, unless the owner or operator demonstrates that engineering measures have been incorporated into the facility design to ensure that the integrity of the structural components of the facility will not be disrupted.

B. No transformation facility having a throughput capacity of less than 1,000 pounds per hour shall be located within one mile of any residence, institution, school, place of worship, hospital or

other transformation facility in existence on the date the initial permit application is filed with the department.

C. No transformation facility having a throughput capacity of 1,000 pounds per hour or greater shall be located within three miles of any residence, institution, school, place of worship, hospital or other transformation facility in existence on the date the initial permit application is filed with the department.

[20.9.4.11 NMAC - Rp, 20 NMAC 9.1.III.305, 08/02//07]

20.9.4.12 SITING CRITERIA FOR TRANSFER STATIONS AND PROCESSING FACILITIES. No transfer station or processing facility initially permitted after the effective date of these regulations shall be located in the following areas:

A. a floodplain, a watercourse, or a wetland, except:

(1) a transfer station property boundary may extend into or cross a floodplain, watercourse, or wetland if those areas will not be impacted by structures or activities of the facility; and

(2) engineering structures designed to prevent impacts to or from a floodplain, watercourse, or wetland may be constructed subject to prior approval of the secretary;

B. within 250 feet of a permanent residence, institution, school, place of worship, or hospital, that existed at the time the transfer station permit application was submitted, unless the applicant demonstrates that a shorter distance of no less than 50 feet has been affirmatively approved by the local government;

C. within an unstable area, except where the owner or operator demonstrates that engineering measures have been incorporated into the facility design to ensure that the integrity of the structural components of the facility will not be disrupted or unless otherwise approved by the secretary; or

D. within historically or archaeologically significant sites, unless in compliance with the Cultural Properties Act, NMSA 1978, Sections 18-6-1 to 18-6-23 and the Prehistoric and Historic Sites Preservation Act, NMSA 1978, Sections 18-8-1 to 18-8-8.

[20.9.4.12 NMAC - N, 08/02/07]

20.9.4.13 DESIGN CRITERIA FOR MUNICIPAL LANDFILLS, SPECIAL WASTE LANDFILLS AND MONOFILLS.

A. Except as specified in 20.9.2.14 NMAC and Subsection C of this section, all new municipal and special waste landfills and lateral expansions to existing municipal and special waste landfills shall provide a containment layer beneath the solid waste which is constructed:

(1) with a composite liner consisting of two components;

(a) the upper component shall consist of a minimum 30-mil flexible or a 60-mil high density polyethylene (HDPE) geomembrane liner or equivalent material; the geomembrane component shall be installed in direct and uniform contact with the lower component; and

(b) the lower component shall consist of a geosynthetic clay liner (GCL) or a minimum 24-inch thick layer of compacted soil having a saturated hydraulic conductivity of no more than $1x10^{-7}$ centimeters per second (cm/sec) throughout its thickness; the soil must be free of particles greater than one inch in any dimension; or

(2) with an alternative liner in accordance with a design, which provides protection equivalent to the composite liner defined in Paragraph (1) of this subsection.

B. When approving an alternative liner design under this section, the secretary shall consider at least the following factors:

(1) the climatic factors of the area; and

(2) the volume and physical and chemical characteristics of the leachate.

C. Asbestos waste monofills and scrap tire monofills may be exempted from the design criteria in this section if the owner or operator demonstrates to the secretary in the permit application that the waste will not generate leachate which poses a threat to ground water quality, but shall still comply with Subparagraph (h) of Paragraph (1) of Subsection A of 20.9.6.9 NMAC.

D. Scrap tire monofills shall be designed with trenches not to exceed a maximum depth of 15 feet, a maximum width of 50 feet, and a maximum length of 100 feet. A distance of 40 feet shall be maintained between trenches. Trenches shall be filled to original grade.

E. The design and construction of all liners shall conform to the following criteria:

(1) general requirements:

(a) all liners must be able to withstand the projected loading stresses and disturbances from overlying waste, waste cover materials, and equipment operation;

(b) all liners shall incorporate a leachate collection system that meets the requirements of 20.9.4.15 NMAC; and

(c) all liners must be constructed with a minimum two percent slope to promote positive drainage and facilitate leachate collection;

(2) requirements for geosynthetic components:

(a) geosynthetic components of a liner system must be compatible with the waste to be contained; they must be able to resist chemical attack from the waste or leachate; this shall be demonstrated by means of manufacturer's test reports, or laboratory analyses;

(b) any geosynthetic materials installed on slopes greater than 25 percent, or on any slope where waste is projected to be more than 100 feet deep, must be designed to withstand the calculated tensile forces acting upon the geosynthetic materials; the design must consider the maximum friction angle of the geosynthetic with regard to any soil-geosynthetic or geosynthetic-geosynthetic interface and must ensure that overall slope stability is maintained; and

(c) field seams in geosynthetic material shall be oriented parallel to the line of maximum slope (i.e., oriented along, not across the slope); the number of field seams in corners and irregular shaped areas shall be minimized; there shall be no horizontal seam within five feet of the toe of the slope;

(3) requirements for the soil component of all liners:

(a) the bottom geosynthetic layer, shall be placed on a prepared subgrade consisting of, at a minimum, of a 6-inch layer of in-situ soil or select fill compacted to 90 percent standard Proctor density;

(b) the surface of the soil upon which a geosynthetic liner will be installed must be free of stones greater than 1/2-inch in any dimension, organic matter, local irregularities, protrusions, loose soil, and any abrupt changes in grade that could damage the geosynthetic liner; and

(c) the soil component of the composite liner defined in Subparagraph (b) of Paragraph (1) of Subsection A of this section shall be compacted to a minimum of 90 percent standard Proctor density and shall have the following physical characteristics unless otherwise specifically approved by the department:

(i) plasticity index greater than 10 percent;

(ii) liquid limit between 25 percent and 50 percent;

(iii) portion of material passing the No. 200 sieve (0.074 mm and less fraction) greater than 40 percent (by weight); and

(iv) clay content greater than 18 percent (by weight);

(4) all liners shall have a top protective cover of at least two feet of granular soil or other material specifically approved by the department; the protective cover shall, in addition to providing physical protection for the liner, facilitate the collection of leachate in the leachate collection system; materials used to construct the protective cover must ensure the hydraulic leachate head on the liner does not exceeds one foot; the soil material shall be free of any organic matter and have the following physical characteristics unless otherwise specifically approved by the secretary:

(a) portion of material passing the No. 200 sieve (0.074 mm and less fraction) no greater than 5 percent by weight; and

(b) uniformity coefficient (Cu) less than 6 where Cu is defined as D60/D10.

[20.9.4.13 NMAC - Rp, 20 NMAC 9.1.III.306, 08/02/07]

20.9.4.14 TESTING AND QUALITY CONTROL FOR LINERS AND FINAL COVERS.

A. All testing of geosynthetic and soil materials shall be performed in accordance with applicable American society of testing materials (ASTM) standards.

B. The construction and installation of all liners and final covers shall be done in accordance with a quality control plan approved in the permit. All testing and evaluation of liners shall be certified by a professional engineer licensed in New Mexico and experienced in liner installation, and shall be completed prior to the placement of the protective cover. All field testing of liners and final covers shall be

the responsibility of an individual experienced in liner or cover installation and soils or geotextile engineering, as appropriate. The quality control plan shall:

(1) define the procedures required for obtaining samples and testing and reporting the test results for the installation of the liner and final cover;

(2) describe and illustrate to operating personnel all necessary procedures for maintaining the integrity of the liner, leachate collection systems, and final cover;

(3) for the soil component, prescribe the following minimum frequency of testing for the soil component of all liners and final covers, unless otherwise specifically approved by the department:

(a) soil from the borrow source shall be tested as follows:

(i) grain size shall be tested once every 1,000 cubic yards;

(ii) Atterberg limits shall be tested once every 5,000 cubic yards;

(iii) Proctor compaction moisture-density curve conformance shall be tested once every 5,000 cubic yards; and

(iv) laboratory permeability shall be tested once every 5,000 cubic yards; and

(b) during construction of the liner or cover, the soil shall be tested as follows:

(i) density and moisture content tested by nuclear desiometer shall be tested four times per acre per lift;

(ii) laboratory or in-situ permeability shall be tested once per 2 acres and laboratory samples shall be undisturbed or recompacted to the site-specific field conditions; and

(iii) total thickness (by survey) shall be tested once per acre (on grid);

(4) for the prot ective cover component of liners, when used to facilitate leachate drainage, prescribe the following minimum frequency of testing of the granular drainage layer, unless specifically approved by the department:

(a) grain size of the soil shall be tested once every 1,500 cubic yards; and

(b) total thickness of the drainage layer shall be tested five times per acre; and

(5) for the geomembrane component of all liners and final covers as defined in Subsection A of 20.9.4.13 NMAC and Subsection A of 20.9.6.9 NMAC, all testing, both shop and field, shall be as recommended by the manufacturer unless otherwise specifically approved by the department; the minimum frequency of taking seam samples for destructive testing shall be one per 500 feet of seam length, with a portion of each test sample tested in the field and another in the laboratory; seam samples shall be tested for peel adhesion and bonded seam strength; non-destructive testing shall be performed for all seams, seam repairs, and liner repairs.

[20.9.4.14 NMAC - Rp, 20 NMAC 9.1.III.307, 08/02/07]

20.9.4.15 LEACHATE COLLECTION SYSTEMS FOR LANDFILLS.

A. Except as specified in 20.9.2.14 NMAC and Subsection C of 20.9.4.13 NMAC, all new municipal and special waste landfills and lateral expansions shall include a leachate collection system, which shall be designed by a professional engineer licensed to practice in New Mexico, and which shall incorporate a piping collection network comprised of perforated pipe having a minimum diameter of 6 inches and a minimum wall thickness of schedule 80 PVC or equivalent and shall be designed and constructed to:

(1) maintain less than a one-foot depth of leachate on the liner;

(2) maintain a minimum of two percent slope throughout the system, within the lined landfill cell; an alternate slope may be specifically approved by the secretary for leachate conveyance piping outside the disposal cell footprint;

(3) withstand chemical attack from waste and leachate; and

(4) withstand the loads, stresses, and disturbances from overlying waste, waste cover materials, and equipment operation.

B. Any geosynthetic materials such as geonets and geotextiles, if used as components of the leachate collection system, must have a hydraulic conductivity, transmissivity and chemical and physical qualities that will not be adversely affected by waste placement, equipment, operation, or leachate generation. These geosynthetics, if used and operating in conjunction with the soil protective cover for the liner as described in Paragraph (4) of Subsection E of 20.9.4.13 NMAC, must have a hydraulic conductivity and transmissivity designed to ensure the hydraulic head on the liner never exceeds one foot.

C. A written leachate management plan shall be submitted for approval by the secretary. The plan shall describe anticipated amounts of leachate, duration of generation and final disposal options for the leachate and shall include:

(1) a description of the means of analysis; and

(2) a description of the type of treatment and proposed disposal method.

D. Leachate storage and collection ponds shall be designed to meet the requirements of 20.9.4.13 NMAC. A pond may be designed to maintain greater than one foot of leachate, provided it is equipped with a double, composite liner as specified in 20.9.4.13 NMAC, or an alternative design providing equivalent protection and approved in the permit.

[20.9.4.15 NMAC - Rp, 20 NMAC 9.1.III.308, 08/02/07]

20.9.4.16 LANDFILL GAS CONTROL SYSTEMS.

A. Owners and operators of landfills who install a landfill gas control system in order to conform with the requirements of Subsection B of 20.9.5.9 NMAC shall submit a description of the physical and chemical characteristics of expected condensates or residues that are generated and a plan for their disposal. The disposal plan shall be submitted with a permit application or as a request for a specific approval. In addition, if the gas control system is not subject to the Air Quality Control Act, NMSA Sections 74-2-1, et seq., the owner or operator shall include the following information in its submission:

(1) the design of the system, indicating the location and design of vents, barriers, collection piping and manifolds and other control measures that will be installed; and

(2) if gas recovery is proposed, the design of the proposed gas recovery system and the major on-site components of the system including storage, transportation, processing, treatment or disposal measures required in the management of the generated gases, condensates or other residues.

B. If a gas processing system is proposed, it shall be designed:

(1) so that it will not interfere with activities on the site or required control measures; and

(2) so that it will not create a nuisance, endanger or cause harm to persons or property.

C. If a gas disposal system is proposed, it shall be designed:

(1) so that it will not interfere with activities on the site or required control measures;

(2) so that it will not create a nuisance, endanger or cause harm to persons or property; and

(3) with active forced ventilation, using vents located at least one foot above the landfill surface at the location of each gas vent.

[20.9.4.16 NMAC - Rp, 20 NMAC 9.1.III.309, 08/02/07]

20.9.4.17 RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.

A. The secretary may issue a research, development, and demonstration permit in conjunction with a new solid waste facility permit for a municipal or special waste landfill, or as a permit modification for an already permitted municipal or special waste landfill, under the following conditions:

(1) the owner or operator proposes to utilize innovative and new methods which vary from either or both of the following criteria:

(a) the run-on control systems required by Subsection E of 20.9.5.9 NMAC; and

(b) if sludge is used, the liquids restrictions in Paragraph (9) of Subsection A of 20.9.2.10 NMAC and 20.9.8.16 NMAC;

(2) the landfill has a leachate collection system designed and constructed to maintain less than a one foot depth of leachate on the liner; and

(3) the landfill is not operating under an exemption set forth in 20.9.2.14 NMAC.

B. The following requirements shall apply to any landfill that is issued a research, development, and demonstration permit under Subsection A of this section:

(1) the liquids to be used at the landfill shall be pre-approved by the department in accordance with Paragraph (9) of Subsection A of 20.9.2.10 NMAC and 20.9.8.16 NMAC;

(2) the landfill shall install a landfill gas collection and control system in accordance with emission control requirements as specified in 40 CFR Part 60; and

(3) the fluids to be used at the landfill shall be pre-approved by the department.

C. The secretary may issue a research, development, and demonstration permit for a permitted landfill for which the owner or operator proposes to utilize innovative and new methods which vary from the final cover criteria of Subparagraphs (b) and (c) of Paragraph (1) of Subsection A of 20.9.6.9

NMAC or Subparagraph (a) of Paragraph (2) of Subsection A of 20.9.6.9 NMAC provided the landfill owner or operator demonstrates that the infiltration of liquid through the alternative cover system will not cause contamination of ground water or surface water, or cause leachate depth on the liner to exceed one foot.

D. Any permit issued under Subsection C of this section shall include terms and conditions at least as protective as the criteria for municipal solid waste landfills to assure protection of human health and the environment. Such permits shall:

(1) provide for the construction and operation of such facilities as necessary, for not longer than two and one-half years, unless renewed as provided in Subsection F of this section;

(2) provide that the landfill must receive only those types and quantities of municipal solid waste and non-hazardous wastes which the secretary deems appropriate for the purposes of determining the efficacy and performance capabilities of the technology or process;

(3) include such requirements as necessary to protect human health and the environment, including such requirements as necessary for testing and providing information to the secretary with respect to the operation of the facility;

(4) require the owner or operator of a landfill permitted under this section to submit an annual report to the secretary showing whether and to what extent the site is progressing in attaining project goals; the report shall also include a summary of all monitoring and testing results, as well as any other operating information specified by the secretary in the permit; and

(5) require compliance with all criteria in 20.9.2 - 20.9.10 NMAC, except as permitted under this section.

E. The secretary may order an immediate termination of all operations at the facility allowed under this section or other corrective measures at any time the secretary determines that imminent danger exists to human health or the environment. The owner or operator may appeal the secretary's order by filing a request for hearing within 30 days of the date of the secretary's order. The appeal shall be conducted in accordance with the procedures in 20.1.5 NMAC, Adjudicatory Procedures - Environment Department.

F. Any permit issued under this section shall not exceed two and one-half years and each renewal of a permit shall not exceed two and one-half years.

(1) The total term for a permit for a project including renewals shall not exceed twelve years.

(2) During permit renewal, the applicant shall provide a detailed assessment of the project showing the status with respect to achieving project goals, a list of problems and status with respect to problem resolutions, and any other information requested by the secretary.

[20.9.4.17 NMAC - N, 08/02/07]

HISTORY OF 20.9.4 NMAC:

Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records - state records center.

EIB 74-1, Solid Waste Management Regulations, filed 5/3/74.

EIB/SWMR-2, Solid Waste Management Regulations, filed 4/14/89.

EIB/SWMR-3, Solid Waste Management Regulations, filed 12/31/91.

EIB/SWMR-4, Solid Waste Management Regulations, filed 7/18/94.

History of Repealed Material: 20 NMAC 9.1, Solid Waste Management Regulations (filed 10/27/95) repealed 08/02/07.

Other History:

EIB/SWMR-4, Solid Waste Management Regulations (filed 7/18/94) was **renumbered** into first version of the New Mexico Administrative Code as 20 NMAC 9.1, Solid Waste Management Regulations, effective 11/30/95.

That pertinent portion of 20 NMAC 9.1, Subpart III, Solid Waste Management Regulations, Maximum Size, Siting Criteria; Design Criteria, (filed 10/27/95), was **renumbered, reformatted and replaced** by 20.9.4 NMAC, Solid Waste and Registered Facility Maximum Size, Siting Criteria, and Design Criteria, effective 08/02/07.

PRIOR CITY COUNCIL DECISSIONS

GGNA EXHIBIT N

RE: GUARDIAN STORAGE

Notice of Decision
City Council
City of Albuquerque
January 25, 2012

AC-11-4 John David Pearson appeals the Environmental Planning Commission's approval of requests for a Sector Plan Map Amendment and a Site Development Plan for Building Permit for Lot 25, the eastern ½ of Lot 26, and adjacent remnant lot, Block 21, Unit A, North Albuquerque Acres, zoned SU-2/O-1 to SU-2/SU-1/O-1 and Storage, located on Palomas Ave. between Wyoming Blvd. and Barstow St., containing approximately 1.6 acres

Decision

On January 4, 2012, by a vote of 5 FOR, 4 AGAINST, the City Council voted to grant the appeal.

For: Benton, Garduño, O'Malley, Sanchez, Winter
Against: Cook, Harris, Jones, Lewis

On January 18, 2012, by a vote of 9 FOR, 0 AGAINST, the City Council adopted the following findings:

1. This appeal is of the approval of an amendment to the La Cueva Sector Development Plan. ("LCSDP")
2. The subject site is located on the north side of Palomas Ave. NE, south of Paseo del Norte.
3. The property is currently zoned SU-2/O-1. This zone is intended for "office, service, institutional, and dwelling uses."
4. The amendment to the LCSDP approved by the EPC would allow for a three story storage facility with a footprint of 25,200 square feet.
5. The EPC in approving the amendment to the LCSDP erred in applying adopted city plans, policies and ordinances, and acted arbitrarily or capriciously in the following matters:

a. The EPC found that the amendment furthered Comprehensive Plan Policy II.B.5.a. That policy provides that "Developing Urban and Established Urban Areas shall...allow a full range of urban land uses." This policy does not mean that all areas of the City shall have all land uses. This policy is not intended to mean that limiting uses to certain zones is contrary to the Comprehensive Plan.

b. The EPC found that the amendment furthered Comprehensive Plan Policy II.B.5.e. That policy does support infill projects. This policy does not mean that existing zoning should be changed to allow previously disallowed uses in order to facilitate infill. That policy specifically provides that infill is to be encouraged but only "where the integrity of existing neighborhoods can be ensured."

c. The EPC found that the amendment furthered Comprehensive Plan Policy II.C.8.d. That policy does provide that: "Landscaping shall be encouraged within public and private rights-of-way..." This policy does not mean that a zone change to allow a

previously disallowed use should be approved if the property owner agrees to provide landscaping. In addition the EPC determined that it was the site not the right-of-way that would be landscaped. The Policy referenced in the Comprehensive Plan is for rights-of-way to be landscaped. There is no indication that the on-site landscaping furthers Comprehensive Plan Policy II.C.8.d.

d. The EPC found that the zone change furthered Comprehensive Goal II.D.4. That goal provides: "The Goal is to develop corridors, both streets and adjacent land uses, that provide a balanced circulation system through efficient placement of employment and services, and encouragement of bicycling, walking, and use of transit/paratransit as alternatives to automobile travel, while providing sufficient roadway capacity to meet mobility and access needs." The evidence was that the proposed storage facility would not encourage bicycling, walking, and use of transit/paratransit. This goal is partially furthered in that some new employment is provided but less than the employment that would be provided by other business allowable under existing zoning.

e. The EPC found that the amendment furthered the goals and policies of the LCSDP. The amendment is directly contrary to the policies of the LCSDP in that it changes the zoning set forth in that Plan and allows a use not currently allowed in this portion of the LCSDP.

f. R-270-1980 provides in part that: "Stability of land use and zoning is desirable; therefore the applicant must provide a sound justification for the change. The burden is on the applicant to show why the change should be made, not on the city to show why the change should not be made." Contrary to the EPC finding the applicant has not met its burden to justify the zone change.

g. The EPC found that the proposed land use is "generally consistent with O-1 uses." The LCSDP provides that the existing zone is intended to provide "a mix of residential densities and a variety of retail and service businesses..." The proposed storage facility is not residential, is not retail and is not a service business. The proposed zoning is not consistent with existing zoning or O-1 uses.

h. The EPC found that the amendment is consistent with the City's health, safety, morals and general welfare. The EPC placed no conditions on the site plan that in any way limit what can be stored at the facility. The allowed storage uses are unlimited. This is not consistent with the safety and general welfare of the community.

i. The Applicant did not show that the proposed use is more advantageous to the neighborhood than the uses currently allowed.

6. The EPC in approving this zone change erred in applying adopted city plans and policies by only considering those portions of the comprehensive plan that could be argued to justify the zone change while failing to consider those portions of the comprehensive plan that clearly conflicted with the proposed change. R-270-1980 provides in relevant part that: "A proposed change shall not be in significant conflict with adopted elements of the Comprehensive Plan or other city master plans and amendments thereto, including privately developed area plans which have been adopted by the city." The EPC was required to consider whether portions of the Comprehensive Plan conflicted with the proposed zone change:

a. Comprehensive Plan Policy II.B.5.d provides that: "The location,

intensity, and design of new development shall respect existing neighborhood values, natural environmental conditions and carrying capacities, scenic resources, and resources of other social, cultural, recreational concern." The proposed change does not respect existing neighborhood values, natural environmental conditions and scenic resources.

b. Comprehensive Plan Policy II.B.5.j provides that: "Where new commercial development occurs, it should generally be located in existing commercially zoned areas..." The proposed new commercial building is not being located within a commercial zone.

c. Comprehensive Plan Policy II.B.5.m provides that: "Urban and site design which maintains and enhances unique vistas and improves the quality of the visual environment shall be encouraged." The EPC approved site plan allows for the maximum obstruction of unique vistas and interference with the visual environment. While not contrary to the La Cueva Sector Plan there has been no effort to encourage preservation of the visual environment which under this policy is to occur, in part, during the "site design review process[]." This policy has not been considered or followed.

d. Comprehensive Plan Policy II.D.6.a provides as a policy: "New employment opportunities which will accommodate a wide range of occupational skills and salary levels shall be encouraged and new jobs located convenient to areas of most need." Adding a storage facility rather than office and service facilities will reduce not increase the potential for employment in the area. The EPC specifically found that this use would involve fewer employees than O-1 uses.

IT IS THEREFORE ORDERED THAT THE APPEAL IS GRANTED.

Attachments

1. Action Summary from the January 4, 2012 City Council meeting
2. Action Summary from the January 18, 2012 City Council meeting

Appeal of Final Decision

A person aggrieved by this decision may appeal the decision to the Second Judicial District Court by filing in the Court a notice of appeal within thirty (30) days from the date this decision is filed with the City Clerk.

Trudy E. Jones, President
City Council

Date: 1-25-12

Received by:
City Clerk's Office

Date: 1.25.12

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Notice of Decision
City Council
City of Albuquerque
October 9, 2014

AC-14-7 (Project# 1001580/14EPC-40030 & 40031) Peter Armijo appeals the Environmental Planning Commission's (EPC's) Approval of a Zone Map Amendment (Zone change) and a Site Development Plan for Building Permit for Lot 1-A, Block 6, Albright Moore Addition

Decision

On September 15, 2014, by a vote of 9 FOR, 0 AGAINST, the City Council voted to remand this appeal to the EPC by accepting only the recommendation but not the findings of the Land Use Hearing Officer.

On October 6, 2014, by a vote of 9 FOR, 0 AGAINST, the City Council adopted the following findings in support of its decision for remand:

1. This is a request for a Zone Map Amendment (13-EPC-40030) and a Site Development Plan for Building Permit (13-EPC-40031) for Lot 1-A, Block 6, Plat of Lot 1-A, Block 6 – Albright Moore Addition, containing approximately .08 acres at the southeast corner of Sixth Street NW and Kinley Avenue NW.

2. The subject site is in the Central Urban Area of the Comprehensive Plan, and within the boundaries of the Sawmill/Wells Park Sector Development Plan (the "SWPSDP").

3. The applicant proposes to change the zoning from "SU-2 /S-R" to "SU-2/SU-1 for Residential, Law Office, Court Reporter, Accountant, Architect, and/or Engineer", and to have an associated site development plan approved in order to operate a law office on the site.

4. The Environmental Planning Commission (the "EPC") voted unanimously to approve both the Zone Map Amendment and Site Development Plan for Building Permit, and those approvals were appealed to the Albuquerque City Council.

5. The City Council referred this Appeal to the City's Land Use Hearing Officer (the "LUHO") who performed an analysis of this request and recommended a remand based on his determination that the EPC did not sufficiently analyze and consider certain parking requirements and the standard for spot zone requests.

6. The City Council finds that the EPC record was insufficient in its analysis and findings relating to parking requirements and spot zoning as detailed by the LUHO, but declines to adopt specific findings as to the controlling parking requirements and whether the spot zone standard has been met without the EPC first providing a more detailed analysis and findings on these issues.

7. In lieu of the full findings recommended by the LUHO, the City Council adopts the more limited finding that a remand is appropriate to allow the EPC to more

extensively analyze, consider, and make findings upon: a) the minimum parking requirements of the SWPSDP SU-2 Zone when SU-1 Zoning is proposed, b) whether required off-street parking may be provided on an adjacent residential property, and if so what requirements apply, and c) the spot-zone criteria found in Resolution 270-1980.

8. The City Council finds that a remand is necessary for the EPC to:

a. Analyze and make findings that identify the specific controlling parking requirements for this request;

b. Analyze and make findings as to whether the specific controlling parking requirements are satisfied by this request;

c. Analyze and make findings as to whether the request satisfies the standard for a spot zone in that it will "*clearly facilitate* realization of the Comprehensive Plan and any applicable adopted sector development plan;" and

d. Perform all other analysis and make all other findings that the EPC determines necessary in order to fully dispose of all of the issues relevant to this request.

9. Any decision of the EPC that results from this remand is appealable to the City Council through the procedures prescribed within the Zone Code.

IT IS THEREFORE ORDERED THAT THE APPEAL IS REMANDED TO THE ENVIRONMENTAL PLANNING COMMISSION.

Attachments

1. Land Use Hearing Officer's Recommendation and Findings
2. Action Summary from the September 15, 2014 City Council meeting
3. Action Summary from the October 6, 2014 City Council meeting

Appeal of Final Decision

A person aggrieved by this decision may appeal the decision to the Second Judicial District Court by filing in the Court a notice of appeal within thirty (30) days from the date this decision is filed with the City Clerk.

Ken Sanchez, President
City Council

Date: 10/14/14

Received by:
City Clerk's Office

Date: 10-14-14

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City of Albuquerque

Albuquerque/Bernalillo
County
Government Center
One Civic Plaza
Albuquerque, NM 87102

Action Summary

City Council

Council President, Ken Sanchez, District 1
Vice-President, Trudy E. Jones, District 8

Isaac Benton, District 2; Klarissa J. Peña, District 3
Brad Winter, District 4; Dan Lewis, District 5
Rey Garduño, District 6; Diane G. Gibson, District 7
Don Harris, District 9

Monday, September 15, 2014 **5:00 PM** **Vincent E. Griego Chambers**
One Civic Plaza
Albuquerque/Bernalillo County Government Center

TWENTY-FIRST COUNCIL - TWENTY-FIRST MEETING

1. ROLL CALL

Present 9 - Dan Lewis, Ken Sanchez, Isaac Benton, Klarissa Peña, Brad Winter, Rey Garduño, Diane Gibson, Trudy Jones, and Don Harris

2. MOMENT OF SILENCE

Pledge of Allegiance - Brad Winter, Councilor, District 4

3. PROCLAMATIONS & PRESENTATIONS

4. ECONOMIC DEVELOPMENT DISCUSSION

5. ADMINISTRATION QUESTION & ANSWER PERIOD

6. APPROVAL OF JOURNAL

September 3, 2014

7. COMMUNICATIONS AND INTRODUCTIONS

8. REPORTS OF COMMITTEES

Finance and Government Operations Committee - September 8, 2014

Land Use, Planning and Zoning Committee - September 10, 2014

For: 9 - Lewis, Sanchez, Benton, Peña, Winter, Garduño, Gibson, Jones, and Harris

Councilor Sanchez affirmed that matters discussed in Executive Session were limited to those specified in the motion for closure.

14. FINAL ACTIONS

q. R-14-101 F/S Setting Policy Relating To The Circumstances In The Matter Of The City Of Albuquerque v. American Federation Of State, County And Municipal Employees (AFSCME) Local 624; Albuquerque Police Officers' Association; And International Association Of Fire Fighters Local 244; Directing The City Attorney To Dismiss This Matter (Gibson)

A motion was made by Councilor Gibson that this matter be Passed. The motion carried by the following vote:

For: 5 - Sanchez, Benton, Peña, Garduño, and Gibson

Against: 4 - Lewis, Winter, Jones, and Harris

12. PUBLIC HEARINGS: {Appeals, SAD Protest Hearings}

a. AC-14-7 (Project# 1001580/14EPC-40030 & 40031) Peter Armijo appeals the Environmental Planning Commission's (EPC's) Approval of a Zone Map Amendment (Zone change) and a Site Development Plan for Building Permit for Lot 1-A, Block 6, Albright Moore Addition

A motion was made by President Sanchez that this matter be Adoption of Findings. The motion carried by the following vote:

For: 9 - Lewis, Sanchez, Benton, Peña, Winter, Garduño, Gibson, Jones, and Harris

13. APPROVALS: {Contracts, Agreements, and Appointments}

a. EC-14-116 2013 Annual Report for the Independent Review Office of the Police Oversight Commission

A motion was made by President Sanchez that this matter be Receipt Be Noted. The motion carried by the following vote:

For: 6 - Sanchez, Benton, Peña, Winter, Garduño, and Jones

Excused: 3 - Lewis, Gibson, and Harris

b. EC-14-131 Approval of Contract with New Mexico Golf Inc., for the Operation of Arroyo del Oso Golf Course and Liquor License Agreement

A motion was made by President Sanchez that this matter be Approved. The motion carried by the following vote:

LAND USE HEARING OFFICER'S RECOMMENDATION

APPEAL NO. AC-14-7
Project No. 10015
80-14EPC40030 & 80-14-EPC-40031

PETER ARMIJO, Appellants,

ANTONIA ROYBAL-MACK, Party Opponent.

I. BACKGROUND

This is an appeal of a decision from the Environmental Planning Commission (EPC) approving a zone change and site development plan for a single parcel of land from a residential zone and use to an office use and zone. The record reflects that on April 24, 2014, Antonia Roybal-Mack, through her attorney, submitted an application to the City Planning Department to change the zoning from SU-2 for Sawmill Residential (SR) to SU-2 for SU-1 for residential, law office, court reporter, accountant, architect, or engineer on a parcel of land located at 1324 Sixth Street, N.W. The application also requested an approval of a site development plan for building permit.[1]

On June 12, 2014, the EPC held a public hearing on Mrs. Roybal-Mack's application and approved the zone change and the site development plan for a building permit. The EPC memorialized their decision in an Official Notification of Decision on June 13, 2014 (setting 12 conditions of approval).[2] On June 27, 2014, Peter Armijo, a resident living one block

[1] Note that the record indicates the applicant had purchased, renovated the existing residential home from an abandoned state of disrepair, and opened her law practice in the home, all without first obtaining a building permit or the appropriate zoning approval. The application was the result of zoning enforcement action.

[2] Record, page 95. Among other things, the EPC approved the zone change for the following uses: "Residential, Law Office, Court Reporter, Accountant, Architect, Engineer and/ or Doctor's Office." See Finding 2, Id.

North of the zone change site filed a timely appeal of the EPC decision. In an Amended Official Notification of Decision, dated July 18, 2014, the EPC changed the approved uses for the zone change to exclude Doctor's Office.[3] On August 4, 2014, the City Council, pursuant to Bill 0-13-63, Enactment No. 0-2014-009, referred the appeal to this Land Use Hearing Officer (LUHO). A LUHO public hearing on the appeal was held on August 25, 2014.

II. STANDARD OF REVIEW

A review of an appeal is a whole record review to determine if there is error:

1. In applying adopted city plans, policies, and ordinances in arriving at the decision;
2. In the appealed action or decision, including its stated facts;
3. In acting arbitrary, capriciously or manifestly abusive of discretion.

The decision and record must be supported by a preponderance of the evidence to be upheld. The Land Use Hearing Officer is advisory to the City Council. The Land Use Hearing Officer may recommend that the Council grant the appeal in whole or in part, deny, or remand an appeal for reconsideration if the remand is necessary to clarify or supplement the record, or if the remand would expeditiously dispose of the matter."[4]

III. DISCUSSION

In his appeal, Mr. Armijo's (Appellant) chief complaint is that the parking arrangement for the office uses and for the zone change approved by the EPC will set a bad precedent in the Wells Park Neighborhood and potentially City-wide. The Appellant believes that the EPC should have issued a variance to the land owner/zone change applicant rather than approve a parking agreement with a neighboring residential lot owner. As described in more detail below, the EPC allowed the applicant to utilize an adjacent residential parcel of land to satisfy three of the five off-street parking requirements set by the EPC. I interpret the Appellant's argument to be an objection to the EPC's handling of the off-street parking. The

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[3] Record, page 87.

[4] See Rules of the Land Use Hearing Officer adopted by the City Council, February 18, 2004. Bill No. F/S OC-04-6 and codified in Section 14-16-4-4 of the Zoning Code.

Appellant also contends that the zone change essentially results in a harmful spot zone within the neighborhood. I interpret the Appellant's general allegation to mean that the spot zone is not justified.

After reviewing the entire record, the applicable policies and ordinances for a zone change, and having heard arguments from the Appellant, City Planning Staff, and from the applicant and from her attorney, I find that the EPC's decision is not supported by the evidence in the record. I also find that the EPC erred because it did not apply the Parking Regulations of the Zoning Code to the parking arrangement, nor did it analyze the proposed spot zone correctly or sufficiently. I respectfully recommend that this matter be remanded back to the EPC to develop and address these pivotal issues that are glossed over by the applicant, Staff, and by the EPC. I first take up the issues of parking, and then I will take up the lack of analysis for justifying the spot zone in the record.

A. The Off-street Parking Regulations of Section 14-16-3-1 Are Not Discretionary in the SWPSDP, Non-Residential, SU-2 Zone.

The EPC erred when it failed to apply the Parking Regulations of the Zoning Code in its evaluation of the zone change application. The existing zoning on the applicant's lot (before changed by the EPC) is SU-2 for S-R (Sawmill Residential). The record illustrates that the applicant's entire block is zoned SU-2 for SR residential uses and includes almost exclusively residential uses.[5] The "SU-2" corresponds to a "Special Neighborhood" zone specifically designated through the Sawmill Wells Park Sector Development Plan (SWPSDP). The "SR" is "Sawmill Residential," a designated residential zone under the SWPSDP. Although Planning Staff recited the purposes of the SR zone and the proposed change to SU-1 in the Staff report to the EPC, the purposes and analysis of the SU-2 zone was not well-developed by Staff, and as a result the EPC failed to consider the SU-2 zoning requirements for parking in the SWPSDP and in the Parking Regulations. There is no dispute

[5] I note for the City Council that there is a non-conforming flower shop across the street (Southwest corner of 6th Street and Kinley Ave. N.W.). There are also at least two other law office uses; one to two blocks North of the subject site of which are alleged to be spot zone SU-1 zones.

that the underlying SU-2 zoning is retained in the applicant's proposal to change the SR zone to SU-1,and therefore, the SU-2 requirements must also be satisfied. They were not. Instead, the EPC focused on the requirements of the new SU-1 zone. The express purpose of the SU-2 zone:

> "allows the City to establish general regulations and land use regulations that are tailored specifically to the Sawmill/Wells Park community. The new regulations are intended to promote community stability and investment that respect existing community character."[6]

In changing the SR zone to SU-1, for office use (law office), the use of the retained SU-2 zone is also necessarily changed even though the underlying SU-2 remains unchanged. Pursuant to the SWPSDP, building permit applications for building renovations must comply with Sawmill/Wells Park General SU-2 regulations for those parts of the site undergoing construction. And when a site development plan and a building permit is required for the change in use (as is in this case), the building permits must also be checked for compliance with the Sawmill/Wells Park General SU-2 regulations during the normal submission processes.[7] This is a clear mandate of the SWPSDP. There is evidence in the record that the applicant renovated the existing residential home from its abandoned state, triggering the necessity of a building permit. The EPC acknowledged this fact and Staff touched on some of the requirements while ignoring others in the SWPSDP having to do with parking and screening of parking requirements.

It is clear that the SWPSDP, SU-2 zone applies to the application site. First, the existing underlying zoning is SU-2 and the SU-2 zoning remains as the underlying zoning even though the use changes (from residential to the identified office uses). But, because the use changes, with the advent of the SU-1 zone, the parking regulations of the General SU-2 zone for the SWPSDP, for lack of a better term, kick-in. There can be no dispute that although the SU-2 zone does not change, the previous residential use is transformed to a non-

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[6] See the SWPSDP, Zoning, page 36.

[7] See SWPSDP, Zoning, Regulation 1.c and 1.d respectively, page 83.

residential, SU-1 use–a law office. The introduction of a new use on the site introduces the necessity for a new evaluation of the SU-2 zoning criteria for the new non-residential use that replaced the previous residential use. This is so because in the SWPSDP, the SU-2 requirements for residential uses and for non-residential are different.

In Staff's scant analysis of parking, only parking under the SU-1 zone requirements were evaluated. As a result, only SU-1 parking requirements were considered by the EPC and the EPC had a false impression that it has discretion over the parking requirements. It clearly does not as described below. At the EPC hearing Planning Staff informed the EPC that under the SU-1 zone proposed, "off-street parking shall be provided as required by the Planning Commission."[8] Staff interpreted this ordinance subsection of the SU-1 zone to mean that the EPC has discretion to regulate parking in a SU-1 zone. However, the zone change application site includes and retains the SU-2 zone. It is not simply a single SU-1 zone. The SU-2 zone requirements of the SWPSDP have parking requirements aside from the Parking Regulations of the Zoning Code for non-residential uses. In addition, the SU-2 zone in the SWPSDP instructs an applicant to satisfy the Parking Regulations of the Zoning Code. These are not discretionary under the underlying SU-2 zone. Because the application implicates two zones, requirements of each applicable zone must be evaluated. Just because the SU-1 zone appears to give discretion to the EPC with regard to parking does not mean that the EPC has discretion over parking with regard to the underlying SU-2 zone. Codified in the Zoning Code is the maxim that where "a provision of any other ordinance, resolution, or covenant impose greater restrictions than those of [the zoning code], the provisions of such other ordinance, resolution, or covenant shall prevail."[9] The SWPSDP, SU-2 non-residential zoning requirements for parking does not have the seemingly discretionary language cited by Staff under the SU-1 Section of the Zoning Code. Thus, the SWPSDP, SU-2 zone requirements impose additional restrictions and must not be ignored. These were ignored by Staff and by the EPC.

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[8] See Zone Code, Section 14-16-2-22(C), SU-1 Special Use Zone, Off-Street Parking.

[9] See Zone Code, Interpretation, Section 14-16-1-4(A).

The General SU-2 zoning requirements under the SWPSDP, in very clear language, declares that "[t]he General SU-2 regulations apply to all properties in the Sector Plan area unless specified otherwise."[10] The "unless otherwise specified" language must be judged against the following explicit directives in the SWPSDP having to do with building permits for new construction, rehabilitation, or renovation issued in a SU-2 zone in the SWPSDP district. Furthermore, there is an equally transparent explicit instruction that *"[t]he Environmental Planning Commission shall consider all General SU-2 Regulations when reviewing SU-1 zoning applications."*[11] (Emphasis added). The SU–1 zone discretionary language which Staff recommended cannot trump the mandatory language of the SU-2 zone.

The SU-2 regulations for non-residential uses in the SWPSDP mandates that the Parking Regulations of the Zoning Code must be applied to new non-residential uses. Furthermore, the SWPSDP dictates that additional design and landscaping requirements in the SWPSDP must also be applied to the application. The SWPSDP states *"[o]ff-street parking shall be as regulated in the Off-Street Parking Regulations and General Landscaping Regulations."*[12] (Emphasis added). In addition the same section goes on to mandate that parking lot design "shall be as regulated in the 0-1 Office and Institution Zone of the Comprehensive full Code..." Id. None of these provisions of the SWPSDP were considered or evaluated by the Applicant, Planning Staff, or by the EPC.

Planning Staff and the EPC must consider and evaluate the zone change application under the non-discretionary Parking Regulations of the Zoning Code. Moreover, the application must also be judged under the additional parking and landscape design regulations in the SWPSDP for non-residential uses for the SU-2 zone. Because Staff and the EPC did not do this analysis, a remand rather than a denial is necessary.

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[10] See SWPSDP, Zoning, page 83.

[11] See SWPSDP, Zoning, Regulation 1.g, page 84.

[12] See SWPSDP, Zoning, General SU-2, 6. Regulations, Traffic Parking and Circulation, page 94.

Having demonstrated that the Parking Regulations of the Zoning Code are non-discretionary under the SWPSDP, SU-2 zone, I turn next to the Parking Regulations of the Zoning Code. Off-street parking is a primary focus of the Parking Regulations in Section 14-16-3-1. Planning Staff utilized the Parking Regulations only as a benchmark for calculating the number of parking spaces required for the applicant's office use. But the analysis under the Parking Regulations can not end there as it did in this case.

It is clear from the record that Staff advised the EPC that five spaces are needed, plus one handicapped and one motorcycle space. The applicant only has two to three spaces available on her lot. The additional spaces required are to be on the residential lot next door which is zoned SU-2 for SR (Sawmill Residential). Under the application, parking will be provided on a residentially zoned and used lot. Appellant believes this is troublesome. In the application the Planning Staff and the EPC accepted the applicant's assurances that the neighboring residential lot owner will allow the applicant to utilize her lot to meet three or four of the five parking spaces necessary. This fact was supported by the land owner of the residential lot. Apparently, the applicant, as a condition of approval must submit to the City a recorded parking agreement with the neighbor.[13]

Although Planning Staff used the Parking Regulations as the benchmark to determine the number of off-street parking needed by the applicant, Planning Staff did not consider any other parking requirement under the vast Parking Regulations of the Zoning Code. The application includes a component of shared parking between the residential lot next door and the applicant's lot on which the law firm sits. The Parking Regulations of Section 14-16-3-1 contemplate shared parking arrangements. Notably, in using another lot for satisfying an applicant's parking requirements, and for which a building permit is requested, the applicant *"must secure P-R zoning for the land to be used for parking."*[14] And all owners of

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[13] Because the EPC did not have the Agreement to evaluate, the EPC should have set an express condition that the Agreement satisfy the unambiguous regulations which sets forth the terms of an agreement of this sort. See Zoning Code, Section 14-16-3-1(E)(6)(b)(4).

[14] See Zoning Code, Section 14-16-3-1(D)(2), Off-Street Parking Regulations.

the lands involved must join in the zone change application. Id. There are likely exceptions to this harsh outcome, but none were explored. These issues were not considered by the EPC. In addition, shared parking cannot, under any circumstances, include the parking required for residential uses.[15] There is only speculation by the applicant on this essential showing. There is no clear evidence one way or the other. The EPC and Staff failed to evaluate the application under the shared parking requirements of the Parking Regulations. In addition, under the Parking Regulations, there are circumstances in which an applicant is eligible for parking reductions. The record does not indicate one way or the other if the applicant is eligible for such reductions to mitigate the effects of the Parking requirements. The applicant also failed to consider this. Certainly, the Planning Staff need not make the case for the applicant for potential reductions, but it should at least be explored with the applicant.

B. There Is Insufficient Evidence in the Record That the Spot Zone Satisfies R-2070-1980, Section 1.I.

As stated above, the Appellant contends that the approved zone change results in a spot zone that will be harmful to the neighborhood. I agree with the Appellant, only to the extent that the applicant has not met their burden with a showing that the proposed spot zone will clearly facilitate realization of the Comprehensive Plan as well as the SWPSDP as is required. There is no mistake that the proposed zone change will result in a spot zone. Spot zones are permissible under the applicable policies for zone map changes as articulated in Resolution Enactment 270-1980, (R-270-1980). R-270-1980 is a City resolution setting general policies for zone changes that City Staff and the City Council utilize, along with the applicable City Ordinances and, in this case the SWPSDP, to judge applications for zone changes. All zone changes have to satisfy the numerous policies of R-270-1980. Appellant's arguments having to do with spot zoning implicate an explicit requirement of City Resolution 270-1980, Section 1.I. Specifically, the applicable part of R-270-1980 states in full under Section 1.I:

[15] Zoning Code, Section 14-16-3-1(E)(6)(b)(1), Off-Street Parking Regulations.

"A zone change request which would give a zone different from surrounding zoning to one small area, especially when only one premise is involved, is generally called a "spot zone." Such a change of zone may be approved only when:

1. The change **will clearly facilitate realization of the Comprehensive Plan and any applicable adopted sector development plan** or area development plan; or

2. The area of the proposed zone change is different from surrounding land because it could function as a transition between adjacent zones; because the site is not suitable for the uses allowed in any adjacent zone due to topography, traffic, or special adverse land uses nearby; or because the nature of structures already on the premises makes the site unsuitable for the uses allowed in any adjacent zone."

(Emphasis added).

Notably R-270-1980 conveys a message that as a matter of public policy, spot zones are not *per se* harmful. However, it also makes clear that a spot zone must be justified under the standard set in Section 1.I(1). The standard is the highlighted text above. The standard is not merely whether or not the zone change will "significant[ly] conflict with adopted elements of the Comprehensive Plan" as Planning Staff believe and used to evaluated the spot zone. Although this standard is one standard of R-270-1980, because the zone change results in a spot zone, the correct standard is the weightier standard of whether or not the zone change will "clearly facilitate realization of the Comprehensive Plan." (Emphasis added). The record is insufficient in the form of analysis from the applicant, City Staff, and from the EPC to determine if the applicant satisfied the spot zone standard of R-270-1980, Section 1.I. The standard must be judged against the backdrop of the comprehensive plan as a whole and against the SWPSDP. The zone change may or may not satisfy the standard. The evidence in the record is insufficient to judge it under the correct standard. The Applicant through her attorney submitted a narrative entitled "Supplement to Justification Under Resolution 270-1980," dated May 23, 2014, that was heavy on conclusions and light on analysis of the requirements under the Zoning Code, and under the SWPSDP.

Because the spot zone standard is a high standard, there should be clear in-depth

analysis of the Comprehensive Plan and of the SWPSDP. The record as a whole includes only conclusions entwined with few facts and insufficient analysis on the pivotal issues described in this Report. This matter is better suited for a remand rather than a reversal. Moreover, because evaluation of the Parking Regulations were neglected all-together, remand is appropriate.

Accordingly, I respectfully recommend that the City Council remand this matter to the EPC so that the EPC, Planning Staff, and the applicant will apply the mandatory Parking Regulations of the Zoning Code and apply the mandatory additional regulations of the SWPSDP regarding parking and landscaping to the applicant's off-street parking proposal. The EPC must apply all the parking regulations to the application including those in the SWPSDP. In addition, Planning Staff and the EPC must use the correct standard for assessing a spot zone, and it must analyze the Comprehensive Plan and the SWPSDP in evaluating the zone change request.

Steven M. Chavez, Esq.
Land Use Hearing Officer

September 1, 2014

Notice of Decision
City Council
City of Albuquerque
November 18, 2015

AC-15-5 (Project#1008203/15EPC-40020) Emilio Chavez and Matthew Archuleta Appeal the Environmental Planning Commission's (EPC's) Approval of a Zone Map Amendment (zone change), for Tracts A2, A3, A4, Unser and Sage Market Place, located on Unser Street between Sage Road SW and Arenal Road SW

Decision

On November 2, 2015, by a vote of 5 FOR, 3 AGAINST, and 1 RECUSED, the City Council voted to grant the appeal and reverse the EPC's decision to approve the zone change.

For: Benton, Garduño, Gibson, Lewis, Peña
Against: Harris, Jones, Winter
Recused: Sanchez

On November 16, 2015, by a vote of 5 FOR, 2 AGAINST, 1 RECUSED, and 1 EXCUSED the City Council voted to adopt the following findings in support of its decision to grant the appeal:

For: Benton, Garduño, Gibson, Lewis, Peña
Against: Harris, Jones
Recused: Sanchez
Excused: Winter

FINDINGS

1. This is a request for a zone map amendment for tracts A-2, A-3, A-4 of Unser Sage Marketplace located on Unser Boulevard SW, between Sage Road SW and Arenal Road SW and containing approximately 3.5 acres, from C-1 (Neighborhood Commercial) to SU-1 for C-2 (Special Use Zone for Permissive and Conditional Community Commercial uses), excluding the sale of distilled spirits, as defined in the New Mexico Liquor Control Act, in any package that contains less than 450 milliliters and fortified wines with a volume of alcohol of more than 13.5% (the "ZMA").

2. The existing Neighborhood Commercial Zoning permits a wide variety of lower intensity commercial land uses, while the requested Special Use for Community Commercial zoning is more intensive zoning in that it permits more intensive land uses including, among others, the sale of packaged liquor for off-premise consumption; and also permits those community commercial uses usually

considered "conditional" because of their increased intensity, without the typical requirement that they first be evaluated by the City's Zoning Hearing Examiner for their potential to be "injurious to the adjacent property, the neighborhood, or the community."

3. The Environmental Planning Commission (the "EPC") approved the requested ZMA after finding that the request satisfied R-270-1980, the resolution which embodies the City's policies for deciding zone map amendment applications.

4. The Stinson Tower and Westgate Heights Neighborhood Associations jointly appealed the EPC's decision to the City Council.

5. Among other criteria, R-270-1980 provides in subsection 'D' that, in order for a ZMA to be approved, it must be demonstrated that "the existing zoning is inappropriate because: (1) There was an error when the existing zone map pattern was created; or (2) Changed neighborhood or community conditions justify the change; or (3) A different use category is more advantageous to the community, as articulated by the Comprehensive Plan or other city master plan, even though (D)(1) or (D)(2) above do not apply."

6. The applicant's justification for this ZMA was based on the "more advantageous to the community" criteria found in R-270-1980(D)(3). **[R. 83]** The EPC accepted this justification based on its analysis and application of polices from the Comprehensive Plan, the West Side Strategic Plan (the "WSSP"), the Southwest Albuquerque Strategic Action Plan (the "SASAP"), and the Tower Unser Sector Development Plan (the "TUSDP"), all of which were incorporated by reference into the EPC's decision. **[R. 9-14]** However, the EPC erred in its application of these plans and policies because:

   a. The applicant was required to demonstrate, and the EPC was required to find, that the existing zoning is "inappropriate" and that the increased intensity to Community Commercial would be more advantageous than the existing zoning because it is more consistent with applicable plans and their relevant policies;

   b. However, the existing Neighborhood Commercial zoning appears at least as consistent with the policies relied upon by the EPC as the proposed ZMA, and the applicant did not specifically demonstrate, nor did the EPC identify, how these polices justify the increased intensity associated with the ZMA such that the existing zoning, which already permits a wide variety of lower intensity commercial uses, is "inappropriate;" and

   c. Although several policies and objectives were cited by the EPC, they deal largely with the citing of new growth, physical site development criteria, and the desire for a mix of land uses and employment opportunities in "neighborhood activity centers" -- none of which directly support an

increase to community commercial land use intensities when the existing neighborhood commercial zoning already appears consistent with these same policies.

7. The EPC also suggested that this ZMA may be justified based on the "changed community conditions" criteria found in R-270-1980(D)(2), because the existing Neighborhood Commercial zoning was established by the TUSDP in 1989, and significant population growth had occurred in this area through 2010 which may render the zoning outdated. **[R. 14]** However, to the extent that the EPC relied on this justification for its decision it did so in error because:

   a. Although the existing zoning was first established in 1989 under the TUSDP, the EPC did not address that the TUSDP was updated as recently as 2009 (Enactment R-2009-037);

   b. The 2009 update identified the subject site as part of a potential "neighborhood activity center" and established an associated "Neighborhood Activity Center Zone" which incorporates and permits (with certain limitations) only those commercial uses permitted in the existing Neighborhood Commercial zone – suggesting that lower intensity, neighborhood commercial uses remained appropriate at least through 2009; and

   c. The EPC did not make any findings relating to changed community conditions since the 2009 update that may have otherwise justified this ZMA.

8. The record includes testimony before the EPC from real estate professionals and the property owner that the subject property would not be as economically viable without the allowance for increased intensity associated with community commercial zoning and associated alcohol sales. **[R. 124, 125, 133]** This issue was also discussed before the City Council on appeal. However, the EPC did not rely on this information in making any of its findings, and it is not a determinative factor in this ZMA request: R-270-1980(G) specifically states that "economic considerations pertaining to the applicant shall not be the determining factor for a zone change."

9. As outlined above, the EPC's decision to approve this ZMA is reversed because the EPC erred in applying City plans and policies.

For: Benton, Garduño, Gibson, Lewis, Peña
Against: Harris, Jones
Recused: Sanchez
Excused: Winter

IT IS THEREFORE ORDERED THAT THE APPEAL IS GRANTED, THE EPC'S DECISION IS REVERSED, AND THE ZONE CHANGE IS DENIED

Attachments

1. Action Summary from the November 2, 2015 City Council Meeting
2. Action Summary from the November 16, 2015 City Council Meeting

A person aggrieved by this decision may appeal the decision to the Second Judicial District Court by filing in the Court a notice of appeal within thirty (30) days from the date this decision is filed with the City Clerk.

Rey Garduño, President
City Council

Date: 11/18/15

Received by:
City Clerk's Office

Date: 11-19-15

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2015 NOV 19 PM 3:20

LAND USE HEARING OFFICER'S RECOMMENDATION

APPEAL NO. AC-16-1

Project No. 1003373 / 15-EPC-40062; 15-EPC40063; and 15-EPC-40064

Rio Grande Boulevard Neighborhood Association, Inc., Appellants,

Consensus Planning, Agent for Villagemakers, LLC and Kenneth Balizer, Party Opponents.

I. BACKGROUND

This is an appeal from a decision of the Environmental Planning Commission (EPC) approving a site development plan (site plan) for building permit and a zone map change from the existing RA-2 zone to a SU-1 for PRD uses (as shown in the site plan). The zone change site is a single tract of land encompassing 1.37 acres located at 3010 Rio Grande Boulevard, NW. The applicant's agent, Consensus Planning, submitted to the Planning Department its application for the zone change and site plan approval on October 29, 2015. A City facilitated meeting was held with the applicant, two neighborhood association representatives, and neighborhood residents on November 24, 2015.[1] After the Planning Department Staff's review of the application, the application was presented to the EPC with Staff's recommendation to approve the application. The EPC held a public hearing on the application on December 10, 2015 and approved the application. Appellants, the Rio Grande Boulevard Neighborhood Association

1 Apparently there are three neighborhood associations for this area, but the record reflects that only two were represented at the meeting. The record shows notice was sent to all three associations. Record, Pages 118 and 125.

(RGBNA), filed their timely appeal and the City Council referred the appeal to this Land Use Hearing Officer (LUHO). An extended LUHO appeal hearing was held on March 4, 2016.

The following facts regarding the site and the immediate area around the site are undisputed. The project site encompasses 1.37 acres of land, and currently has two single family dwellings on it.[2] The application and site plan shows a total of twelve (12) clustered single family dwelling units (DUs) with an approximate 12,000 square foot area dedicated for open space on the 1.37acres of land. The DUs will be approximately 1,000 sq. feet in size. The adjacent land on the North side of the project site is zoned R-1 and developed with single family housing. The adjacent lands to the East and to the South of the project site are zoned RA-2 and similarly developed with single family housing. The proposed density on the 1.37 ac. site is greater that the density of the adjacent tracts of land. In addition, because the proposed zone is different from surrounding zoning, the zone change creates a spot zone as defined by the Zoning Code and R270-1980. The applicable Sector Plans are the North Valley Area Plan (NVAP) and the Rio Grande Boulevard Corridor Plan (RGBCP). The RGBNA has standing to appeal the decision of the EPC pursuant to Section 14-16-4-4(B)(2)(d) of the Comprehensive City Zoning Code.

II. STANDARD OF REVIEW

A review of an appeal is a whole record review to determine if the EPC erred:

1. In applying adopted city plans, policies, and ordinances in arriving at the decision;
2. In the appealed action or decision, including its stated facts;
3. In acting arbitrarily, capriciously or manifestly abusive of discretion.

2 The application and City Staff report indicate that the site contains 1.24 acres. However, apparently a survey shows that the site contains 1.37 acres of land.

At the appeal level of review, the decision and record must be supported by a preponderance of the evidence to be upheld. The Land Use Hearing Officer is advisory to the City Council. The Land Use Hearing Officer has authority to recommend that the City Council grant the appeal in whole or in part, deny, or remand the appeal to the EPC for reconsideration if the remand is necessary to clarify or supplement the record, or if the remand would expeditiously dispose of the matter."[3]

III. DISCUSSION

After reviewing the entire record including the applicable rank plans, hearing arguments and testimony, I respectfully recommend that the City Council grant the appeal and reverse the EPC decision approving the zone change. The evidence in the record does not support key findings of the EPC. In addition, I find that the EPC disregarded a pivotal goal and policies in the NVAP. The EPC also misapplied specific rules and policies set forth in City Resolution 270-1980 (R-270-1980) and it ultimately abused its discretion in approving the application. Its action was arbitrary and capricious. I further find that a remand would not cure the deficiencies because the density approved cannot be reconciled with the NVAP.

In their appeal, the Appellants first contend that the spot zone created by the EPC action does not "clearly facilitate realization" of the NVAP or the RGBCP. The Appellants believe that the density of dwelling units (DUs) on the site plan contravene specific policies for density in the area sector plans. Appellants contend that because the project's design furthered other less specific policies and goals in the Comprehensive Plan, the EPC overlooked the specific density

[3] See Rules of the Land Use Hearing Officer adopted by the City Council, February 18, 2004. Bill No. F/S OC-04-6 and codified in Section 14-16-4-4 of the Zoning Code.

constraints of the NVAP. Finally, Appellants argue that contrary to R-270-1980, Section 1. G, economic considerations pertaining to the applicant of the zone change were the determining factor for the zone change.

In their response to the appeal, the City Planning Staff and the applicant's agent take the position that in their assessment of the project, the design and clustering of DUs satisfies the "intent" of the NVAP to preserve the "rural flavor" of the area. Planning Staff and the applicant's agent believe that the project's design and higher density does not adversely impact the area. The bedrock of their reasoning is that the design, including the clustering and special arrangement of housing, and open space, atones for the contrast in density and for the contravening density Goal and policies in the NVAP. Apparently the EPC agreed. A key finding in the EPC decision states:

> The density will be higher than what is allowed on the adjacent properties, but the general layout, reduced height and preservation of the open space on site make the project generally compatible with the area.[4]

It is acknowledged in other key EPC findings that there is a disparity of density, but that the higher density of the project site will be counterbalanced by the project's design. In its official decision, the EPC cited to the affordability of the smaller houses, lower utility costs, smaller footprint, height restrictions of the proposed homes, and that the proposed housing generally offers potential residents a variety of housing options as compared to the existing housing in the area. The EPC determined that these elements of the plan furthers various policies of the City Comprehensive Plan.[5] Overall, the EPC concluded that these features of the project create a "pocket neighborhood" that will "reflect the North Valley's character, and therefore the NVAP's

4 EPC Official Notification of Decision, Finding 9.E., Page 7 of the Record.
5 EPC Official Notification of Decision, Findings, 5-8, Pages 2-6 of the Record.

express low density policies are outweighed. I disagree. The EPC's reasoning is merely a rationalization to ignoring or discounting clearly contradicting policies and a goal to maintain the existing low density in the North Valley. Perhaps more importantly though, because the proposed zone is a spot zone, it is an abuse of the EPC's discretion to disregard or minimize the significance of an express applicable goal and policies in the NVAP. The fact that the proposed zone is a spot zone unmistakably sets a high burden of proof for the applicant, requiring that the EPC ensure that the applicant has shown that the zone change "clearly facilitate[s] realization" of the applicable NVAP. As shown in detail below, the density approved by the EPC, is inconsistent with the NVAP's density goal and policies and therefore does not clearly facilitate realization of the NVAP.

A. <u>The SU-1 Zone Does Not Afford the EPC Discretion to Ignore Rank Plans</u>

In arguments at the LUHO hearing, it was suggested by the applicant and City Planning Staff that the SU-1 zone and the special design of clustered housing shown in the proposed site plan allowed the EPC extra discretion in its evaluation of the development. They essentially suggest that the SU-1 zoning gives the EPC greater freedom to evaluate site plans against various zoning requirements. However, there is no evidence in the Zoning Code for the proposition that the SU-1 zone designation imparts the discretion to overlook applicable rank plan policies in conducting its analyses under R-270-1980. In the City Zoning Code, the SU-1 zone is utilized to create:

> "suitable sites for uses which are special because of infrequent occurrence, effect on surrounding property, safety, hazard, or other reasons, and in which the appropriateness of the use to a specific location is partly or entirely dependent on the character of the site design.[6]

6 Zoning Code §14-16-2-22.

In addition, "[d]evelopment within the SU-1 zone may only occur in conformance with an approved Site Development Plan."[7] It is clear that the purpose of the SU-1 zone is to accommodate sites that are special due to their potential effect on surrounding properties or when the appropriateness of a given project depends upon the site design. The EPC does gain a certain amount of extra discretion, in the context of site design, when it is reviewing a proposed site plan in a proposed special use zone. This is due to the "special" circumstances of the site on which the zone is proposed.[8] Special use zones, however, do not impart or delegate discretion to bypass applicable rules and policies in rank plans or in R-270-1980. Thus, although a SU-1 is proposed, the applicant's proposed SU-1 for PRD uses and site plan must still conform to applicable rank plan goals and policies unless there is express authority otherwise. I can find no authority in the Zoning Code that grants the EPC the discretion to ignore or discount applicable goals and policies of rank plans simply because an SU-1 zone is proposed. Nor can this extra-discretion be read into the Zoning Code to discount the analyses required in R-270-1980. In addition, without express authority otherwise, the stringent analysis of a spot zone under R-270-1980 cannot be minimized simply because the applicant is proposing a SU-1 zone or because the design is different.

B. <u>The Zone Change Does Not "Clearly Facilitate Realization" of the NVAP</u>

All zone changes must satisfy the policies and rules of R-270-1980. R-270-1980, Section 1. I(1) establishes the rule on how the creation of a spot zone is to be judged. It expressly states that a spot zone *"may be approved **only** when...the change **will clearly facilitate realization** of the*

7 Id at §14-16-2-22(A)(1).
8 I note for the City Council, that there is nothing in the record demonstrating that the 1.37-acre site is "special" making it suitable for a special use zone designation.

Comprehensive Plan and any applicable adopted sector development plan or area development plan..." (Emphasis added). The "clearly facilitate realization" standard in R-270-1980, Section 1.I is a more stringent standard than the various other standards of proof in R-270-1980.[9]

The EPC recognized that the SU-1 and PRD zone creates a spot zone on the 1.37 acres of land.[10] Without sufficient demonstration from the applicant or from the City Staff, the EPC concluded that the zone change "will clearly facilitate realization of the Comprehensive Plan and any adopted sector development plan or area development plan."[11] There is no dispute that the NVAP is an applicable rank two area plan. There is substantial evidence in the record that the spot zone does not "clearly facilitate realization" of the density goal and policies of the NVAP.

The goals and policies in the NVAP were identified by the North Valley Citizens' Advisory Task Force. There are twelve general goals and many more policies for achieving those goals in the NVAP. One highly relevant goal in the NVAP concerns density that is clearly applicable to the proposed spot zone. It is a goal of the NVAP to:

> "[p]reserve and enhance the environmental quality of the North Valley Area by: a) **maintaining the rural flavor of the North Valley** b) **controlling growth and maintaining low density development** c) providing a variety of housing opportunities and life styles including differing socioeconomic types d) reducing noise level impacts"[12]

In addition, as stated above, the NVAP has very specific and clear policies on how low density can be facilitated and maintained in the North Valley. There is an entire chapter of the NVAP dedicated to housing and density. Chapter Seven of the NVAP begins with a summary

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9 For example, section 1.A requires proof that a zone change is "consistent with the health...of the City." Section 1.B requires proof that the applicant provide a "sound justification" for the change. Section 1.C, requires proof that the change is not in "significant conflict" with adopted plans. There are other standards as well, but none as stringent as the standard for a spot zone.

10 EPC Decision, Finding 9.I., Page 8 of the record.

11 EPC Decision, Finding J.1., Page 8 of the record.

12 NVAP, Page 5.

identifying cluster developments as a way to accommodate the "rural flavor" and for maintaining the existing low densities in the North Valley. In the NVAP, the "rural flavor" and character of the North Valley is expressed as being more than merely the existing density in the North Valley. In the NVAP, the character of the North Valley is also "the arrangement of homes."[13] Therefore, in the NVAP, the "rural flavor" of the North Valley is defined to include the arrangement of housing and the maintenance of low density developments. The NVAP expressly states that the arrangement of housing defines the rural character of the North Valley more so than density does.[14] Therefore, density alone does not define rural character in the North Valley. Further, cluster housing developments are characterized in the NVAP as a method of achieving the rural flavor of the North Valley.[15] The NVAP clearly encourages clustering of housing as the preferred choice for new housing developments. However, cluster housing developments are advanced in the NVAP because clustering homes is the preferred method for realizing low density, creating open space, and for defining rural character through the arrangement of homes. These elements are the approved manner to preserve the rural flavor, existing low densities envisioned in the plan.[16] The emphasis on design and arrangement of housing is not without a clear purpose. The goal of achieving "rural flavor" and maintaining low density is the reason, or the function, of cluster developments. In short, good design and clustering DUs is the accepted vehicle for achieving and maintaining the existing low density in the North Valley. One is not at the expense of another. Clustering and housing arrangement is not the agent for contravening or ignoring maintaining the existing low density goal.

In addition, although the NVAP describes recommendations for incentives for clustered

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13 NVAP, Page 118
14 Id.
15 Id at 121-123.
16 Id.

developments, maintaining a low DU density by "maintaining lot sizes similar to those of the surrounding neighborhood" is the unwavering principal outcome of clustering and design in the NVAP.[17] Furthermore, although the NVAP specifically encourages cluster developments in the North Valley, cluster developments are distinctly discouraged on tracts that have less than two acres of land. This is regardless of the zone. There is considerable support in the NVAP for this proposition.[18] There is also guidance for keeping densities similar to surrounding areas. The NVAP states:

> "The overall site for clustering new housing should be at least two acres. The number of homes allowed should be at least equal to the number allowed under the existing zoning."[19]

The applicant's site is considerably less than 2-acres in size and the applicant's density on the site is greater than the surrounding area. These are undisputed facts. These results contravene the NVAP's low density goal and policies.

In the NVAP, it is suggested that density incentives and the lot size necessary for clustering need not be rigidly interpreted. However, the NVAP includes an adjustment (an incentive) for lot size and for clustering that caps density at five DU's per acre depending on lot size. Still, two acres is clearly the contemplated minimum necessary in the NVAP for cluster developments regardless of the zone. The EPC's approval of clustering the 12 DUs on the 1.37-acre tract clearly contravenes the NVAP. And the SU-1 zone does not give the EPC discretion to ignore the NVAP or the rigid analysis in R-270-1980 for a spot zone. Because the zone change is a spot zone, the change must "clearly facilitate realization" of the NVAP. (Emphasis added). The 12 DU's proposed on the 1.37-acre tract does not achieve the density policies and goals of the NVAP to

17 NVAP, Page 126.
18 See Pages 118-130 of the NVAP.
19 NVAP, Page 128.

maintain the existing low density for housing developments in the North Valley. The density tied to the zone change cannot be reconciled with the density admonitions in the NVAP. The spot zone is therefore impermissible under R-270-1980.

Confounding the issue, along with its erroneous decision that the zone change will facilitate realization of the comprehensive plan and the area plans, the EPC made a finding that:

> The area of the proposed zone change is different from surrounding land because it could function as a transition between adjacent zones or because the site is not suitable for the uses allowed in any adjacent zone due to traffic or special adverse land uses nearby.[20]

This finding is factually inaccurate because the SU-1 zone and PRD uses shown in the site plan are residential uses. The site is surrounded by residential zones and uses. The zone was a residential zone before it was changed to the higher density SU-1 and PRD zones. Thus, the SU-1 for the residential PRD use does not function as a transition between adjacent zones. The proposed zone change does not change the use categories—only the densities are substantially changed. In addition, the conclusion is superfluous because any analysis of the proposed zone as a "transition between adjacent zones" is inapplicable to the applicant's proposal under R-270-1980. Finally, it was agreed by the applicant's agent that the proposed zone does not function as a transition because the uses are unchanged and are similar to the adjacent uses. The increased density of residential uses within the spot zoned 1.37 acres does not serve as a transition for the surrounding low density residential uses. EPC Finding 9.J.2 was erroneous.

C. <u>There is insufficient Evidence in the Record that Economics Was the determining Factor for the Zone Change</u>

Appellants next contend that economic considerations were the determining factor for the

20 EPC Decision, Finding 9.J.2.

zone change. R-270-1980, Section 1.G. prohibits "economic considerations pertaining to the applicant as the determining factor for a zone change." It is clear that such considerations were a factor for the applicant in proposing the density of the project. However, without considerable conjecture, there is no evidence in the record that economic considerations were the "determining factor" for the proposed zone change. I find that Appellants have not satisfied their burden on this claim.

IV. CONCLUSION

Accordingly, based on all the evidence, I respectfully recommend that the City Council grant the appeal and reverse the decision of the EPC. I find that the EPC erred in applying adopted city plans, policies, and ordinances in arriving at the decision, including its stated facts. The EPC actions were arbitrary, capricious, and manifestly abusive of its discretion. The Appellants have met their burden showing that the EPC erred. The proposed density of 12 DUs for the 1.37 acres of land on the tract contravenes various policies and the density goal of the NVAP. Therefore, the proposed spot zone does not clearly facilitate realization of the NVAP and it should not have been approved.

Steven M. Chavez, Esq.
Land Use Hearing Officer

March 14, 2016

CASE LAW

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ENDORSED
First Judicial District Court

JUL 16 2008

Santa Fe, Rio Arriba &
Los Alamos Counties
PO Box 2268
Santa Fe, NM 87504-2268

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

No. D-0101-CV-2007-01354

VISTA ENCANTADO NEIGHBORHOOD ASSOCIATION, PLACITA DE LA VISTA #2 HOMEOWNER'S ASSOCIATION, MARY ELIZABETH ANDERSON, JOHN L. GARDNER, and ROBERT BLAGG,

Appellants,

vs.

CITY OF SANTA FE and SAFE PROPERTY, LLC,

Appellees.

MEMORANDUM OPINION

This matter comes before the Court on an appeal from the Santa Fe City Council's decision granting SAFE Property, LLC's applications for a General Plan Amendment and Rezoning in Case Numbers M-2005-44 (1034 & 1038 Old Taos Highway General Plan) and A-2005-20 (1034 & 1038 Old Taos Highway Rezoning). Appellants challenge the decision on multiple grounds pursuant to Rule 1-074(Q) NMRA. Having reviewed the whole record and briefing, this Court concludes that the decision is not supported by substantial evidence and is not in accordance with the law. The Council's decision granting SAFE Property's applications is, therefore, reversed.[1]

BACKGROUND

In 1997, the City of Santa Fe granted the division of a 2.179 acre property into two lots, identified as 1034 and 1038 Old Taos Highway. Record on Appeal [hereinafter "RA"], at 9, 31, 46-47, 211-12. Each lot was rezoned to "R-2" at that time. RA, at 9, 31, 46-47. The property was

[1] Appellee Safe Property requested oral argument in this matter. The Court concludes that the issues are adequately addressed in the written submissions; therefore, the request for oral argument is denied.

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classified according to the City's 1999 General Plan for land use as "Residential - Very Low Density." RA, at 14, 31, 45, 170. The R-2 zoning designation signifies "Residential, 2 dwelling units per acre." RA, at 170. Section 14-4.2(A)(1) of the City Code of the City of Santa Fe, New Mexico, (or the "Code") states:

> The . . . R-2 . . . residential districts are intended to be residential areas with low population densities. Certain structures and uses required to serve governmental, educational, religious, noncommercial, recreational and other immediate needs of such areas are permitted outright or are permissible as special exceptions within such districts, subject to restrictions and requirements intended to preserve and protect their residential character.

The "Very Low Density Residential" classification is defined in the City's General Plan as: "1 to 3 units per gross acre depending on slope. On sites with slopes greater than 30 percent, only one unit per existing legal parcel is permitted. The classification mainly applies to detached single-family dwellings." At the time of the lot split and rezoning in 1997, the City placed on the two resulting lots "a restrictive provision that only 1 dwelling plus a guest house could be built on each lot." RA, at 9, 31, 46-47, 319. The restriction was based on the mountainous or difficult terrain characteristics of the area. RA, at 46-47.

In early 2004, Kurt Young, doing business, as SAFE Property, LLC, purchased the lots. SAFE Property applied for a General Plan Amendment and Rezoning, and, "per the direction of the Planning Commission on June 1st, [2006,] . . . held a meeting with representatives from the Vista Encantada Neighborhood Association." RA, at 199. In his undated letter announcing the meeting to "Neighbors," Mr. Young wrote:

> I am writing to let you know that we are having an open house and [Early Neighborhood Notification] meeting this coming week on the property I own next to where my condo is on Old Taos Highway. I have owned the property for the last few years and have struggled to decide what to do with it. Our first idea was to build

> big houses there and that idea while feasible is not desirable by many of the neighbors, so we arrived on the idea of keeping with the area layout and building condos similar to the ones I live in, but more plush.

RA, at 338.

After amending the allowable density it proposed in its applications several times, SAFE Properties ultimately sought rezoning to "RM-10" and an amendment of the General Plan land use designation for the two lots from "Residential - Very Low Density" to "Residential - Medium Density." RA, at 39, 170. The RM-10 zoning designation signifies "Multifamily Residential - 10 dwelling units per acre." RA, at 170. Section 14-4.2(E)(1) of the Code states:

> The RM district regulations are designed to make available, at medium- and high-density levels, a variety of dwelling types to serve a wide range of household needs including but not limited to single-family, two-family, or multi-family dwellings, attached or detached, arranged as conventional subdivisions, zero lot line, clustered, or compound developments. The regulations also allow related uses in keeping with the overall character of the district. It is the purpose of these regulations to distinguish between the RM districts primarily by permitted density.

The General Plan defines "Medium Density Residential as: "7 to 12 units per gross acre. The classification mainly applies to attached single-family housing and multi-family units such as duplexes, triplexes, apartments and condominiums."

Numerous people who own property in the area, including Appellants, opposed the rezoning and General Plan amendment throughout the process. RA, at, *e.g.*, 40-42, 55-128, 146-56, 340-84. After hearing, the Planning Commission recommended, on a vote of three to two, rezoning and General Plan amendments that would have allowed twelve dwelling units per acre "with the caveat that staff obtains a comprehensive set of data to determine what the maximum allowable units would be." RA, at 195. The City Planning Policy Commission subsequently voted four to one to recommend denial of the Project pursuant to the proposed General Plan amendment, with various

commissioners indicating that they did not feel that the proposal met the criteria to amend the General Plan. RA, at , 319, 323.

After the proposed density was reduced to ten dwelling units per acre, the Planning Division Director indicated in a report prepared for the Mayor and City Council that city staff still did not recommend approval of SAFE Property's RM-10 application because it did "not clearly demonstrate that the site is suited for RM-10 zoning" for multiple reasons. RA, at 139, 170-71. Among those reasons, were:

> ....
>
> The decision on these applications must balance the potential benefits of infill housing with potential adverse effects on neighborhood land use patterns and visual character, and on whether the site's terrain is well-suited for multi-family development.
>
> ....
>
> The site was rezoned from R-1 to R-2 in 1997, with a restriction that a maximum of two lots would be allowed on the 2.179-acres. The R-2 zoning was required for the lot split due to density-rounding rules in effect at that time, and on density reduction rules based on sloping topography.

RA, at 171.

At the public hearing before the City Council, a number of people from the neighborhood spoke against the rezoning proposal. RA, at 148-54. SAFE Property representatives spoke on the attributes of its proposed project. RA, at 139-141. People who live in other parts of Santa Fe spoke in support of the project on grounds of promoting affordable housing policies. RA, at 142-47. The Planning Division Director presented the city staff recommendation that staff "does not recommend approval of the RM-10 application as presented to the Council" because materials submitted by SAFE Property "do not clearly demonstrate that the site is suited for RM -10 zoning." RA, at 139.

Also during that hearing, the Planning Division Director indicated that city staff was "uncertain whether compliance [with City standards] will or will not occur," and that "[s]taff doesn't have enough information to make a final determination." RA, at 159.

The City Council ultimately passed a resolution amending "the Future Land Use Diagram of the City of Santa Fe General Plan" to change the two lots "from *Residential - Very Low Density* to designate the area as Residential - Medium Density (7 to 12 units per acre)." *See* RA, at 173-74. The resolution states:

> **WHEREAS,** the city of Santa Fe, New Mexico desires that the Santa Fe area general plan . . . be kept current to reflect changing concerns and conditions; and
>
> **WHEREAS,** pursuant to Section 3-19-9 NMSA 1978, the General Plan may be amended, extended, or supplemented; and
>
> **WHEREAS,** the general plan amendment criteria set forth in Sections 14-3.2(D)(1) and 14-3.2(D)(2) SFCC 2001, have been met; and
>
> **WHEREAS,** reclassification of the subject property would be substantially consistent with the General Plan themes and policies for Land Use (General Plan, Chapter 3) and City Character and Urban Development (General Plan, Chapter 5); and
>
> **NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF SANTA FE** that the Future Land Use Diagram of the General Plan is amended to designate a tract of land for residential - medium density (7 to 12 units per acre), described by a plat of survey . . . .

RA, at 173-74. An ordinance amending the zoning map to "*RM-10 (Residential* - Multiple-Family Residential - 10 Dwelling Units Per Acre)" also appears to have been passed by the City Council. *See* RA, at 176-77 (Bill No. 2007-20 containing ordinance signed by an assistant city attorney on behalf of the City Attorney); RA, at 168-69. Affordable housing conditions were added as an amendment to the motion to adopt Ordinance No. 2007-13. RA, at 168. A "Decision" signed by

the Mayor and City Attorney states: "At the May 9, 2007 public hearing, based upon the Record and the evidence at the hearing, the City of Santa Fe Governing Body determined that the applications for a General Plan amendment and a zoning amendment met the requirements of the City of Santa Fe . . . ." The Decision sets forth the various conditions that were added as amendments, including that "[t]he project is approved for up to nineteen (19) residential units," and that "[t]he project is required to provide affordable housing in accordance with the Santa Fe Homes Program Ordinance."

Appellants subsequently appealed to this Court from the approval of the rezoning ordinance and General Plan amendments that allow a nineteen-unit, multiple residential condominium facility.

DISCUSSION

This Court's review is limited to determining whether the Council acted arbitrarily or capriciously, whether the Council's action is supported by substantial evidence, and whether the Council acted in accordance with the law and within the scope of its authority. *See* Rule 1-074(Q); § 39-3-1.1.D; *Paule v. Santa Fe County Bd. of County Comm'rs*, 2005-NMSC-021, ¶ 26, 138 N.M. 82, 117 P.3d 240, 248; *Atlixco Coalition v. County of Bernalillo*, 1999-NMCA-088, ¶11, 127 N.M.

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To assess whether a decision is supported by substantial evidence, reviewing courts "apply a whole record standard of review . . . looking at all the evidence, favorable and unfavorable, bearing on a decision to determine if there is substantial evidence to support the result." *West Old Town*, 1996-NMCA-107, at ¶ 11, 122 N.M. at 498, 927 P.2d at 532; *accord Bennett v. City Council of Las Cruces*, 1999-NMCA-015, ¶ 20, 126 N.M. 619, 624, 973 P.2d 871, 876; *Watson*, 111 N.M. at 376, 805 P.2d at 643. Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate" to support the conclusions reached by the fact-finder, and is "more than a mere scintilla." *See New Mexico Industrial Energy Consumers*, 2007-NMSC-053, ¶¶ 24, 28, 142 N.M. 533, 168 P.3d at 114 (internal quotations omitted); *accord Santa Fe Exploration Co.*, 114 N.M. at 114, 835 P.2d at 830; *New Mexico Mining Ass'n*, 2007-NMCA-010, at ¶ 30, 150 P.3d at 1001. The reviewing court views the whole record in the light most favorable to the decision, drawing every inference in support of the that decision, while not disregarding conflicting evidence, reweighing the evidence, nor substituting its judgment for that of the agency. *See, e.g., New Mexico Industrial Energy Consumers*, 2007-NMSC-053, at ¶ 24, 142 N.M. 533, 168 P.3d at 113; *Doña Ana Mutual Domestic Water Consumers Ass'n v. New Mexico Public Regulation Comm'n*, 2006-NMSC-032, ¶ 11, 140 N.M. 6, 10, 139 P.3d 166, 170.

Whether a decision is in accordance with the law is reviewed de novo and the reviewing court is not bound by the agency's legal interpretations or conclusions. *See New Mexico Mining Ass'n*, 2007-NMCA-010, at ¶ 11, 150 P.3d at 998. A ruling should be reversed if the deciding body "'unreasonably or unlawfully misinterprets or misapplies the law.'" *Id.* (quoting *Archuleta v. Santa Fe Police Dep't*, 2005-NMSC-006, ¶ 18, 137 N.M. 161, 168, 108 P.3d 1019, 1026).

Resolution of this appeal calls for an examination of "New Mexico's law on rezoning and

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the standards and procedures that apply to rezoning actions." *Cf. Albuquerque Commons Partnership v. City Council*, 2008-NMSC-025, ¶ 23 __P.3d __, 2008 WL 2031414, *6. Purposes of zoning ordinances include protecting comprehensive planning and zoning plans, preserving carefully balanced compromises on which zoning and planning have been based, and enabling residents to rely on predictable, stable land use policies for their area. *West Old Town*, 1996-NMCA-107, at ¶ 17, 122 N.M. at 500, 927 P.2d at 534 (citing *Miller v. City of Albuquerque*, 89 N.M. 503, 506, 554 P.2d 665, 668 (1976). In *Miller*, the Supreme Court of New Mexico adopted a rule that "dictates that the proponent of a zoning change . . . must show that such a change is justified due to either a change in conditions in the community or a mistake in the original zoning." *Albuquerque Commons*, 2008-NMSC-025, at ¶ 25, 2008 WL 2031414, at *6 (relying on *Miller*, 89 N.M. at 506, 554 P.2d at 668. Even when rezoning a property to a less restrictive use, or upzoning, and even when that rezoning is conducted upon the petition of the landowner, the proponent must justify the change in accordance with the *Miller* rule. *See West Old Town*, 1996-NMCA-107, at ¶ 21, 122 N.M. at 501, 927 P.2d at 535; *accord Albuquerque Commons*, 2008-NMSC-025, at ¶¶ 26-27, 2008 WL 2031414, at *7.

A possible alternative to justifying a zoning change pursuant to the *Miller* "change or mistake" rule may be achieved "by demonstrating that the change is more advantageous to the community." *Albuquerque Commons*, 2008-NMSC-025, at ¶ 30, 2008 WL 2031414, at *8. The Supreme Court has explained the type of proof that the "advantageous to the community" alternative would require, stating:

> The proof in such a case would have to show, at a minimum, that "(1) there is a public need for a change of the kind in question, and (2) that need will be best served by changing the classification of the particular piece of property in question as

compared with other available property."

Id. (citation to quotation omitted).

"The characteristic common to these zoning actions [that the Supreme Court has] held must be justified by a change or mistake appears to be that they have focused on specific properties or small groups of properties within an otherwise similarly situated class, restricting or allowing uses in ways that do not apply to the surrounding area or similar areas within the city." *Albuquerque Commons*, 2008-NMSC-025, at ¶ 26, 2008 WL 2031414, at *7; *see also West Old Town*, 1996-NMCA-107, at ¶¶ 17-18, 21, 122 N.M. at 500-501, 927 P.2d at 534-35. In *Albuquerque Commons*, the Court also observed that "in *W. Old Town* . . . our Court of Appeals held that the *Miller* rule applied to the City's approval of an upzoning of a landowner's property when the City 'attempted to limit the effect of the rezoning to [that] property alone as a unique situation." *Albuquerque Commons*, 2008-NMSC-025, at ¶ 27, 2008 WL 2031414, at *7. A targeted rezoning action is known as a "'piecemeal rezoning' and stands in contrast to a 'comprehensive rezoning,' which 'affect[s] a substantial portion of land within the zoning jurisdiction belonging to many landowners.'" *Id.* at ¶ 24, 2008 WL 2031414, at *6 (citation to quotation omitted, alterations in original).

The City's action in this matter would allow a small-scale zoning change directed to one identifiable 2.179-acre property and is not a comprehensive rezoning decision that broadly applies to properties belonging to many landowners within the zoning jurisdiction. *See* RA, at 173-78. "'[I]n amending a zoning code, or reclassifying land thereunder, [a municipal legislative body], in effect, makes an adjudication between the rights sought by the proponents and those claimed by the opponents of the zoning change.'" *Albuquerque Commons*, 2008-NMSC-025, at ¶ 43, 2008 WL, 2031414, at *12 (citation to quotation omitted, alterations in quotation). In that regard, the nature

of the zoning action is quasi-judicial and, among other procedural protections, interested parties are entitled "to a record made and adequate findings executed.'" *Id.* at ¶¶ 32-34, 2008 WL, 2031414, at *9 (citation to quotation omitted, alterations in original). That is, the zoning changes "require specific factual findings relating to the affected properties" that justify the zoning changes pursuant to the *Miller* rule and applicable city laws. *See Albuquerque Commons*, 2008-NMSC-025, at ¶ 32, 2008 WL 2031414, at *9. "The burden is on the proponent of the zone change to establish that the change is justified." *Id.* at ¶ 34. The Supreme Court has found:

> Regardless of the justification, the decision-making body should provide "a clear statement of what, specifically, [it] believes, after hearing and considering all the evidence, to be the relevant and important facts upon which its decision is based," and a full explanation of why those facts led it to the decision it makes. This is critical for facilitating meaningful judicial review of the action, "not for the purpose of substituting judicial judgment for administrative judgment but for the purpose of requiring the [zoning authority] to demonstrate that it has applied the criteria prescribed by . . . its own regulations and has not acted arbitrarily or on an ad hoc basis.

Id. at ¶ 35, 2008 WL, 2031414, at *10 (internal citations omitted, alterations in original).

The requirement of a written decision setting forth the basis for the decision is also required by statute. *Section 39-3-1.1(B)* governs this Court's review and it requires as follows:

> Upon issuing a final decision, an agency shall promptly:
> (1) prepare a written decision that includes an order granting or denying relief and a statement of the factual and legal basis for the order;...

Section 39-3-1.1(B) NMSA.

In the present matter, the City did not provide a clear statement of what it specifically believed to be the relevant facts upon which it based its decision to allow the rezoning, nor explain why those facts led to its decision. The City's general statement that "based upon the Record and

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the evidence at the hearing, the City of Santa Fe Governing Body determined that the applications for a General Plan amendment and a zoning amendment met the requirements of the City of Santa Fe," is inadequate. The City's general assertion in its newly passed resolution that "the general plan amendment criteria set forth in Sections 14-3.2(D)(1) and 14-3.2(D)(2) SFCC 2001, have been met," is, likewise, inadequate. *See id.*; *compare* RA, at 173-74. Appellees argue that "Appellants could have requested, or even proposed, the issuance of a document containing 'Findings'." Joint Response, at 4. However, they fail to cite any authority for their proposition that the onus for making findings is on anyone other than the decision-making body, and the law plainly indicates otherwise. *See Albuquerque Commons*, 2008-NMSC-025, at ¶¶ 32-35, 2008 WL 2031414, at *9-10. The City's granting of the applications for rezoning and amending the General Plan without a specific basis for the decision was not in accordance with the law.

Even if this Court were to look past the lack of findings and, as Appellees contend, search the record to imply findings supporting the decision, the decision to grant the applications for rezoning and amending the General Plan is still not supported by substantial evidence. In their attempt to extract substantial evidence from the record in support of the decision, Appellees rely almost entirely on the City's policies to promote affordable housing. *See* Joint Response, at, *e.g.*, pp. 3-6. However, their arguments are without merit. Appellees essentially attempt to justify a zoning change to a specific 2.179-acre property by applying a general condition–the need for affordable housing throughout Santa Fe–in an ad hoc way. Following Appellees' suggested approach would seriously undermine all of the City's zoning ordinances. That is, because there is a policy of promoting affordable housing in Santa Fe, *all* zoning would be subject to change on a piece-meal basis. The City's approach would undermine the purposes of zoning ordinances–

protecting comprehensive planning and zoning plans, preserving carefully balanced compromises on which zoning and planning have been based, and enabling residents to rely on predictable, stable land use policies for their area. Appellees' reliance on a general policy does not justify the zoning change according to the *Miller* criteria. *See Albuquerque Commons*, 2008-NMSC-025, at ¶ 51, 2008 WL 2031414, at *14; *cf. West Old Town*, 1996-NMCA-107, at ¶ 26, 122 N.M. at 503, 927 P.2d at 537. There is no indication that the City has intended to comprehensively revise its entire zoning plan. *See, e.g.*, §§14-4.1, 14-4.2 SFCC; RA, at 176-77. "'The City may not ignore or revise its stated policies and procedures for a single decision, no matter how well-intentioned the goal may be.'" *Cf. Albuquerque Commons*, 2008-NMSC-025, at ¶ 51, 2008 WL 2031414, at *14 (quoting *West Old Town*, 1996-NMCA-107, at ¶ 26, 122 N.M. at 503, 927 P.2d at 537).

Appellees also seem to suggest that the "conditions" contained in the City's decision constitute findings. Joint Response, at 4. However, the conditions are just that, conditions, and only serve to emphasize the previous point. *See generally* RA, at 165. Those conditions merely state that "[t]he project is required to provide affordable housing in accordance with the Santa Fe Homes Program Ordinance," and set forth the percentages of units that must be affordable. The conditions do not constitute justifications pursuant to the *Miller* rule or zoning ordinances and, moreover, they underscore the fact that neither the *Miller* criteria nor relevant Code provisions were considered in the rezoning action. There is no substantial evidence in the record to support implicit findings of change or mistake justifying the rezoning proposal.

Appellants rely on affordable housing policies as a basis for concluding that the zoning change is justified due to a change in conditions in the community or a mistake in the original zoning. This argument necessarily presumes that affordable housing was not an issue when the area

was originally zoned. *Cf. Albuquerque Commons*, 2008-NMSC-025, at ¶¶ 25-27, 2008 WL 2031414, at *6-7 (relying on *Miller*, 89 N.M. at 506, 554 P.2d at 668); *West Old Town*, 1996-NMCA-107, at ¶¶ 17, 22-23, 122 N.M. at 500-02, 927 P.2d at 534-36. However, the record contains no basis for finding the lack of affordable housing only emerged as a policy issue after the area was originally zoned, and the General Plan shows that affordable housing was indeed a concern at least by 1999. *See* § 3.1, SF General Plan (April 1999).

Appellees also argue that "[t]he construction of a major highway cloverleaf directly adjacent to the Project Site makes the site substantially less suitable for two single family dwellings," and that "[t]he lands could not be appropriately sold or developed as single family homes, with the interchange so close." Joint Response, at 5 (citing statement of Jennifer Jenkins, the land use consultant for SAFE Property, RA, at 140). The cited reference to the highway change was a comment by SAFE Property's land use consultant that "the most significant change which definitely has impacted the subject property is the 599 off ramp, so it has changed dramatically." RA, at 140. Appellees' argument that rezoning in order to allow more dense development is justified because, "with the interchange so close," development of single family homes is now inappropriate, is not supported by any implicit findings or evidence in the record and would require unreasonable inferences to be made. In Mr. Young's letter to the "Neighbors," he specifically stated that the construction of single family homes was "feasible." In addition, the record contains no information as to whether the highway or highway improvements were unforeseen at the time the property was rezoned to the R-2 classification. There is no substantial evidence in the record that the proponent of the change demonstrated that the ramp caused a change in conditions not present when the area was zoned at the R-2 classification, or that the ramp now makes the 2.179- acre parcel unsuitable

for R-2 zoning. *See West Old Town*, 1996-NMCA-107, at ¶¶ 17, 22-23, 122 N.M. at 500-02, 927 P.2d at 534-36.

Appellees also suggest that the rezoning should be upheld based on implicitly finding that "'a different use category is more advantageous to the community, as articulated in the comprehensive plan or other city master plan.'" Joint Response, at 5 (citation omitted in original). However, that argument fails as well. Although the record arguably shows that there is "a public need for a change of the kind in question," it does not show that the "need will be best served by changing the classification *of the particular piece of property in question as compared with other available property.*" *Cf. Albuquerque Commons*, 2008-NMSC-025, at ¶ 30, 2008 WL 2031414, at *8 (emphasis added); *see also West Old Town*, 1996-NMCA-107, at ¶ 25, 122 N.M. at 502, 927 P.2d at 536. Appellants indicate that one councilor "referred to General Plan language for standards to justify a change in zoning" that states: "'No reasonable locations have been provided for certain land uses for which there is a demonstrated need, or the applicant must demonstrate that the requested land use designation will allow for infill development in addition to supporting affordable housing in this portion of the City.'" Joint Response to Amicus Curiae, at 6 (quoting RA, at 157). However, that councilor's comments indicate that the criterion, which provides information to help assess the second "advantageous to the community" element, had not been met. RA, at 157. Specifically, the councilor stated: "The Northwest Quadrant will provide a whole lot more affordable housing than this one will. The Northwest Quadrant will provide better planning and a sustainable development. [The councilor] is unsure that he agrees with the applicant that this is the only place where this can be done, or that it has to be done here." *Id.* The record does not support any implicit finding that this particular 2.179 acre parcel serves the public need for affordable housing better than other

available properties. The affordable housing issues on which Appellants generally rely for their "advantageous to the community" argument provide no basis for finding this property uniquely suited to serve that need as compared to other available properties. As previously indicated, following Appellees' reasoning would undercut the purpose of zoning ordinances and all of the City's zoning ordinances would be rendered meaningless. *See generally Albuquerque Commons*, 2008-NMSC-025, at ¶¶ 25, 30, 34, 58, 2008 WL 2031414, at *6, 8, 9, 16; *West Old Town*, 1996-NMCA-107, at ¶¶ 17, 25, 122 N.M. at 500, 503, 927 P.2d at 534, 536.

In addition to following the *Miller* rule, or its alternative, in rezoning a property and amending planning provisions, the City must follow its own rules and policies, including the City's ordinances and resolutions that have been passed "with all the formalities of an ordinance." *See Albuquerque Commons*, 2008-NMSC-025, at ¶ 28, 2008 WL 2031414, at *7; *West Old Town*, 1996-NMCA-107, at ¶¶ 12-13, 122 N.M. at 499, 927 P.2d at 533.

Here, the City failed to consider criteria set forth in its own Code provisions. For instance, Section 14-3.2(C)(3) states:

> *Before taking action on any proposed General Plan amendment*, the Governing Body shall hold a public hearing. After reviewing the staff report and recommendation of the Planning Commission, and any evidence obtained at the public hearing, the Governing Body *shall, based on the approval criteria set forth in paragraph (D) below*, take final action to approve, approve with conditions, or deny the proposed General Plan amendment.

(Emphasis added). Subparagraph (1) of Paragraph (D)'s "Approval Criteria" states "All proposed amendments to the General Plan *shall be reviewed for compliance with*" five criteria. § 14-3.2 SFCC. Subparagraph (2) of Paragraph (D) sets forth "Additional Criteria for Amendments to Land Use Policies." *Id.* Language in the preface of Section 14-3.2(D)(2) suggests that proposed

amendments to the General Plan *must* comply with Section 14-3.2(D)(1)'s general approval criteria. That language refers to the previous Subparagraph (1) and states: "In addition to *complying with* the general criteria set forth above . . . ." § 14-3.2(D)(2) SFCC (emphasis added).

In this matter, the staff report to the Planning Commission states that "Section 14-3.2 SFCC 1987 specifies criteria for evaluating amendments to the General Plan," but only instructed the Planning Commission on what the "applicant must demonstrate," rather than asserting that the applicant had indeed satisfied the criteria. RA, at 47-48. Moreover, there are no findings indicating that the City Council reviewed the proposed amendment to the General Plan for compliance with criteria set forth in Section 14-3.2(D)(1) of the Code, and the record gives no indication that the Council made any determinations on the specific approval criteria or that the proposed amendment complied with the criteria. *See* RA, at 138-39, 153-69. Consequently, the Council's approval of the General Plan amendment was and not in accordance with the law. *See Albuquerque Commons*, 2008-NMSC-025, at ¶ 35, 2008 WL 2031414, at *10.

In addition, the Code sets forth procedures for rezoning. "Substantive changes to the official zoning map shall only be made as the result of action by the Governing Body related to the zoning change, and following the prescribed procedures for such action as described in this chapter." § 14-4.1(F)(4)(b) SFCC. Section 14-3.5(B)(4) of the Code states:

> All proposed rezonings shall be submitted to the Planning Commission for study and recommendation. The Planning Commission shall review and act upon all proposed rezonings at a public hearing. All action taken by [the Planning C]ommission on General Plan amendments shall be recommended to the Governing Body. The Planning Commission *shall make complete findings of fact on all applications* that would require land use amendments including such due process issues as may exist.

(Emphasis added). Before the City Council acts on any proposed rezoning, it must review the staff

report and recommendation of the Planning Commission, along with any evidence obtained at the public hearing and *"shall, based on the approval criteria set forth in paragraph (C)"* of Section 14-3.5, take final action. (Emphasis added). Paragraph (C) sets forth the various "Approval Criteria" by which the Planning Commission is to study rezoning proposals and on which the City Council shall base actions it takes on rezoning proposals. § 14-3.5(B)(4)-(5) & (C).

The record in this matter does not include any factual findings made by the Planning Commission or indicate that the City Council considered any such findings. *See* RA, at 138-39, 157-69; *compare* § 14-3.5(B)(4) & (C). The staff report to the Planning Commission sets forth the various rezoning criteria but primarily indicates that "the applicant states" its proposal was consistent with the criteria, and, notably, staff did not conclude that the applicant had satisfied the criteria. RA, at 49-50. The staff report to the City Council sets forth some criteria that must be considered but indicates that the criteria had not been met at the time the memorandum was prepared. RA, at 139, 170-71. *In addition, the record shows that staff had not received sufficient information to evaluate* the proposal either when it prepared its report or at the time of the public hearing before the City Council. RA, at 159, 170-71. As with its action on amending the General Plan, there are no findings indicating that the City Council reviewed the proposed rezoning for compliance with criteria set forth in Section 14-3.5(C) of the Code, and the record gives no indication that the Council made any determination on any of the approval criteria or that the proposed rezoning complied with the criteria. The Council's approval of the rezoning was, therefore, not in accordance with the law. *See Albuquerque Commons*, 2008-NMSC-025, at ¶ 35, 2008 WL 2031414, at *10.

CONCLUSION

Based on this Court's analysis of the whole record, the Court finds that the City's decision

granting of SAFE Properties' applications to rezone and amend the General Plan is not supported by substantial evidence in the record and is not in accordance with the law. The approval of the rezoning and General Plan Amendment is, therefore, invalid, and the decision of the City Council is reversed.

Counsel for Appellant is directed to prepare a Final Order consistent with this opinion, submit it to opposing counsel for approval as to form, and then, no later than thirty (30) days from the date this opinion is filed, to the Court for entry.

JAMES A. HALL
DISTRICT JUDGE
DIVISION II

Copies to:

Karl H. Sommer
Joseph M. Karnes
P.O. Box 2476
Santa Fe, NM 87504-2476

Frederick M. Rowe
787 Stagecoach Circle
Santa Fe, NM 87501

Daniel Yohalem
1121 Paseo de Peralta
Santa Fe, NM 87501

Frank D. Katz
City Attorney
City of Santa Fe
P.O. Box 909
Santa Fe, NM 87504-0909

David S. Campbell
Vogel, Campbell & Blueher, PC
6100 Uptown Blvd NE, Suite 500
Albuquerque, NM 87110

DOCUMENTS FROM 2015
ZONE CHANGE APPLICATION

GGNA-EXHIBIT P

City of Albuquerque
SOLID WASTE MANAGEMENT DEPARTMENT (SWMD) TRANSFER STATION TRAFFIC IMPACT ANALYSIS REPORT

Summary

September 2015

Prepared for:

City of Albuquerque
New Mexico Department of Transportation
Bernalillo County

Prepared by
Wilson & Company
4900 Lang Avenue, NE
Albuquerque, NM 87109
505-348-4000
Fax 505-348-4055
12-100-216-03 / 14-100-132-00

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Received
9/16/15

1.0 SUMMARY

This report was prepared in conformance with the Traffic Impact Analysis (TIA) guidelines established by Bernalillo County Public Works Division (BCPWD) in cooperation with the New Mexico Department of Transportation (NMDOT) and City of Albuquerque. It presents information relating to potential traffic impacts associated with the redevelopment of the existing City of Albuquerque Solid Waste Management Department (SWMD) site located on the southeast corner of the intersection of Comanche Road and Edith Boulevard. Redevelopment will include the addition of a new Transfer Station and other site improvements.

a. Purpose and Objectives

The purpose of this TIA is to evaluate potential impacts of the proposed reconfiguration of the existing SWMD facility and addition of the new Transfer Station. This report also presents a summary of findings related to the analysis of full build-out of the SWMD site with the new Transfer Station and other improvements anticipated to be completed by the Year 2018.

b. Site Location and Study Area

The SWMD site is located at 4600 Edith Boulevard in Albuquerque, New Mexico, on the southeast corner of the intersection of Comanche Road and Edith Boulevard. The study area and intersections relevant to this TIA were defined based on input from the City of Albuquerque, NMDOT, and Bernalillo County. The intersections selected for analysis include:

City of Albuquerque/Bernalillo County
Griegos Road & 4th Street
Griegos Road & 2nd Street
Griegos Road/Comanche Road & Edith Boulevard

NMDOT
Comanche Road & I-25 Pan American Frontage Road S
Comanche Road & I-25 Pan American Frontage Road N

The study area and location of key intersections are shown in **Figure 1**.

c. Brief Description of the Development

The proposed development involves redevelopment of the existing City of Albuquerque SWMD site. The site currently has several buildings and appurtenances including an administration building, vehicle maintenance facilities, fuel island, storage structures and yard for bins and other equipment, parking lots for employees, and recycling drop-off bins; as well as parking for all solid waste and recycling collection vehicles and service vehicles.

X INTERSECTION SUBJECT TO TIA

STUDY AREA

FIGURE 1

WILSON & COMPANY

The proposed site will include a Transfer Station/Convenience Center building, Administration building, Vehicle Maintenance building, Household Hazardous Waste building, parking structure, scalehouse, parking for employees and collection (solid waste and recycling) vehicles, parking for service vehicles, bin repair area, and Recycling Drop-Off area.

Access to the existing SWMD site currently is provided via two driveways. The collection truck and fleet storage and maintenance area is accessed via Comanche Road on the north side of the site, approximately 425 feet east of Edith Boulevard. The second access driveway serves the administrative offices. It is located on Edith Boulevard on the west side of the site, approximately 550 feet south of Comanche Road. The proposed reconfiguration will be accomplished in a single phase, and it is anticipated to be complete in 2018.

d. Approved Scope

The analysis presented herein was conducted in conformance with the Project Scoping Report approved by BCPWD, City of Albuquerque and NMDOT.

e. Conduct of the Study

This report was prepared in conformance with TIA guidelines established by BCPWD. These guidelines require preparation of a TIA, when proposed development actions will result in the generation of 250 additional daily or 25 additional peak-hour trips.

1) Principal Assumptions Used in the Study

- A copy of the TIA guidelines is provided in **Appendix A.**

2) Resources Used in the Study

- The *Highway Capacity Manual, Special Report 209, Updated 2010* (HCM 2010).

3) Traffic Monitoring or Other Field Data Collected for the Study

Peak-hour turning movement counts were collected December 4, 2013, at the following locations:

- Griegos Road & 4th Street
- Griegos Road & 2nd Street
- Griegos Road/Comanche Road & Edith Boulevard.

Additional peak-hour turning movement counts were collected on December 12, 2013, at the following locations:

- Comanche Road & I-25 Pan American Frontage Road S
- Comanche Road & I-25 Pan American Frontage Road N.

The counts covered the AM (6:30–9:30), Mid-Day (11:00-1:30) and PM (3:00-6:30) peak periods. Count data is included in **Appendix B**.

f. FINDINGS AND/OR CONCLUSIONS

Traffic volumes on the adjacent street system were analyzed for weekday AM, Mid-Day, and PM peak periods. Analyses results for existing traffic operations at study area intersections indicate an acceptable Level of Service (LOS) currently is being attained at each intersection with the exception of 4th Street/Griegos Road intersection. This intersection currently operates at LOS F in the PM peak-hour, and it is forecast to operate at LOS F during the PM peak period under the No-Build and With Project conditions, with an intersection delay of 102.9 seconds. The intersection delay does not increase with the addition of project traffic, because no new project trips are expected to enter this intersection during the PM peak period. Analysis results also indicate additional traffic generated following completion of the reconfiguration of the SWMD site in 2018 will not have impacts on forecast year 2018 traffic operations.

CITY of ALBUQUERQUE
EIGHTEENTH COUNCIL

COUNCIL BILL NO. R-09-225 ENACTMENT NO. R-2009-077

SPONSORED BY: Ken Sanchez by request

RESOLUTION

ESTABLISHING ONE-YEAR OBJECTIVES FOR THE CITY OF ALBUQUERQUE IN FISCAL YEAR 2010; TO MEET FIVE-YEAR GOALS.

WHEREAS, Section 4-10(b) of the City Charter specifies that the Council shall annually review and adopt one-year objectives related to the five year goals for the City, which goals and objectives are to serve as a basis for budget formulation and other policies and legislation; and

WHEREAS, on August 1, 1994 the Council adopted what became Ordinance Enactment 35-1994 revising the goals and objectives process, and on August 19, 1994 the Mayor approved it; and

WHEREAS, on October 20, 1997 the Council amended Enactment 35-1994, revising the goals and objectives process (Enactment Number 39-1997), and on November 10, 1997, the Mayor approved it; and

WHEREAS, on April 25, 2001 the Council repealed Chapter 14, Article 13, Part 3 and amended Chapter 2, Article 11 of ROA 1994, adapting the process for the establishment of Five Year Goals and Annual Objectives, as part of the annual budget process; and

WHEREAS, the Mayor and Council adopted five-year goals for the City (R-06-137; Enactment Number 122-2006), and are prepared to adopt one-year objectives for the City for Fiscal Year 2010 (FY/10).

BE IT RESOLVED BY THE COUNCIL, THE GOVERNING BODY OF THE CITY OF ALBUQUERQUE:

Section 1. That the City of Albuquerque adopts the following one-year objectives for FY/10, grouped under the eight five-year goals of the City.

HUMAN AND FAMILY DEVELOPMENT GOAL: People of all ages have the

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opportunity to participate in the community and economy and are well sheltered, safe, healthy, and educated.

OBJECTIVE 1. Using 2009 GO Bond funds, increase the Library's digital book collection by 5% from 3,100 digital books in FY/09 to 3,255 digital books by the end of FY/10. Report results in the Performance Plan. (CSD/Library)

OBJECTIVE 2. Develop a training program for Neighborhood Associations to provide them with resources and information to assist elderly neighbors to remain in their neighborhoods and Age in Place. The program will be piloted in up to 5 Neighborhood Associations and results will be reported to the Mayor and City Council by the end of FY/10. (DSA and Planning)

OBJECTIVE 3. Utilizing the data collected from the 2008 Albuquerque Progress Report, Indicator: 8.1, "Seniors Below the Poverty Level," collaborate with the COA/Budget Office to develop a community perception survey for the Department of Senior Affairs. Assess city residents' (50+) awareness of the Department of Senior Affairs' current services, satisfaction level and needs of the community that are not being met. Based on the survey results, assess program responsiveness; submit report detailing findings and recommendations to the Mayor and City Council by the end of FY/10. (DSA, Senior Well Being)

OBJECTIVE 4. Improve and upgrade the Department of Senior Affairs website to include a systemized method to collect and maintain information; investigate the feasibility of including on-line center membership and class registration and utilization of credit cards. Implement new collection/maintenance system and make recommendations regarding on-line registrations and credit cards to the Mayor and City Council, by the end of second quarter, FY/10. (DSA, Senior Well Being)

OBJECTIVE 5. Monitor Department of Senior Affairs Capital Improvement Projects to include breaking ground on Phase I renovation construction and landscape of North Valley Senior Center to ensure project is on schedule and within budget. Select architect to begin design development of building improvements to the Barelas and Highland Senior Centers. Submit

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status report to the Mayor and City Council by the end of FY/10. (DSA, Senior Well Being)

OBJECTIVE 6. Begin construction on the John Marshall Senior Kitchen Replacement in the summer of FY/10 with an estimated completion by summer FY/11. Submit status report to the Mayor and City Council by the end of FY/10. (DSA, Senior Well Being)

OBJECTIVE 7. Implement the new ABC food inspection program, using existing resources and additional revenues developed through the program. Implementation will include training for health inspection staff & food establishment owner/operators and hiring of additional health inspectors, as revenues permit. Submit a report to the Mayor and City Council by the end of FY/10. Report results annually in the Performance Plan. (EHD, Consumer Health)

OBJECTIVE 8. Using existing CIP funds, replace the drains in all swimming pools by the end of FY/10 to comply with the new federal act. Submit a status report to the Mayor and City Council by the end of FY/10. (PRD, Aquatics)

OBJECTIVE 9. Contingent on funds to be appropriated in the FY/10 General Fund Budget, execute a contract with the Roadrunner Food Bank for operational support. Provide a report to the Mayor and City Council by the end of the first quarter of FY/10. The report shall include the status of the contract, how the City funds will be used and how services will be improved or expanded. (DFCS, Offer Health and Social Services)

PUBLIC SAFETY GOAL: Citizens are safe, feel safe and secure, and have trust and shared responsibility for maintaining a safe environment.

OBJECTIVE 1. Develop a plan to achieve CALEA accreditation for APD's Communications Division in order to reach administrative and operational goals, as well as to provide direction to personnel. Provide a status report to the Mayor and City Council by the end of the second and fourth quarters of FY/10. (APD, Communications and Records)

OBJECTIVE 2. Develop a Radio Frequency infrastructure project that will provide police personnel with wireless access to City systems so that officers can utilize police databases that are currently unavailable to their

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mobile computers. Provide a status report to the Mayor and City Council by the end of the second and fourth quarters of FY/10. (APD, Communications and Records)

OBJECTIVE 3. Coordinate with the FBI to establish a digital forensics laboratory where highly trained certified examiners conduct forensic examinations of digital media. Provide a status report to the Mayor and City Council by the end of the second and fourth quarters of FY/10. (APD, Investigative Services)

OBJECTIVE 4. Create a central database where all APD employee accomplishments and advanced training certificates will be stored. Partner with the Bernalillo County Sheriff's Office to identify a program to suit the purpose and implement the process and program by the end of FY10. Provide a status report to the Mayor and City Council by the end of FY/10. (APD, Neighborhood Policing)

OBJECTIVE 5. Increase participation of community/business partners working with APD to address crime and public safety issues that impact the City's business community. Provide a status report to the Mayor and City Council by the end of FY/10. (APD, Officer and Department Support)

OBJECTIVE 6. Construct an APD 6th Area Command facility on the northwest corner of Ellison Road and Cibola Loop NW that meets Leadership in Energy and Environmental Design (LEED) Green Building Rating System criteria. Provide a status report to the Mayor and City Council by the end of the second and fourth quarters of FY/10. (APD, Officer and Departmental Support)

OBJECTIVE 7. Relocate APD's Prisoner Transport Unit to a larger facility in order to expand the services that the unit provides; to become a "one-stop shop" for bookings and prisoner transportation. Expand service hours and staffing as appropriate. Report pertinent performance measures in the Performance Plan. Submit a status report to the Mayor and City Council by the end of the second quarter FY/10. (APD, Officer and Departmental Support)

OBJECTIVE 8. In order to identify and develop a solution for the high number of calls for service and nuisance properties, create a database of problem locations and develop strategies to address the problems within a community policing framework. Submit a status report to the Mayor and City

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Council by the end of the fourth quarter FY/10. (APD, Officer and Departmental Support)

OBJECTIVE 9. Complete the renovation and expansion of the East Side Animal shelter facilities, including a veterinary clinic, an adoption-processing area, and modernized animal displays and housing. Submit a report to the Mayor and City Council by the end of the third quarter of FY/10. (AWD and DMD)

OBJECTIVE 10. Increase in-house spay/neuter surgeries by 95 percent from 5,000 in FY/09 to 9,750 in FY/10, then increase by 33 percent to 13,000 in FY/11. Report the results in the City's Performance Plan and provide status reports to the Mayor and City Council at the end of FY/10 and FY/11. (AWD, Animal Welfare)

OBJECTIVE 11. Work with City Council to acquire land for the reconstruction of Fire Station 7 at an alternate site. Fire Station 7, located at 47th and Central NW, was originally built in 1951 to house a single engine company; it was later expanded to include apparatus and living space for a rescue company. The station has become one of the busiest in the city, and the current property has no room for needed expansion. Report progress to the Mayor and City Council by the end of fourth quarter FY/10. (FIRE, Emergency Response)

PUBLIC INFRASTRUCTURE. Ensure that all existing communities are adequately and efficiently served with well planned, coordinated, and maintained infrastructure. Ensure that new development is efficiently integrated into existing infrastructures and that the costs are balanced with the revenues generated.

OBJECTIVE 1. Continue construction of the Terminal Optimization project, which includes reconstruction of food and beverage areas, enlarge and modernize restrooms; enlarge passenger hold rooms; enhance special systems; and modify communication center. Submit a status report to the Mayor and City Council by the end of FY/10. (AVI, Airport Operations, Maintenance, Security)

OBJECTIVE 2. Complete the reconstruction and rehabilitation of the East Terminal Apron by second quarter of FY/10. Submit status reports to the

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Mayor and City Council at the end of 3rd and 4th quarters of FY/10. (AVI, Airport Operations, Maintenance, Security)

OBJECTIVE 3. Begin reconstruction and rehabilitation of the South General Aviation Ramp by end of FY/10. Submit a status report to the Mayor and City Council by the end of FY/10. (AVI, Airport Operations, Maintenance, Security)

OBJECTIVE 4. Begin the construction of the Bear Canyon Arroyo Pedestrian Bridge over I-25. Report progress to the Mayor and City Council by the end of fourth quarter FY/10. (DMD, Storm-Transport)

OBJECTIVE 5. Begin the construction of the I-40 Pedestrian and Bicycle Bridge over the Rio Grande. Report progress to the Mayor and City Council by the end of fourth quarter FY/10. (DMD, Design Recovered Storm Drainage and Transport)

OBJECTIVE 6. Review FY/10 bridge inspection reports provided by the NMDOT and develop a priority listing for both maintenance and contract projects. Report progress to the Mayor and City Council by the end of fourth quarter FY/10. (DMD, Street Services)

OBJECTIVE 7. Utilizing Congestion Mitigation and Air-Quality (CMAQ) funding, and other additional revenue, if available, extend Rapid Ride service along Central Avenue east of Wyoming. Report progress to the Mayor and City Council by the end of fourth quarter, FY10. (Transit, ABQ Ride)

OBJECTIVE 8. Utilizing existing or available revenue or funding, develop a phased timetable for land acquisition, bidding, contract award and proposed construction contract for the development of a Central and Unser Park and Ride Southwest Transit Center. This facility will act as a major intermodal interchange for several routes, provide private vehicle parking, and secure bicycle storage. Report timetable, and achievement of land acquisition along with other progress to the Mayor and City Council by the end of FY10. (Transit, ABQ Ride)

OBJECTIVE 9. Develop a plan to improve Security at all park and ride facilities, bus stops and bus routes, and implement the plan. Report improvement in the Performance Plan. Report implementation of the plan and progress to the Mayor and City Council by the end of second quarter, FY10.

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(Transit, ABQ Ride)

OBJECTIVE 10. Reduce the number of customer service complaints received by 5% through better trained staff, increased security at park and rides, bus stops and routes and more on time routes. Continue to make improvements to the automated announcement systems, driver training programs and ADA compliance. Report progress to the Mayor and City Council by the end of second quarter, FY10, and in the Performance Plan, beginning second quarter FY/10. (Transit, ABQ Ride)

SUSTAINABLE COMMUNITY DEVELOPMENT. Guide growth to protect the environment and the community's economic vitality and create a variety of livable, sustainable communities throughout Albuquerque.

OBJECTIVE 1. Develop two new off-leash dog exercise areas. Report progress to the Mayor and City Council by the end of fourth quarter FY/10. (DMD, Design Recovered Parks and CIP)

OBJECTIVE 2. Complete phase 4 (Segment D) of Big I Landscaping. Report progress to the Mayor and City Council by the end of fourth quarter FY/10. (DMD, Design Recovered Parks and CIP)

OBJECTIVE 3. Using existing resources, manage the upgrade of the current point-of-sale and scheduler system used by the Aquatics, Golf, Recreation Services, and Strategic Support Divisions to improve financial management, accountability, customer service, and marketing of the Department's services. Complete the upgrade and submit a report to the Mayor and City Council by the end of FY/10. (PRD, Strategic Support)

OBJECTIVE 4. With existing resources, amend the West Side Strategic Plan and the Rio Bravo, Tower/Unser, and West Route 66 Sector Development Plans to incorporate policies and regulations for developing Complete Neighborhoods and Interconnected Transportation Systems, per the adopted Southwest Albuquerque Strategic Action Plan. Submit the amended plans in a report to the Mayor and City Council by the end of the 2nd quarter, FY/10. (Planning, Community Revitalization)

OBJECTIVE 5. Prepare amendments to the Comprehensive Plan to provide for green and LEED development, Complete Neighborhoods, transit-oriented development, and healthy environments. Submit the amendments in

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a report to the Mayor and City Council by the end of FY/10. (Planning, Community Revitalization)

OBJECTIVE 6. Using existing resources, investigate methods of planning and designing at the micro level which could include a process for developing Activity Centers and Transit Corridors. Submit a report to the Mayor and City Council by the end of the 2nd quarter, FY/10. (Planning, Community Revitalization)

OBJECTIVE 7. Develop a systematic process that includes regular coordination with CIP staff to manage and implement CIP projects that are adopted in various sector development plans. Submit a report to the Mayor and City Council by the end of the 2nd quarter, FY/10. (Planning, Community Revitalization)

ENVIRONMENTAL PROTECTION and ENHANCEMENT. Protect and enhance Albuquerque's natural environments - its mountains, river, bosque, volcanoes, arroyos, air, and water.

OBJECTIVE 1. Construct three solar projects in support of airport sustainability management and renewable energy efforts. Projects will be located within the Sunport vicinity and will include an electric car charging system, solar collect HVAC and photovoltaic system for power generation. Submit a report to the Mayor and City Council by the end of FY/10. (AVI, Airport Operations, Maintenance, Security)

OBJECTIVE 2. Implement the following elements of the Aviation Department Sustainability Management System: convert cleaning supplies to all green products, establish a peak energy consumption saving program; and establish an airport wide recycling program. Provide a report on progress to the Mayor and City Council by the end of FY/10. (AVI, Airport Operations, Maintenance, Security)

OBJECTIVE 3. Open Refugium Phase II for holding and rearing of Marine species and native aquatic species for the purposes of education, conservation and research by spring of 2010. Submit a report to the Mayor and City Council by the end of third quarter, FY/10. (CSD, BioPark)

OBJECTIVE 4. Develop and produce a 5-7 minute coral reef conservation special effects movie to be shown in the Albuquerque Aquarium

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Theater by winter of 2010. Submit a report to the Mayor and City Council by the end of third quarter, FY/10. (CSD, BioPark)

OBJECTIVE 5. Apply for reaccreditation by Association of Zoos and Aquariums in March 2010 and prepare for Accreditation inspection. Accreditation will be reviewed and submitted by AZA in Sept. 2010. Submit a report to the Mayor and City Council by the end of third quarter, FY/10. (CSD, BioPark)

OBJECTIVE 6. Create and construct environmentally sound garden to display roses suitable for New Mexico climate. This garden will include education/conservation learning area, which will feature the Guadalajara Sister City sculpture by local artist Francisco "Sonny" Rivera. Open in fall 2009. Submit a report to the Mayor and City Council by the end of second quarter, FY/10. (CSD, BioPark)

OBJECTIVE 7. Monitor Department of Senior Affairs vehicle fuel usage and efficiency; facility electric, gas, and water consumption to track reduction rates; measure quantity of recycled waste in support of the Mayor's Administrative Sustainability Priority. Utilize COGNOS and the Energy Star Portfolio Manager software to track and report progress. Assess program effectiveness at mid-year; submit report detailing findings and recommendations to the Administration and City Council by end of fourth quarter, 2010. (DSA, Strategic Support)

OBJECTIVE 8. Using existing capital resources, by the end of FY/10, develop and open for public use at least two new trailheads with parking areas, 4 miles of paved trail, and 5 miles of natural-surface trail. Submit a status report to the Mayor and City Council by the end of FY/10. (PRD, Open Space Management)

OBJECTIVE 9. With existing resources, implement the Urban Forest Initiative to conduct outreach and raise awareness about the benefits of trees. Oversee and track the distribution and planting of 75,000 trees in Albuquerque by government entities, local nurseries, and home and business owners by the end of FY/11. Submit status reports to the Mayor and City Council at the end of FY/10 and FY/11. (PRD, Urban Forest Management)

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OBJECTIVE 10. Develop a strategic plan for public education for both Commercial and Residential customers regarding refuse ordinance requirements, solid waste services, recycling, backyard composting and graffiti removal services per the integrated waste plan by the second quarter FY/10. Submit a report to the Mayor and City Council by the end of second quarter FY/10. (SWMD, Administrative Services)

OBJECTIVE 11. Implement Phase I & Phase II initiatives for the new CC&B utility billing system in conjunction with the Water Utility Authority by the end of FY/10. Provide a status report to the Mayor and City Council by the end of FY/10. (SWMD, Administrative Services)

OBJECTIVE 12. Release an RFP for a system wide solid waste rate analysis by the first quarter FY/10. Submit a status report to the Mayor and City Council by the end of second quarter FY/10. (SWMD, Administrative Services)

OBJECTIVE 13. Conduct an analysis of potential sites for a transfer and resource recovery park by the end of FY/10. Submit a report to the Mayor and City Council by the end of FY/10. (SWMD, Administrative services)

ECONOMIC VITALITY. Achieve a vital, diverse, and sustainable economy in which businesses and residents have opportunities for success.

OBJECTIVE 1. Create a prototype program regarding development ready certified sites at the Aerospace Technology Park at Double Eagle II and the Foreign Trade Zone at the Sunport by the end of second quarter FY/10 and begin an evaluation of the program in third and fourth quarter FY/10. Provide a report to the Mayor and City Council on the evaluation by the end of FY/10. (AVI, Aviation Management and Professional Support)

OBJECTIVE 2. Using existing resources, host a New Mexico Film and Music Summit in the first quarter of FY/10 to promote more local music participation in film production processes. Submit a report to the Mayor and City Council by the end of the second quarter, FY/10. (EDD, Economic Development)

OBJECTIVE 3. Using existing resources, host a Digital Media Summit to highlight how the advanced computer and technology capacity of Sandia National Laboratories and the University of New Mexico can be used to recruit

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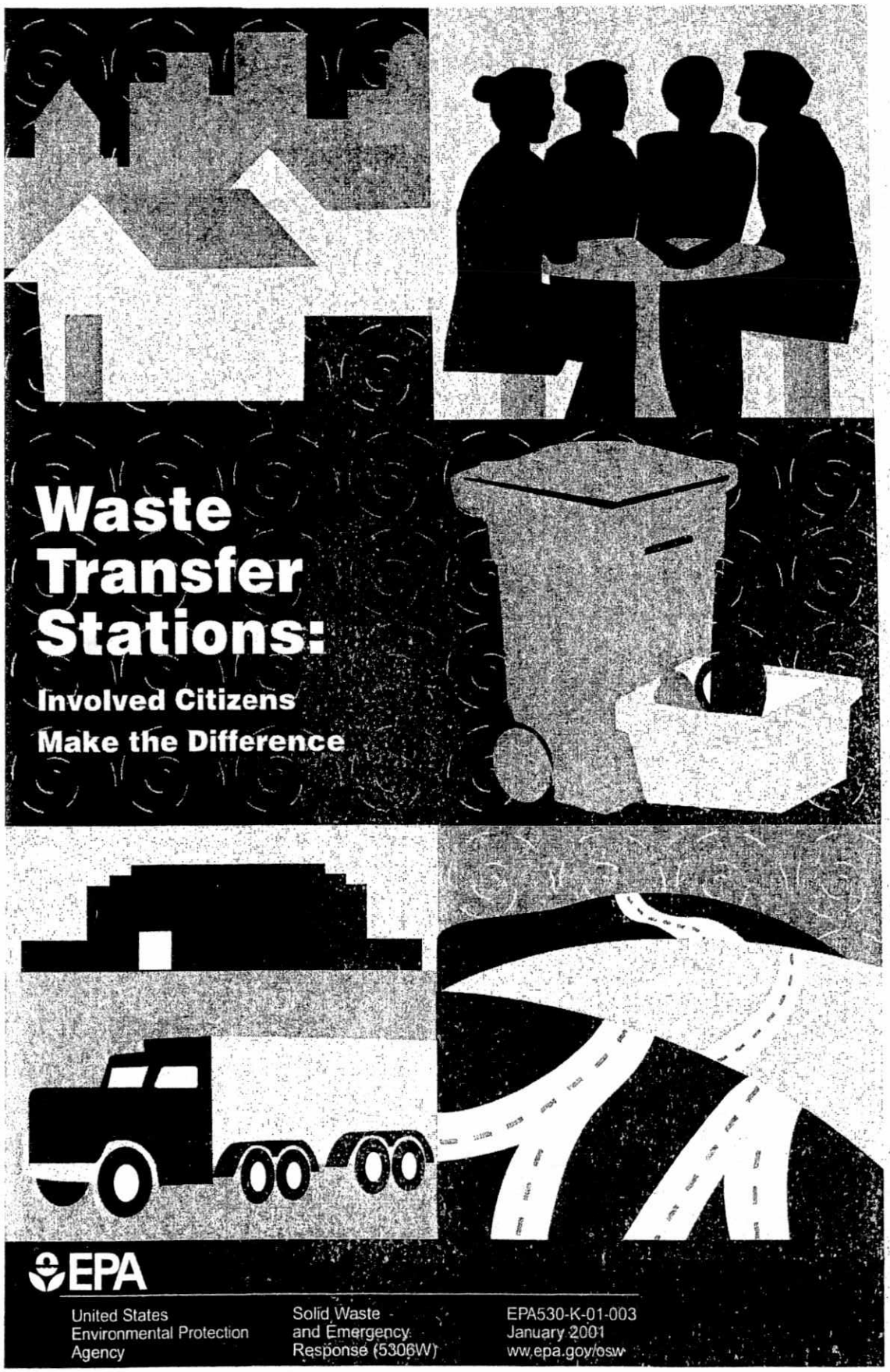
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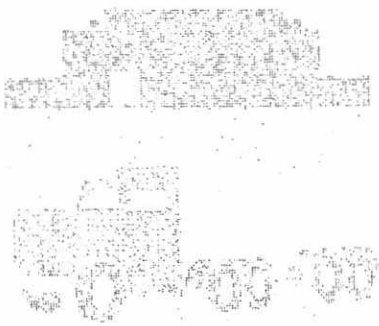
Is a Waste Transfer Station Being Considered for Your Community?

You've just learned that a solid waste transfer station developer is proposing to build a facility in your community. Like many citizens, you may have concerns, including uncertainties about potential safety and health impacts. You may even wonder what a waste transfer station is. In simple terms, a transfer station is a facility where solid waste is unloaded from smaller trucks and reloaded into larger vehicles for transport to a final disposal site.



Waste transfer stations make solid waste collection more efficient and reduce overall transportation costs, air emissions, energy use, truck traffic, and road wear and tear. This saves you and your community money and lowers the cost of your solid waste management services.

The selection of a site for any waste-related facility can be a sensitive issue, particularly for those living nearby. In principle, most people realize that such facilities are needed and will be needed in the future. In some cases, however, concern arises about a specific location for a waste transfer station and whether the facility will be properly managed.

You and your neighbors can help influence decisions on transfer stations. This booklet provides key information you will need to develop an opinion about a proposed or modified transfer station. It also provides ways or ideas on how to get involved to enhance the value of the waste transfer station.

Well-managed waste transfer stations are:

- Located, designed, and operated to ensure the public health, safety, and welfare of the community and environment.
- Located so as to minimize incompatibility with the character of the surrounding area.
- Located where traffic patterns to or from the facility minimize the impact on existing traffic flows.
- Consistent with state, local or tribal regulations and solid waste management plans.

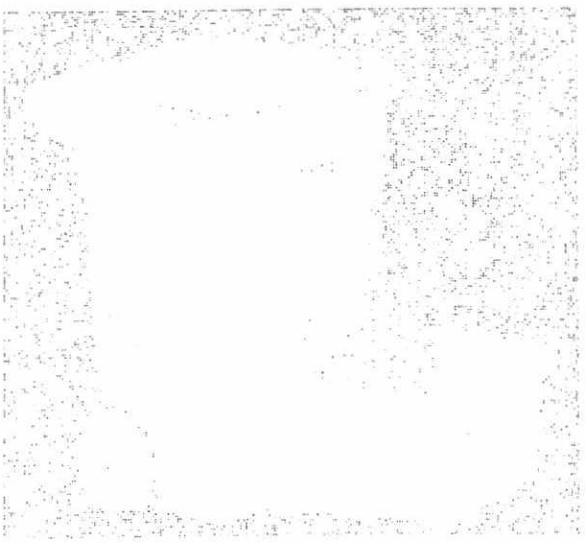
What Is a Transfer Station?

A waste transfer station is a light industrial-type facility where trash collection trucks discharge their loads so trash can be compacted and then reloaded into larger vehicles (e.g., trucks, trains and barges) for shipment to a final disposal site, typically a landfill or waste-to-energy facility. Transfer station operators usually move waste off the site in a matter of minutes or hours. Transfer stations serve both rural and urban communities. In densely populated areas, they are generally fully enclosed.

Waste transfer stations handle the trash that you set out for collection. At many transfer stations, workers screen incoming wastes on the receiving floor or in an earthen pit, recovering materials from the waste stream that can be recycled and separating out any inappropriate wastes (e.g., tires, large appliances, automobile batteries) that are not allowed in a disposal facility.

Why Are Transfer Stations Needed?

Communities need transfer stations to move their waste efficiently from the point of collection to distant, regional landfills or waste-to-energy plants. By consolidating solid waste collection and disposal points, transfer stations help communities reduce the cost of hauling waste to these remote disposal sites.



Waste transfer stations may be the most cost-effective when they are located near a collection area. The use of transfer stations lowers collection costs, as crews spend less time traveling to and from distant disposal sites and more time collecting waste. This reduces costs for labor, fuel and collection vehicle maintenance.

What Are the Benefits?

Why are transfer stations growing in popularity around the United States? Besides reduced transportation costs, here are a few of the benefits. The waste transfer station:

- **Reduces overall community truck traffic** by consolidating smaller loads into larger vehicles.
- **Offers more flexibility in waste handling and disposal options.** Decision-makers can select among different disposal options and secure the lowest disposal fees or choose a desired method of disposal (e.g., landfilling, waste-to-energy).
- **Reduces air pollution, fuel consumption, and road wear** by consolidating trash into fewer vehicles.
- **Allows for screening of waste** for special handling. At many transfer stations, workers screen incoming wastes on concrete floors or conveyor belts to separate out readily recyclable materials or any inappropriate wastes (e.g., tires, automobile batteries) that are not allowed in a landfill or a waste-to-energy facility.
- **Reduces traffic at the disposal facility.** The fact that fewer vehicles go to the landfill or waste-to-energy facility reduces congestion and operating costs and increases safety.
- **Offers citizens facilities for convenient drop-off of waste and recyclables.** Some transfer stations have a designated area, often called a convenience center, where residents drop off waste or recyclables in collection containers.

What Can I Do About My Health and Safety Concerns?

Traffic, noise, and odor may exist around waste transfer stations. Other problems that can result from an improperly designed or operated facility, include:

- Rodents and birds.
- Litter.
- Air emissions.

Thoughtful design choices and well-managed operations can and do address potential negative impacts. This section will describe typical concerns and offer suggestions that you can take to your transfer station developer to help resolve your concerns. A more detailed discussion of ways to reduce the impacts of waste transfer stations is provided in EPA's *Waste Transfer Stations: A Manual for Decision-Making, Draft EPA530-D-01-005, February 2001.*

Traffic

Transfer stations reduce overall traffic by consolidating smaller loads into larger vehicles. The transfer station, however, will generate additional amounts of traffic in its immediate area. This traffic can contribute to increased road congestion, air emissions, noise, and wear on roads. For this reason, waste transfer stations are often located in industrial areas that have ready access to major roadways. Travel routes and resulting traffic impacts typically receive significant attention during transfer station siting and design. Some important design and operating features that should be used include:

- Selecting sites that have direct access to truck routes, highways and rail or barge terminals.
- Providing adequate space within the facility site so that customers waiting to use the transfer station do not interrupt traffic on public roads or impact nearby residences or businesses.
- Designating haul routes to and from the transfer station that avoid congested areas, residential areas, business districts, schools, hospitals and other sensitive areas.
- Designing safe intersections with public roads.

Noise

Heavy truck traffic and the operation of heavy-duty facility equipment (e.g., conveyors and front-end loaders) are the primary sources of noise from a transfer station. Design and operating practices that help reduce noise include:

- Confining noisy activities within buildings or other enclosures as much as possible.
- Using landscaping, sound barriers, and earth berms to absorb exterior noise.
- Arranging the site so that traffic flows are not adjacent to properties that are sensitive to noise.
- Providing setback distances, called buffer zones, to separate noisy activities from adjacent land uses.
- Conducting activities that generate the most amount of noise during the day.

Odor

Garbage, particularly food waste and grass, has a high potential for odor. Proper facility design can significantly reduce odor problems. Carefully positioning the building and its doorways with respect to neighbors is a good first step. At the transfer building itself, exhaust fans with air filters and rooftop exhaust vents can further reduce off-site odor impacts.

Some of the operating procedures that can help reduce odors include:

- "First-in, first-out" waste handling practices that keep waste on site only for short periods of time.
- Removing all waste from the tipping floor or pit by the end of each operating day so that these surfaces can be swept clean and washed down.
- "Good housekeeping" measures, including regular cleaning and disinfecting of surfaces and equipment that come into contact with waste.
- Water misting and/or deodorizing systems.

Rodents and Birds

Rodents and birds can be a nuisance and a potential health concern at waste transfer stations, but few basic design and operational elements can control them. For instance, good housekeeping practices are a simple and effective means of minimizing their presence. These practices include removing all waste delivered to the facility by the end of each day, and cleaning the receiving floor daily (small, rural facilities may require several days to accumulate a full container of waste for transport). Receiving waste only within an enclosed structure and otherwise preventing litter can reduce the presence of birds. If problems persist in the vicinity, baiting and trapping can control rodents.

Citizen Concern Sparks Waste Transfer Station Changes

When a public hearing was held to announce the siting of a proposed waste transfer station in Auburn, New Hampshire, the town's citizens wanted to make sure their concerns would be addressed. Residents raised a number of issues about potential odor, noise, and truck traffic from the transfer station, which would consolidate waste from Manchester, New Hampshire, and surrounding communities, including Auburn. In addition, town officials voiced concerns about storm-water runoff from the transfer station.

A private firm specializing in transfer stations and other waste management services listened to the issues raised at the hearing. The company showed its willingness to address these concerns by proposing changes to the transfer station's design and operating plans. Modifications included:

- Reorienting the transfer station building so warning alarms from trucks backing up would be directed away from residential areas.
- Closing the transfer station doors to reduce odor whenever trucks are not delivering waste.
- Providing a trash drop-off area apart from commercial vehicles and extending operating hours to make site use more convenient for residents.
- Setting up a gated fence around the site to maximize security and safety.

Town officials also hired a consultant to address additional citizen concerns. The company worked with the consultant to develop methods for safely managing storm-water runoff from the transfer station. The revised design included new drainage structures and roadway modifications. As a final condition for receiving a transfer station permit, the company developed an operating manual that employees will be required to follow. Town officials reviewed the operating manual and after additional modifications, the town approved the transfer station.

Litter

In the course of facility operations, it is likely that stray pieces of waste may become litter in and around the waste transfer station. Measures that can help reduce litter include:

- Positioning the main transfer building so that predominant winds are less likely to blow through the building and carry litter off-site.
- Installing perimeter landscaping and fencing to reduce wind speeds at the transfer station site and to trap any litter.
- Ensuring that tarps on open top trucks are secure.
- Providing skirting around loading chutes.
- Removing litter frequently to reduce the opportunity for it to travel offsite.
- Patrolling nearby access roads to control litter from truck traffic.

Air Emissions

Air emissions at transfer stations can come from unloading dry, dusty waste delivered to the transfer station, exhaust from trucks, loaders and other equipment, and driving over unpaved surfaces. The following can reduce air emissions:

- Requiring trucks delivering and picking up waste at the facility to reduce unnecessary engine idling.
- Working with fleet operators to reduce engine emissions (e.g., engine improvements or use of cleaner fuels).
- Spraying dusty wastes with water as they are unloaded.
- Ensuring that street sweeping operations use enough water to avoid kicking up dust.
- Paving all surfaces where trucks operate.

Who Regulates Transfer Stations?

Every solid waste management facility is required to obtain certain government permits. Permit requirements may be established by state, local, or tribal governments. Regulations, which serve as the basis for permits, vary from jurisdiction to jurisdiction. Typical types of permits that a transfer station may be required to obtain include:

- **Solid waste facility permits**—usually issued by state, local, or tribal agencies, which can govern siting, design, and operations.
- **Site development permits**—usually issued by local or tribal agencies, which include zoning requirements, building permits, utility connections.
- **Environmental siting approvals**—which are addressed by various levels of government and can pertain to wetlands, flood plains, culturally significant sites, or other protected areas.

For a state-by-state checklist of major transfer station regulatory issues see EPA's document, *Waste Transfer Stations: A Manual for Decision-Making, Draft EPA530-D-01-005, February 2001, Appendix A.*

How Do I Get Involved?

Communicate

- Talk with authorities that plan, permit, and regulate waste transfer stations at the state level. (See the list of state solid waste contacts at the end of this guide).
- Seek to understand the role of the various agencies. Learn about the types of decisions they have authority to make and the activities they can influence or control.
- Talk to the waste transfer station developer and find out about his plans. The developer may be either a private company or government agency. Make sure the developer is aware of your concerns as early as possible so he can take steps to address them. Find out the name and phone

number of the developer's contact person whom you can call for information, to check on progress, and to share your concerns.

- Check the site against the rules of your state or locality. Ask your state or tribal government representative for copies of the regulations or where you can find them.
- Get on mailing lists of the developer, local agencies (e.g., zoning, planning, solid waste), and state agencies.

Identifying and Addressing Quality-of-Life Concerns

EPA strongly encourages tribal, state and local permitting agencies to provide the most effective and constructive opportunities for all stakeholders to communicate concerns, exchange information, and reach mutually acceptable understandings as early as possible.

—U.S. EPA, "Social Aspects of Siting RCRA Hazardous Waste Facilities," April 2000.

Participate

- Attend public information meetings, hearings, and decision meetings to express your interests.
- Request a visit to the developer's completed and operating waste transfer stations.
- Work with state and/or local oversight agencies to see how you can assist in monitoring the waste transfer station's performance.

Negotiate

- Your state, tribal, or local government agencies will determine if the proposed waste transfer station meets current regulations. However, you and your neighbors may want to work with the transfer station developer to negotiate a separate agreement documenting commitments that you expect the developer to keep. This agreement can include both performance measures to ensure the community is not unduly impacted as well as possible benefits the developer will provide to offset the facility's impacts. Benefits can range from commitments to employ local residents, construction of day care centers, parks or other facilities that enhance the community to actual payment of a fee to enable the community to provide other neighborhood improvements.

Important elements of an effective public participation process may include the following:

- Advance notice of any proposed public or private solid waste transfer stations.
- Advance notice of opportunities for public involvement in the approval process.
- Local decision officials hear and address community social, economic, and health concerns in advance of site selection and permit filing.
- Open sharing of relevant information.
- Access to facility planning and/or permitting documents.
- Reasonable time to review documents and, if warranted, the assistance of independent technical experts.
- A facilitator for public meetings who is experienced or trained in working with communities and addressing controversial issues.
- Availability of interpreters for public meetings and multilingual fact sheets, public notices and other outreach materials.
- Feedback from state/tribal/local officials on how they intend to address community concerns.

It's important to get involved early to share your concerns with the waste transfer station developer and government regulators and discuss what the developer can do for you and your community.

How can communities open up the lines of communication?

Contact your local government.

Find answers to the following questions:

The Planning Process

- Where can you obtain a copy of the locality's solid waste plan?
- What is the process for approving or amending the solid waste plan? Determine if it has been followed.
- Who is in charge of waste management planning and siting new facilities?
- What is the process for establishing a new facility or modifying an existing one?
- What area/communities will this facility serve?
- Who is the appropriate contact at the local level for project-specific information?
- Has an application for a new or modified facility been submitted to the local government, state, or tribe? If so, ask for a copy or where you can view it.
- Are the facilities publicly or privately owned?

Applicable Regulations

- What regulations/standards apply to waste transfer station siting, design, operation? Who enforces them?
- Find out if there is a solid waste planning committee and, if so, when it meets.
- Do the zoning ordinances specify where waste transfer stations are allowed and the process for special exceptions to the existing zoning plan?

Opportunities for Public Participation

- What opportunities are there for public input?
- Is there a central repository for documents for public review?
- When is the zoning hearing and what are the procedures for participation?

Contact your local elected official.
Find answers to the following questions:

- What information is available on the project?
- What is the schedule for building the facility?
- What is the size of the facility?
- What are the proposed tonnages that the facility will handle, and what communities will they be coming from?
- How much traffic will the facility generate?
- When is the public meeting scheduled?

Contact your state solid waste or tribal environmental agency.
Find answers to the following questions:

- What administrative requirements exist, including public hearings for waste transfer stations?

- What is the process for requesting a public hearing?
- What are the regulations that apply to transfer stations? Do they address your concerns. If not, why not?
- What is the permitting and regulatory process? Does regulatory authority rest with the state agency, a local agency or a combination of the two? If located on a reservation, does authority rest with the tribal council or another tribal environmental entity?
- Where can the public review the state application for a waste transfer station?

How do I get involved?

Form or join a community advisory panel.
A community advisory panel (CAP) should reflect local diversity and include residents, businesses, and industry. CAPs can provide insight and external input and may oversee administration of host benefits or amenities agreed upon as part of siting discussions. For instance, a CAP might be formed to administer funds allocated for job training programs.

To formulate your position on the proposed waste transfer station, review the information you have collected. Identify operating and design measures that will protect the public interest. Write down your concerns and thoughts in a concise, logical, and constructive manner. Attempt to understand other perspectives and acknowledge them while meeting your goals. Select your best spokesperson to present your position at the public meeting or hearing.

Attend public meetings or hearings.
Find answers to the following questions:

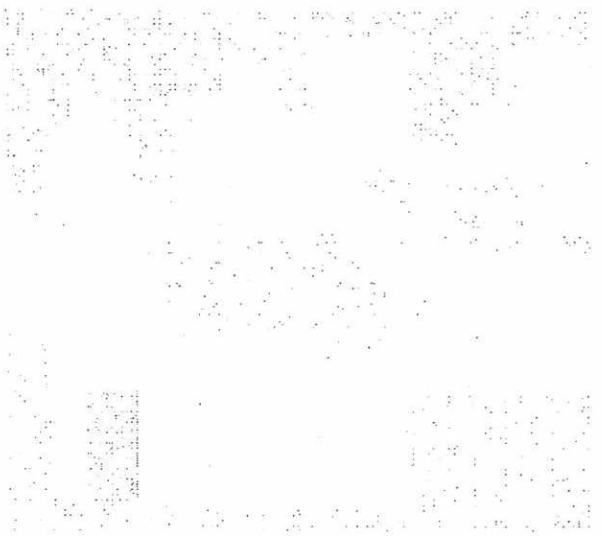
- What benefits would the waste transfer station provide?
- How will the waste transfer station affect the community and the environment?
- How will the community be affected by truck traffic?
- What types of litter, noise, and vector controls will the facility have?

- Will all waste be removed or containerized at the end of the day?
- How will storm water and wash water runoff be managed?
- How will the community be economically impacted?
- What type of odor control will the facility have?
- How will the waste transfer station save you money?
- What potential hazards may be expected and how will they be addressed?
- Does the community get any special benefits?

Secure follow-up on your concerns from the local regulatory authority.

Ask questions such as the following:

- How will the local regulatory authority monitor resolution of your concerns?
- When will you be able to meet with project management?
- Who will provide long-term oversight of facility operations?
- What provisions are being made so that the public can review the facility's operating history and permit compliance after regular operations begin?
- Can the community be involved in site inspections and reviews?
- Will the authority help schedule a visit to a similar facility?



What kinds of community benefits might be negotiable?

Based on the experience of communities around the country, there are many neighborhood benefits that can be negotiated if you communicate and meet with the waste transfer station developer. The range of community benefits depends on several factors, including availability of alternate sites, population density, land use of surrounding areas, and the economics of the proposed facility. Benefits that communities have asked for include:

- Landscaping, lighting, and local park areas.
- Limitations on waste generation sources (e.g., off reservation, out of county, out of state).
- Funding of public road/infrastructure improvements.
- Restrictions on truck traffic, including designated routing.
- Guaranteed preference to the community's residents for employment.
- Commitment to regularly pick up litter and sweep streets in and around the waste transfer station.
- Participation in site inspections and operation reviews.
- A hotline with the name and phone number of someone that will act on and respond to complaints.
- Restrictions on operating hours.
- Commitment to cleaning up the tipping floor at day's end.
- Free or reduced-cost use of the facility for the community's residents and businesses.
- Improvements to community schools, recreation programs, fire department, etc.
- Free recyclables collection and/or processing.
- Guarantees for housing values.
- A fee paid to the local government for every ton of waste received at the facility.

You can also negotiate to require that community representatives have access to the facility during operations to monitor

Citizens Decided Transfer Station Could Use Some Santa Fe Style

Thanks to the Santa Fe, New Mexico, Solid Waste Management Division's door-to-door informational campaign and the involvement of concerned citizens, the solid waste transfer station was designed in a way aesthetically pleasing to the residents. City officials responded to a number of citizen concerns regarding the design and proposed operation of the transfer station, including a request for the transfer station to conform to the stucco-and-tile architectural style prevalent in the Santa Fe area.

To inform residents about the proposed waste transfer station, which opened in 1997, city officials conducted public hearings, met with neighborhood associations, and went door-to-door distributing newsletters with proposed details on the transfer station's design and how the decision-making process would be implemented. During the public involvement process, residents expressed concerns regarding traffic impacts, stray litter, odor and dust, and the visual effect of the transfer station. The city responded with a number of changes that included:

- Building and upgrading roads to ensure large transfer trucks would travel north of the neighborhood, away from major streets.
- Having crews daily pick up litter that might blow or fall onto neighborhood streets.
- Washing down the transfer station twice each week and removing transfer station waste at the end of each day.
- A powerful ventilation system to limit odors.
- Incorporating the design of the transfer station to be in the Santa Fe architectural style.

It is important to note that the citizens most affected by the transfer station had lived for some time near the city's closed landfill. Over the years, city officials consistently responded to citizen concerns about illegal dumping and stray litter from the landfill, resulting in a positive, trusting relationship with the community. This relationship likely facilitated the public involvement process.

performance. Safety concerns and potential for interference with daily operations must be addressed if this provision is included.

How Do I Get More Information?

Information Available From EPA

The following publications are available through the RCRA Hotline. To order a document, call 800 424- 9346 (or 800 553-7672 for the hearing-impaired). In Washington, DC, the number

is 703 412-9810 or TDD 703- 412-3323. The RCRA Hotline is open from Monday through Friday, 9 a.m. to 6 p.m., EST.

- **Waste Transfer Stations: A Manual for Decision-Making** (EPA530-D-01-005) (Draft, February 2001.)
- **Social Aspects of Siting RCRA Hazardous Waste Facilities** (EPA530-K-00-005.)
- **Decision-Maker's Guide To Solid Waste Management** (EPA530-R-95-023)
- **Sites for Our Solid Waste: A Guidebook for Effective Public Involvement** (EPA530-SW-90-019)

Review Committee Protects Community's Best Interests and Negotiates Host Fee

An initial siting choice for a waste transfer station in Leon County, Florida, failed to gain the approval of citizens and local business owners. In response, the county board held a series of public meetings and workshops for almost a year, to evaluate approximately 15 potential alternative sites for the transfer station. Attended by hundreds of people, this public process resulted in a final site selection, after which the county board appointed a site development review committee whose mission was to develop operating and design criteria that would meet the needs of businesses and residents in this suburban area of West Tallahassee.

The committee comprised a neighborhood association representative, a local business representative, a university professor, a private consultant, and transportation, public works, and solid waste officials from city and county government. The committee requested transportation and noise studies to help it develop recommendations for reducing the transfer station's environmental impacts.

The studies persuaded the county's solid waste department to change the transfer station from a top-load to a compactor-type design that would reduce noise, building height, and overall costs, plus provide for cleaner operations. The modified design also made funds available to improve the sound absorption of the transfer station's interior walls. The review committee also developed operating criteria addressing other potential hazards and nuisances to the community. One requirement included having an industrial hygienist monitor the safety of the transfer station annually.

To compensate the community for hosting the transfer station, the committee approved a "host fee" of 50 cents per ton of waste. The community will use revenue from this host fee, expected to generate $75,000 in the transfer station's first year of operation, to pay for neighborhood improvements such as local sewer repairs.

Leon County's transfer station has yet to be built, however. Despite extensive public involvement, a group of adjacent property owners is challenging the final site selection, even though they participated in the decision-making process.

Additional Information from EPA

- **The Model Plan for Public Participation**, EPA National Environmental Justice Advisory Council. Contact EPA Office of Environmental Justice (http://es.epa.gov/oeca/main/ej/nejacpub.html).
- **Constructive Engagement Resource Guide: Practical Advice for Dialogue Among Facilities, Workers, Communities, and Regulators** (EPA745-B-99-008) June 1999. Contact EPA's National Service Center for Environmental Publications at 1-800-490-9198 or visit the Web at www.epa.gov/stakeholders/siteguide.htm.

Other Selected Sources of Information

- **Solid Waste Transfer in Illinois: A Citizen's Handbook on Planning, Siting and Technology.** Contact Dupage County Solid Waste Department, Wheaton Illinois. Telephone: 630 682-6755.
- **National Environmental Justice Advisory Council Regulatory Strategy for Siting and Operating Waste Transfer Stations** (report #500-R-00-001). Contact Kent Benjamin at EPA at 202 260-2822 or visit the web at: http://es.epa.gov/oeca/main/ej/nejacpub.html.

Selected Internet Resources

- EPA's Office of Solid Waste (www.epa.gov/msw)
- EPA's Office of Environmental Justice (http://es.epa.gov/oeca/main/ej/index.html)
- EPA's Office of Civil Rights (http://www.epa.gov/civilrights)

State Solid Waste Contacts

Alabama

Alabama Department of Environmental Management, Land Division, Solid Waste Branch, P.O. Box 301463, Montgomery, AL 36130-1463, Phone: 334/271-7730, Fax: 334/279-3050

Alaska

Alaska Department of Environmental Conservation, Environmental Health Division, Solid Waste Program, 410

Willoughby Avenue, Juneau, AK 99801-1795, Phone: 907/465-5350, Fax: 907/465-5164

Arizona

Arizona Department of Environmental Quality, Waste Programs Division, Solid Waste Section, 3033 North Central Avenue, Phoenix, AZ 85012, Phone: 602/207-4208, Fax: 602/207-2383

Arkansas

Arkansas Department of Pollution Control and Ecology, Solid Waste Division, P.O. Box 8913, Little Rock, AR 72219-8913, Phone: 501/682-0600, Fax: 501/682-0611

California

California Integrated Waste Management Board, 8800 Cal Center Drive, Sacramento, CA, 95826, Phone: 916/255-2182, Fax: 916/255-2227

Colorado

Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division, 4300 Cherry Creek Drive South, Denver, CO 80222-1530, Phone: 303/692-3300, Fax: 303/759-5355

Connecticut

Connecticut Department of Environmental Protection, Bureau of Waste Management, 79 Elm Street, 4th Floor, Hartford, CT 06106-5127, Phone: 860/424-3021, Fax: 860/424-4060

Delaware

Delaware Department of Natural Resources and Environmental Control, Air and Waste Management Division, Hazardous and Solid Waste Management, 89 Kings Highway, Dover, DE 19901, Phone: 302/739-4764, Fax: 302/739-5060

District of Columbia

DC Department of Public Works, Solid Waste Administration, 2750 South Capitol Street, S.E., Washington, D.C. 20032, Phone: 202/645-7044, Fax: 202/645-6040

Florida

Florida Department of Environmental Protection, Division of Waste Management, Bureau of Solid & Hazardous Waste, Solid Waste Management Section, 2600 Blair Stone Road, Tallahassee, FL 32399-2400, Phone: 850/488-0300, Fax: 850/414-0414

Georgia
Georgia Department of Natural Resources, Environmental Protection Division, Land Protection Branch, Solid Waste Management, 4244 International Parkway, Suite 104, Atlanta, GA 30354, Phone: 404/362-2537, Fax: 404/362-2654

Hawaii
Hawaii Department of Health, Environmental Management Division, Office of Solid Waste Management, 919 Ala Moana, Room 300, Honolulu, HI 96814, Phone: 808/586-4250, Fax: 808/586-4370

Idaho
Idaho Division of Environmental Quality, Solid Waste Program, 410 North Hilton Street, Boise, ID 83706, Phone: 208/373-0502, Fax: 208/373-0417

Illinois
Illinois Environmental Protection Agency, Bureau of Land, Solid Waste Management Section, P.O. Box 19276, Springfield, IL 62794-9276, Phone: 217/785-9407, Fax: 217/557-4231

Indiana
Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management, P.O. Box 6015, Indianapolis, IN 46206-6015, Phone: 317/232-3210, Fax: 317/232-3403

Iowa
Iowa Department of Natural Resources, Land Quality Bureau, Solid Waste Section, 900 East Grand Avenue, Henry A. Wallace Bldg., Des Moines, IA 50319-0034, Phone: 515/281-4968, Fax: 515/281-8895

Kansas
Kansas Department of Health and Environment, Division of Environment, Bureau of Waste Management, Forbes Field,

Building 283, Topeka, KS 66620, Phone: 785/296-1612, Fax: 785/296-1592

Kentucky

Kentucky Department for Environmental Protection, Division of Waste Management, Solid Waste Branch, Frankfort Office Park, 14 Reilly Road, Frankfort, KY 40601 Phone: 502/564-6716, Fax: 502/564-4049

Louisiana

Louisiana Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, P.O. Box 82178, Baton Rouge, LA 70884-2178, Phone: 225/765-0249, Fax: 225/765-0299

Maine

Maine Department of Environmental Protection, Bureau of Remediation and Waste Management, Division of Solid Waste Facilities Regulation, 17 State House Station, Augusta, ME 04333-0017, Phone:2 07/287-2651, Fax: 207/287-7826

Maryland

Maryland Department of the Environment, Waste Management Administration, Solid Waste Program, 2500 Broening Highway, Baltimore, MD 21224, Phone: 410/631-3304, Fax: 410/631-3321

Massachusetts

Massachusetts Department of Environmental Protection, Bureau of Waste Prevention, Solid Waste Division, One Winter Street, Boston, MA 02108, Phone: 617/292-5953, Fax: 617/292-5778

Michigan

Michigan Department of Environmental Quality, Waste Management Division, Solid Waste Program, P.O. Box 30241, Lansing, MI 48909, Phone: 517/335-9523, Fax: 517/373-4797

Minnesota

Minnesota Pollution Control Agency, Policy and Planning Division, 520 Lafayette Road, St. Paul, MN 55155-4194, Phone: 651/297-8502, Fax: 651/297-8676

Mississippi

Mississippi Department of Environmental Quality, Office of Pollution Control, Solid Waste Management Branch, P.O. Box

10385, Jackson, MS 38289, Phone: 601/961-5171, Fax: 601/354-6612

Missouri

Missouri Department of Natural Resources, Division of Environmental Quality, Solid Waste Management Program, P.O. Box 176, Jefferson City, MO 65102, Phone: 573/751-5401, Fax: 573/526-3902

Montana

Montana Department of Environmental Quality, Permitting and Compliance Division, P.O. Box 200901, Helena, MT 59620-0901, Phone: 406/444-5270, Fax: 406/444-1374

Nebraska

Nebraska Department of Environmental Quality, Waste Management Division, 1200 N Street, Suite 400, Lincoln, NE 68509-8922, Phone: 402/471-4210, Fax: 402/471-2909

Nevada

Nevada Division of Environmental Protection, Bureau of Waste Management, Solid Waste Branch, 333 West Nye Lane, Capitol Complex, Carson City, NV 89710, Phone: 702/687-4670, Fax: 702/885-0868

New Hampshire

New Hampshire Department of Environmental Services, Waste Management Division, 6 Hazen Drive, Concord, NH 03301-6509, Phone: 603/271-2905, Fax: 603/271-2456

New Jersey

New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, P.O. Box 414, Trenton, NJ 08625, Phone: 609/984-6880, Fax: 609/984-6874

New Mexico

New Mexico Environment Department, Environmental Protection Division, Solid Waste Bureau, 1190 St. Francis Dr., P.O. Box 26110, Santa Fe, NM 87503, Phone: 505/827-2855, Fax: 505/827-2902

New York

New York State Department of Environmental Conservation, Division of Solid & Hazardous Materials, 50 Wolf Road, Albany, NY 12233-7250, Phone: 518/457-6934, Fax: 518/457-0629

North Carolina
North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section, P.O. Box 27687, Raleigh, NC 27611-7687, Phone: 919/733-0692, Fax: 919/733-4810

North Dakota
North Dakota Department of Health, Division of Waste Management, P.O. Box 5520, Bismarck, ND 58506-5520, Phone: 701/328-5166, Fax: 701/328-5200

Ohio
Ohio Environmental Protection Agency, Division of Solid and Infectious Waste Management P.O. Box 163669, Columbus, OH 43216-3669, Phone: 614/728-5333, Fax: 614/728-5315

Oklahoma
Oklahoma Department of Environmental Quality, Waste Management Division, P.O. Box 1677, Oklahoma City, OK 73102, Phone: 405/702-5100, Fax: 405/702-5101

Oregon
Oregon Department of Environmental Quality, Waste Management and Cleanup Division Solid Waste Planning & Program Development Section, 811 S.W. Sixth Avenue, Portland, OR 97204, Phone: 503/229-5072, Fax: 503/229-6977

Pennsylvania
Pennsylvania Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Division of Municipal and Residual Waste, P.O. Box 8471,Harrisburg, PA 17105-8471, Phone: 717/787-2388, Fax: 717/787-1904

Rhode Island
Rhode Island Department of Environmental Management, Division of Waste Management, 235 Promenade Street, Providence, RI 02908, Phone: 401/222-4700, Fax: 401/222-3813

South Carolina
South Carolina Department of Health and Environmental Control, Bureau of Solid and Hazardous Waste Management, Division of Solid Waste Management, 2600 Bull Street Columbia, SC 29201, Phone: 803/896-4007, Fax: 803/896-4001

South Dakota

South Carolina Department of Environment and Natural Resources, Division of Environmental Services, Waste Management Program, 523 East Capitol, Foss Bldg., Pierre, SD 57501-3181, Phone: 605/773-3153, Fax: 605/773-4068

Tennessee

Tennessee Department of Environment and Conservation, Division of Solid and Hazardous Waste Management, Solid Waste Management Unit, 5th Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535, Phone: 615/532-0780, Fax: 615/532-0886

Texas

TX Natural Resource Conservation Commission, Permits Division, P.O. Box 13087, Austin, TX 78711-3087, Phone: 512/239-6787, Fax: 512/239-2007

Utah

Utah Department of Environmental Quality, Division of Solid and Hazardous Waste, Solid Waste Section, P.O. Box 144880, Salt Lake City, UT 84114-4880, Phone: 801/538-6170, Fax: 801/538-6715

Vermont

Vermont Department of Environmental Conservation, Waste Management Division, Solid Waste Management, 103 South Main Street, Waterbury, VT 05671-0404, Phone: 802/241-3444, Fax: 802/241-3296

Virginia

Virginia Department of Environmental Quality, Waste Division, P.O. Box 10009, Richmond, VA 23240-0009, Phone: 804/698-4221, Fax: 804/698-4234

Washington

Washington State Department of Ecology, Waste Management Programs, Solid Waste and Financial Services Program, P.O. Box 47600, Olympia, WA 98504-7600, Phone: 360/407-6103, Fax: 360/407-6102

West Virginia

West Virginia Department of Environmental Protection, Office of Waste Management, Solid Waste Management Section, 1356

Hansford Street, Charleston, WV 25301-1401, Phone: 304/558-5929, Fax: 304/558-0256

Wisconsin
Wisconsin Department of Natural Resources, Air and Waste Division, Bureau of Waste Management, P.O. Box 7921, Madison, WI 53707, Phone: 608/266-1327, Fax: 608/267-2768

Wyoming
Wyoming Department of Environmental Quality, Solid and Hazardous Waste Division, 122 West 25th Street, Cheyenne, WY 82002, Phone: 307/777-7752, Fax: 307/777-5973

American Samoa
Environmental Quality Commission, American Samoan Government, Department of Public Works, Pago Pago, American Samoa 96799, Phone: 684/633-4141, Fax: 684/633-5801

Guam
Guam Environmental Protection Agency, Air and Land Division, P.O. Box 22439, GMF Barrigada, Guam 96921, Phone: 671/475-1658, Fax: 671/477-9402

Northern Mariana Islands
Division of Environmental Quality, Commonwealth of the Northern Mariana Islands, 3rd Floor, Morgen's Bldg., San Jose, P.O. Box 1304, Saipan, MP 96950, Phone: 670/234-6114, Fax: 670/234-1003

Puerto Rico
Environmental Quality Board, Office of the Governor, Land Pollution Area, P.O. Box 11488, Santurce, PR 00910, Phone: 787/763-4448, Fax: 787/766-0150

Virgin Islands
Department of Planning and Natural Resources, Government of the Virgin Islands, Division of Environmental Protection, Building 111, Apartment 114, Christiansted, St. Croix, VI 00820, Phone: 809/773-0565, Fax: 809/773-9310

United States
Environmental Protection Agency
1200 Pennsylvania Avenue, NW (5306W)
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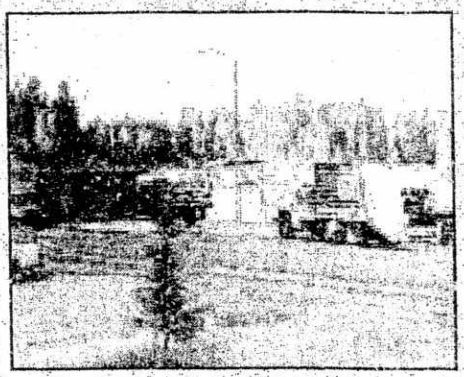
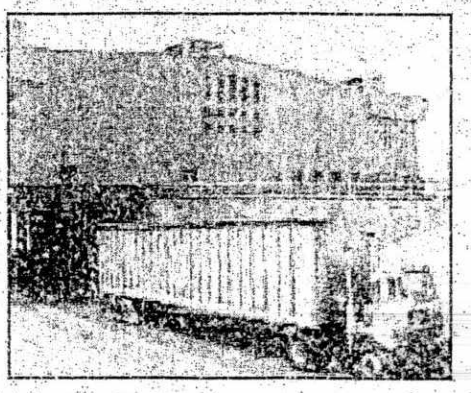
Waste Transfer Stations:
A Manual for Decision-Making





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Appendix A-1

Introduction

This manual defines what a transfer station is and how it relates to municipal solid waste management in the context of a community's total waste management plan. The manual identifies issues and factors to consider when deciding to build a transfer station, planning and designing it, selecting a site, and involving the community.

In many communities, citizens have voiced concerns about solid waste transfer stations that are poorly sited, designed, or operated. In addition, some citizens might feel that transfer stations are disproportionately concentrated in or near their communities. Yet transfer stations play an important role in a community's waste management system.

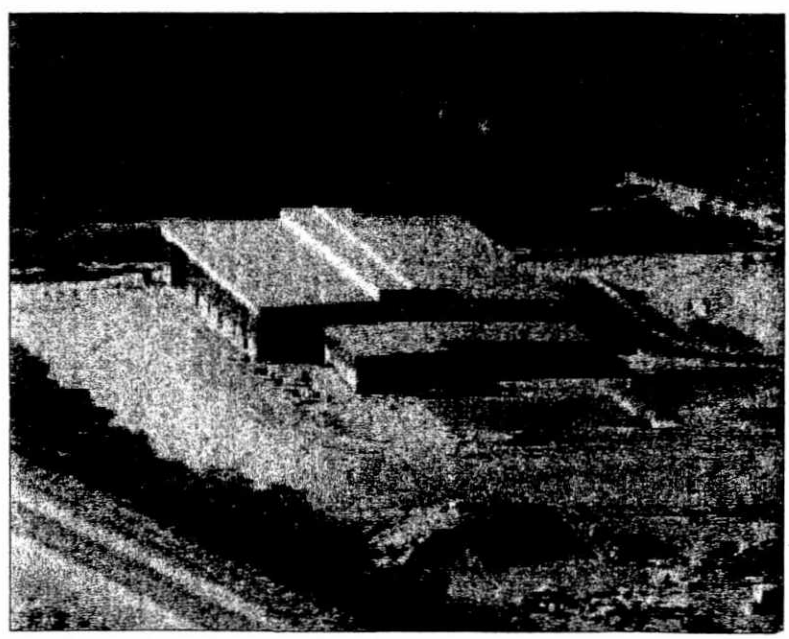
In 1993, the National Environmental Justice Advisory Council (NEJAC) was formed to "provide independent advice, consultation, and recommendations to EPA on matters related to environmental justice." The Waste and Facility Siting Subcommittee, one of NEJAC's six subcommittees, received numerous comments from citizens of several major metropolitan areas concerning the negative impacts of waste transfer stations and their disproportionate siting in low-income communities and communities of color. The Subcommittee, with support from EPA, formed the Waste Transfer Station Working Group in 1998 to investigate these comments. The Working Group arranged two fact-finding sessions in New York City and Washington, DC, during November 1998 and February 1999 respectively. These sessions were each two-day events consisting of a day of tours of area waste transfer stations and a second day of public meetings. Based upon these two fact-finding sessions, the Working Group in March 2000 published the draft report, *A Regulatory Strategy for Siting and Operating Waste Transfer Stations.* This report made several recommendations to EPA concerning proper and equitable siting and operation of transfer stations. In response in to this report, EPA has developed this manual and its companion publication *Waste Transfer Stations: Involved Citizens Make the Difference* (EPA530-K-01-003).

The intent of this manual is to promote the use of best practices in transfer station siting, design, and operation to maximize facilities' effectiveness and efficiency, while minimizing their impact on the community. It is designed to assist facility owners and operators; state, local, and tribal environmental managers; and the public evaluate and choose protective practices for siting, designing, and operation of municipal solid waste transfer stations. The manual is divided into the following chapters:

- Planning and Siting a Transfer Station
- Transfer Station Design and Operations
- Facility Oversight

What Are Waste Transfer Stations?

Waste transfer stations play an important role in a community's total waste management system, serving as the link between a commu-



Aerial view of a totally enclosed transfer station.

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nity's solid waste collection program and a final waste disposal facility. While facility ownership, sizes, and services offered vary significantly among transfer stations, they all serve the same basic purpose—consolidating waste from multiple collection vehicles into larger, high-volume transfer vehicles for more economical shipment to distant disposal sites. In its simplest form, a transfer station is a facility with a designated receiving area where waste collection vehicles discharge their loads. The waste is often compacted, then loaded into larger vehicles (usually transfer trailers, but intermodal containers, railcars, and barges are also used) for long-haul shipment to a final disposal site—typically a landfill, waste-to-energy plant, or a composting facility. No long-term storage of waste occurs at a transfer station; waste is quickly consolidated and loaded into a larger vehicle and moved off site, usually in a matter of hours.

For purposes of this manual, facilities serving only as citizen drop-off stations or community convenience centers are not considered waste transfer stations. Only a facility that receives some portion of its waste directly from collection vehicles, then consolidates and reloads the waste onto larger vehicles for delivery to a final disposal facility, is considered a transfer station. A convenience center, on the other hand, is a designated area where residents manually discard waste and recyclables into dumpsters or collection containers. These containers are periodically removed or emptied, and the waste is transported to the appropriate disposal site (or possibly to a transfer station first). Convenience centers are not suitable for use as transfer stations because they cannot readily handle the large volume of waste that is discharged by a self-unloading collection truck. While these sites are not considered transfer stations within the context of this manual, it is important to note that heavily used convenience centers can face similar concerns as transfer stations (e.g., litter, road access, vehicle queuing, storm water run on and run off). Consequently, it may be appropriate to consider implementing some of the concepts and practices advocated in this manual at these sites. Many communities have installed full-service operations that provide public waste and recyclables drop-off accommodations on the same site as their transfer stations.

Source reduction and recycling also play an integral role in a community's total waste management system. These two activities can significantly reduce the weight and volume of waste materials requiring disposal, which reduces transportation, landfill, and incinerator costs. Source reduction consists of reducing waste at the source by changing product design, manufacturing processes, and purchasing and sales practices to reduce the quantity or toxicity of materials before they reach the waste stream. U.S. Environmental Protection Agency (EPA) policy promotes source reduction as the waste management technique of choice.

Recycling—the collection, processing, and manufacture of new products—likewise diverts materials from the landfill or incinerator. These recyclable materials are prepared for shipment to markets in a special facility called a MRF, which stands for materials recovery facility. A MRF is simply a special type of transfer station that separates, processes, and consolidates recyclable materials for shipment to one or more recovery facilities rather than a landfill or other disposal site. Consequently, the concepts and practices in this manual can be applied to MRFs as well.

Aggressive community source reduction and recycling programs can substantially reduce the amount of waste destined for long haul transfer and disposal. If these reductions are significant enough, a community may find that fewer or smaller transfer stations can meet its needs.

Why Are Waste Transfer Stations Needed?

The nationwide trend in solid waste disposal has been toward construction of larger, more remote, regional landfills. Economic considerations, heavily influenced by regulatory and social forces, are compelling factors leading to this result. The passage of federal criteria in 1991 established new design

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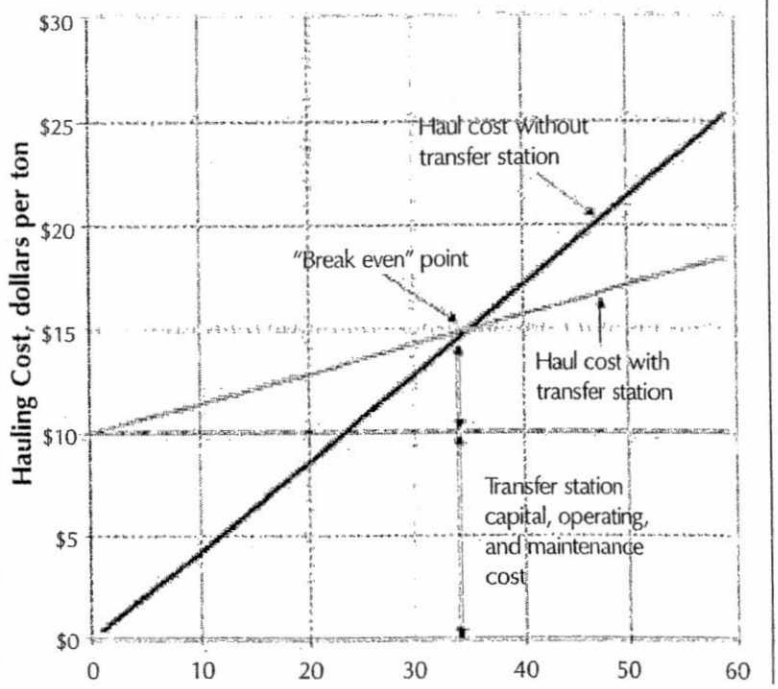
requirements for municipal solid waste landfills. These new standards include design, operating, and monitoring requirements that significantly add to construction, operating, closure, and post-closure monitoring costs. As older landfills near urban centers reach capacity and begin closing, cities must decide whether to construct new landfills or to seek other disposal options. Many communities find the cost of upgrading existing facilities or constructing new landfills to be prohibitively high, and opt to close existing facilities. For these communities, transferring waste to a large regional landfill is an appealing alternative.

In addition to regulatory requirements, public opposition frequently makes siting new landfills near population centers difficult. The current atmosphere is such that gaining public and political approval for constructing new disposal capacity near population centers is challenging. Also, adequate land is often not available near densely populated or urban areas. These social, political, and geographical factors have further stimulated the rise in construction of large, remote, regional landfills.

Economic considerations, especially economies of scale, further promote development of large regional facilities. To offset the high cost of constructing and maintaining a modern landfill, facility owners construct large facilities that attract high volumes of waste from a greater geographic area. By maintaining a high volume of incoming waste, landfill owners can keep the per-ton tipping fees low, which subsequently attracts more business. Rural and urban communities alike are finding that the most economically viable solution to their waste disposal needs is shipping their waste to these facilities. In these circumstances, a transfer station serves as the critical consolidation link in making cost-effective shipments to these distant facilities.

Figure 1.
Sample Comparison of Hauling Costs With and Without a Transfer Station



The following assumptions were used to create this sample comparison:

Cost to build, own, and operate transfer station—dollars per ton	$10
Average payload of collection truck hauling directly to landfill—tons	7
Average payload of transfer truck hauling from transfer station to landfill—tons	21
Average trucking cost (direct or transfer hauling)—dollars per mile	$3

The comparison shows a break-even distance of about 35 miles (round-trip). In other words, for this example, using a transfer station is cost-effective when the round-trip distance exceeds 35 miles. When the round-trip distance is less than 35 miles, direct haul is more cost-effective. Although the same economic principles apply, break-even distances will vary in different situations based on the site-specific input data.

Why Use Waste Transfer Stations?

The primary reason for using a transfer station is to reduce the cost of transporting waste to disposal facilities. Consolidating smaller loads from collection vehicles into larger transfer vehicles reduces hauling costs by enabling collection crews to spend less time traveling to and from distant disposal sites and more time collecting waste. This also reduces fuel consumption and collection vehicle maintenance costs, plus produces less overall traffic, air emissions, and road wear.

In addition, a transfer station also provides:

- An opportunity to screen waste prior to disposal.

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- Flexibility in selecting waste disposal options.
- An opportunity to serve as a convenience center for public use.

At many transfer stations, workers screen incoming wastes on conveyor systems, tipping floors, or in receiving pits. Waste screening has two components: separating recyclables from the waste stream and identifying any wastes that might be inappropriate for disposal (e.g., hazardous wastes or materials, white goods, whole tires, auto batteries, or infectious waste). Identifying and removing recyclables reduces the weight and volume of waste sent for final disposal and, depending on local recycling markets, might generate revenue. Screening for inappropriate wastes is more efficient at the transfer station than the landfill.

Waste transfer stations also offer more flexibility in terms of disposal options. Decision-makers have the opportunity to select the most cost-effective and/or environmentally protective disposal sites, even if they are more distant. They can consider multiple disposal facilities, secure competitive disposal fees, and choose a desired method of disposal (e.g., landfilling or incineration).

Finally, transfer stations often include convenience centers open to public use. These centers enable individual citizens to deliver waste directly to the transfer station facility for ultimate disposal. Some convenience centers offer programs to manage yard waste, bulky items, household hazardous waste, and recyclables. These multipurpose convenience centers are assets to the community because they assist in achieving recycling goals, increase the public's knowledge of proper materials management, and divert materials that would otherwise burden existing disposal capacity.

Calculating Transfer Station Break-Even Points

To calculate the break-even point for a specific facility, first determine the following values:

- **Transfer Station Cost** (cost to build, own, and operate transfer station, in dollars per ton)
- **Direct Haul Payload** (average payload of collection truck hauling directly to landfill, in tons)
- **Transfer Haul Payload** (average payload of transfer truck hauling from transfer station to landfill, in tons)
- **Trucking Cost** (average cost of direct or transfer hauling, in dollars per mile)

Once these values are known, use the following formulas to calculate cost at different distances:

Cost of Direct Haul (without the use of a waste transfer station)
Distance (miles) multiplied by Trucking Cost (dollars per mile) divided by Direct Haul Payload (tons)

Cost of Transfer Haul
Transfer Station Cost (dollars per ton) plus Distance (miles) multiplied by Trucking Cost (dollars per mile) divided by Transfer Haul Payload (tons)

Is a Transfer Station Right for Your Community?

Deciding whether a transfer station is appropriate for an individual community is based on determining if the benefits outweigh the costs. Decision-makers need to weigh the planning, siting, designing, and operating costs against the savings the transfer station might generate from reduced hauling costs. To assist in making this determination, public and private decision-makers often employ third-party solid waste experts. These experts are familiar with both the technical and regulatory issues that must be addressed in developing a successful waste transfer station. It may be helpful to retain qualified consulting or engineering firms specializing in solid waste engineering. It is also important to note that in some areas, the regulatory agency might require that the transfer station plans be certified by a professional engineer. Again, this engineer should be an experienced solid waste professional. Complex projects might also require the assistance of architects, geotechnical engineers, lawyers, and other specialists.

Although cost-effectiveness will vary, transfer stations generally become economically viable when the hauling distance to the disposal facility is greater than 15 to 20 miles.

Figure 1 demonstrates a representative "cost versus miles" relationship between direct hauling waste to disposal facilities in collection vehicles versus consolidation, transfer, and hauling in larger vehicles. Using the assumptions listed below Figure 1, we see that the average cost per ton to move the waste from the collection vehicle onto the transfer vehicle is $10 before the hauling vehicle leaves the transfer station. This is the cost per ton to build, operate, and maintain the station. Due to its economy of scale, however, the transfer trailer can move waste on a much lower "per mile" basis because it can carry the waste of several individual collection vehicles.

Using the assumptions listed, the cost per ton per mile (ton-mile) using a collection vehicle is $0.43 ($3/mile truck operating cost divided by 7 tons per average load). In this example, the transfer hauling vehicle's cost per ton-mile is much lower, at $0.14 ($3 divided by 21 tons per average load). Figure 1 shows how this cost per ton-mile advantage for the transfer hauling vehicle soon overcomes the initial cost of developing and operating the transfer station. In this case, based on the indicated assumptions, cost savings will start to be realized when the round-trip hauling distance exceeds 35 miles (17.5 miles one way). Because the cost to own, operate, and maintain collection vehicles, transfer stations, and transfer hauling vehicles will vary depending on local parameters, the break-even point indicated on Figure 1 will vary. The formulas used in generating Figure 1 are provided below to allow for site-specific calculations.

Planning and Siting a Transfer Station

A variety of issues must be taken into account during the planning and siting stages of transfer station development. This section discusses the types of waste transfer stations typically accept, factors affecting a transfer station's size and capacity, and issues regarding facility siting, including process issues and public involvement. While the planning and siting phases of facility development might involve a significant investment of resources, this initial investment is crucial to ensuring an appropriate project outcome sensitive to the host community.

Types of Waste Accepted

In addition to processing mixed municipal solid waste (MSW), some transfer stations offer programs that manage specific materials separately to divert waste from disposal and to achieve recycling objectives. These materials could include construction and demolition debris, yard waste, household hazardous waste, or recyclables. The types of materials processed often vary depending on where the facility is located (urban, suburban, rural) and who owns and operates the transfer station (public entity or private industry).

Types of waste that transfer stations commonly handle are described in the adjacent box.

If a community offers programs that manage parts of the waste stream separately, it might reduce expenses by locating the material management programs at the transfer station. Savings might result by:

- Using dual-collection vehicles for refuse and source-separated waste streams and delivering all waste to the transfer station in one vehicle.
- Continuing to use separate collections for refuse and source-separated waste streams, but having all processing facilities located at one site, thus minimizing the cost of multiple utility connections, traffic control systems, office space, and administration. This approach also eliminates the cost and complexity of multiple siting and permitting efforts.

Unacceptable Wastes

Certain wastes might be unacceptable at a transfer station for a variety of reasons, including:

- They are prohibited by state or federal regulations (e.g., PCBs, lead acid batteries, radioactive materials).

Wastes Commonly Handled at Transfer Stations

The following types of waste are commonly handled at transfer stations. Specific definitions of these wastes vary locally.

Municipal solid waste (MSW) is generated by households, businesses, institutions, and industry. MSW typically contains a wide variety of materials including discarded containers, packaging, food wastes, and paper products. MSW includes a mixture of putrescible (easily degradable) and nonputrescible (inert) materials. Three types of MSW are commonly diverted and handled separately:

Yard waste (green waste) commonly includes leaves, grass clippings, tree trimmings, and brush. Yard waste is often diverted so that it may be composted or mulched instead of going for disposal.

Household hazardous waste (HHW) includes hazardous materials generated by households, such as cleaning products; pesticides; herbicides; used automotive products such as motor oil, brake fluid, and antifreeze; and paint.

Recyclables include discarded materials that can be reprocessed for manufacture into new products. Common recyclables include paper, newsprint, ferrous metals, plastic, glass containers, aluminum cans, motor oil, and tires.

Construction and demolition (C&D) debris results from demolition or construction of buildings, roads, and other structures. It typically consists of concrete, brick, wood, masonry, roofing materials, sheetrock, plaster, metals, and tree stumps. Sometimes C&D debris is managed separately from MSW; other times it is mixed with MSW.

- They are difficult or costly to process (e.g., tires).
- They might pose a health or fire hazard.
- They might be prohibited at the disposal facility to which the transfer station delivers.
- They might be prohibited (within a mixed waste load destined for disposal) because local regulations require they be recycled.
- They might be so large that they could damage trucks or equipment during waste loading operations.

The following types of wastes are typically not accepted at transfer stations: large bulky objects such as tree stumps, mattresses, or furniture; infectious medical waste; hazardous waste; explosives; radioactive materials; fuel tanks (even if empty); appliances; dead animals; asbestos; liquids and sludges; and dust-prone materials. This is a general list; some transfer stations might be set up to process these wastes, while others might have a longer list of unacceptable materials. While these and other unacceptable wastes represent a small fraction of the solid waste stream, properly managing them can require significant effort by the transfer station operator and the local solid waste management authority. The section on waste screening in the Transfer Station Design and Operation chapter further discusses how to properly manage and reduce the frequency of unacceptable waste at a transfer station.

Public Versus Commercial Use

Some transfer stations provide public access to the facility rather than restricting access only to waste collection vehicles. The types of customers accommodated vary depending on where the facility is located and who owns and operates the transfer station. Publicly operated transfer stations are more likely to be open to public use. Private transfer stations might not be open to the public because residents deliver relatively small amounts of waste with each visit, require more direction for safe and efficient use of the transfer station, and generally pay relatively small fees for using the transfer station. The general public usually is allowed to use a transfer station for any of several reasons: waste collection is not universally provided in the area; some wastes, such as bulky items or remodeling debris, are not collected; or public access is part of a strategy to prevent illegal dumping by providing a convenient, cost-effective place for people to deposit waste. Public unloading areas and traffic patterns are usually kept separate from commercial vehicles for safety and efficiency.

Determining Transfer Station Size and Capacity

The physical size of a planned transfer station is typically determined based on the following factors:

- The definition of the service area. Sometimes this is relatively simple, such as "all waste generated by Anytown, USA," or "all waste collected by Acme Hauling Company." Other times, the service area is more difficult to define because of varying public and private roles in solid waste management and the changing availability of existing disposal facilities.
- The amount of waste generated within the service area, including projected changes such as population growth and recycling programs.
- The types of vehicles delivering waste (such as car or pickup truck versus a specially designed waste-hauling truck used by a waste collection company).
- The types of materials to be transferred (e.g., compacted versus loose MSW, yard waste, C&D), including seasonal variations.
- Daily and hourly arrival patterns of customers delivering waste. Hourly arrivals tend to cluster in the middle of the day, with typical peaks just before and after lunchtime. Peak hourly arrivals tend to dictate a facility's design more than average daily arrivals.
- The availability of transfer trailers, intermodal containers, barges, or railcars, and how fast these can be loaded.

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- Expected increases in tonnage delivered during the life of the facility. For example, in a region with annual population growth of 3 to 4 percent, a facility anticipating a 20-year operating life would typically be designed for about twice the capacity that it uses in its first year of operation.
- The relationship to other existing and proposed solid waste management facilities such as landfills, recycling facilities, and waste-to-energy facilities.

The same factors are used to determine the size of the following transfer station features:

- Amount of off-street vehicle queuing (waiting) space. At peak times, vehicles must often wait to check in at a facility's "gatehouse" or "scale house." It is important that the queue (line) not block public streets or impede vehicular or pedestrian traffic.
- Number and size of unloading stalls, and corresponding number of transfer trailer loading positions.
- Short-term waste processing and storage areas (for holding waste until it can be reloaded into transfer vehicles).

Present and projected daily, weekly, and annual waste volumes (including seasonal variations) are important in planning facility size to accommodate waste deliveries. The maximum rate at which waste is delivered is a crucial consideration as well. In general, it is best to build a facility to accommodate present and projected maximum volumes and peak flows, with a preplanned footprint for facility expansion. A useful exercise is calculating how much tipping floor space a facility would require to store a full day's waste in case of extreme emergency. One approach to estimating the required tipping floor space is to begin with a base area of 4,000 square feet and add to it 20 square feet for each ton of waste received in a day (assuming the waste will be temporarily piled 6 feet high on the tipping floor).[1] For example, if the facility receives 100 tons of waste per day, a tipping floor space of 6,000 square feet would be required (i.e., 4,000 ft² + (100 TPD x 20 ft²/ton) = 6,000 ft²) "Chapter 4: Collection and Transfer" in EPA's *Decision Maker's Guide to Solid Waste Management* also provides a series of formulas for helping determine transfer station capacity These formulas are presented in the box below.

Formulas for Determining Transfer Station Capacity

Stations with Surge Pits

Based on rate at which wastes can be unloaded from collection vehicles:

$$C = P_C \times (L / W) \times (60 \times H_W / T_C) \times F$$

Based on rate at which transfer trailers are loaded:

$$C = (P_t \times N \times 60 \times H_t) / (T_t + B)$$

Direct Dump Stations

$$C = N_n \times P_t \times F \times 60 \times H_W \ / \ [(P_t/P_C) \times (W/L_n) \times T_C] + B$$

Hopper Compaction Stations

$$C = (N_n \times P_t \times F \times 60 \times H_W) / (P_t/P_C \times T_C) + B$$

Push Pit Compaction Stations

$$C = (N_p \times P_t \times F \times 60 \times H_W) / [(P_t/P_C) \times (W/L_p) \times T_C] + B_C + B$$

Where:

C	Station capacity (tons/day)
P_C	Collection vehicle payloads (tons)
L	Total length of dumping space (feet)
W	Width of each dumping space (feet)
H_W	Hours per day that waste is delivered
T_C	Time to unload each collection vehicle (minutes)
F	Peaking factor (ratio of number of collection vehicles received during an average 30-minute period to the number received during a peak 30-minute period)
P_t	Transfer trailer payload (tons)
N	Number of transfer trailers loading simultaneously
H_t	Hours per day used to load trailers (empty trailers must be available)
B	Time to remove and replace each loaded trailer (minutes)
T_t	Time to load each transfer trailer (minutes)
N_n	Number of hoppers
L_n	Length of each hopper
L_p	Length of each push pit (feet)
N_p	Number of push pits
B_C	Total cycle time for clearing each push pit and compacting waste into trailer

Source: Decision-Makers Guide to Solid Waste Management, Secon Edition (EPA530-R-95-023), p. 4-23.

1 Solid Waste Association of North America. 2001. *Transfer Systems Management Training Course*. SWANA. Washington, DC.

Queuing in Urban Areas

In extreme situations where adequate queuing space cannot be provided on the transfer station site, an additional offsite area can be provided as a holding area for waiting trucks. Transfer station staff can dispatch the waiting trucks via radio when the station is ready to receive them.

Number and Sizing of Transfer Stations

Design capacity is determined by the maximum distance from which waste can be economically delivered to the transfer station. The area that can efficiently reach the waste transfer station determines the volume of waste that must be managed, which is the facility's initial design capacity. Beyond a certain distance, another transfer station might be necessary, or it might become just as cost-effective to direct haul to the disposal facility.

Transfer stations serving rural or tribal areas tend to be small. They are optimally located within a reasonable driving time from the service area's largest concentration of homes and businesses. For example, a rural transfer station could be located near one of the service area's larger towns and sized to take waste from all waste generators within about 30 miles. As an example, two 50-ton-per-day transfer stations might each serve six small communities. Alternately, fewer transfer stations could be used, necessitating longer average travel distances. For example, one 100-ton-per-day transfer station could be used to serve the same 12 small communities, but it would be located farther from the outlying communities.

Addressing Site Size Limitations

When site size is not adequate to accommodate ideal designs and practices, additional engineering design features will be needed to mitigate the facility's potential negative impacts. For example, sound barriers might need to be incorporated into the site plan to reduce noise. Another approach is to select multiple, smaller capacity sites if a single parcel of land large enough to accommodate an ideal facility does not exist. These separate sites could be used to hold trucks awaiting delivery, or to store transfer trailers.

In urban or suburban areas, the same situations exist. A midsize city (population 500,000), for example, might decide that two 800-ton-per-day transfer stations would best serve its community. This same city could alternately decide that a single 1,600-ton-per-day transfer station is its best option, even when the longer driving distances are considered. When deciding which approach is best for a community, issues to consider include the impacts the transfer station(s) will have on the surrounding area, siting complications, and the cost to build and operate the transfer station(s). Each approach offers advantages and disadvantages that must be reconciled with local needs.

The biggest advantage of constructing large transfer stations is the economies of scale that can significantly reduce capital and operational costs. Centralizing waste transfer operations allows communities to reduce equipment, construction, waste handling, and transportation costs. The siting of a single facility may often prove easier than siting multiple facilities. Large facilities are also conducive to barge or rail operations that can further decrease traffic-related impacts on the community. Along related lines, however, a major drawback to building a single large facility is locating a tract of land that adequately meets facility requirements. Large facilities also tend to concentrate impacts to a single area, which can create the perception of inequity, especially when one neighborhood is shouldering the burden for the entire city. A single facility can result in longer travel times, which leads to increased down time for the collection crew and increased wear and tear on collection vehicles. Another consideration is that a single facility cannot divert waste to a backup facility if a need arises. The single facility must have additional equipment in case of equipment failure or other emergencies.

In other situations, multiple smaller sites might better address a community's waste management needs. Decentralizing waste transfer operations spreads lesser impacts over a wider area, which helps address equity issues. Although it is generally more expensive to build and operate several small transfer stations rather than one large station with the same total capacity, savings from reduced travel times might offset these capital costs and result in lower overall system costs. Multiple facilities also are better able to serve as backups for one another in case of scheduled or emergency shutdowns of facilities. The

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major disadvantage to building multiple facilities is that the difficulties encountered in siting a single facility can become multiplied.

Future Expansion

Transfer stations are frequently designed to accommodate future expansion. Often, this is accomplished by siting the facility on a larger parcel of land than would otherwise be necessary and preplanning the site and buildings so expansion can occur without negatively affecting other functions on the site or the surrounding community. Although expansion of effective capacity can sometimes be accomplished simply by expanding the hours of operation, this approach is not always effective because the transfer station must accommodate the collection schedules of vehicles delivering waste to the facility. In addition, increased operating hours might not be compatible with the surrounding community.

Site Selection

Identifying a suitable site for a waste transfer station can be a challenging process. Site suitability depends on numerous technical, environmental, economic, social, and political criteria. When selecting a site, a balance needs to be achieved among the multiple criteria that might have competing objectives. For example, a site large enough to accommodate all required functions and possibly future expansion, might not be centrally located in the area where waste is generated. Likewise, in densely developed urban areas, ideal sites that include effective natural buffers simply might not be available. Less than ideal sites may still present the best option due to transportation, environmental, and economic considerations. Yet another set of issues that must be addressed relates to public concern or opposition, particularly from people living or working near the proposed site. The relative weight given to each criteria used in selecting a suitable site will vary by the community's needs and concerns. Whether the site is in an urban, suburban, or rural setting will also play a role in final site selection.

Environmental Justice Considerations

During the site selection process, steps should be taken to ensure that siting decisions are not imposing a disproportionate burden upon low-income or minority communities. Overburdening a community with negative impact facilities can create health, environmental, and quality of living concerns. It can also have a negative economic impact by lowering property values and hindering community revitalization plans. These are just a few of the reasons environmental justice concerns need to be addressed when selecting a site for a waste transfer station.

The Siting Process and Public Involvement

A siting process that includes continuous public participation is integral to developing a transfer station. The public must be a legitimate partner in the facility siting process to integrate community needs and concerns and to influence the decision-making process. Addressing public concerns is also essential to building integrity and instituting good communications with the community. Establishing credibility and trust with the public is as

Maximizing Public Committee Participation

Public committees are often convened to assist with developing public policy. To maximize participation, the process should:

- Give committee members a chance to be actively involved.
- Allow the committee to remove the selected facilitator if concerns about objectivity exist.
- Encourage members to discuss relevant concerns and to raise questions or objections freely. Criticisms or challenges should be directed toward the issues; the facilitator should swiftly mitigate personal criticisms.
- Agree on a means to resolve disagreements before they arise.
- Allow members to discuss the results of each meeting with their constituents.
- Provide technical experts to educate participants.
- Distribute literature about upcoming issues before meetings.

Informing the Community

When initiating a siting process, education must be extended beyond the siting committee and include a communitywide outreach initiative. Components of this type of public outreach typically include:

- Special public meetings.
- Interviews with local newspapers for feature stories.
- Interviews with media editorial boards.
- Interviews with broadcast media.
- News conferences, press releases, and press kits.
- Paid advertising.
- Internet sites.
- Informational literature.
- Direct mail with project updates.
- City council/county commission presentations.
- Presentations to civic, environmental, religious, and professional groups.
- Presentations to neighborhood groups.
- Community education programs and workshops.
- Reading files located in public libraries or community centers that document the process.

Beyond communitywide outreach, initiate specific and targeted contact with key members of potential host communities, and identify community-specific conditions that need to be considered. Individuals might become proponents of the proposed facility if contacted directly for input, rather than opposing it based on misleading secondhand information.

important as addressing environmental, social, and economic concerns about the solid waste facility.[2] A companion document to this manual, *Waste Transfer Stations: Involved Citizens Make the Difference* (EPA530-K-01-003), provides key information citizens require to be effectively involved in the siting and development process. Two other EPA documents, *Sites for Our Solid Waste: A Guidebook for Effective Public Involvement* (EPA 530-SW-90-019) and *RCRA Public Participation Manual* (EPA530-R-96-007), provide further information and examples of how to integrate public participation into the waste management facility siting and development process. Following are some general guidelines for developing and implementing a siting process that is open to and integrates meaningful public input.

For publicly developed transfer stations, a good first step by public officials in the site selection process is establishing a siting committee. The committee's main responsibility includes developing criteria to identify and evaluate potential sites. The committee should consist of key individuals who represent various stakeholder interests. These stakeholders might include:

- Community and neighborhood groups.
- Industry and business representatives.
- Civic and public interest groups.
- Environmental organizations.
- Local- and state-elected officials.
- Public officials, such as public works employees and solid waste professionals.
- Academic institutions.

Committee members should be selected to ensure broad geographical representation from across the area to be served by the transfer station. In addition, committee representation should seek gender balance and racial diversity. Volunteer participation should also be solicited.

The committee's meeting times and dates must be planned and scheduled to facilitate attendance by all committee members and other members of the public. Therefore, meeting schedules should avoid conflicts with other major community, cultural, or religious events. To encourage active public participation, meetings should be prominently advertised in the media in a timely manner and be held in facilities accessible to the disabled and located on public transportation routes. Frequently, a facilitator is hired or appointed to keep the meetings focused, to minimize the

2 McMaster Institute of Environment and Health, "Psychological Impacts of the Landfill Siting Process in Two Southern Ontario Communities."

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Building Reuse: Weighing the Consequences

Adapting an existing building for reuse as a waste transfer station is usually done as a capital cost savings measure. Building reuse saves on new site construction and can avoid the permitting process if the existing site already has a permit allowing the waste transfer activity. Building reuse can have some benefits, including conserving construction materials required for new structures and facilities; reducing waste from the demolition of existing buildings; recycling unused property for which no other uses were found; and redeveloping contaminated property (brownfields redevelopment). But the negative aspects frequently outweigh the positives.

Pitfalls and problems associated with adaptation or retrofitting of buildings for waste transfer stations include:

- Transfer buildings have unique requirements rarely found in structures designed for other uses. These include the need for vertical clearances sufficient to accommodate the tipping height of commercial collection vehicles. New facilities are usually designed with at least 25 to 30 feet of vertical clearance from the tipping floor to the lowest overhead element.
- Busy transfer stations require adequate onsite space for vehicle parking and queuing, something reused buildings often lack. In fact, one of the most common problems with building reuse is inadequate queuing space, which leads to vehicles blocking neighborhood streets. Queuing trucks on city streets creates health and safety issues, and can be very disruptive for the surrounding neighborhood.
- Transfer stations need relatively large, open floor areas suitable for maneuvering large vehicles. Interior building columns and walls might not accommodate the kind of safe traffic movements that are needed, which could pose a hazard and reduce traffic efficiency.
- Enclosed transfer structures also require large, very tall access doors. Doors 24-feet high are not unusual in new transfer buildings. The design must assume that a collection truck will inadvertently exit the transfer station building with its tipping bed extended.
- Heavy-duty, skid-resistant floors are a necessity in transfer stations. Sloped floors with positive drainage are also important. Some buildings are not designed with floors that meet these essential criteria, and replacing the floors can be costly.
- Older structures, particularly older warehouse type structures, often fail to meet current structural design codes. In particular, modern seismic and fire code requirements have changed considerably in recent years. Retrofitting older structures might prove more costly than demolishing and replacing the structure.
- Transfer station structures can experience substantial vibrations from heavy equipment used to compact and load waste into the transfer vehicles. Concrete and steel floors, pillars, and other building reinforcements must be designed to accommodate these high levels of vibration. Older buildings not designed for this heavy use often can not meet these requirements.
- Most transfer stations require some amount of grade separation so waste can be loaded into open-topped vehicles to simplify the waste loading process. Since customer and transfer vehicles both need to access the structure, but at different levels, finding a building that offers this configuration might prove difficult. Installing additional levels or tunnels can be costly or impractical in some areas (i.e., shallow ground water or bedrock).
- Waste transfer stations include more than just the tipping area. While an existing building might be very adaptive to waste transfer, the overall building site needs to accommodate the supporting activities and requirements including traffic queuing, buffer zones, scale facility operations, etc.

Transfer station structures require tall access doors to accomodate collection vehicles.

Community Involvement in Privately Developed Facilities

In the past, privately developed facilities have not generally formed siting committees. When private facilities have been sited, the public's first—and sometimes only—opportunity for input has come when the permit application is put out for public comment. Most states do not require private developers to seek public involvement in the site selection or facility design and operation decisions. Private companies, however, should consider establishing siting committees and developing public outreach programs to establish credibility, build public trust, and develop sound avenues of communication. These programs should educate the community about the need for the facility, the facility's design and operations, and provide an opportunity for community input. A public outreach program helps the developer understand community concerns and address them early in the siting and design phases while changes are still readily incorporated. Adopting, with appropriate modifications, the public involvement process outlined above is one approach to addressing community concerns.

potential for certain individuals or interest groups to dominate the process, and to encourage active participation by all stakeholders throughout the process.

During the siting committee's first meeting, individual duties, group responsibilities, and process issues need to be addressed. Expectations and limitations of the committee need to be clearly communicated and might be summarized in mission statements. Rules for discourse, and a schedule and procedures for final decision-making, should be determined and agreed upon. Technical experts should be involved early in the process to respond to general questions and to resolve common misconceptions about waste transfer.

After establishing general procedures, committee members should be informed of all details to further ensure equal participation and a means of influencing the decision-making process. Committee members should understand why a transfer station is needed and the facility's role within the solid waste management system. In addition, committee members must be taught the numerous technical, environmental, and economic aspects associated with siting, designing, and operating a transfer station. This ensures that the siting criteria the committee develops will result in identifying potential sites feasible from engineering and operational perspectives, as well as acceptable to the public.

Educational materials for the siting committee should provide useful, objective information. Mistrust of technical information might develop among the committee members and should be anticipated. The credibility of the technical information might be enhanced by encouraging the committee to assist in selecting consultants and technical experts, by encouraging committee members to perform their own research, by using a third party to review technical studies, and by relying on experts who reside within the community to provide technical information. Information should be relayed in various formats and should consider language barriers, literacy levels, and preferred types of communications. For example, committee education might include presentations by technical experts and tours of existing transfer stations in addition to written materials.

Siting Criteria

Once the committee completes the education phase, criteria should be developed for identifying and evaluating potential sites. All siting criteria must be developed before identifying potential transfer station sites. This approach ensures siting decisions are based on objective criteria. Three categories or sets of criteria applied during various stages of the siting process are exclusionary, technical, and community-specific criteria. It is important to note that no site may meet all the criteria, in which case, each criterion's relative weight and importance must be considered.

Exclusionary Siting Criteria

Siting a waste transfer station, or any type of facility, in areas with preclusive siting criteria is often prohibited by federal, state, or local laws or regulations, or requires facilities to incorporate special engineering design and construction techniques. Even when siting in excluded

zones is allowed, the added engineering designs or strong public opposition can significantly increase construction costs. In general, it is best to avoid siting in these areas. Exclusionary criteria might include areas such as:

- Wetlands and floodplains.
- Endangered and protected flora and fauna habitats.
- Protected sites of historical, archeological, or cultural significance.
- Prime agricultural land.
- Parks and preserves.

Some examples of federal laws defining these areas include the Endangered Species Act; the Migratory Bird Conservation Act; the Coastal Zone Management Act; the Wild and Scenic Rivers Act; the Marine Protection, Research, and Sanctuaries Act; and the National Historic Preservation Act.

Technical Siting Criteria

The second category of criteria to develop includes technical parameters that help define the best potential facility sites. These criteria provide guidance on specific engineering, operation, and transportation conditions that should be considered to ensure that potential sites are feasible from technical, environmental, and economic perspectives. These criteria address the following issues:

- **Central location to collection routes:** To maximize waste collection efficiency, transfer stations should be located centrally to waste collection routes. As a rule of thumb in urban and suburban areas, transfer stations should be no more than 10 miles away from the end of all collection routes. Beyond that distance, collection routes might need to be altered to enable refuse to be collected and deposited at the transfer station within one operating shift.
- **Access to major transportation routes:** The transfer station should have direct and convenient access to truck routes, major arterials, and highways (or rail or barge access, if appropriate). For large metropolitan areas, direct access to rail lines or barges will significantly reduce the number of large transfer trailers leaving the station and traveling area roads. It is preferable to avoid routing traffic through residential areas because traffic generated by transfer stations contributes to congestion; increased risk to pedestrians; increased air emissions, noise, and

Addressing Cluster Zoning

Siting waste transfer stations exclusively in areas zoned for industrial use can lead to a condition known as "cluster zoning." Especially restrictive zoning frequently forces transfer stations into a few areas. In general, siting transfer stations in industrial zones eliminates permitting agencies' discretion to deny such use because technically, the transfer station is permitted "as a matter of right." These types of zoning actions also prevent an impacted community from influencing the zoning decision. Such intensive clustering of industrial facilities may have negative impacts on neighboring residents, such as increased traffic, noise, odors, and litter. Communities need to address clustering and zoning issues at the local level through comprehensive planning that considers the aggregate effects of clustering certain activities and the equity in sharing community burdens. To avoid clustering when siting a new waste transfer station, establish a community stakeholder or advisory panel to participate in the siting process. This advisory panel should consist of representatives from all potentially affected communities; state, local, and/or tribal regulatory agencies; public and private waste trade groups; local community development organizations; and any other concerned community, environmental, or environmental justice organizations.

To prevent disproportionate facility siting:

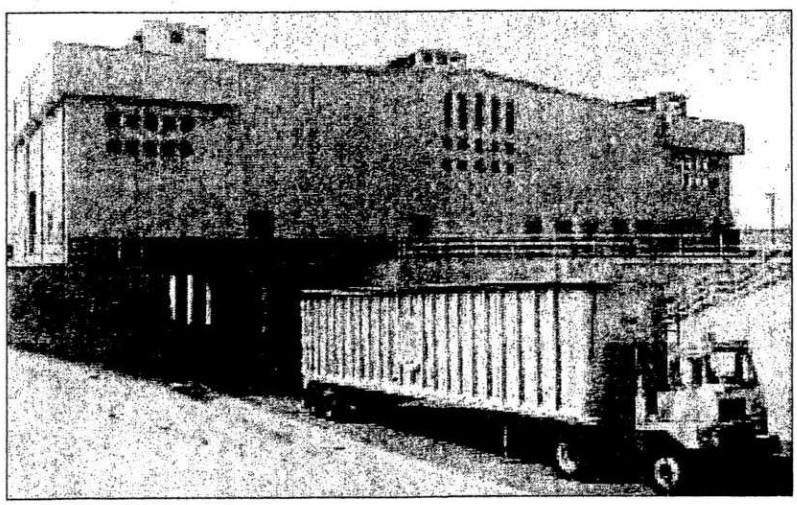
- Zoning must not be presumed to prevent significant impacts on poor and minority communities.
- The potential for clustering should be examined.
- Other close or adjacent land uses should be examined to determine compatibility.
- Other close or adjacent land uses should be examined to analyze cumulative impacts.

Requiring Minimum Distance Between Transfer Stations

Communities with a waste transfer station clustering problem might consider requiring a minimum distance between facilities as one possible solution. Designating a minimum distance between waste transfer stations, or other industrial facilities, will limit clustering by forcing the siting of new facilities away from existing operations. The end effect can be a more equitable dispersion of facilities and their negative impacts. A community will need to determine what minimum distance is reasonable.

wear on roads; and might contribute to litter problems.

- **Site size requirements:** The area required for specific transfer stations varies significantly, depending on the volume of waste to be transferred, rates at which waste will be delivered, the functions to be carried out at the site, and the types of customers the facility is intended to serve. Locating a site of sufficient size is critical to operating efficiencies and minimizing impacts on the surrounding community. Engineering input can establish preliminary size criteria based on a conceptual design.
- **Sufficient space for onsite roadways, queuing, and parking:** Transfer stations typically have onsite roadways to move vehicles around various parts of the transfer site. Waste collection trucks can be up to 40 feet long. Transfer trailers that move waste to a disposal facility are typically 50 to 70 feet long. These vehicles need wide roadways with gradual slopes and curves to maneuver efficiently and safely. Also, the site will need space for parking transfer vehicles and to allow incoming and outgoing traffic to form lines without backing up onto public roads.
- **Truck and traffic compatibility:** Transfer stations often receive surges of traffic when collection vehicles have finished their routes. Transfer station traffic varies locally, but tends to peak twice a day. The first peak is often near the middle of the day or shift, and the second at the end of the day or shift. Therefore, the best sites for transfer stations are located away from areas that have midday traffic peaks and/or school bus and pedestrian traffic.
- **Ability for expansion:** When selecting a site, consider the potential for subsequent increase in the daily tonnage of waste the facility will be required to manage, or added processing capabilities for recycling and diversion. It is frequently less expensive to expand an existing transfer station than to develop a new site due to the ability to use existing operations staff, utility connections, traffic control systems, office space, and buildings.
- **Space for recycling, composting, and public education:** A transfer station could be sited in areas also conducive to recycling or composting activities. Many transfer stations are designed to enable residents and businesses to drop off recyclables and yard waste in addition to trash. Some transfer stations incorporate education centers or interpretive trails focusing on waste prevention. These types of facilities offer increased utility to the community.
- **Buffer space:** To mitigate impact on the surrounding community, a transfer station should be located in an area that provides separation from sensitive adjoining land uses such as residences. Buffers can be natural or constructed and can take many forms, including open spaces, fences, sound walls, trees, berms, and landscaping.
- **Gently sloping topography:** Transfer stations often are multilevel buildings that need to have vehicle access at several levels. Completely flat sites need ramps or bridges constructed to allow vehicle access to upper levels (or areas excavated to allow access to lower levels). Sites with moderately sloping terrain can use topography to their advantage, allowing access to the upper levels from the higher parts of the natural terrain and access to lower levels



Many transfer stations are multi-level facilities that allow vehicle access at several levels.

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from the lower parts. Sites with steep slopes might require extra costs associated with earthmoving and retaining walls.

- **Access to utilities:** Transfer stations generally require electricity to operate equipment, such as balers and compactors; lighting; water for facility cleaning, restrooms, and drinking; and sanitary sewer systems for waste-water disposal. Some smaller transfer stations use wells for water supply, and some, especially in more rural settings, use septic systems or truck their waste water for offsite treatment.
- **Zoning Designations and Requirements:** Zoning ordinances frequently classify transfer stations as industrial uses, which limits their siting to areas zoned for industry usually in conjunction with a special use permit. Exclusive use of predetermined land use criteria, however, might result in locating transfer stations in areas already overburdened with industries or clustering of these types of facilities in areas adjacent to poor and minority communities. If local zoning ordinances are so restrictive that they disallow facility siting outside pre-established industrial zones, substantial engineering and architectural design must be incorporated into the facility to minimize impacts on the surrounding community.

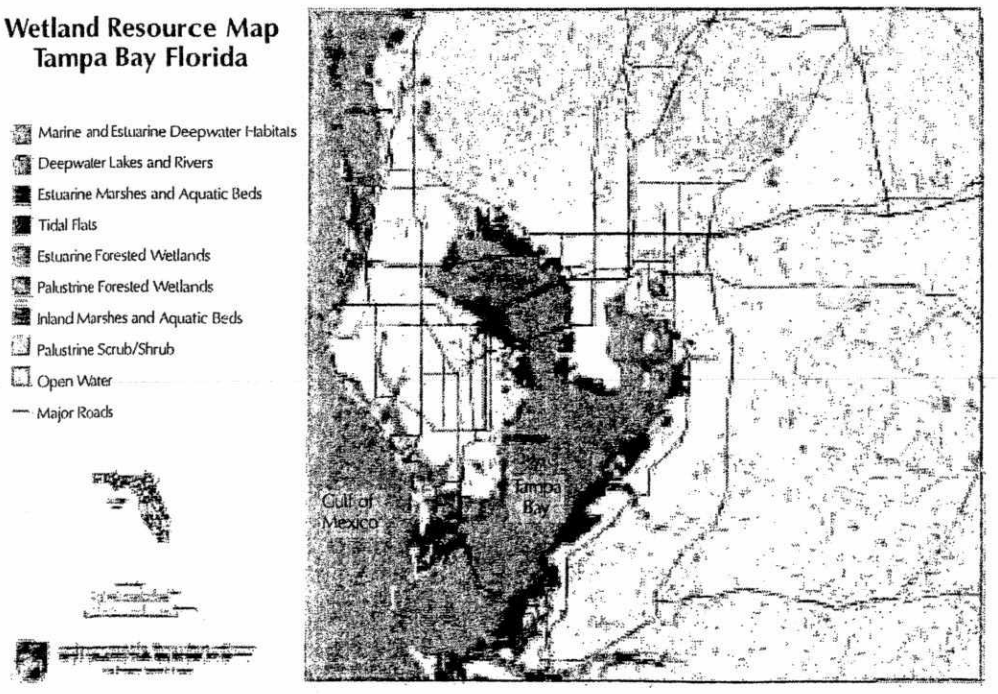
Developing Community-Specific Criteria

The third category of criteria to consider are impacts that the facility will have on the surrounding community. These criteria are typically less technical in nature and incorporate local, social, and cultural factors. Examples of these criteria include:

- Environmental Justice considerations (e.g., clustering, cumulative impacts).
- Impact on air quality.
- Impact on the local infrastructure.
- Adjacent land uses, including other environmental stressors that might already exist.
- Proximity to schools, churches, recreation sites, and residences.

Using GIS to Narrow the Search

A geographic information system (GIS) is a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information (data identified according to location). After the data are entered, each positive attribute or exclusionary criteria for siting transfer stations can be layered on top of municipal maps, as well as each other, to narrow down potential site locations. The maps show these variables in relationship to infrastructure and housing patterns.



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- Prevailing winds.
- Number of residences impacted.
- Presence of natural buffers.
- Impacts on existing businesses.
- Expansion capability.
- Buffer zones and screening measures.
- Traffic compatibility.
- Impact on historic or cultural features.
- Impact on neighborhood character.

To maintain objectivity in the facility siting process, the community-specific criteria should be prioritized before potential sites are known. After potential sites are identified, the committee will apply these criteria to evaluate each potential site's suitability as a waste transfer station. These issues also factor into permitting decisions concerning private facilities and should not be ignored by the permitting agency or transfer station developer.

Applying the Committee's Criteria

After all three categories of siting criteria are agreed upon, it is time for the committee to apply the criteria and narrow down all possible sites. Keep in mind, however, that despite the best efforts, every site has some shortcomings that will need to be addressed.

First, the exclusionary criteria can be plotted on maps, which helps the committee visualize where the facility cannot be sited due to local, state, and federal regulations. Once unsuitable areas are eliminated, the committee's technical criteria and community-specific criteria are applied to all remaining options. Information for each potential site should be developed so the committee can rank the sites. Based on the committee's ranking, the top two to four sites should undergo more rigorous analysis to determine technical feasibility and compliance with the environmental and community objectives.

Host Community Agreements

Siting any type of solid waste management facility has often been met with strong community opposition. Whether the facility is publicly or privately owned, many residents may not be confident that the siting, permitting, and oversight process will be sufficiently rigorous to address their concerns and protect them from future impacts. When this type of opposition arises, it is often advantageous for the developer to enter into a separate agreement with the surrounding community, laying out all issues of concern and the developer's action plan in response. These "host community agreements" are most frequently used when private companies are developing a facility, but public agencies might also find them useful in satisfying community concerns. These agreements typically specify design requirements, operating restrictions, oversight provisions, and other services and benefits that the immediate community will receive. Provisions might include the following:

- Steps to reduce negative environmental impacts in the immediate area, such as committing to the use of low emission or alternative fueled vehicles, or retrofitting vehicles with particulate filters.
- Limitations on waste generation sources.
- Roadside cleanup of litter on access routes.
- Restrictions on facility operating hours.
- Restrictions on vehicle traffic routes.
- Financial support for regulatory agencies to assist with facility oversight.
- Independent third-party inspection of facilities, or the use of video monitoring.
- Assistance with recycling and waste diversion objectives.
- A fee paid to the local government for every ton of waste received at the facility.
- Free or reduced-cost use of the facility for the community's residents and businesses.
- Guaranteed preference to the community's residents for employment.

- Funding for road or utility improvements.
- Provisions for an environmental education center.
- Financial support for other community based activities.

These agreements can also require that community representatives have access to the facility during operating hours to monitor performance. Safety concerns must be addressed if this provision is included. Community representatives usually welcome an ongoing communication process between facility operators and an established citizen's committee to encourage proactive response to evolving issues. The provisions or amenities in a host community agreement generally are in addition to what state and local standards or regulations require, and thus should not be thought of as substitutes for adequate facility design and operation. The same is true for state, tribal or local government compliance enforcement. The government agency responsible for transfer station compliance also should make a commitment to the community concerning its role in actively and effectively enforcing all requirements.

Transfer Station Design and Operation

This section discusses the many factors that affect a transfer station design. The general design issues discussed in this section can typically be applied at a variety of facility sites and over a wide range of facility sizes. Specific design decisions and their costs, however, can only be finalized once a specific site is selected. After determining who will use the facility and how, a site design plan can be developed. A facility's design must accommodate its customers' vehicles and the technology used to consolidate and transfer waste, provide for employee and public safety, and address environmental concerns related to safeguarding health and being a good neighbor to the surrounding community.

Transfer Station Design

How Will the Transfer Station Be Used?

The most important factors to consider when designing a transfer station are:

- Will the transfer station receive waste from the general public or limit access to collection vehicles? If access will not be limited, how will citizen traffic be separated from commercial traffic to ensure safe and efficient unloading?
- What types of waste will the transfer station accept?
- What additional functions will be carried out at the transfer station (i.e., material recovery programs, vehicle maintenance)?
- What type of transfer technology will be used?
- How will waste be shipped? Truck, rail, or barge?
- What volume of material will the transfer station manage?
- How much waste will the facility be designed to receive during peak flows?
- How will climate and weather affect facility operations?

Two other factors to consider when developing a transfer station's design include:

- How will environmental impacts to the surrounding area be minimized? (Ways to minimize environmental impacts on the community are discussed in the Environmental Issues section beginning on page 33.)
- How will employee health and safety be ensured? (The Safety Issues section beginning on page 40 discusses several design features, technologies, and operational practices to help protect the health and safety protection of facility employees.)

Site Design Plan

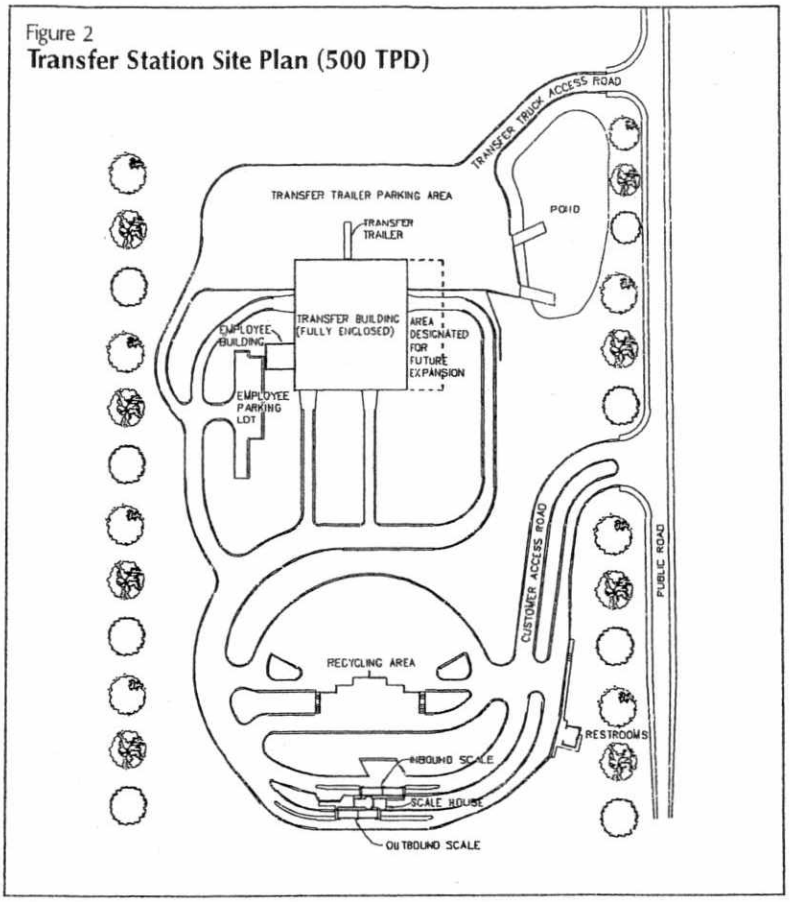
Once a site is identified for the transfer station, planners, architects, and engineers use the factors described above to develop a site plan for the proposed facility.[2] A site plan shows the layout of the transfer station site's major features, including access points, roadways, buildings, parking lots, utilities, surface-water drainage features, fences, adjacent land uses, and landscaping.

Figure 2 shows a simplified example of a site design plan of a fully enclosed transfer station. This facility has a design capacity of 500 tons per day and occupies a 25-acre site. It serves both the general public and waste collection vehicles and has a citizen drop-off area for recyclables.

Site design plans typically show the following features:

2 Sometimes a "conceptual site plan" is developed before a site is identified. This can be helpful in identifying and assessing the size and suitability of candidate sites.

Figure 2
Transfer Station Site Plan (500 TPD)



- **Road entrances and exits.** Including acceleration/deceleration lanes on public streets, and access points for waste arriving and departing from the transfer station. Some facilities have separate access for visitors and employees so these vehicles do not have to compete with lines of vehicles using the facility.
- **Traffic flow routes on site.** Often, separate routes are established for public use and for heavy truck use. Designers work to eliminate sharp turns, intersections, and steep ramps.
- **Queuing areas.** Queues can develop at the inbound scales, the tipping area, and the outbound scales. Queuing space should be clearly identified, and queues should not extend across intersections.
- **The scale house.** Incoming and outgoing loads are weighed and fees are collected.
- **Primary functions at the transfer station building.** Including tipping floor, tunnels, ramps, etc.
- **Buildings.** Including entrances and exits for vehicles and people.
- **Parking areas.** Employees, visitors, and transfer vehicles.
- **Public conveniences.** Such as separate tipping areas for the general public, recycling dropoff areas, a public education center, and restrooms.
- **Space for future expansion of the main transfer building.** Often, this area is shown as a dotted line adjacent to the initial building location.
- **Buffer areas.** Open space, landscaping, trees, berms, and walls that reduce impacts on the community.
- **Holding area.** For inspecting incoming loads and holding inappropriate waste loads or materials for removal.

Main Transfer Area Design

Most activity at a transfer station occurs within the main transfer building. Here, cars and trucks unload their waste onto the floor, into a pit, or directly into a waiting transfer container or vehicle. Direct loading can simplify operations, but limits the opportunity to perform waste screening or sorting. When not loaded directly, waste deposited onto the floor or into a pit is stored temporarily, then loaded into a transfer trailer, intermodal container, railcar, or barge. Most modern transfer stations have enclosed buildings. Some older and smaller facilities are partly enclosed (e.g., a building with three sides) or only covered (e.g., a building with a roof but no sides). Small rural facilities might be entirely open but surrounded by fences that limit access and contain litter.

Figure 3 shows the main transfer building for the site plan depicted in Figure 2. It shows a 40,000-square-foot building with a pit, separate tipping areas for public versus large trucks on either side of the pit, and a preload compactor to compact the waste before it is loaded into transfer trailers.

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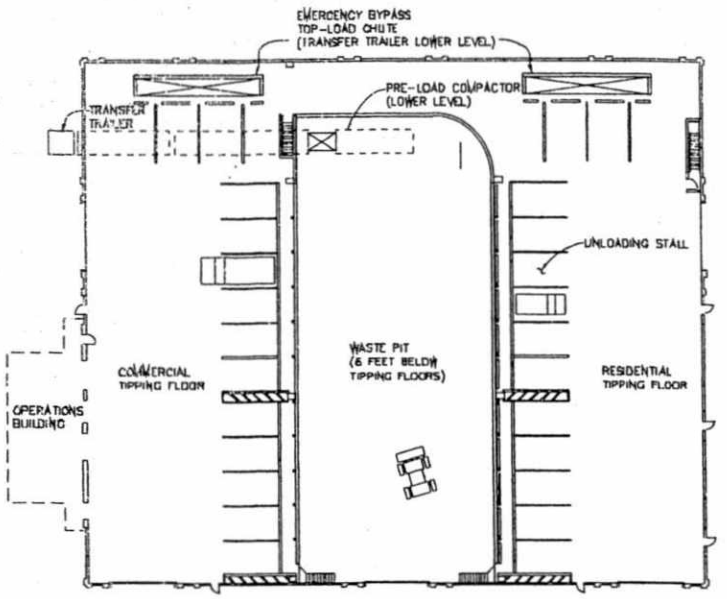
Because the main transfer building is typically quite tall to accommodate several levels of traffic, it can often be seen easily from offsite locations. Therefore, the main transfer building should be designed to blend into or enhance the surrounding neighborhood.

Types of Vehicles That Use a Transfer Station

Traffic is frequently a transfer station's most significant community impact. Because the primary purpose of transfer stations is to provide more efficient movement of wastes, it is important to consider the following types of customers and vehicles that commonly use them.

- **Residents hauling their own wastes in cars and pickup trucks.** Residents regularly served by a waste collection service typically visit the transfer station less frequently than residents in unincorporated and rural areas not served by waste collection companies (or who elect not to subscribe to an available service). Residents typically deliver only a few pounds to a ton of waste per visit.
- **Businesses and industry hauling their own wastes in trucks.** Many small businesses such as remodeling contractors, roofers, and landscapers haul their own wastes to transfer stations. The vehicle type used and the waste amount delivered by businesses varies considerably.
- **Public or private waste hauling operations with packer trucks.** Packer trucks, which compact waste during the collection process, are commonly used on collection routes serving homes and businesses. Packer trucks typically visit many waste generators along their routes and unload when full, generally once or twice per day. Convenient access to a transfer station helps keep packer trucks on their collection routes. Packer trucks typically deliver 5 to 10 tons of waste per visit.
- **Public or private waste hauling operations with rolloff trucks.** Large rolloff containers are typically placed at businesses and industry and collected when they are full. A rolloff box is a large metal bin, often open at the top, that can be loaded onto a truck and hauled away to dispose of the waste. Rolloff boxes also are commonly used at transfer stations to receive yard waste, recyclables, and solid waste from the general public. A typical, large rolloff box measures 8 feet tall, 7 feet wide, and 22 feet long. Unlike packer trucks that operate on an extended route before traveling to the transfer station, rolloff trucks typically travel to one place, pick up a roll-off container, travel to and unload at the transfer station, and return the empty rolloff container to the place of origin. Because rolloff trucks handle many loads per day, convenient access to a transfer station is very important to their operations. Rolloff trucks typically deliver 2 to 8 tons per visit.
- **Transfer vehicles hauling waste from the transfer station.** Transfer trailers (similar to large interstate tractor-trailers) commonly haul consolidated waste from transfer stations to disposal facilities. Trains or barges are also used to haul waste from some large urban transfer stations (see text box). Transfer trailers typically haul 15 to 25 tons per trip, while trains and barges typically haul thousands of tons. Some stations

Figure 3
Main Transfer Building Floor Plan



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Rural Transfer Station Design

Since small transfer stations in rural or tribal settings receive considerably lower volumes of waste and customer vehicles than large urban or suburban facilities, many of the design criteria outlined previously will simply not apply. Cost frequently is a major consideration for small rural transfer stations, limiting what can be done. Consequently, rural transfer stations are often uncovered or partially covered facilities. Partially covered sites might be enclosed on three sides with the vehicle entrance side open, or simply have a roof with no walls. A common design uses a single open-top trailer situated beneath a raised customer tipping area. The raised customer tipping area allows customers to back up to the trailer or drop boxes and directly unload their waste into the rolloff trailer. A hopper is not usually used. When constructing a raised tipping area, taking advantage of natural grades within the site can reduce construction costs. If favorable grades do not exist, a simple earthen retaining wall and access ramp can be constructed to create the multilevel layout desired. Some type of safety restraint should be incorporated on the tipping area to guard against falls. Using a removable constraint, such as a rope, chain, gate, or posts, allows tipping vehicles to unload waste unimpeded and facilitates site cleaning.

Driving surfaces ideally are paved to minimize dust generation, but all-weather gravel surfacing is a cost-effective alternative to asphalt pavement. Another alternative is hosing down dirt areas during operating hours. The use of drop boxes requires a concrete or asphalt pad. Ideally, the facility is surrounded by a fence and gated. The gate should be locked during nonoperating hours to keep out large vectors, trespassers, and illegal dumpers. Fences also are helpful in containing windblown litter. It is not uncommon for remote sites to lack water, sewer, or electrical service.

Partially covered rural facility.

Another design approach utilizes a completely contained modular system, such as the system pictured below. These types of systems are prefabricated and can be quickly assembled in the field. The waste collection bins are completely sealed and are animal- and people-proof. Waste is deposited into the sealed bin by one of two methods. A small sliding door on the front panel can be opened by hand allowing small waste loads to be deposited, while the entire front panel can be raised to allow collection vehicles to unload. Raising the front panel cannot be done by hand and requires a power source. For isolated sites lacking electrical power, vehicle drivers can use a power takeoff or a hydraulic connection from their collection vehicles to lift the front panel. To unload the system, the transfer vehicle pulls along side the container which is tipped up, dumping the waste into the waiting vehicle (see the photograph below). Again, if power is not available on site to tip the container, hydraulic power from the transfer vehicle itself can be used. This feature makes such arrangements ideal for unmanned or remote transfer stations. If desired, or required by state, tribal, or local regulations, leachate collection tanks also can be installed onsite.

An example of a modular, self-contained waste transfer system. Source: Haul-All Equipment Systems. 1999. Reprinted by permission of Haul-All Equipment Systems.

transfer materials by using intermodal systems, which combine short distance truck transport with longer distance rail or barge transport.

The following design issues should be considered for the various vehicle types:

- Packer trucks and rolloff trucks require a tall "clear height" inside buildings so they do not hit overhead lights, beams, or doorways when extended. When these vehicles unload, they typically require 25 to 30 feet of vertical clearance. Large transfer stations can more readily accommodate this requirement. Small and medium-sized transfer stations can provide this clearance, but doing so tends to make these buildings unusually tall for their size, particularly if they are multilevel facilities.

- Packer trucks and rolloff trucks need space on the tipping floor to pull forward as the load is deposited if they are unloading on a flat floor (rather than into a pit).
- Packer and rolloff trucks require large areas to turn, back up, and maneuver into the unloading area.
- Residential loads, particularly those pulling trailers, require additional time and space to back up into the unloading area. In the interest of safety and site efficiency, many transfer stations have a separate access road and receiving area for residential deliveries so that they do not tie up unloading space reserved for trucks. Residents typically unload materials by hand, which takes additional time.
- Curves and intersections along roads on or near the transfer station site need large turning radii so the rear wheels of trucks do not run over curbs or off the road when making moderate or sharp turns.
- Slopes on ramps should be limited to less than 8 percent, particularly for fully loaded transfer trailers.
- In colder climates, measures and equipment for seasonal or severe weather should be incorporated. Road sanders and snowplows for ice and snow removal are some examples.

A collection vehicle dumps its load onto the tipping floor.

Transfer Technology

The method used to handle waste at the transfer station from the time it is unloaded by collection vehicles until it leaves the site is central to any transfer station's design. In the simplest cases, waste from collection vehicles is unloaded directly into the transfer container or vehicle. As this eliminates opportunities to inspect or sort the material, other floor tipping methods are more common.

This section describes the basic methods of handling waste at transfer stations, explains which methods are most appropriate for small and large transfer stations, and addresses the

Rail and Barge Transport

Rail Transport is suitable for high-volume transfer stations, particularly those that need to haul waste long distances. Using railcars for transport offers some advantages over long hauling via truck. Railcars have a very large capacity and offer an economical mode of long-haul transport. Rail transport also eliminates highway out-haul traffic and allows out-haul vehicles to avoid highway traffic delays. Similar to trucks, rail transport uses a range of waste transfer containers and loading methods. Rail operations typically use direct top loading of noncompacted waste, loading of precompacted waste into intermodal containers, or placement of bales in conventional boxcars. When intermodal containers have to travel public highways between the rail terminals and either the transfer station or the disposal site, the container load must stay within the highway weight limit. In some cases this may mean using several smaller containers per railcar rather than just one or two large containers. A single train can take more than two hundred truck trips off the highway and in many situations can move the waste at a lower cost per ton mile, with greater fuel efficiency and lower overall air emissions.

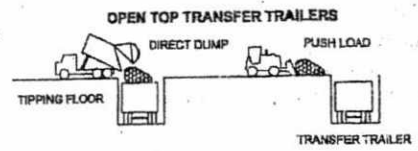
Rail transport is dependent upon the availability of adequate numbers of rail cars and containers and the ability of the railroad system to pickup and move the waste in a timely manner. Long delays before departure or along the route can result in odor problems.

Barges carrying sealed intermodal containers are even more efficient than train transport. A single barge can replace 350 truck trips. Barge transport is best suited for very large waste transfer operations because of the high capital cost of loading and unloading terminals and transport containers and marine vessels. Siting of marine terminals may also be more difficult than siting a conventional waste transfer station.

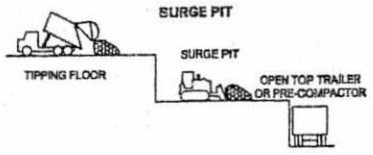
Figure 4
Basic Transfer Station Technologies

Waste can be unloaded directly into the "open top" of the trailer, but is most often unloaded on the tipping floor to allow for materials recovery and waste inspection before being pushed into the trailer. Large trailers, usually 100 cubic yards or more, are necessary to get a good payload because the waste is not compacted. This is a simple technology that does not rely on sophisticated equipment (e.g., compactor or baler). Its flexibility makes it the preferred option for low-volume operations.

A.



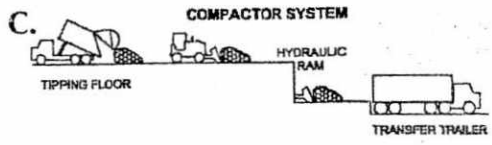
B.



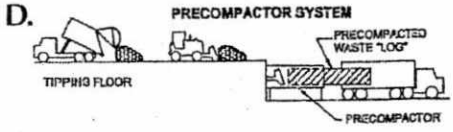
The surge pit is not a loading technology, but an intermediate step normally used with open-top or precompactor systems. The pit can store peak waste flow, thus reducing the number of transfer trailers needed. A tracked loader or bulldozer is used to compact the waste before loading, increasing payload. Because waste is often unloaded directly into the surge pit, this technology might deter materials recovery and waste screening efforts.

Stationary compactors use a hydraulic ram to compact waste into the transfer trailer. Because the trailer must be designed to resist the compactive force, it is usually made of reinforced steel. The heavy trailer and the weight of the onboard unloading ram reduce the payload available for waste. This technology is declining in popularity.

C.



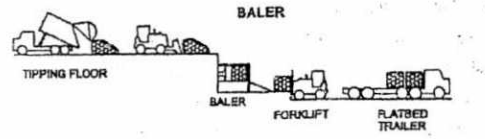
D.



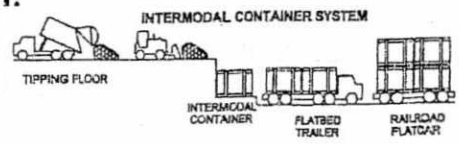
Precompactor systems use a hydraulic ram inside a cylinder to create a dense "log" of waste. The log is pushed into a trailer that uses "walking floor" technology to unload or relies on a tipper at the landfill to unload by gravity. Most precompactor installations have two units in case one unit requires repair. The capital cost is relatively high at more than $250,000 per unit, but the superior payload can offset these initial costs.

Balers are units that compress waste into dense, self-contained bales. Wire straps may be used to hold the bales intact. They are usually moved by forklifts and transported by flatbed trailers. The baler units can also be used for recyclables such as paper and metal. Payloads are very high, but so are capital costs. Most baling stations have at least two units in case one is down, and they cost more than $500,000 apiece. This high-technology option is normally used only in high-volume operations, and special equipment or accommodations might be required at the landfill (or balefill).

E.



F.



In this alternative, waste is tipped at a transfer station, then loaded into intermodal containers. These containers typically have moisture- and odor-control features and are designed to fit on both flatbed trailers and railroad flatcars. The containers may be loaded directly onto railcars or transferred by truck to a train terminal. The sealed containers can be stored on site for more than 24 hours until enough containers are filled to permit economic transport to the landfill. At the landfill, these containers are usually unloaded by tippers. This option allows for reduction of total truck traffic on local roads and can make distant disposal sites economically viable.

Source: DuPage County. 1998. *Solid Waste Transfer in Illinois: A Citizen's Handbook on Planning, Siting and Technology.* Reprinted by permission of DuPage County.

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advantages and disadvantages of each method. Figure 4 shows simple diagrams of the various transfer methods described in this manual.

Options for unloading waste from collection or residential vehicles at the transfer station include:

- Directly unloading material into the top of a container or transfer trailer parked below the unloading vehicle, or onto a tipping floor at the same level as the unloading vehicle (Figure 4-A).
- Unloading into a surge pit located below the level of the unloading vehicle (Figure 4-B).

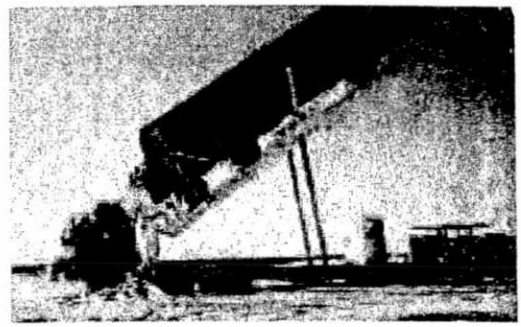
Waste can be moved and piled for short-term storage on the tipping floor or in a pit. Short-term storage allows waste to be received at the transfer station at a higher rate than it leaves the facility, increasing a transfer station's ability to handle peak waste delivery periods.

Options for reloading waste into a transfer container or vehicle include:

- Reloading directly from a tipping floor or pit into top-load containers or transfer trailers parked below the tipping floor or pit (Figures 4-A and 4-B).
- Reloading into a compactor that packs the waste into the end of a container or transfer trailer (Figure 4-C).
- Reloading into a preload compactor that compacts a truckload of material and then ejects the compacted "log" into the end of a container or transfer trailer (Figure 4-D).
- Reloading into a baler, which makes bales that can then be forklifted onto a flatbed truck (Figure 4-E).

Options for unloading waste at the disposal facility from transfer containers or vehicles include push-out blades, walking floors, and trailer tippers. With push-out blades and walking floors, the trailers unload themselves. A trailer tipper lifts one end of the trailer (or rotates the entire trailer) so that the load falls out due to gravity. Baled waste can be manipulated at the landfill using forklifts.

Table 1 summarizes the advantages and disadvantages of the various transfer technologies. Some transfer stations use a combination of technologies to mitigate some of the disadvantages of a particular design. For example, large transfer stations might have a top-loading system as a backup in case the preload compactor breaks down or in case of an electric power outage. It also illustrates that many interrelated factors need to be considered when deciding on the appropriate technology for a transfer station. The major factors include design capacity, distance to the disposal site, cost, reliability, safety, and method of unloading at the disposal site.



A trailer tipper emptying a transfer trailer at a waste disposal facility.

Transfer Station Operations

This section describes transfer station operations issues and suggests operational practices intended to minimize the facility's impact on its host community. Issues covered include:

- Operations and maintenance plans.
- Facility operating hours.
- Interacting with the public.
- Waste screening.
- Emergency situations.
- Recordkeeping.

Operations and Maintenance Plans

Although a transfer station's basic function as a waste consolidation and transfer facility is straightforward, operating a successful station involves properly executing many different tasks. Some tasks are routine and easily understood, while others occur infrequently and might be difficult to conduct properly without step-by-step directions. To help ensure proper operations, transfer stations should have written operations and maintenance plans. These plans are often required by

Table 1
Advantages and Disadvantages of Different Transfer Technologies

Waste Storage Alternatives			
Technology	**Advantages**	**Disadvantages**	**Application**
Direct dump into transfer vehicle or storage container	Simple arrangement; little potential for equipment breakdown. Low capital cost. Potentially less housekeeping: no tipping floor, pit, or compaction equipment to clean and maintain. Much smaller building footprint possible, but advantage might be decreased by need for large yard space for queuing.	Transfer station cannot accept waste unless a trailer is positioned to receive waste. (Shortage of empty trailers shuts down facility.) No short-term storage (surge capacity) to accommodate peak inflow periods. Unless many unloading stalls are provided, long customer queuing can be expected during peak inflow periods. Relatively low payloads in trailers. Fall hazard. Limited ability to screen and remove unacceptable wastes. No opportunity for waste diversion or materials recovery. Generally not suitable for receiving loads from large roll-offs or large packer trucks. Trailers can be damaged by direct dumping of heavy materials.	Most suitable for small transfer stations in rural and tribal settings with a relatively short haul distance to the waste disposal site. Frequently used in conjunction with bins for source-separated recyclables.
Tipping floor waste storage	Simple arrangement; little potential for equipment breakdown. Generally less expensive and provides more operational flexibility than pits. Storage provides "disconnect" between waste receipts and waste loading. (Shortage of empty trailers does not shut down facility.) Allows for easy screening and removal of unacceptable wastes.	Garbage on tipping floor can be messy and slippery (fall hazard). Potential for accidents between customers and transfer station mobile equipment (e.g., wheel loader) that moves/stacks waste (safety issue). Requires roll-out space for trucks to pull forward when discharging their loads. Equipment is needed to reload the waste into the transfer trailer.	Suitable for small and large transfer stations; can manage nearly all waste types.

	Allows for the breaking up of bulky items and the compacting of waste to increase density for more economical shipping.	Requires additional fire control equipment (e.g., fire hoses, water cannon) to control fires in waste piles on tipping floor	
Surge pit	Storage provides "disconnect" between waste receipts and waste loading. (Shortage of empty trailers does not shut down facility.) Allows for the breaking up of bulky items and the compacting of waste to increase density for more economical shipping. No roll-out space required for unloading vehicles; waste falls from back of truck into pit. Eliminates potential for collision between transfer station equipment and customers.	Expensive to construct. Fall hazard for people and vehicles. Hazards to equipment operator working in pit when waste is being unloaded by customers. Can be difficult to remove unacceptable waste found in the pit. Extra building level (three stories instead of two) might increase overall height of building above grade, increasing building profile. Equipment is needed to reload the waste into the transfer trailer. Requires additional fire control equipment (e.g., fire hoses, water cannon) to control fires in waste piles in surge pit.	Most suitable for large transfer stations with high peak flows.

Transfer Container and Vehicle Loading Alternatives

Technology	Advantages	Disadvantages	Application
Top-loading trailers and containers	Simple, gravity-loaded method. Might be supplemented with compaction by using equipment that reaches into the top of the trailer to tamp down and level the load. Suitable for a wide range of waste types, including construction debris and bulky materials.	Generally involves imperfect, permeable closure (screen or tarp) on top of trailer. Odors and litter can escape, and precipitation can make the load heavier. Trailers can be damaged when dense or sharp materials fall into an empty trailer. Sound of waste falling into trailers can be noisy.	Suitable for small and large transfer stations.

Transfer Container and Vehicle Loading Alternatives (cont.)

Technology	Advantages	Disadvantages	Application
Compaction into trailer and container	A trailer or container can be completely closed to prevent rainwater entry and odor and liquid from escaping. Compaction usually achieves high densities.	A heavy trailer or container decreases effective payload. (Trailer must be structurally reinforced to withstand the pressure of the compactor.) Capital cost of trailer fleet is greater. Tail end of trailer or container (near compactor) tends to become overloaded. Front end of trailer tends to be light. Rear axle loading tends to limit effective payload. Hydraulic power equipment for compactor can be noisy.	Not commonly used for new transfer stations.
Preload compaction into rear-loading trailer or container	Allows use of lightweight trailer or container to increase effective payload. Trailer or container can be completely closed to prevent rainwater entry and odor and liquid from escaping. Payload can be measured as it is compacted, with ability to optimize each payload.	High capital costs (but can be offset by reduced transportation costs). Relatively complex equipment; when it breaks down, can shut down transfer station after short-term storage capacity is full. Redundancy (i.e., two compactor units) increases costs. Totally dependent on availability of electrical power. Large motor sizes generally preclude the use of a standby electrical generator to handle power outage. Less suitable for certain types of waste (oversize materials, concrete, wire, cable). Hydraulic power equipment for compactor can be noisy. A heavy electrical power consumption system.	Most suitable for high-volume transfer stations, particularly those that need to haul waste long distances. Container alternative ideally suited for intermodal transfer to rail system.

Baling	Allows for efficient transportation due to density of waste and ability to use light-weight trailers. Trailer can be completely closed to prevent rainwater entry, and odor and liquid from escaping. Compatible with balefills, which can landfill a large amount of waste in a small space; might be best in difficult (extreme weather or windy) environments. Baler can also be used to prepare recyclables for transport and sale.	High capital cost. Relatively complex equipment; when it breaks down, it can shut down transfer station after short-term storage capacity is full. Hydraulic power equipment for baler can be noisy. Special equipment needed at landfill.	Suitable for large transfer stations, particularly those that need to haul waste long distances. Required for delivering waste to a balefill.

Transfer Container and Vehicle Unloading Alternatives

Technology	Advantages	Disadvantages	Application
Push-out blade transfer trailer	Allows for unloading anywhere (not just at a landfill with a trailer tipper).	Some trailer capacity (both volume and weight) used for the push-out blade, which reduces effective waste payload. Material can become stuck behind push-out blade. Blade can bind during extension or retraction.	Most suitable for short-distance, low-volume hauling.
Walking floor transfer trailer	Allows for unloading anywhere (not just at a landfill with a trailer tipper).	More prone to leak liquids from the bottom of the trailer. More prone to damage from dense or sharp objects that fall into an empty trailer.	Suitable for a range of volumes and distances.
Trailer tipper for transfers trailers and trailer-mounted containers	Allows use of lightweight trailers to maximize payloads. Ideal for rail-based container intermodal system.	High reliability or redundancy required—no way to unload trailers at the landfill if the tipper fails. Tippers can be unstable if placed over waste at landfill.	Most suitable for long-distance, high-volume hauls. Most suitable for hauls to large landfills (small to medium landfills not likely to have a tipper).
Open-top railcar tippers	Extremely rapid, large-volume unloading.	Fixed unloading point requires reloading and some other form of transport from unloading point to final destination.	Most suitable for a fixed-disposal method such as at a solid waste incinerator.

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Solid waste baler compacts waste into dense, self-contained bales.

state, tribal, or local regulations. They should be written specifically for a particular facility and include the following elements:

- Facility operating schedule, including days of the week, hours each day, and holidays.
- Staffing plan that lists duties by job title, minimum staffing levels, and typical work schedules.
- Description of acceptable and unacceptable wastes, and procedures for diverting restricted waste before and after unloading.
- Operating methods for each component of the facility, including waste-screening methods, truck-weighing procedures, tipping floor operations, transfer vehicle loading, onsite and offsite litter cleanup, and wastewater collection system operations.
- Description of maintenance procedures for each component, including the building, mobile equipment, utilities, and landscaping.
- Employee training.
- Safety rules and regulations.
- Recordkeeping procedures.
- Contingency plans in the event of transfer vehicle or equipment failure, or if the disposal site is unavailable.
- Emergency procedures.

Facility Operating Hours

A transfer station's operating hours must accommodate the collection schedules of vehicles delivering waste to the facility. Operating hours need to consider the local setting of the transfer station, including neighboring land uses, as well as the operating hours of the disposal facility receiving waste from the transfer station.

Operating hours vary considerably depending on individual circumstances. Many large facilities located in urban industrial zones operate 24 hours, 7 days per week. Urban, suburban, and rural transfer stations of various sizes commonly open early in the morning (6 a.m. to 7 a.m.) and close in the late afternoon (4 p.m. to 5 p.m.). In many cases, the last trailer must be loaded with sufficient time to reach the disposal site before it closes (typically 4 p.m to 6 p.m.).

Transfer stations that serve both the general public and waste hauling companies typically operate 6 or 7 days per week. Facilities that are not open to the public typically operate 5 or 6 days per week because many waste hauling companies do not operate on Sundays and have limited operations on Saturdays. Many smaller and rural facilities operate only on certain days of the week and have limited hours.

The hours described above represent when the transfer station is open to receive waste from customers. Operations often extend beyond the "open for customers" hours, however, as workers load waste into transfer vehicles, clean the facility, and perform equipment maintenance. Depending on the nature of the operation, transfer trucks leaving the site can sometimes operate on a schedule somewhat independent of the rest of the operations. For example, some operations maintain an inventory of empty transfer containers and vehicles and loaded containers and vehicles at the transfer station site. Loaded containers and vehicles can be hauled off site according to the best schedule considering traffic on area roadways, neighborhood impacts of truck traffic, and the hours the disposal facility receives

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waste from the transfer station. State, tribal, or local regulations might limit the overnight storage of waste in the transfer station or even in transfer trailers.

Interacting With the Public

Every transfer station has neighbors, whether they are industrial, commercial, residential, or merely vacant land. The term "neighbor" should be broadly interpreted, as some of those impacted might not be immediately adjacent to the transfer station. For example, vehicles traveling to and from a transfer station could significantly affect a residential neighborhood a mile away if those vehicles travel on residential streets.

An important part of successful transfer station operations is engaging in constructive dialogue with the surrounding community. The appropriate level of interaction between transfer station personnel or representatives and their neighbors varies depending on many factors. A transfer station in the middle of a warehouse district with direct access to expressways might find that joining the local business association and routinely picking up offsite litter are adequate community activities. While a transfer station located adjacent to homes and restaurants might find that monthly meetings with neighbors, landscaping improvements, commitments to employ local workers, an odor reporting hotline, and daily cleanup of litter are more appropriate.

When developing a community outreach plan, transfer station operators should consider the following:

- Develop a clear explanation of the need for the transfer station and the benefits it will provide to the immediate community and surrounding area.
- Develop a clear process for addressing community concerns that is communicated to the neighborhood even before the facility becomes operational.
- Designate one person as the official contact for neighborhood questions and concerns. Ideally, this person would regularly work at the transfer station and be available to respond quickly to questions and concerns. The person should also be good at listening carefully to community concerns before responding. Advertising an e-mail address or Web site is another way to provide information and allow community input.
- Organize periodic facility tours. Neighbors unfamiliar with the transfer station's operations are more likely to have misconceptions or misunderstand the facility's role.
- Establish positive relationships by working with community-based organizations, improvement districts, civic associations, business associations, youth employment bureaus, and other organizations. Interaction with the community should focus on positive issues, not just occasions when a neighbor is upset about odor, litter, or traffic.
- Offer support services such as newspaper drives, household hazardous waste (HHW) drop-off days, and spring cleaning disposal at the facility.

Waste Screening

As described in the section on Unacceptable Wastes in the Planning and Siting a Transfer Station chapter, some types of wastes are not appropriate for handling at a transfer station. These unacceptable wastes might be difficult to handle, dangerous, prohibited at the disposal facility where the waste is sent, or subject to a recycling mandate.[3] Transfer station operators should screen for unacceptable materials before, during, and after customers unload, and should tell customers where they can dispose of wastes inappropriate for that transfer station.

If their wastes are refused at a transfer station, some customers might illegally dispose of unacceptable materials or might try to hide these materials in a future delivery. When customers arrive with unacceptable materials, operators could give them a preprinted fact

3 For example, some states, tribes, or cities prohibit the disposal of yard wastes in landfills. Thus, grass clippings would be prohibited in a mixed waste load.

sheet that describes the issue and suggests alternative management methods. In addition, community programs dedicated to reducing the use of products that generate dangerous wastes can decrease unacceptable waste deliveries to transfer stations.

At the transfer station, screening for unacceptable wastes could start at the scale house (where customers first check in upon arrival at the facility). Employee training on identifying and managing suspect materials is the cornerstone in any waste-screening program. Operators could interview customers about types of waste they have and from where the waste was collected. A list of common unacceptable items could be posted, and operators could ask if any of the items are present in the load. Visual inspections can also help identify unacceptable wastes. Some facilities provide overhead cameras or walkways to facilitate a view of the top of uncovered loads (or loads that can easily be uncovered at the scale house). Walking around the truck to examine its contents and checking for smoke or suspicious odors might be appropriate. Sensors for detecting radioactive materials can be used at the scale house or at a point along the incoming truck route to the tipping area.

Fact Sheets About Unacceptable Waste

Consider developing simple fact sheets to inform customers why certain wastes are not accepted at the transfer station and where they can dispose of the unacceptable wastes. A typical fact sheet could include:

- A picture or graphic of unacceptable waste.
- A definition of what the unacceptable waste is and a brief description of why it is not accepted at the transfer station.
- The dangers, drawbacks, or penalties for improper disposal of unacceptable waste.
- Safe consumer alternatives.
- Where the waste can be appropriately managed, including driving directions, hours of facility operation, and contact information.
- Telephone numbers and Web sites of appropriate regulatory agencies that can provide more information.

Some unacceptable wastes might not become apparent until the unloading process. Operators should observe waste unloading and examine suspected unacceptable wastes. Waste unloaded onto the floor or into a pit is easier to monitor than waste unloaded directly into a transfer container or vehicle. Ideally, unacceptable wastes would be noticed before the delivery vehicle has left the site.

Regardless of screening efforts, transfer station operators should expect that some unacceptable wastes will be discovered after the responsible party is gone. Transfer stations should set aside an area for safe temporary storage of unacceptable wastes until appropriate disposal is feasible, and develop a step-by-step plan to follow. In some cases, the party that deposited the waste can be contacted to retrieve it. In other cases, the transfer station operator must properly manage the waste. Proper material management depends on the type of waste discovered. For example, management of hazardous wastes requires compliance with federal regulations issued under authority of the Resource Conservation and Recovery Act (RCRA) (40 CFR Parts 260 to 299) or the Toxic Substances Control Act (TSCA) (40 CFR Part 700 to 799), whereas recyclable materials screened from the waste stream can be collected and processed with similar materials.

Emergency Situations

Most days at a transfer station involve routine operations. Transfer station operators should prepare for emergencies, however, and include emergency procedures in their written operations plans. State regulatory agencies often require submission of a Plan of Operations and a Contingency Plan for review and approval. At minimum, the following emergency events should be anticipated:

- **Power failure.** The plan should address how to record customer information, collect fees, and load transfer trailers during a power outage. Many larger transfer stations have backup power generators so at least some operations can continue during a power failure.
- **Unavailability of transfer vehicles.** The plan should address what to do if poor weather, road closures, or strikes prevent empty transfer vehicles from arriving at the transfer station. The plan should also address when the transfer station should

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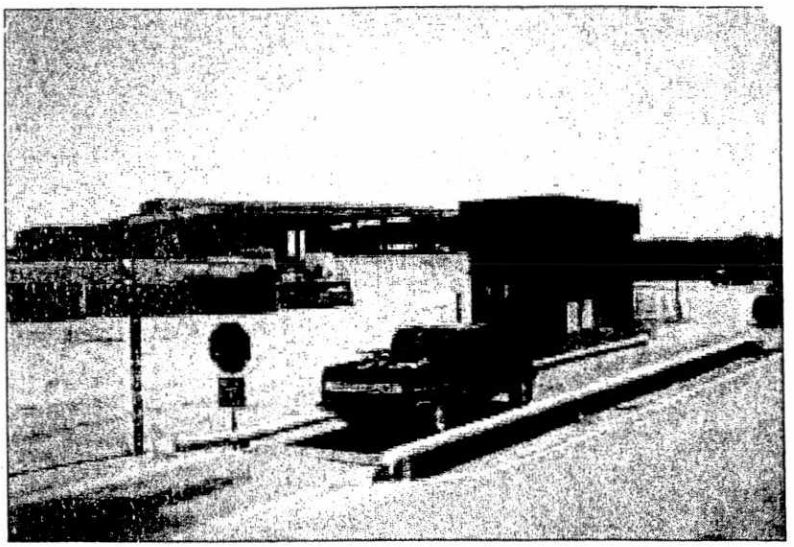
stop accepting waste deliveries if the waste cannot be hauled out in a timely manner.

- **Unavailability of scales.** The plan should describe recordkeeping and fee assessment in the event that scales are inoperable. At facilities with both inbound and outbound scales, one scale can temporarily serve both purposes.
- **Fire.** Fire response and containment procedures should address fires found in incoming loads, temporary storage at the transfer station, compaction equipment, transfer vehicles, and other locations. Typically, fire procedures focus on protecting human health and calling professional fire departments. Ceiling sprinkler systems by themselves might not be completely effective in preventing small fires from spreading. Due to the high ceilings common in transfer stations, a fire could spread substantially before it gets hot enough at the ceiling level to activate sprinkler systems. Consequently, facilities should have fire hoses or other fire fighting equipment in the area, in addition to ceiling mounted sprinklers. A water cannon on a washer truck can also be used to contain small fires until the fire department arrives.
- **Spill containment.** Spills can occur from waste materials or from vehicles delivering waste. For example, hydraulic compaction system hoses on garbage trucks can break. Spill containment plans should address spill identification, location of spills, deployment of absorbent materials, and cleanup procedures. For large spills, the plan should also address preventing the spill from entering storm drains or sewers.
- **Discovery of hazardous materials.** Hazardous materials plans should include methods to identify and isolate hazardous materials, temporary storage locations and methods, and emergency phone numbers.
- **Injuries to employees or customers.** The plan should include first aid procedures, emergency phone numbers, and routes to nearby hospitals.
- **Robbery.** Some scale houses handle cash and include security provisions to deter robbery.



A transfer station scale house.

Emergency plans should include a list of emergency contacts, including daytime and evening phone numbers for facility management, facility staff, emergency response teams, frequent customers, and regulatory agencies.

Recordkeeping

Detailed operating records enable both facility managers and regulatory overseers to ensure that the transfer station is operating efficiently and in accordance with its permit requirements. Medium and large transfer stations typically record the following information as part of their routine operations:

- **Incoming loads:** date, time, company, driver name, truck number (i.e., company fleet number), weight (loaded), weight (empty),[4] origin of load, fee charged.
- **Outgoing loads** (typically transfer trucks): date, time, company, driver name, truck number (i.e., company fleet number), weight (loaded), weight (empty), type of

4 For repeat customers, the empty truck (tare) weight is often kept on file so trucks do not need to weigh out during each visit.

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Urban Transfer Station Design and Operations

All transfer stations must address issues such as noise, odors, dust, vectors, traffic, and litter. Urban transfer stations, however, frequently lack the key component that suburban and rural facilities use to mitigate these problems: space. Where a suburban or rural facility can simply use large buffer zones between operations and receptor populations, urban sites are frequently unable to do so due to severe site size limitations. Urban transfer stations must employ a combination of planning, design, and operating practices to help minimize impacts upon the surrounding community. Listed below are several engineering designs, technologies, and operating practices that an urban transfer station should consider employing to mitigate facility impacts upon the neighboring community.

Noise

Structural and Site Layout Approaches

- Totally enclose all waste-handling operations to contain noise.
- Use concrete walls and structures, which absorb sound better than metal structures.
- Install double-glazed windows which contain noise better than single-glazed windows.
- Install shielding or barriers, such as trees, berms, or walls, around the facility to block and absorb noise. Size of the shielding, distance to receptors, and shielding materials all determine effectiveness. Walls can be made from concrete, stone, brick, wood, plastic, metal, or earth. Vegetate berms with grasses, shrubs, or trees to further mitigate noise and increase aesthetics. Barriers should be continuous, with no breaks, and long enough to protect the intended receptors.
- Wing walls, usually constructed of concrete, on transfer buildings can also block noise from trucks entering and exiting the building and noise from interior operations.
- Insulate transfer building walls with sound-absorbing materials.
- Locate administrative buildings between sources of noise and community.
- Orient transfer building openings (i.e., doors) away from receptors.

Operational Practices

- Keep doors closed during operating hours, except when vehicles are entering or exiting.
- Use the lowest allowable setting on vehicle backup alarms, or use visual warning devices if state and local regulations allow.
- Establish operating hours that avoid early morning or late-night operations.
- Set facility noise level limits (e.g., 55 decibels at the site boundary) and adhere to them.

Odors

- Remove all waste at the end of each operating day. Do not allow any waste to remain on site overnight.
- Frequently clean/wash down the tipping floor or surge pit.
- Install misting systems with deodorants to mask or neutralize odors. Be prepared to make seasonal adjustments as needed to control odors.
- Install ventilation systems with air filters or scrubbers.
- Plant vegetative barriers, such as trees, to absorb and disperse odors.
- Use odor vestibules on truck entrances and exits. Odor vestibules are 2-door systems in which the outer door closes before inner door opens to prevent odors from escaping.
- Install plastic curtains on entrances and exits to contain odors when doors are opened to allow vehicles to enter or exit.
- Use biofilters — which pass malodorous air through organic matter, such as wood chips, mulch, or soil — to capture odor molecules. Bacteria in biofilters consume and neutralize odor molecules.
- Set up a community "odor complaint" phone line, and respond to community complaints.

Dust

Dust from Vehicles

- Pave all roads on site, or lay gravel as a less expensive option.
- Clean facility roads frequently with street-sweeping equipment.
- Wash waste collection vehicles before they leave the transfer station to remove dust-generating dirt and debris.

Dust from Waste Handling Operations

- Align building openings to minimize exposure to prevailing winds.
- Install plastic curtains over building openings.
- Keep station doors closed during operating hours, except when trucks are entering or exiting.
- Install misting systems over tipping areas to "knock down" dust particles. Misting system operations should be adjusted seasonally or as the dryness of the waste dictates.

Vectors (e.g., rats, mice, cockroaches, and other insects)

- Hire a professional licensed pest control company with expertise and experience in controlling specific vector populations.
- Seal or screen openings that allow rodents and insects to enter the building, such as door and window frames, vents, and masonry cracks. Also check for and repair chewed insulation at points where utility structures, such as wires and pipes, enter the transfer building.
- Treat insect breading areas and eliminate as many of these breading areas as possible. Implement practices that do not create new breeding areas.
- Implement practices that reduce the likeliness of attracting vectors (e.g., remove all waste at the end of the operating

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day, wash tipping areas daily, pick up litter and other debris daily).

- Some municipalities require transfer stations to pay neighbors' extermination/pest control costs if it can be proven that the facility is the source of the problem. Consider this policy even if it is not required by law.

Traffic

- Create acceleration, deceleration, or turning lanes at site entrances and exits as needed to maintain steady traffic flows around facility. This may require widening roads.
- Fund road improvements and upgrades around the facility to reduce congestion and prevent damage from additional truck traffic.
- Work with the community to designate inbound and outbound truck traffic routes and ensure that drivers follow these routes.
- Do not allow incoming trucks to queue on public streets. If inadequate space is available on site to accommodate waiting trucks, use a remote site as a waiting area for the trucks. Use radios to dispatch trucks from the waiting area to the transfer station.
- Where possible, schedule incoming traffic so that it does not coincide with local rush hours.

Litter

- Require all incoming and outgoing loads to be covered.
- Ensure that all incoming and outgoing trucks are leak-proof to avoid leachate spills on public streets.
- Implement daily litter inspections and pickup at the facility and on surrounding streets.
- Install a perimeter fence to prevent windblown litter from leaving the site.

material (e.g., waste, compostables, recyclables), destination of load.

- **Facility operating log:** noting any unusual events during the operating day.
- **Complaint log:** noting the date, time, complaining party, nature of the complaint, and followup activity to address the complaint.
- **Accidents or releases:** details any accidents or waste releases into the environment.
- **Testing results:** such as tests for suspected unacceptable waste.
- **Environmental test results:** such as surface water discharges, sewer discharges, air emissions, ground-water, or noise tests.
- **Maintenance records:** for mobile and fixed equipment.
- **Employee health and safety reports.**
- **Employee training and operator certification documentation.**

Some transfer station operators, particularly at smaller facilities, find it necessary to record only some of the above items. In order to avoid the cost of installing and operating a scale, some small and medium-size transfer stations substitute estimated load volume (as measured in cubic yards) instead of weighing loads (in tons). When loads cannot be easily viewed (such as with packer trucks), cubic yards are generally based on the vehicle's capacity. Loads in cars and pickup trucks are typically charged a minimal flat fee.

Environmental Issues

Developing transfer stations that minimize environmental impacts involves careful planning, designing, and operation. This section focuses on neighborhood quality or public nuisance issues and offers "good neighbor practices" to improve the public's perception of the transfer station. Design and operational issues regarding traffic, noise, odors, air emissions, water quality, vectors, and litter are discussed below. Proper facility siting, design, and operation can address and mitigate these potential impacts on the surrounding natural environment and the community.

Careful attention to these issues begins with the initial planning and siting of a facility and should continue with regular monitoring after operations begin. Transfer station design must account for environmental issues regardless of surrounding land use and zoning. Stations sited in industrial or manufacturing zones are subject to the same environmental concerns and issues as stations located in more populated zones. Minimizing the potentially negative aspects associated with these facilities requires thoughtful design choices. Identifying and

Depositing incoming waste on a tipping floor facilitates waste screening.

addressing these important issues can be a significant part of the overall cost to develop the waste transfer station.

Traffic

Traffic causes the most significant offsite environmental impacts associated with larger waste transfer stations. This is particularly true for stations in urban and suburban areas where traffic congestion is often already a significant problem for the local community. Although transportation routes serving rural stations typically receive less traffic, these routes might still be affected by limitations on gross vehicle weight or individual axle weights for certain roads or bridges.

By consolidating shipments to the disposal site, a waste transfer system will have net positive impacts in terms of reducing community-wide truck traffic, air emissions, noise, and highway wear. Some of these negative impacts, however, might be concentrated in the immediate vicinity of the transfer station as a result of increased local traffic generated by a transfer station, even though overall impacts are reduced.

Evaluating travel routes and the resulting traffic impacts should receive significant attention during facility siting and design to minimize the traffic's offsite environmental impacts. Furthermore, dependable access and smooth traffic flow are essential for good customer service and the operating efficiency of the facility. It is common, particularly in urban and suburban areas, for tribes and other local jurisdictions to require significant offsite improvements to mitigate traffic impacts or to assess traffic impact fees to offset improvements needed for traffic upgrades.

Typically, transfer stations can indirectly control when traffic arrives at the facility by adjusting operating hours. Relatively few transfer stations are able to schedule inbound traffic because collection vehicles need to unload when they are full so collection crews can resume their routes or end their working day. Also, many transfer stations are not operated by the same company delivering waste to the facility, so control over specific timing is difficult. Some transfer stations have the ability to schedule transfer vehicle traffic, however. These stations often schedule trips to avoid rush-hour traffic on area routes.

Any queuing should occur on the transfer station site so as not to inhibit the traffic flow on public streets. Queuing on streets creates public safety concerns, blocks traffic and access to adjacent properties, and in some cases, causes damage to streets not designed for heavy vehicles. Exhaust from idling truck engines queuing on public streets can also create air quality and health concerns. (See the Air Emissions section on page 37 for discussion of air emission issues.) If space on the site is insufficient, alternatives should be considered. These could include providing a separate tipping area for certain types of customers (such as self-haulers, who generate a lot of traffic, but not much waste) or establishing a remote holding lot for inbound vehicles to use before joining the onsite queue. Regulatory agencies sometimes can address and control queuing problems through the permitting process. Permitting agencies can incorporate provisions that require transfer stations to provide adequate queuing space on site or off site or that prohibit queuing on public streets.

As a result of community input, the operator might designate traffic routes to the facility. A simple "right turn only" at the exit can

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relieve some traffic conflicts. If offsite routes are designated, clear authority for enforcement needs to be established (e.g., by local police or by the station operator refusing access to violators).

Some specific design and operation features that might be necessary to reduce the environmental impacts of station traffic are described below:

- Designating haul routes to and from the transfer station that avoid congested areas, residential areas, and other sensitive areas.
- Adding offsite directional signs, pavement markings, and intersection signals.
- Providing acceleration and deceleration lanes that allow vehicles to enter and leave the flow of offsite traffic smoothly, reducing congestion and the likelihood of accidents.
- Using right turns to enter and leave the station site and minimizing left turns to reduce congestion and the likelihood of accidents off site.
- Providing adequate onsite queuing space so lines of customers and transfer vehicles waiting to enter the facility do not interfere with offsite traffic.
- Installing and using compaction equipment to maximize the amount of waste hauled in each transfer trailer, thus reducing the number of loads leaving the site.
- Establishing operating hours, including restrictions, that encourage facility use during nonpeak traffic times on area roads.
- Schedule commercial waste deliveries to avoid rush-hour traffic.
- Providing or requiring the provision of residential waste collection service to reduce the number of people hauling their own wastes to the transfer station. Although the transfer station will handle the same amount of waste, more of it will arrive as combined collection vehicle loads, reducing the number of loads brought in by cars and pickup trucks. (One residential collection vehicle can haul as much as 15 to 30 cars and pickup trucks.)

Noise

Transfer stations can be a significant source of noise, which might be a nuisance to neighbors.[5] Heavy truck traffic and the operation of heavy-duty facility equipment are the primary sources of noise from a transfer station. Offsite traffic noise in the station's vicinity will be perceived as noise from the station itself. Equipment noise includes engines, backup alarms (beepers), hydraulic power units, and equipment buckets and blades banging and scraping on concrete and steel surfaces. The unloading of waste or recyclables (particularly glass) onto a tipping floor, pit, steel drop box, or trailer can also create substantial noise, depending on the type of waste, fall distance, and surface. Stations that use stationary solid waste compactors or engine-driven tamping equipment have additional sources of mechanical equipment noise with which to contend. Good facility design and operations can help reduce noise emanating from the station. This includes:

- Maximizing the utility of perimeter site buffers, particularly along site boundaries with sensitive adjoining properties. Increasing the distance between the noise source and the receiver, or providing natural or man-made barriers are the most effective ways of reducing noise when the sound generation level cannot be reduced.

Noise Abatement: Leon County, Florida

As part of its site selection process for a waste transfer station, Leon County, Florida, commissioned a study to evaluate and address noise concerns. Parcels adjacent to the site include residential, commercial, and light industrial. To the west is undeveloped residential land. The study used a 5-step procedure to determine the impact that noise from the transfer station would have on the adjoining community. It also assessed the effectiveness and feasibility of abatement. The study resulted in nine recommendations relating to building orientation, truck routing, operating hours, berm and wall construction, and vegetative plantings to buffer noise (Leon County, FL; February, 2000).

5 Although repeated exposure to high noise levels can lead to hearing impairment, noise levels associated with impairment are typically a concern only to employees; neighborhood impacts are typically a nuisance issue, not a health issue.

- Orienting buildings so the site topography and the structure's walls buffer adjacent noise-sensitive properties from direct exposure to noise sources.
- Providing sound-absorbent materials on building walls and ceilings.
- Shutting off idling equipment and queuing trucks.

Surge pit separating public and commercial vehicles. Water sprays along the walls of the pit are used to suppress dust.

- Avoiding traffic flows adjacent to noise-sensitive property.
- Arranging the facility layout to eliminate steep uphill grades for waste-hauling trucks, as driving uphill can significantly increase noise levels.
- Facing building openings such as entrances away from noise-sensitive adjoining property.
- Considering alternatives for beeping back-up alarms, such as strobe lights and proximity detectors (if state and local regulations allow).
- Confining noisy activities within specified buildings or other enclosures. In particular, enclose hydraulic power units associated with compactors and rams in areas with acoustic silencing materials. Quieter equipment options can also be selected during design.
- Properly maintaining mufflers and engine enclosures on mobile equipment operating within the transfer station. Also insist that operators of commercial hauling vehicles keep their equipment, including the muffler systems, in good repair.
- Keeping as many doors closed during station operating hours as practical.
- Conducting activities that generate the loudest noise during selected hours, such as the morning or afternoon commute hours, when adjoining properties are unoccupied or when offsite background noise is at its highest.

Odors

MSW, food waste, and certain yard wastes such as grass have a high potential for odor generation. Odors might increase during warm or wet weather. Thus, transfer stations handling these wastes need to address odor management based on current and projected adjacent land uses. Odors can be managed with proper facility design and operating procedures, including:

- As with noise mitigation, increasing the distance between the odor source and the receiver effectively reduces the impact of odors.
- Evaluating the prevailing wind direction to determine building orientation and setback to adjacent properties.
- Carefully orienting the building and its doorways with respect to odor-sensitive neighboring property and closing as many doors as practical during operating hours.
- Designing floors for easy cleanup, including a concrete surface with a positive slope to drainage systems. Eliminating crevices, corners, and flat surfaces, which are hard to keep clean and where waste residue can accumulate.
- Sealing concrete and other semiporous surfaces to prevent absorption of odor-producing residues.

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- Minimizing onsite waste storage, both in the facility and in the loaded trailers, by immediately loading odorous or potentially odorous wastes into transfer trailers and quickly transferring them to the disposal site.
- Incorporating odor neutralizing systems.
- Removing all waste from the tipping floor or pit at the end of each operating day, then cleaning those areas to remove remaining residues.
- Using enclosed trailers whenever possible when loaded trailers must sit on site temporarily before transfer.
- Practicing "first-in, first-out" waste handling practices so wastes are not allowed to sit on site for long periods of time.
- Collecting and removing partially full containers at rural stations where accumulation of full loads could take several days.
- Keeping building catch basins, floor drains and drainage systems clean so odor-causing residues do not build up.
- Treating drainage systems periodically with odor-neutralizing and bacteria-inhibiting solutions.
- Diverting odorous waste loads to facilities with less sensitive surroundings during adverse weather conditions.
- Refusing to accept certain highly odorous wastes.
- Practicing other "good housekeeping" measures, including regularly cleaning and disinfecting containers, equipment, and other surfaces that come into contact with waste.

Air Emissions

Air emissions at transfer stations result from dusty wastes delivered to the transfer station, exhaust (particularly diesel) from mobile equipment such as trucks and loaders, driving on unpaved or dusty surfaces, and cleanup operations such as street sweeping. As with odor control, proper design and operating procedures help minimize air emissions, including:

- Paving all traffic carrying surfaces.
- Keeping paved surfaces and tipping floors clean, and ensuring any street sweeping operations use sufficient water to avoid stirring up dust.
- Restricting vehicles from using residential streets.
- Selecting alternative fuel or low-emission equipment or retrofitting facility equipment with oxidation catalysts and particulate traps.
- Working with truck fleet operators to reduce exhaust emissions through the retrofit of emission control devices, use of cleaner fuels, and use of alternative fuel vehicles (e.g., compressed natural gas)
- Installing misting systems to suppress dust inside the building or using a hose to spray dusty wastes as they are unloaded and moved to the receiving vehicles. (In rural areas, small stations might not have a readily available water supply, or might have to rely on a portable water supply for housekeeping needs.)
- Maintaining engines in proper operating condition by performing routine tune-ups.
- Considering the purchase of newer generation, low-emission diesel engines.
- Minimizing idling of equipment by turning off engines when not in use. Truck stop electrification technology can be installed at designated queuing areas to provide truck cabs with comforts such as climate controlled air, electricity, and phone lines while engines are shut off.
- Cleaning truck bodies and tires to reduce tracking of dirt onto streets.
- Maintaining building air filtering systems so that they perform effectively.

Storm Water Quality

Rainfall and wash-down water flows from roofs, roads, parking lots, and landscaped

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Water Quality at Rural Transfer Stations

At stations in rural areas where water might not be available for sanitary uses, portable toilets might provide a solution. But even at these stations, there is likely some amount of potentially contaminated runoff that needs to be managed as sewage. In rural areas and other areas not served by a piped sanitary sewer system, it is common to connect building drains to underground holding tanks. The tanks are pumped as needed, and the leachate is trucked to a sewage treatment plant or other approved processing facility.

areas at a transfer station, eventually reaching natural or constructed storm water drainage systems. Runoff might also percolate into the ground-water system. Keeping surface water free of runoff contamination from waste, mud, and fuel and oil that drips from vehicles is important to maintaining the quality of both the surface and ground water systems. The quality and amount of runoff often is regulated by state, tribal, or local water management authorities. Transfer station development typically results in the addition of new impervious surfaces (i.e., paved surfaces) that increase the total quantity of runoff and can contribute to flooding potential.

When runoff contacts waste, it is considered potentially contaminated and is known as "leachate." Transfer station design and operation should ensure that contaminated water is collected separately, then properly managed on site or discharged to the sewer. Most transfer stations send some amount of waste water to sewer systems. In addition to leachate, waste water from daily cleaning of the waste handling areas and the facility's restrooms and support areas typically are discharged to the sewer. Local waste water treatment plants establish guidelines for pretreatment and analysis with which transfer stations must comply when discharging waste water into the sewer. To minimize impacts on sewer systems, transfer stations should consider:

- Covering waste handling and storage areas that drain to the sanitary sewer system. This reduces the amount of rainfall contributing to the total volume of sewer flow.
- Removing as much debris from the tipping floor as possible by mechanical means (e.g., scraping or sweeping) before hosing the floor down.
- Installing drain covers on floor drains. During normal operations, floor drains should be covered to prevent spilled liquid wastes from entering the sewer system. Covers can be opened or removed during floor cleaning.
- Installing low-flow toilets, showers, and faucets.
- Providing appropriate pretreatment of water that comes into contact with waste (leachate). Pretreatment requirements vary depending on the capabilities of the receiving sewer, but could include provisions allowing solids to settle out of the sewage, the use of oil/water separators, or the use of other treatment systems.

Other design and operation measures to consider in managing surface water quality include:

- Complying with all surface water management regulations applicable in the jurisdiction where the station is located. In jurisdictions with well-developed regulations, design and operation measures usually include development of surface water detention facilities (ponds, tanks, or large holding pipes) that limit the runoff rate to the predeveloped rate. In addition, water quality requirements might involve desilting facilities and applying various forms of biofiltration to remove contaminants. Some jurisdictions might require pH adjustment and other forms of pretreatment.
- Locating stations outside local flood zones.
- Minimizing impervious areas and maximizing landscape and vegetative cover areas to reduce total runoff.
- Limiting outside parking of loaded containers or alternatively using rain-tight, leak-tight containers. If loaded containers or transfer vehicles are parked or stored outside, providing catch basins connected to

the sanitary sewer system might be necessary.

- Maintaining all surface water management facilities in good operating condition. This includes periodic cleaning and removal of silt and debris from drainage structures and ponds, as well as removing collected oil from oil-water separators.
- Responding promptly to exterior spills to prevent waste materials from entering the surface water system.
- Cleaning up liquid spills such as oils, paints, and pesticides with absorbent material rather than hosing them into drains. Although transfer stations generally do not accept these liquids, they might find their way into the waste stream in small quantities.
- Using secondary containment around temporary storage areas for HHW, batteries, and suspect materials.

Vectors

Vectors are organisms that have the potential to transmit disease. Vectors of concern at transfer stations can include rodents, insects, and scavenging birds. Seagulls are particularly troublesome birds in coastal zones and certain inland areas. Much of the concern surrounding vectors is associated with general nuisance factors, but this issue justifies diligent attention. A few basic design elements and operational practices can greatly reduce the presence of vectors, including:

- Eliminating or screening cracks or openings in and around building foundations, waste containers, and holding areas at enclosed-type stations. This reduces opportunities for entry by terrestrial vectors (especially rodents).
- Installing bird-deterrent measures, such as suspended or hanging wires to keep birds out of structures, and eliminating horizontal surfaces where birds can congregate.
- Removing all waste delivered to the facility by the end of each day.
- Cleaning the tipping floor daily.
- Routinely inspecting the facility for potential vector habitat, and taking corrective action when needed.
- Using commercial vector control specialists as necessary.

Litter

In the normal course of facility operations, stray pieces of waste are likely to become litter in and around the facility. In jurisdictions that do not have or do not enforce regulations to cover customer vehicles, the litter problem is often most prevalent on routes leading to the station. Dry, light materials such as plastic grocery bags can be blown from the backs or tops of vehicles, or from the tipping area to the facility's outside areas.

Design and operation considerations that can reduce the litter problem include:

- Conducting all waste handling and processing activities in enclosed areas, if possible.
- Orienting the main transfer building with respect to the predominant wind direction so it is less likely to blow through the building (or tunnel) and carry litter out. Generally the "blank" side of the building should face into the prevailing wind.
- Strictly enforcing the load covering or tarping requirements will reduce litter from waste trucks. Some transfer station operators have the authority to decline uncovered loads and have instituted surcharges to provide incentives for customers to cover their loads.
- Providing windbreaks to deflect wind away from waste handling areas.
- Locating doors in areas that are less likely to have potentially litter-producing materi-

Vector Control at Rural Transfer Stations

In less densely populated areas, other vectors of concern could include bears, raccoons, and dogs, especially if waste is not tightly enclosed. The best way to keep large vectors out of the facility is to totally enclose the waste storage area or to fence and gate the site. Bird-scare devices, such as recordings of predatory birds or plastic decoys, can help alleviate scavenging. Baited traps can be used to control rodents, and humane traps can capture larger mammals such as raccoons and weasels.

als stored near them, regardless of building orientation.

- At small rural stations, providing containers with lifting lids that are normally closed.
- Minimizing horizontal ledges where litter can accumulate.

Facility Operating Plans

Many states (as well as some tribes and local governments) require waste transfer stations to prepare and maintain facility operating plans. Often, these plans must be submitted with the permit application. The operating plan format and the specific information it must contain can vary greatly. Some states may also require operating plans prepared or certified by a licensed or certified professional engineer. Operating plans might require the following information:

- Facility-specific information such as location and ownership. Some states require maps and diagrams of the site and facility as well.
- Facility capacity and expected operating life.
- Description of the type of waste the facility will handle, including waste origination, composition, and weight or volume.
- A list or description of unacceptable wastes, including procedures for storing and handling these materials if they do arrive at the facility.
- A description of daily operations, including waste handling techniques, vector controls, and hours of operation.
- Emergency or contingency plans and procedures.

- Providing skirts (usually wide rubber belting or strip brushes) that close the gap between the bottom of the chute and the top of the receiving container at stations that employ chutes and hoppers to contain waste as it is deposited in trailers and drop boxes.
- Installing fencing and netting systems to keep blowing litter from escaping the station site. This is particularly necessary at small rural facilities that are likely open-sided or that lack an enclosing building.
- Conducting routine litter patrols to collect trash on site, around the perimeter, on immediately adjacent properties, and on approach roads and the hauling route(s). Litter patrols, especially at unattended sites, can also detect any illegal dumping that has occurred along the site perimeter.
- Cleaning the tipping floor regularly and maintaining good housekeeping practices. This will minimize the amount of loose material that can be blown outside.

Safety Issues

Thoughtful facility design coupled with good operating practices help ensure transfer stations are safe places. Transfer stations should be designed and operated for the safety of employees, customers, and even persons illegally trespassing when the facility is closed. Designers need to consider that people might trespass on facility grounds during operating hours or after the facility is closed for the night. Most state regulations require security and access control measures such as fences and gates that can be closed and locked after hours. Signs should be posted around the perimeter, with warnings about potential risks due to falls and contact with waste. Signs should be posted in multiple languages in jurisdictions with high percentages of non-English-speaking residents.

Federal Occupational Safety and Health Administration (OSHA) regulations require facilities to provide safe working conditions for all employees. Although regulations specific to waste transfer stations do not currently exist, general OSHA regulations apply as they would to any other constructed facility. State, tribal, and local workplace safety regulations, which can be more stringent than federal regulations, also might apply.

Some state, tribal, or local governments might require a facility's development permit to directly address employee and customer safety. State and tribal solid waste regulations, for instance, often require development of operating plans and contingency plans to address basic health and safety issues. Transfer station safety issues are the facility operator's responsibility.

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This section describes general safety concerns associated with solid waste transfer stations. A facility must take steps to eliminate or reduce risk of injury from many sources, including:

Exposure to Potentially Hazardous Equipment

Transfer station employees work in close proximity to a variety of hazards, including equipment with moving parts, such as conveyor belts, push blades, balers, and compactors. Facility operators should develop an employee equipment orientation program and establish safety programs to minimize the risk of injury from station equipment. Utilizing locks or tags that prevent equipment from operating until they are removed (lockout/tagout systems), for example, effectively minimize hazards associated with transfer station equipment. Transfer stations operators must implement and strictly enforce rules requiring children and pets to remain in the vehicle at all times. Posting signs and applying brightly colored paint or tape to hazards can alert customers to potential dangers.

Personal Protective Equipment

Transfer station employees coming in close contact with waste and heavy machinery should wear appropriate personal protective equipment. Common pieces of protective gear include hard hats, protective eye goggles, dust masks, steel tipped boots, and protective gloves. If working in close proximity to loud machinery, hearing protection should be used as well. Check state and local codes and regulations to see if any personal protective equipment standards exist. Ensure that all facility employees are using the appropriate equipment and are properly maintaining it.

Exposure to Extreme Temperatures

Facilities located in areas of extreme weather must account for potential impacts to employees from prolonged exposure to heat or cold. Heat exhaustion and heat stroke are addressed with proper facility operations, including good ventilation inside buildings, access to water and shade, and periodic work breaks. Cold weather is addressed by proper clothing, protection from wind and precipitation, and access to warming areas. Extreme temperatures typically should not pose problems for customers because their exposure times are much less than those of facility workers.

Traffic

Controlled, safe traffic flows in and around the facility are critical to ensuring employee and customer safety. Ideally, a transfer station is designed so traffic from large waste-collecting vehicles is kept separate from self-haulers, who typically use cars and pickup trucks. Facility designers should consider:

Well marked, color-coded traffic routes can help minimize contact between commercial and public vehicles.

- Directing traffic flow in a one-way loop through the main transfer building and around the entire site. Facilities with one-way traffic flow have buildings (and sometimes entire sites) with separate entrances and exits. The transfer trailers, in particular, are difficult to maneuver and require gentle slopes and sufficient turning radii. Ideally, these trailers should not have to back up.
- Arranging buildings and roads on the site to eliminate or minimize intersections, the need to back up vehicles, and sharp turns.
- Providing space for vehicles to queue when the incoming traffic flow is greater than the facility's tipping area can accommodate. Sufficient queuing areas should be located

after the scale house and before the tipping area. This is in addition to and separate from any queuing area required before the scale house to prevent traffic from backing up onto public roads.

- Providing easily understood and highly visible signs, pavement markings, and directions from transfer station staff to indicate proper traffic flow.
- Providing bright lighting, both artificial and natural, inside buildings. Using light-colored interior finishes that are easy to keep clean is also very helpful. When entering a building on a bright day, drivers' eyes need time to adjust to the building's darker interior. This adjustment period can be dangerous. Good interior lighting and light-colored surfaces can reduce the contrast and shorten adjustment time.
- Providing an area for self-haulers to unload separately from large trucks. Typically, self-haulers must manually unload the back of a pickup truck, car, or trailer. This process takes longer than the automated dumping of commercial waste collection vehicles and potentially exposes the driver to other traffic. It is often a good idea to provide staff to assist the public with safe unloading practices.
- Requiring facility staff to wear bright or conspicuous clothing. Personnel working in the tipping area especially must wear high visibility clothing at all times.
- Installing backup alarms on all moving facility equipment and training all vehicle operators in proper equipment operations safety. Backup alarms must be maintained in proper working condition at all times. Cameras and monitors can also be installed as an additional precaution.

Falls

Accidental falls are another concern for facility employees and customers, especially in facilities with pits or direct dump designs where the drop at the edge of the tipping area might be 5 to 15 feet deep. Facilities with flat tipping areas offer greater safety in terms of reducing the height of falls, but they present their own hazards. These include standing and walking on floor surfaces that could be slick from recent waste material and being close to station operating equipment that removes waste after each load is dumped. Depending on the station design (pit or flat floor), a number of safety measures should be considered to reduce the risk of falls.

- For direct gravity loading of containers by citizens, a moderate grade separation will reduce the fall distance. For example, some facilities place rolloff boxes 8 feet below grade to facilitate easy loading of waste into the container (so the top of the rolloff box is even with the surrounding ground). This approach, however, creates an 8-foot fall hazard into an empty rolloff box. Alternatively, the rolloff box can be set about 5 feet below grade, with the sides extending about 3 feet above the floor. This height allows for relatively easy lifting over the box's edge, yet is high enough to reduce the chance of accidental falls.
- For pit-type operations, the pit depth can be tapered to accommodate commercial unloading at the deep end (typically 8 to 12 feet) and public unloading at the shallow end (3 to 6 feet).
- Safety barriers, such as chains or ropes, can be placed around the pit edges at the end of the day or during cleaning periods to prevent falls. These barriers, however, should be removed during normal operating hours as they are a trip hazard and can interfere with the unloading of waste.
- Substantial wheel stops can be installed on the facility floor to prevent vehicles from backing into a pit or bin. Some curbs are removable to facilitate cleaning.
- Locating wheel stops a good distance from the edge of the unloading zone ensures that self-haul customers will not find themselves dangerously close to a ledge or the operating zone for station equipment.
- To prevent falls due to slipping, the floor should be cleaned regularly and designed with a skid-resistant surface. Designers

need to provide sufficient slope in floors and pavements so that they drain readily and eliminate standing water. This is especially crucial in cold climate areas where icing can cause an additional fall hazard. Because of transfer stations' large size and volume and the constant flow of vehicles, it is impractical to design and operate them as heated facilities.

- Use of colored floor coatings (such as bright red or yellow) in special hazard zones (including the area immediately next to a pit) can give customers a strong visual cue.
- Designing unloading stalls for self-haul customers with a generous width (at least 12 feet when possible) maximizes the separation between adjacent unloading operations and reduces the likelihood of injury from activity in the next stall. For commercial customers, stall widths of at least 15 feet are needed to provide a similar safety cushion. This is particularly necessary where self-haul and commercial stalls are located side-by-side.
- If backing movements are required, design the facility so vehicles back in from the driver's side (i.e., left to right) to increase visibility.

Noise

Unloading areas can have high noise levels due to the station's operating equipment, the unloading operation and waste movement, and customer vehicles. Backup safety alarms and beepers required on most commercial vehicles and operating equipment also can be particularly loud. The noise level also might cause customers not to hear instructions or warnings or the noise from an unseen approaching hazard.

Designers have limited options for dealing with the noise problem. The principal way to reduce the effects of high-decibel noise in enclosed tipping areas is to apply a sound-absorbing finish over some ceiling and wall surface areas. Typically, spray-on acoustical coatings are used. These finishes have a drawback, however. They tend to collect dirt and grime and are hard to keep clean and bright. Using a rubber shoe on the bottom of waste-moving equipment buckets and blades and avoiding use of track-type equipment that produce high mechanical noise also limits noise. These approaches, however, can affect the transfer system's operational efficiency. Regardless of which approaches are employed, transfer station employees exposed to high levels of noise for prolonged periods of time should use earplugs or other protective devices to guard against hearing damage.

Air Quality

Tipping areas often have localized air quality problems (dust and odor) that constitute a safety and health hazard. Dust in particular can be troublesome, especially where dusty, dry commercial loads (e.g., C&D wastes) are tipped. Prolonged exposure to air emissions from waste and motorized vehicles operating inside the building provides another potential health threat to facility employees. Facility air quality issues can be addressed through a number of design and operational practices. These include:

- Water-based dust suppression (misting or spray) systems used to "knock down" dust. Different types of systems are available. They typically involve a piping system with an array of nozzles aimed to deliver a fine spray to the area where dust is likely to be generated (e.g., over the surge pit). They typically are actuated by station staff "on demand" when dust is generated. Dust suppression systems can operate using water only or can have an injection system that mixes odor-neutralizing compounds (usually naturally occurring organic extracts) with the water. These dual purpose systems effectively control both dust and odors. Water-based dust suppression systems, however, can have adverse economic impacts. The additional moisture added to the waste increases the weight of outbound loads, potentially reducing truck capacity and increasing costs.

- Use of handheld hoses to wet down the waste where it is being moved or processed, typically in a pit. Designers need to consider using convenient reel-mount hoses for this purpose.
- Ventilation systems can control air quality inside enclosed transfer buildings. While the high roofs and large floor areas common in transfer stations put unique demands upon ventilation systems, it is still possible through engineering techniques to create the air velocities needed to entrain dust particles. One approach is to concentrate system fans and air removal equipment above the dustiest and most odor-prone area to create a positive air flow from cleaner areas. Often, the air-handling equipment is designed with multiple speed fans and separate fan units that can be activated during high dust or odor events. Filtering and scrubbing exhaust air from transfer stations is also possible.
- If employees' direct exposure to harmful emissions from vehicles and waste at the facility is not sufficiently minimized, respiratory aids such as masks might be necessary.

Hazardous Wastes and Materials

While MSW is generally nonhazardous, some potentially hazardous materials such as pesticides, bleach, and solvents could be delivered to a transfer station. Facility operators should ensure that employees are properly trained to identify and handle such materials. Some stations have a separate household hazardous waste (HHW) receiving and handling area. If the transfer station operates a program that manages HHW, the material is often collected by appointment only, during designated hours, or during special single or multiple day events.

All transfer stations need to be equipped to handle the occasional occurrence of hazardous waste, real or suspected, mixed with other wastes. Personal protective equipment such as goggles, gloves, body suits, and respirators should be on hand and easily accessible to employees. Because staff or customers might inadvertently come in contact with a hazardous substance, it is also good practice, and often required by code, to have special eyewash and shower units in the operating areas. Typically, the transfer station's operating plan will outline detailed procedures to guide station personnel in identifying and managing these kinds of wastes. Many stations have a secure area with primary and secondary containment barriers near the main tipping area where suspect wastes can be placed pending evaluation and analysis. Public education efforts can reduce the likelihood of hazardous materials showing up in solid waste.

Ergonomics

Improper body position, repetitive motion, and repeated or continuous exertion of force contribute to injuries. Both employers and employees should receive ergonomics training to reduce the likelihood of injury. Such training provides guidance on minimizing repetitive motions and heavy lifting and using proper body positions to perform tasks. At this time there are no federal ergonomic standards. A few states, however, do have such standards under their job safety and health programs. The Occupational Safety and Health Administration's Web site <www.osha-slc.gov/fso/osp/> includes a list of states with such programs and provides links to a number of these states' Web sites.

Facility Oversight

This section describes the types of regulations that generally apply to transfer stations and addresses typical regulatory compliance methods.

Applicable Regulations

Transfer stations are affected by a variety of federal, state, tribal, and local regulations, including those related to noise, traffic impact mitigation, land use, workplace safety, taxes, employee right-to-know, and equal employment opportunity that are applicable to any other business or public operation. Many jurisdictions also have regulations specifically applicable to transfer stations. These regulations typically emphasize the protection of public health and the environment.

Federal Regulations

No federal regulations exist that are specifically applicable to transfer stations. EPA, however, initiated a rulemaking process exclusively for marine waste transfer stations under authority of the Shore Protection Act in 1994. These rules would regulate vessels and marine transfer stations in the U.S. coastal waters. EPA is currently working with the U.S. Coast Guard on finalizing these rules.

State Regulations

State solid waste regulatory programs usually take primacy in transfer station permitting, although local zoning and land use requirements apply as well. State regulations vary widely. Some have no regulations specific to transfer stations; others mention them as a minor part of regulations that generally apply to solid waste management; and others have regulations specifically addressing transfer station issues such as design standards, operating standards, and the maximum amount of time that waste can be left on site. A few states also require transfer stations to have closure plans and to demonstrate financial assurance, while others require certification of key personnel. Some states also require compliance with regional solid waste planning efforts or demonstrations of "need."

Appendix A provides a state-by-state checklist of major transfer station regulatory issues. Appendix A shows that:

- All but five states require waste transfer stations to have some type of permit, permit-by-rule, or state license to operate.
- All 50 states have at least minimal operating standards for waste transfer stations either through regulations, statutes, operating plans, or construction permits.
- Some states require analysis of transfer station impacts under general environmental review procedures.

Local Regulations

Local regulation of transfer stations can take many forms. Typical regulatory bodies include counties, cities, regional solid waste manage-

The New Mexico Environment Department

hereby issues this

SOLID WASTE FACILITY PERMIT

Facility Type: *Transfer Station and Recycling Facility*

Facility ID No: *SWM-071307*

Facility Name & Location:
ACME Solid Waste Transfer & Recycling
Albuquerque, NM

Owner's Name & Address:
ACME Solid Waste Authority
180 Yosemite Lane
Albuquerque, New Mexico 88001

Permit Expiration Date: *November 2, 2015*

This permit is issued pursuant to Section 74-9-20 of the Solid Waste Act and is subject to the conditions of the Order of the Secretary, dated November 2, 19 95.

Given this 17 day of November, 1995.

John Q. Doe
Secretary of Environment

Example of a state-issued transfer station facility permit.

ment authorities, health departments, and air pollution control authorities.

Counties, cities, and regional authorities often are required to prepare comprehensive solid waste management plans describing long-range plans for waste prevention, recycling, collection, processing (including transfer stations), and disposal. Other local regulations likely to apply to transfer stations include zoning ordinances, noise ordinances, and traffic impact analysis.

Public health departments are involved with transfer stations because of the potential health concerns if solid waste is improperly managed. In some states, the state environmental protection agency delegates authority to local health departments to oversee solid waste management facilities, including transfer stations. This typically includes overseeing general compliance with a facility's operating permit; regular cleaning of the tipping floor; limits on the amount of waste the facility can accept; and employment of adequate measures to prevent vectors such as rats, birds, and flies from contacting waste.

Local or regional air pollution control authorities often regulate odor, dust, and vehicle exhaust emissions at transfer stations. Air pollution control agencies might regulate chemicals used to control odor, exhaust from vents on the facility's roof or walls, and whether dusty loads can be delivered to the transfer station. The local sanitary district often establishes waste water standards and might be involved in storm water management and protection.

Common Regulatory Compliance Methods

Compliance Inspections

Many transfer stations are inspected periodically for compliance with the transfer station's operating permit and other applicable regulations. The entity responsible for performing inspections and the frequency and level of detail of inspections vary widely around the country. Some inspections are complaint driven, some occur on a regular frequency, and some occur on a random basis. A typical inspection involves a representative of the local health department or state or tribal solid waste regulatory program walking through the facility, looking for improper waste storage or handling methods and writing up a short notice of compliance or noncompliance.

Other inspections for specific issues are also conducted. Special inspections might target workplace safety, proper storm-water runoff management, and compliance with applicable roadway weight limits for transport vehicles.

Reporting

Some transfer station operators are required to compile monthly, quarterly, or annual reports for submission to regulatory agencies and host communities. These reports typically include the following information:

- Weight (tons) and loads (number of customers) received at the transfer station each month. This sometimes includes details such as day of the week, time of day, type of waste, name of hauler, and origin of waste.
- Weight (tons) and loads (number of transfer truck shipments) shipped from the transfer station each month. This sometimes includes a breakdown by time shipped, type of waste, and the final destination of the waste.
- A description of any unusual events that took place at the transfer station, including accidents and discoveries of unacceptable waste.
- A summary of complaints received and the actions taken to respond to the complaints.

Resources

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Solid Waste Association of North America. 2000. *Certification Course Manual: Managing Transfer Station Systems.* SWANA. Washington, DC.

Tchobauoglous, George, Hilary Theisen, and Samuel A. Vigil. 1993. *Integrated Solid Waste Management: Engineering Principles and Management Issues.* McGraw-Hill Companies.

U.S. EPA, Office of Solid Waste and Emergency Response. 2000. *Waster Transfer Stations: Involved Citizens Make the Difference,* (EPA530-K-01-003). Washington, DC.

U.S. EPA, Office of Solid Waste and Emergency Response. 1995. *Decision-Maker's Guide to Solid Waste Management,* Second Edition (EPA 530-R-95-023). Washington, DC.

DuPage County Solid Waste Department. 1998. *Solid Waste Transfer in Illinois: A Citizen's Handbook on Planning, Siting and Technology.* Weaver Boos & Gordon, Inc. (For information on ordering copies of the DuPage County publication entitled *Solid Waste Transfer in Illinois: A Citizen's Handbook on Planning, Siting and Technology* contact Kevin T. Dixon, Director, Solid Waste Department, DuPage County Center, 421 N. Country Farm Road, Wheaton, Illinois 60187, telephone (630)682-7373.)

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Glossary of Terms and Acronyms

Baler: This technology compresses waste into high-density, self-contained units (bales) of either waste or recyclables. Baled waste is transported on flatbed trailers (as opposed to transfer trailers) and is most often sent to a "balefill" that has special equipment (e.g., forklifts).

Buffer zone (also setback): The distance between the transfer station or roadways and adjacent properties; often used for screening.

Collection vehicle: Residential collection vehicles include front-loading and rear-loading garbage trucks, as well as special trucks with compartments used to pickup source-separated recyclables. Commercial (businesses), institutional (hospitals and schools), and industrial (plants) waste, as well as C&D waste, is often discarded in rolloff boxes, which are dropped at the facility and then collected on schedule.

Construction and demolition debris (C&D): Includes broken concrete, wood waste, asphalt, rubble. This material can often be separated for beneficial use.

Convenience center (also citizen's dropoff or green box): Small transfer facilities used in low-volume or rural settings. These low-technology options often use rolloff boxes with an inclined ramp for cars and pickups. Bins can be included for recyclables that are source-separated.

Direct haul: The historic practice of sending collection vehicles (mostly garbage trucks) directly to the landfill without using transfer stations. When landfills were close to the waste sources, a residential collection vehicle customarily made two trips per day to the landfill.

Host community benefits: A transfer station or landfill operator can offer specific benefits to the community selected for a proposed facility. The benefits are listed in a Host Community Agreement. Benefits can include cash, free tipping, highway improvements, and tax reductions.

Household hazardous wastes (HHW): HHW come from residences, are generally produced in small quantities, and consist of common household discards such as paints, solvents, herbicides, pesticides, and batteries.

Loadout: The process of loading outbound transfer trailers with waste; or loading trucks with recyclables destined for the market.

Municipal solid waste (MSW): Generally defined as discards routinely collected from homes, businesses, and institutions, and the nonhazardous discards from industries.

Queuing distance: The space provided for incoming trucks to wait in line.

Source-separated: Recyclables discarded and collected in containers separate from non-recyclable waste. Bins or blue bags are used to separate residential recyclables; separate boxes or containers are used for commercial/industrial discards (e.g., corrugated cardboard packaging, wood pallets). Source-separated wastes usually are delivered to a material recovery facility.

Surge pit: A pit usually made of concrete that receives waste from the tipping floor. Surge pits provide more space for temporary storage at peak times and allow for additional compaction of waste before loadout.

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Tipping fee: The unit price charged at the disposal site or transfer station to accept waste, usually expressed as dollars per ton or dollars per cubic yard.

Tipping floor: The floor of the transfer station where waste is unloaded (tipped) for inspection, sorting, and loading.

Tons per day (TPD): The most common unit of measurement for waste generation, transfer, and disposal. Accurate TPD measurements require a scale; conversion from "cubic yards" without a scale involves estimated density factors.

Walking floor: A technology built in to lightweight transfer trailers and used to unload waste at the disposal site. Moving panels "walk" the waste out of the trailer bed.

Waste diversion: The process of separating certain materials at the transfer station to avoid the cost of hauling and the tipping fee at the landfill.

Waste screening: Inspecting incoming wastes to preclude transport of hazardous wastes, dangerous substances, or materials that are incompatible with transfer station or landfill operations.

Appendix A: State Transfer Station Regulations

The table starting on page A-2 is designed to serve as a quick reference guide and comparative index of all state transfer station regulations. Almost all of these regulations are available over the Internet, and the URLs are provided at the end of this section.

Permit Requirements. Nearly all states require transfer facilities to obtain a permit before beginning operations. The vast majority of states issue standard permits after a transfer station's application has been reviewed and approved. A few states have permit-by-rule provisions, which allow transfer stations to forego the application process by demonstrating compliance with a set of designated standards. Of the states not requiring permits for transfer stations, about half require the facility to register with the state prior to beginning operation.

Siting Requirements. Siting requirements refer to any additional regulatory requirements beyond relevant and applicable state or local zoning requirements or conditions. Siting requirements could include prohibitions against siting in or near wetlands, flood plains, endangered species habitats, airports, or other protected sites.

Design Standards. Nearly all states have at least minimal design criteria for transfer stations. These requirements typically set standards for waste receiving areas and waste-storage areas that include building structural features, access control, vector control, and dust and odor controls.

Operational Standards. These standards establish how the transfer station will be run and how wastes will be handled. Standards often include hours of operation, safety issues, litter control, dust and odor control, disease vector control, facility cleaning/sanitation practices, waste removal, traffic control, and contingencies.

Operator Certification. Only five states have mandatory operator certification for transfer station operators (Arkansas, New Hampshire, New Mexico, New York, and Ohio). Other state regulations stipulate that a transfer station operator must be a "qualified solid waste manager" but do not have requirements for any specific type of certification.

Storage Restrictions. Many states have established time limits on how long waste may remain in a transfer station. Storage time restrictions vary from state to state, and sometimes even within a state, depending upon the size of the transfer station.

Recordkeeping Requirements. The majority of states require a transfer station to maintain onsite records of all incoming and outgoing waste as well as copies of the facility permit, operating plan, contingency plan, and proof of financial assurance, when such things are applicable.

Reporting Requirements. Many states require transfer stations to submit reports at least annually to the state environmental agency. These reports often include information such as the name and location of the transfer station, the amounts and types of waste accepted, and the source and final destination of this waste.

Monitoring Requirements. Monitoring refers to any surface water, soil, or air compliance monitoring that a transfer station may be required to perform by its state.

Closure Requirements. Closure requirements include standards or timetables for removing wastes and cleaning the transfer station site after the facility stops receiving waste and permanently ends operations. Most states with closure requirements require transfer stations to remove all wastes and close the facility in a manner that eliminates any threats to human health and the environment and minimizes the need for further maintenance.

Financial Assurance Requirements. Some states require transfer stations to demonstrate that they have sufficient funds to properly close the facility when it ceases operation. Financial assurance mechanisms often include trust funds, insurance policies, letters of credit, or other financial tests.

State Transfer Station Regulations

State	Regulation	Permit Requirements	Siting Requirements	Design Standards	Operational Standards	Operator Certification
Alabama	Chapter 420-3-5-.12	Yes	Yes	Yes	Yes	No
Alaska	18 AAC 60	No	No	No	Yes	No
Arizona	None[1]	No - But must self-certify or notify state[2]	No	No	Yes	No
Arkansas	Reg. 22, Chapter 9	Yes	Yes	Yes	Yes	Yes
California	Title 14 Article 6	Yes	No	Yes	Yes	No
Colorado	6 CCR 1007-2	No[4]	No	Yes	Yes	No
Connecticut	22a-209 RCSA	Yes	Yes	No	Yes	Yes
Delaware	Delaware S.W. Regs., Section 10	Yes	Yes	Yes	Yes	No
Florida	Rule 62-701-FAC	Yes	Yes	Yes	Yes	No
Georgia	Chapter 391-3-4	Yes - Permit-by-rule, must notify state	No	No	Yes	No
Hawaii	Title II, Chapt. 58.1	Yes	No	Yes	Yes	No
Idaho (current rules	IDAPA 58.01.06	Yes - Conditional use permit	No	No	Yes	No
Idaho (proposed rule)[3]	IDAPA 16	Yes	Yes	Yes	Yes	No
Illinois	IAC Title 35, Subtitle G, Chapter I, Subchapter I, Part 807, Subparts A&B	Yes	No	No (Yes)[6]	No (Yes)	No
Indiana	329 IAC 11	Yes	No	No	Yes	No
Iowa	IAC 567 Chapter 100	Yes	No	Yes	Yes	No
Kansas	KAR 28-29	Yes	Yes	Yes	Yes	No

Storage Restrictions	Recordkeeping Requirements	Reporting Requirements	Monitoring Requirements	Closure Requirements	Financial Assurance Requirements
Yes - 24 hours	Yes	No	No	Yes	No
No	No	No	No	No	No
No	No	No	No	No	No
Yes - No extended storage of putrescibles	Yes	Yes - Periodic	No	No	Yes - At state discretion
Yes - 48 hours for facilities; within 7 days for operations[3]	Yes	Yes - Quarterly	Possible - As part of nuisance control measures	Yes	No
Yes - No overnight storage on tipping floor	Yes	No	No	Yes	No
Yes - 48 hours	Yes	Yes	No	No	No
Yes - 72 hours, all overnight storage in enclosures	Yes	Yes	Possible - State may require post-closure monitoring	Yes	Yes
No	Yes	No	No	No	No
No	No	No	No	Yes	No
No	Yes	Yes - Annual, by June 30	No	Yes	No
No	Yes	No	No	No	No
No	Yes	No	No	Yes	No
No (Yes)	No (Yes)	No (Yes)	No	Yes	No
Yes - Remove next day (except on weekends and holidays)	Yes	Yes - Annual, by January 31 and quarterly tonnage reports	No	Yes	Yes
Yes - 72 hours	No	No	No	Yes	No
Yes - Loaded into transfer vehicle next day	Yes	Yes - Annual, by March 1	Possible - At state's discretion	Yes	Yes

State	Regulation	Permit Requirements	Siting Requirements	Design Standards	Operational Standards	Operator Certification
Kentucky	401 KAR 47	Yes - Registered permit-by-rule	Yes	No	Yes	No
Louisiana	LAC 33: VII Subpart I	Yes	Yes	Yes	Yes	No
Maine	ME SW Mgt. Rules Chapter 402	Yes	Yes	Yes	Yes	No
Maryland	Title 26 Chapter 07	Yes	No	Yes	Yes	No
Massachusetts	310 CMR 16.00 & 19.00	Yes	Yes	Yes	Yes	No
Michigan	MAC R299, Part 5	Yes	Yes	Yes	Yes	No
Minnesota	Chapter 7035	Yes	Yes	Yes	Yes	No
Mississippi	Section V	Yes	Yes	Yes	Yes	No
Missouri	10 CSR 80-5	Yes	Yes	Yes	Yes	No
Montana	ARM Title 17 Chapter 50, Sub-Chapters 4 and 5	Yes	Yes	Yes	Yes	No
Nebraska	Title 132	Yes	Yes	Yes	Yes	No
Nevada	NAC 444.666	No[7]	No	Yes	Yes	No
New Hampshire	NHCAR Env-Wm Chapters 314 & 2100 RSA 149M	Yes	Yes	Yes	Yes	Yes
New Jersey	NJAC 7:26	Yes	Yes - Must perform an EHIS	Yes	Yes	No
New Mexico	20 NMAC 9.1	Yes	No	No	Yes	Yes
New York	6 NYCRR Part 360	Yes	Yes	Yes	Yes	Yes
North Carolina	NCAC Title 15A, Subchapter 13B	Yes	No	No	Yes	No

Storage Restrictions	Recordkeeping Requirements	Reporting Requirements	Monitoring Requirements	Closure Requirements	Financial Assurance Requirements
No	Yes	No	No	No	No
No	Yes	Yes - Annual, by August 1	No	Yes	Yes
No	Yes	Yes - Annual, by October 31	Possible - At state's discretion	Yes	Yes
Yes - No overnight storage, unless in containers	No	Yes - Annual	No	No	No
Yes - no accumulation of odor-causing wastes	Yes	No	No	Yes	Possible - At state's discretion
Yes - No overnight, unless in closed containers	No	No	No	No	No
Yes - 1 week if in leak-and vector-proof container or enclosure	Yes	Yes - Annual, by February 1	Possible - At state's discretion	Yes	No
Yes - Waste removed at least once per week	Yes	No	No	No	No
Yes - No putrescibles longer than 24 hours	Yes	No	No	No	Yes
Yes - waste containers emptied at least once a week	No	Yes - Annual, by April 1	No	No	No
No	Yes	No	No	Yes	Yes
Yes - 72 hours after acceptance	Yes	No	No	Yes	No
Yes - Remove putrescibles within 1 week or before producing an odor	Yes	Yes - Annual, by March 31	No	Yes	Yes
Yes - No overnight storage	Yes	Yes - Monthly	No	No	No
Yes - <250 yards^3, every other day; ≥250 yards^3, no overnight storage	Yes	Yes - Annual, within 45 days of end of calendar year	No - But must demonstrate groundwater will be protected	Yes	Yes
Yes - When all containers full or 7 days	Yes	Yes	Yes	Yes	Possible - At state's discretion
No	No	No	Possible - At state's discretion	No	No

State	Regulation	Permit Requirements	Siting Requirements	Design Standards	Operational Standards	Operator Certification
North Dakota	Article 33-20	Yes	Yes	Yes	Yes	No
Ohio	3745-27-(15, 21-24)	Yes	Yes	Yes	Yes	Yes
Oklahoma	OAC 252:520	Yes	Yes	No	Yes	No
Oregon	OAR Chapter 340, Division 96	Yes	No	Yes	Yes	No
Pennsylvania	25 PA Code Chapt. 271, 279	Yes	Yes	Possible - at state's discretion	Yes	No
Rhode Island	Solid Waste Regulation No.1 & No.3	Yes	Yes	Yes	Yes	No
South Carolina	Chapter 61, Part 8 (61-107.7)	Yes	Yes	Yes	Yes	No
South Dakota	Article 74:27	Yes	No	Yes	Yes	No
Tennessee	Chapter 1200- 1-7	Possible[8] - Permit-by-rule	Yes	Yes	Yes	No
Texas	30 TAC, Chapter 330	Yes	Yes	Yes	Yes	No
Utah	R315-313	No[9]	No	Yes	Yes	No
Vermont	Chapter 6	Yes	Yes	Yes	Yes	No
Virginia	Title 9 VAC 20-8-340	Yes - Permit-by-rule	Yes	Yes	Yes	No
Washington	WAC 173-304	Yes	No	Yes	Yes	No
West Virginia	33 CSR 1	Yes	Yes	Yes	Yes	No
Wisconsin	NR 502.07	Yes	Yes	Yes	Yes	No
Wyoming	3292 Chapter 6	Yes	Yes	Yes	Yes	No

Storage Restrictions	Recordkeeping Requirements	Reporting Requirements	Monitoring Requirements	Closure Requirements	Financial Assurance Requirements
No	Yes	Yes	No	Yes	No
Yes - Must be in covered container or building if stored longer than 12 hours	Yes	Yes - Annual, by April 1	Possible - At state's discretion	Yes	Yes
Yes - 24 hours (48 hours with vector/odor controls)	Yes	Yes - Monthly, by the 10th of each month	No	Yes	Yes
No	Possible - At state's discretion	Possible - At state's discretion	No	No	No
Yes - 24 hours (up to 72 over weekend)	Yes	Yes - Annual, by June 30	Possible - At state's discretion	Yes	Yes
Yes - Remove combustible SW within 48 hours	No	No	No	Yes	Yes - Though state may wave if decides unnecessary
Yes - Remove putrescibles w/in 24 hours	Yes	No	Possible - At state's discretion	Yes	No
No	Yes	No	No	Yes	No
No	Yes	No	No	Yes	Yes - If facility has storage capacity of 1000 yds^3 or greater
No	Yes	No	No	Yes	Possible
Yes - 7 days	Yes	Yes - Annual, by March 1	No	Yes	No
Yes - Remove waste from tipping floor by end of operating day	Yes	Yes - Quarterly	No	Yes	Yes
Yes - Remove waste at end of work day	No	No	No	Yes	Yes
No	Yes	Yes - Annual, by March 1	No	Yes	No
Yes - Remove waste at end of day/not more than 24 hours	Yes	Yes - Monthly tonnage reports; and annual by January 31	No	Yes	Yes
Yes - 24 hours (with some exceptions)	No	No	Possible - At state's discretion	Yes	Possible - At state's discretion
No	Yes	No	Possible - At state's discretion	Yes	Yes

Notes

1. Arizona currently does not have regulations governing waste transfer stations, but the Arizona Revised Statutes (ARS) have requirements that govern these facilities. The information in this matrix reflects these statutory requirements found at ARS 49-762.
2. In Arizona transfer stations that receive greater than 180 cubic yards/day must self-certify and demonstrate that the facility is in compliance with state rules. Transfer stations receiving less than 180 cubic yards/day must notify the state prior to commencement of operations and operate in accordance with state BMPs.
3. California classifies a transfer station as a facility if it receives greater than 60 cubic yards or 15 tons of waste per day or as an operation if it receives less than 60 cubic yards or 15 tons of waste per day.
4. While Colorado does not require a permit for transfer stations, the local governing body (county or municipal government) may.
5. Idaho has proposed a three-tiered system based upon the type of waste handled at a facility. This matrix assumes a solid waste transfer station would be considered a Tier II facility.
6. Illinois does not have explicit design, operating, storage, recordkeeping, or reporting requirements in its regulations. The state establishes these standards for each facility by requiring a facility to demonstrate in its permit application that it will meet specific standards. The Illinois regulations require a facility to provide to the state all the information requested in its permit application and once the permit is approved to comply with the terms of its permit.
7. While no permit is required in Nevada, a facility must submit and have approved by the state an application to build or modify a transfer station prior to any action being taken.
8. In Tennessee transfer stations that compact or otherwise process waste are considered "processing facilities" and are subject to the permit-by-rule requirements. If no processing occurs at a transfer station, then the facility is not subject to permitting. Tennessee currently has rule amendments under review which would make all transfer stations subject to the permit-by-rule standards. The responses in this appendix apply to permit-by-rule facilities.
9. While Utah does not require a transfer station to obtain a permit, it does require a transfer station to get a plan approval. In a plan approval, the operator states how the facility will meet the transfer station guidelines found in the solid was regulations.

Transfer Stations: State Regulations URLs (as of 11/30/2001)

Alabama: <www.adem.state.al.us/RegsPermit/ADEMRegs/rules.html> Note: Chapter 420-3-5: Solid Waste Collection and Transportation Rules contain regulations governing transfer stations but are not available on Alabama Public Health Web site <www.alapubhealth.org/>.

Alaska: <www.state.ak.us/local/akpages/ENV.CONSERV/title18/title18.htm>

Arizona: Arizona Administrative Code <www.sosaz.com/public_services/Table_of_Contents.htm>. Applicable statutes are located at <www.azleg.state.az.us/ars/49/title49.htm>.

Arkansas: <www.adeq.state.ar.us/ftproot/Pub/regs/reg22.pdf>

California: <www.ciwmb.ca.gov/Law.htm>

Colorado: <www.cdphe.state.co.us/regulate.asp>

Connecticut: Regulations are not yet available on the Internet (as of 12/3/01).

Delaware: <www.dnrec.state.de.us/dnrec2000/Divisions/AWM/hw/sw/swreg.htm>

Florida: <www.dep.state.fl.us/waste/categories/solid_waste/default.htm>

Georgia: <www.ganet.org/dnr/environ/>

Hawaii: <www.state.hi.us/health/eh/shwb/sw/index.html>

Idaho: <www2.state.id.us/adm/adminrules/rules/IDAPA58/58INDEX.HTM> — Idaho has proposed new solid waste management rules, which will include additional requirements for transfer stations. See <www2.state.id.us/adm/adminrules/bulletin/99index.htm> - Select Bulletin 99-8, Vol. 1.

Illinois: <www.ipcb.state.il.us/Title_35/main.htm>

Indiana: <www.in.gov/legislative/iac/title329.html>

Iowa: <www.legis.state.ia.us/IAC.html>

Kansas: <www.kdhe.state.ks.us/waste/bwm_download_page.html>

Kentucky: <www.nr.state.ky.us/nrepc/dep/waste/regs/regulati.htm>

Louisiana: <www.deq.state.la.us/planning/regs/title33/index.htm>

Maine: <www.state.me.us/sos/cec/rcn/apa/06/chaps06.htm>

Maryland: <www.mde.state.md.us/comar.html>

Massachusetts: <www.magnet.state.ma.us/dep/matrix.htm>

Michigan: <www.deq.state.mi.us/wmd/SWP/sw_r&s.htm>

Minnesota: <www.pca.state.mn.us/rulesregs/index.html>

Mississippi: <www.deq.state.ms.us/newweb/homepages.nsf> Look under Office of Pollution Control.

Missouri: <mosl.sos.state.mo.us/csr/10csr.htm>

Montana: <www.deq.state.mt.us/dir/legal/title17.asp>

Nebraska: <www.deq.state.ne.us/RuleandR.nsf/Pages/Rules>

Nevada: <ndep.state.nv.us/admin/nrs.htm>

New Hampshire: <www.des.state.nh.us/desadmin.htm>

New Jersey: <www.state.nj.us/dep/dshw/resource/rules.htm>

New Mexico: <ftp://www.nmenv.state.nm.us/regulations/20nmac9_1.txt>

New York: <www.dec.state.ny.us/website/regs/index.html>

North Carolina: <wastenot.ehnr.state.nc.us/swhome/rule.htm>

North Dakota: <www.health.state.nd.us/ndhd/environ/wm/>

Ohio: <www.epa.state.oh.us/dsiwm/pages/currentrule.html>

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Oklahoma: <www.deq.state.ok.us/rules/rulesindex.htm>

Oregon: <arcweb.sos.state.or.us/rules/OARS_300/OAR_340/340_tofc.html>

Pennsylvania: <www.pacode.com/>

Rhode Island: <www.state.ri.us/dem/pubs/regs/index.htm>

South Carolina: <www.lpitr.state.sc.us/coderegs/statmast.htm>

South Dakota: <legis.state.sd.us/rules/index.cfm>

Tennessee: <www.state.tn.us/sos/rules/1200/1200-01/1200-01.htm>

Texas: <www.tnrcc.state.tx.us/oprd/rules/indxpdf.html>

Utah: <www.deq.state.ut.us/EQSHW/swrules.htm>

Vermont: <www.anr.state.vt.us/dec/rules/rulessum.htm>

Virginia: <www.deq.state.va.us/waste/wasteregs.html>

Washington: <access.wa.gov/government/awlaws.asp>

West Virginia: <www.wvsos.com/csr/>

Wisconsin: <www.legis.state.wi.us/rsb/code/>

Wyoming: <soswy.state.wy.us/cgi-win/sscgi_1.exe>

Purpose and Scope of this document

What is Health Impact Assessment?

Health Impact Assessment (HIA) is a practice that aims to protect and promote health and to reduce inequities in health during a decision-making process. The International Association of Impact Assessment defines HIA as: ***a combination of procedures, methods and tools that systematically judges the potential, and sometimes unintended, effects of a policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects.*** With roots in the practice of Environmental Impact Assessment (EIA), HIA aims to inform the public and decision-makers when decisions about policies, plans, programs, and projects have the potential to significantly impact human health.

There exists considerable diversity in the practice and products of HIA due to the variety of policies, plans, programs, and projects assessed; the diverse settings in which decisions take place; and the evolution of the field. A number of available guidance documents for HIA describe the procedural steps and outputs of the HIA process. This document, in contrast, is intended to provide guidance on what is required for a study to be considered an HIA (Minimum Elements) and some benchmarks for effective practice (Practice Standards).

These standards are aligned with the central concepts and suggested approaches described in the World Health Organization's 1999 *Gothenburg Consensus Paper on HIA*, which first laid out the values that underpin HIA: democracy, equity, sustainable development, the ethical use of evidence, and a comprehensive approach to health.

Overall, we hope that these standards, now in their third iteration, will be viewed as relevant, instructive, and motivating for advancing HIA quality.

What are *Minimum Elements*?

In this document, Minimum Elements answer the question of "what essential elements constitute an HIA?". Minimum Elements distinguish HIA from other practices and methods that also aim to ensure the consideration of and action on health interests in public policy.

These Minimum Elements apply to HIA whether conducted independently or integrated within an environmental, social or strategic impact assessment.

CITY OF ALBUQUERQUE

ENVIRONMENTAL PLANNING COMMISSION

M I N U T E S

Agenda Item 1
Project #1010582

15-EPC-40051/52

November 5, 2015

COMMISSION MEMBERS PRESENT:

Peter Nicholls, Chair
Karen Hudson, Vice Chair
Bill McCoy, Member
James Peck, Member
Victor Beserra, Member
Maia Mullen, Member
Dan Serrano, Member
Moises Gonzalez, Member
Derek Bohannan, Member

STAFF PRESENT:

Vicente Quevedo, Planning Department
Kym Dicome, Manager, Planning Department
Blake Whitcomb, Legal Department
Dora Henry, Administrative Assistant

MS. HOLBERT: Mr. Chairman, as far as what Friedman does for us, that's correct. We also would like to do more on this site, like the HHW, the household hazardous waste, which Friedman doesn't do, and green waste diversion, which Friedman doesn't do.

But correct, all the collection vehicles that collect from the households and the businesses would continue to go to Friedman, as well as the drop-off site. And as you're aware, we're proposing to continue to have a drop-off site at this facility.

CHAIRMAN NICHOLLS: And the follow-up is also to do with electronic waste. Where is that going currently, and will the new facility impact on that?

MS. HOLBERT: So currently, Mr. Chairman, we collect it through the curbside, and that goes to Friedman. Anything that's put in those carts or the drop-off sites go to Friedman. Those are small electronics.

We also collect electronics at Eagle Rock. We anticipate to continue to collect electronics at Eagle Rock. We anticipate collecting electronics from this new proposed site as well. And we have a -- we just signed a new contract with Albuquerque Recycling. They're another private firm that collects those electronics from Eagle Rock. And if they're contracted long enough, they would be here as well. But we'd have a third party come pick up the electronics from this site.

CHAIRMAN NICHOLLS: Okay. Thank you.

Commissioners, anything else?

That being the case, I believe Ms. Henry, we will go to public speakers. And those are the ones that just signed up from the public. If you'd call the first two.

MS. HENRY: David Wood, followed by Dana Rowengould.

CHAIRMAN NICHOLLS: Good afternoon, sir. If you'd state your name and address for the record, please.

MR. WOOD: David Wood, 158 Pleasant, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing this afternoon?

MR. WOOD: Chairman Nicholls, Commissioners, I'm recognizing and testifying for the Greater Gardner Neighborhood Association.

CHAIRMAN NICHOLLS: I'm going to give you five.

MR. WOOD: Yes, sir. Thank you.

A transfer station is new to our city. It is so new the comprehensive and the area plans do not at all adequately address it. Accordingly, I don't believe this is a routine zoning matter for this commission either. In principle, I support a transfer station. The issue in this case is location and, yes, the appropriateness of the zoning.

The applicant states this project started in 2006. The community was made aware of this project in 2014. The most critical decision of this process, site selection, was made internally in the eight years before the neighborhood involvement began. That,

Commissioners, is not a desired community condition.

Others will testify as to why this zone change is harmful to our community. But for almost two years now, what I've heard from the residents in the North and South Valley is this project, this zone change is a done deal. I don't believe, and here's why.

R-270-1980 guides this process. Code enforcement and the applicant both say a zone change is really not necessary. If that is true, then there is no basis for this zone change under R-270-1980.

R-270-1980 provides that the applicant must demonstrate that the existing zoning is inappropriate. They have not and they cannot. This is a zone change for convenience and to start the facility plan requirement.

For the applicant to say on one hand that the zoning is inappropriate, and on the other state in their application that they can already do it with existing zoning, actually makes a mockery of R-270-1980. That being said, this is clearly not more advantageous to the community.

Now, as a retired accountant, I'm more familiar with IRS codes than zoning codes, but one thing they have in common is that both codes are subject to opinions and -- opinions. Code enforcement department stated in their opinion that an adopted facility plan would not be required for the use, as this requirement would only apply to PNM substations, where facility plans are already required. Really? Again, this is an opinion, not a declaratory ruling; therefore, not binding on this commission, which must interpret the code and the application before it. And I would refer you to City Council decision AC-12-10, dated September 6, 2012.

The sole purpose of this requested zone change is to avoid the question of enforcement of the adopted facility plan under existing M-1 zoning. It certainly is not articulated in the comprehensive plan, so that avoidance of that requirement is not more advantageous to the community.

In summary, this application is flawed. The most egregious flaw is that the applicant is requesting a zone change when the applicant states they can do it without one. I believe it should be denied for that reason alone. It fails D and R-270-1980.

The applicant talked about public participation. There was no public participation in the most important issue, site selection, as recommended by EPA. So the gloss of public meetings that we heard about and design team meetings only resulted in the applicant presenting several design choices to the community. That's all. In the end, all decisions were made behind closed city doors.

This site process, this zone change request, are all inappropriate.

Thank you, Chairman Nicholls, Commissioners. And I would stand for any questions.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thanks for coming in, sir.

MR. WOOD: Thank you.

CHAIRMAN NICHOLLS: Who is next?

MS. HENRY: Dana Rowengould, followed by Kelly O'Donnell.

MS. ROWENGOULD: Thank you. Pardon my voice.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. State your name and address for the record, please.

MS. ROWENGOULD: Dana Rowengould, 4141 Marble Avenue, Northeast.

(Witness sworn.)

CHAIRMAN NICHOLLS: Go ahead. Who are you representing?

MS. ROWENGOULD: I represent Sustainable Systems Research. We did a traffic study on behalf of the North Valley Coalition and the Health Impact Assessment Team.

CHAIRMAN NICHOLLS: Okay. And we have that in our package; is that correct?

MS. ROWENGOULD: Correct.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MS. ROWENGOULD: Thank you. Thank you for the opportunity to speak today. As others will notes, residents and businesses in the area are concerned about the impacts of the proposed Edith Transfer Station. The increased truck traffic that it will cause in the area is of particular concern.

This past spring, we were asked by the North Valley Coalition and Health Impact Assessment Team to evaluate the potential traffic impacts of the Edith Transfer Station.

Over the past several months, we reviewed a number of documents related to the Edith Transfer Station, including the draft traffic study and materials that have been presented at public meetings. To conduct our analysis, we used the more detailed information available. Briefly, I will highlight our findings.

First, the draft traffic study relied on a number of faulty assumptions, which resulted in an underestimation of the impacts of the project. The faulty assumptions range from underestimating convenience center traffic, to assuming that new trips won't occur in the neighborhood.

Our second finding is that there will be new truck traffic in the neighborhood. Specifically there, will be new collection truck trips in the neighborhood when trucks picking up trash on nearby routes return to the site to drop off waste in the middle of the day. There will also be new convenience center trips through the neighborhood.

Third, and critically, we found that the closest homes are approximately 1- to 200 feet from the site. There are also homes 600 and 1300 feet from the site. During the busiest hour, every 41 seconds a truck will travel about 700 feet from the homes at the corner of Edith Boulevard and Rankin Road and other arterials in the area. Trucks will pass homes every five to six minutes. This will happen near homes on Edith Boulevard, just north of Griegos Road, near Montano Road and Edith Boulevard, and on 2nd Street north of Montano.

In light of the new truck traffic and its proximity to these

homes, we find that there's a potential for a number of impacts, including, safety, noise, air quality, and impacts to bicyclists and pedestrians. These impacts were not evaluated in the draft traffic study. If you're interested in full details, our report is in your packet.

And I appreciate your time. If you have any questions, I am happy to answer them.

CHAIRMAN NICHOLLS: Commissioner Gonzalez.

COMMISSIONER GONZALEZ: Yes. Could you expand a little bit on the impact to the bike way that's on Comanche?

MS. ROWENGOULD: Sure. So there are a number of critical bike facilities in the area. There's an unprotected bike lane, I believe, on 2nd Street. There's a bike lane on Comanche. There are a few critical gaps in the bike infrastructure in front of elementary school on Comanche. And those are -- with the conflict between trucks and cyclist, it's particularly concerning, because when there are accidents, they're more severe if a cyclist gets hit by a truck, obviously.

And then the other thing to consider is that cyclist perceive safety based on the traffic that's moving around them, and these trucks will have an impact on their perception of safety. So it may deter cycling, to some extent, in that area

COMMISSIONER GONZALEZ: If I can follow up.

The -- I was particularly looking at these plans. I was particularly concerned with the interface at the entrance points. Was anything done, in your analysis, that showed, you know, how many -- I mean, I'm just wondering how many trucks are going to be turning in there. Getting hooked on a bicycle is one of the most dangerous things that can happen.

MS. ROWENGOULD: We didn't look specifically at that. But I can say if there's a truck traveling every 41 seconds from that entrance, yeah, these homes that I just mentioned, then that would be my estimate (inaudible).

COMMISSIONER GONZALEZ: Thank you.

CHAIRMAN NICHOLLS: Anyone else?

Commissioner Mullen.

COMMISSIONER MULLEN: Thank you, Mr. Chair.

And maybe staff can help with this, but can we get a map up so that we can look at where these homes are relevant to the center. I know it's been touched on briefly, but it's relevant to her comments, and I want to see exactly where they are.

MS. ROWENGOULD: Can you see that on your screen? They're right there at the corner of Edith and Rankin.

COMMISSIONER MULLEN: Our screen is working. Thanks. All right. Thank you.

And thank you to the speaker. Thank you for coming in. I just wanted to make sure we all understood that relationship.

CHAIRMAN NICHOLLS: Okay. Thank you.

Ms. Henry, who is next?

MS. HENRY: Kelly O'Donnell, followed by Kitty Richards.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. If you'd state your name and address for the record, please.

MS. O'DONNELL: My name is Kelly O'Donnell. I live at 1473 West Ella Drive in Corrales, New Mexico.

(Witness sworn.)

CHAIRMAN NICHOLLS: Okay. And who are representing today?

MS. O'DONNELL: Well, I've been working with the North Valley Coalition.

CHAIRMAN NICHOLLS: But you're not a member?

MS. O'DONNELL: I am not a member, no, because I don't live --

CHAIRMAN NICHOLLS: Then I'll give you two minutes.

MS. O'DONNELL: All right. My reason for interest, and you have my memo in your packet as well, I am an economist and a research professor at UNM, and I was asked to look at the feasibility analysis to see if it made sense from an economic perspective.

And the first thing I noted upon reviewing it was that the finding of (inaudible) a significant cost savings was predicated on the existing convenience centers being closed. And since it appears that they are not going to be closed, the estimates of cost savings are erased completely. And, in fact, there is a net cost to the city of $1.6 million in the first year. So that was the most compelling finding, certainly.

But it's also important to keep in mind that when their -- a second contention in the feasibility analysis was that by reducing cost, it would -- the project would reduce upward pressure on rates and fees. If, in fact, the project increases costs, which is what it appears to do, then you would have, obviously, the reverse effect. You could have -- you could, in fact, have upward pressure on fees.

Finally, the other -- the other finding was the contention that it saves the city several million dollars, that would only be the case if the property itself had no value. By using the existing site is certainly an efficiency, but it is not a complete cost savings, particularly since the proposal as it currently stands would completely eliminate all (inaudible) on the current site and rebuild them anew.

Lastly, it's important to note that there are residences neighboring the site. And the further you go out, of course, the more residences you encounter. Many of these residences are owned by fairly low-income individuals. In -- whether low income or middle income, a primary residence is the primary source of family assets, and --

CHAIRMAN NICHOLLS: You're almost done, right?

MS. O'DONNELL: I am.

CHAIRMAN NICHOLLS: Okay. Thanks.

MS. O'DONNELL: Even a small reduction in property values, and

certainly there have been many studies that show reductions in property values, could result in a very substantial net reduction in assets for the struggling homeowners in the community. So it can't be under -- underemphasized how negative the impacts could be on community members. Thank you.

CHAIRMAN NICHOLLS: Any questions?

Commissioner Bohannan first, and then Commissioner Hudson.

COMMISSIONER BOHANNAN: I understand that the savings you -- from your basis was predicated on closing of all facilities. You said when you ran an analysis for the first year, it was a net cost of 1.6 million, which is probably to be expected when demoing existing and building new when you're going to have all your capital expenditures front loaded.

Did you run any analysis out further than one-year to see if there would be a net savings over a 20-year period, or any significant timeline?

MS. O'DONNELL: In fact, this is not my analysis. This is the analysis that's included --

COMMISSIONER BOHANNAN: When you're rebutting, you're rebutted it with a cost of 1.6.

MS. O'DONNELL: No. That's actually in the feasibility analysis. And the lifespan cost is 3.2. But that's also in the -- in the report provided by the developer, not my analysis.

COMMISSIONER BOHANNAN: Okay.

CHAIRMAN NICHOLLS: Commissioner Hudson, you had the same question?

COMMISSIONER HUDSON: I did.

CHAIRMAN NICHOLLS: Okay.

Any other commissioners' questions?

Thank you.

Who's next?

MS. HENRY: Kitty Richards, followed by Matt Cross-Guillen.

CHAIRMAN NICHOLLS: Good afternoon, ma'am, if you'd state your name and address for the record, please.

MS. RICHARDS: Kitty Richards, 935 Alameda Road, Northwest, Albuquerque, New Mexico, 87114.

(Witness sworn.)

CHAIRMAN NICHOLLS: Go ahead. Who are you representing?

MS. RICHARDS: I am representing myself, actually, and two other colleagues who conducted the Health Impact Assessment under a contract with Commissioner O'Malley on behalf of the North Valley Coalition of Neighborhoods.

CHAIRMAN NICHOLLS: I'm going to give you two minutes. We have the study in our packet. Go ahead.

MS. RICHARDS: Okay. Yes, is there any way I could request five, since two of my colleagues are absent?

CHAIRMAN NICHOLLS: Would they have been speaking?

MS. RICHARDS: Yes, they would have.

CHAIRMAN NICHOLLS: I'll give you five, but no more.

MS. RICHARDS: Okay. Thank you, Commissioner.

My name is Kitty Richards, and in 2014, I retired from government after 25 years as an environmental health scientist with the Environment Department's Groundwater Bureau. And I was also an environmental health manager with the Department of Health, and a program manager for Bernalillo County's Office of Environmental Health.

I'm the author of seven different health impact assessments, and I've presented on Health Impact Assessment, also known as HIA, at two national and two local conferences.

As I understand it under R-280-1980 [sic], the onus is on the applicant, which in this case is the city, to meet the Criteria E under that requirement, which states a change of zone shall not be approved where permissive uses would be harmful to the adjacent property, neighborhood or community. That was the purpose for doing a Health Impact Assessment.

It was not necessarily to look at the conditions within the site or within the proposed waste transfer station, but rather to look at the impact to the neighboring community.

The city has largely discredited our Health Impact Assessment. In your packet, you'll find two letters from well-known Health Impact Assessment folks, who actually wrote the minimum elements and practice standards for HIA, which is the same document that the city used to discredit our work.

They have submitted letters stating that (inaudible) our HIA is methodologically sound and has asked you all to heed the HIA findings.

The City of Albuquerque has mentioned that because of regulations, design parameters and operation plans, there will be no impact on the neighboring community. We all know that enforcing regulations is very time intensive and personnel intensive. We also know that mistakes can and do happen. So simply ignore that fact is just really a leap of faith.

The city also states that this use is appropriate for Zone 1. I'd just like to point out that EPA provides guidance stating to include the impacted residents and site criteria, based on those criteria site selection, to not cluster facilities, known as cluster zoning, because it results in concentrated negative impacts such as traffic, litter and odors, and to ensure that siting decisions don't impose a disproportionate burden on low income and minority communities.

As you probably noticed in the HIA, this community is 36 percent living below the poverty level, the federal, and also 65 percent minority; much higher percentages than when you compare it with Bernalillo County as a whole. The community already houses an asphalt plant, a hazardous waste collection center, Rinchem and a recycling center.

To continue to bring in more and more industry, really, it's going to impact the already incredibly high health disparity experienced by these residents.

I'd like to share with you. I didn't know we had an overhead, but if you don't mind, this is part of the HIA report, but I'd also like to share this with you.

Am I able to do that? Chairman, will you allow me to submit this?

CHAIRMAN NICHOLLS: And this is part of our packet, correct, this -- this document?

MS. RICHARDS: Yes. This was in the Health Impact Assessment.

CHAIRMAN NICHOLLS: Okay.

MS. RICHARDS: So what I've handed out shows you the health disparity for residents of the impacted community. And as you can see, the Hispanics in that community, they're a disproportionate health burden, when you compare it with non-Hispanics from the same community.

When we're looking at the waste transfer stations impact to the neighboring community, there are several sensitive receptors in addition to predominantly Hispanic low-income communities. There are residents or detainees in the youth detention center. There are children who play softball at a newly created Little League baseball field across the street, and, of course, there's the residents at the apartment complex at the corner of Rankin Road and Edith.

Unfortunately, none of these sensitive receptors, what we call sensitive receptors, showed up on this map. And so --

CHAIRMAN NICHOLLS: You're just about out of time, ma'am.

MS. RICHARDS: Okay. I just want to leave you with one thing, that why would we really even consider siting this facility in a community that already has an incredibly high burden. And I believe that it's really up to the City of Albuquerque, as well as you to ensure that we protect those who are the most vulnerable; these include children, minorities and the poor.

Thank you very much.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Go ahead, Commissioner Beserra

COMMISSIONER BESERRA: During your -- thank you very much.

And thank you for come tonight.

MS. RICHARDS: Thank you.

COMMISSIONER BESERRA: During your evaluation period and working with the community, why was not the city involved as one of the stakeholders, being that, you know, we have an Environmental Health Department and they can -- they can supply you with information that maybe you don't have?

And there's definitely conflict. And I didn't see -- I didn't read it as disregarding your evaluation, but that there was not sufficient information for your type of assessment.

MS. RICHARDS: Thank you for that question. Actually, I did work with the city, both with Jill and with John, in getting information on traffic counts that are currently occurring at the site.

Additionally, I worked with the New Mexico Department of Health, which is typically the agency to go to in looking at death rates. I realize the Environmental Health Department does collect information on vector-borne disease, but ultimately, that information ends up in the health department's data (inaudible).

Additionally, at our very beginning meeting, there were two individuals from the city who, in fact, say -- I don't know if this is true, but they say they actually set up a table to get volunteers signed up for the Health Impact Assessment committee. So I imagined through doing that, they were aware that they could have participated at any time. And, in fact, at our very preliminary meeting, there was the woman from Cooney & Watson and a couple other representatives that will we invited if they were interested.

COMMISSIONER BESERRA: Thank you.

CHAIRMAN NICHOLLS: Anyone else?

I will be having more to say on this particular document once we've closed the floor, but I will leave that to that time.

MS. RICHARDS: Thank you.

CHAIRMAN NICHOLLS: All right. Thank you for coming in.

Who is next?

MS. HENRY: Matt Cross-Guillen, followed by James Aranda.

MR. CROSS-GUILLEN: Good evening.

CHAIRMAN NICHOLLS: Good evening. Almost evening, yes, we're working along.

State your name and address for the record, please.

MR. CROSS-GUILLEN: Matt Cross-Guillen, 1659 Estrellita Road, Southeast, Rio Rancho.

(Witness sworn.)

CHAIRMAN NICHOLLS: Go ahead, sir. Who are you representing?

MR. CROSS-GUILLEN: Place Matters.

CHAIRMAN NICHOLLS: Which is?

MR. CROSS-GUILLEN: Which is a national organization, and we are -- we are supporting the North Valley Coalition, and here on behalf of.

CHAIRMAN NICHOLLS: I'm going to start you with two, see how we go.

MR. CROSS-GUILLEN: Thank you. Good afternoon, Chairman Nicholls, Commissioners. My name is Matt Cross-Guillen, and I'm with Place Matters Bernalillo County. I have a bachelor's in environmental signs, and a master's in environmental education.

We do not support the placement of a waste transfer station in this community. Place Matters is a national initiative intended to improve the health of communities by addressing the conditions that lead to poor health. The team in Bernalillo County is one of 19 teams nationally working to reduce health disparities by identifying the complex root causes of health disparities and defining strategies to address them.

One of those root causes are land use decisions that overburden certain communities. To aid the board in denying this request, the North Valley Coalition has compared the application with the policies of the local area plan. It is clear that the proposed project is not in agreement with the policies of that plan. The policies are then created in order to maintain a healthy place for the surrounding neighborhood. That place needs to be maintained through wise and equitable land-use decisions.

A Health Impact Analysis, or HIA, was also done about that proposed facility and submitted into record, as you know. HIAs are recognized and recommended by the Centers for Disease Control, the National Research Council, and the U.S. Department of Health and Human Services and other entities. The findings in that HIA submitted need to be seriously considered. Please give due weight to the analysis done by the North Valley Coalition and the findings in the HIA denying this application.

Thank you.

CHAIRMAN NICHOLLS: Any questions, Commissioners?

Thank you for coming in, sir.

Who is next?

MS. HENRY: James Aranda, followed by Heather Brislen.

CHAIRMAN NICHOLLS: If you'd state your name for the record, please.

MR. ARANDA: My name is James Aranda. I reside at 1824 Neat Lane, Southwest, Albuquerque, New Mexico, 87105.

(Witness sworn.)

CHAIRMAN NICHOLLS: Okay. And who are you representing?

MR. ARANDA: I, too, represent Bernalillo County Place Matters. I'm here just to read a statement in support of our neighbors and friends in the North Valley.

CHAIRMAN NICHOLLS: I'll give you two minutes.

MR. ARANDA: Thank you. Mr. Chair, Members of the Commission, greetings. My name is James Aranda. I'm director of Bernalillo County Place Matters.

As Mr. Guillen explained, we are a community-based organization that advocates for policies that provide equal opportunities for safe, clean and healthy neighborhoods, and resolve the disproportionate environmental burdens on people of color working for low income and vulnerable communities in Bernalillo County.

We at Place Matters stand in support of our friends and neighbors in the North Valley who have serious concerns with the City of Albuquerque's proposed waste transfer station at its current

Edith and Comanche Solid Waste facility.

As stated previously, the proposed facility will receive all of Albuquerque's daily collected garbage and transfer it to the Cerro Colorado Landfill via 18-wheel truck, resulting in 229 additional round trips into and out of the proposed waste transfer station, which is equal to 173 percent increase.

This increase does not include privately owned vehicles that will be self-hauling trash to the proposed convenience center.

The city claims that the proposed station will improve the surrounding neighborhood by providing benefits such as reductions in air pollution. However, according to friends and neighbors in the North Valley, the city has not provided any air quality data to substantiate this claim.

As mentioned by previous speakers, the Health Impact Assessment conducted in August 2015 was done to basically measure the potential impacts of the proposed station.

Now, environmental and health data assessed for the HIA indicate that area residents already bear a disproportionate environmental and health burden. This burden, in conjunction with community socioeconomic and demographic composition make the impacted community meet the USEPA criteria for an environmental justice neighborhood.

So the question I'd like you to consider while mulling over this particular application is: Does this request exacerbate the problem or does it alleviate the problem?

And I will leave you with that. Thank you.

CHAIRMAN NICHOLLS: Any questions, Commissioners?

Thank you, sir.

MR. ARANDA: Thank you very much. Have a good evening.

CHAIRMAN NICHOLLS: Who is next?

MS. HENRY: Heather Brislen, followed by Dan Waldman.

CHAIRMAN NICHOLLS: Good afternoon. If you'd state your name and address for the record, please.

DR. BRISLEN: My name is Heather Brislen. My address is 4905 Guadalupe, Albuquerque, New Mexico, 87107

(Witness sworn.)

CHAIRMAN NICHOLLS: Okay. And who are you representing today?

DR. BRISLEN: Myself.

CHAIRMAN NICHOLLS: Sorry?

DR. BRISLEN: Myself. Just myself.

CHAIRMAN NICHOLLS: Okay. I'll give you two minutes.

DR. BRISLEN: Thank you. Mr. Chair, Commissioners, I was born and raised in Albuquerque, and I now live close to the proposed Edith Transfer Station.

I'm also a primary care doctor. I take care of adults, and in my job, I spend most of my time managing the effects of chronic diseases.

Primary care doctors in Albuquerque become deeply aware of what are called the social determinants of health. These are principles of high impact, social and environmental factors that explain why people of lower socioeconomic status tend to have more illness, to live sicker, die earlier, and suffer more from common diseases.

The Edith Transfer Station seems to be an obvious example of this kind of environmental factor. Our neighborhoods cannot afford the impact that the zoning change will bring in the form of the traffic and pollution that will follow.

I attended a couple of the Edith Transfer Station public outreach meetings, and I was disappointed that questions about diesel exhaust were dealt with dismissively. I'd also like to point out that the staff report ignores the fact that air pollution from diesel would be increased and concentrated in the Edith Transfer Station area, while it asserts, this is in the report, compliance with the comprehensive plan, including policies specific to our neighborhood.

The pollution that comes with dramatically increased diesel traffic is important. It counts. It counts against the long-term health of this community, some of which is vulnerable and deserves better treatment from the city than this.

Please deny the zoning change request. Thank you.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thanks for coming in, ma'am.

MS. HENRY: Dan Waldman, followed by Larry Steppe.

CHAIRMAN NICHOLLS: Good afternoon, sir. State your name and address for the record, please.

DR. WALDMAN: Dan Waldman, 4905 Guadalupe Trail.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

DR. WALDMAN: UNM Family and Community Medicine.

CHAIRMAN NICHOLLS: I'm going to start you with two.

DR. WALDMAN: Good afternoon. My name is Dan Waldman. I'm a physician, I'm an associate professor, and I'm the director of the UNM Family and Community Medicine Residency. I also help coordinate our population health curriculum, and I teach evidence-based medicine.

As some of you know, we've recently opened a new clinic in the area of the proposed transfer station. I'm concerned about the amount of additional exhaust (inaudible) proposal and the effects on the community. Especially in terms of airborne particulate matter.

Is this a safe and wise decision? Even though the area looks industrial, a surprising amount of people live, work and attend school close by.

I submitted a written report that also references some of these articles that I'm going to be referencing and many more. Diesel exhaust exposure causes lung cancer, small cell and non-small cell, is a known carcinogen. Health outcomes, including mortality, worsen in direct response to an amount of air pollution exposures.

We're still learning a lot. These articles are all pretty recent and they're all from respected sources. Exposure to air pollution has been shown to adversely effect birth outcomes and recently has been shown to increase gestational diabetes risks.

New England Journal: Long term exposure to air pollution is associated with the increased incidence of cardiovascular disease and death amongst post-menopausal women.

The reality is, we don't really know how safe this will be. The potential effects though are pretty wide ranging. Ambient air pollution is responsible for lost days of work, hospitalizations and asthma attacks. These things are extremely expensive, even if you just look at the data for children, as in this article.

Future patients and insurers, including the state, will have to pay for things like ER visits and for things like children's asthma flares. But we know those things go well beyond the -- the cost of an ER visit.

I suspect that this will be more of a cost shift than a cost savings. I also wonder if this process would have gotten this far if the affected community had more disposable income to fight the process.

CHAIRMAN NICHOLLS: Do you have much more, sir?

DR. WALDMAN: About 30 seconds.

CHAIRMAN NICHOLLS: Thirty seconds it is.

DR. WALDMAN: The widely adopted precautionary principles state that in the absence of scientific consensus for safety, the proponent of an activity, not the public, should bear the burden of proof. This is in things like the Kyoto protocol.

Another important principle in medicine in general is that preventive health is significantly more cost-effective than paying for treatment.

For all of these reasons, I'm strongly against this proposal. Let's not be the kind of city that brings all of their trash to a poor neighborhood. Thank you.

CHAIRMAN NICHOLLS: Any questions?

Commissioner Gonzalez.

COMMISSIONER GONZALEZ: I imagine that the applicant would say that their proposal, they are decreasing the amount of diesel emissions in aggregate by decreasing the amount of miles that are rolled by these trucks that would be going to the landfill.

Could you address that?

DR. WALDMAN: Well, in an area that is kind of hotly contested right now in that people just don't know. There's not a lot of conflicting data about it, there's just not a lot of data. It's

how close do you need to be to diesel exhaust? So there can be things such as greenhouse gases, and the effects to the general environment, but the real concern is the local population. And we're -- I mean, we're talking about very small, fine, particles, and these things are easily inhaled.

So it doesn't matter how many nice trees you put up in the area that block visually, these are just going to be seeping in the area. And there's different studies that look at about how far things seep, and it's advancing area of science. We'll probably know more in the next 10 to 20 years. Although these decisions obviously need to be made before that.

CHAIRMAN NICHOLLS: Anyone else?

Thank you for coming in, sir.

DR. WALDMAN: Thank you.

CHAIRMAN NICHOLLS: Who is next?

MS. HENRY: Larry Steppe, followed by Carol Chamberland.

CHAIRMAN NICHOLLS: Good afternoon, sir. If you'd state your name and address for the record, please.

MR. STEPPE: Good afternoon, Chair. My name is Larry Steppe. I reside at 4404 Edith.

(Witness sworn.)

CHAIRMAN NICHOLLS: Yeah, go ahead. Who are you representing this afternoon, sir?

MR. STEPPE: I'm representing myself and also the North Valley Coalition.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MR. STEPPE: All right. Thank you very much. Good afternoon. I'm Larry Steppe, owner and operator of Steppe's Piston and American Marine, at 4404 Edith for over 38 years. At that location, I've been in business for 42 years. I also am here on behalf of the many of the surrounding businesses who cannot be here due to some of the things that they've had to do, plus working (inaudible).

We have Conway Electric, Melloy Mobile Storage, M&M Hydraulics, as many as 30 to 50 businesses surrounding the area.

And my concern with the waste transfer station is I find nothing in the zone, in the waste transfer station plans that would be a benefit to me or my business. I have been reading the comprehensive plan and wish to use 2(C)(4)(a) 1 through 7, noise, as my reason to oppose the zoning change.

There is nothing the city can do, short of building a 20-foot wall up to the driveway and behind the business, to reduce the noise that it will produce, the plan to use this driveway for the garbage trucks in and out all transfer trucks today. They are too close and higher than the property. They're planning to move the driveway 70 feet close to my property.

Let me stop here for just a minute and verify where my property is. My property is within inches of the Solid Waste management right now. Their fence -- my fence -- their fence and my fence

border each other from county to city. They also -- my building also backs the Solid Waste transfer building by less than 50 feet. They're surrounded completely -- I'm completely surrounded by the Solid Waste management building. I am their direct neighbor, right in front of them.

Their driveway is not compatible to my land use. No study or noise on my property has ever been made or considered, ever. No noise (inaudible) measures are the place are considered for my business and residence adjoining this site.

Conflict, I will not be able to conduct business in or out of my building because of the constant noise. I visited at Eagle Rock and found outside the loading zone, you could not hardly stand to even carry on a conversation. I listened to the crashing glass for years at the recyclable bins.

CHAIRMAN NICHOLLS: Do you have much more, sir?

MR. STEPPE: Pardon?

CHAIRMAN NICHOLLS: Do you have much more?

MR. STEPPE: No, I don't. The only other thing I have is -- on the illegal dumping thing. They -- as I've shown you in a poster here, illegal dumping, I don't see how they could ever control the illegal dumping. We can't even control what we have here right now. This has been going on for 30 years.

But I also would like to state, Chair, that I, a person that have been there for 38 years, and not even -- I found this out through another person. No one has ever been down and even talked to me about it.

And I thank you very much.

CHAIRMAN NICHOLLS: Any questions?

Commission Peck.

COMMISSIONER PECK: Thank you, Mr. Chair.

So you've been at this location for 35 years?

MR. STEPPE: I've been there 38 years.

COMMISSIONER PECK: And how long has the Solid Waste building been there?

MR. STEPPE: Less than 15 years.

COMMISSIONER PECK: Okay. Thank you.

CHAIRMAN NICHOLLS: Anyone else?

Commissioner Beserra

COMMISSIONER BESERRA: Thank you, sir, for coming in. I thank you.

Thank you, Mr. Chair.

What type of business do you operate?

MR. STEPPE: I have a boat repair shop, and I also build custom cars.

COMMISSIONER BESERRA: Okay. Now, are you saying that if they would provide a barrier of some sort, a wall, trees, whatever that may be, that would satisfy your concern?

MR. STEPPE: I do not believe they could build a 20-foot wall. With what I've looked at and the way I've looked at it, even at Eagle Ranch, I do not -- that close to my property and those diesel trucks running and stacking up 10, 15 deep -- you've got to remember that I'm talking about less than from where you are to me where they will be coming in that driveway, and that's all day.

I can tell you that even with the recyclable stuff that's there, if I'm trying to conduct business with a customer, I have to stop till that's done. And that's maybe a hundred feet away.

I just can't even imagine -- I just personally feel that there is no way that I could stay in existence where I have worked to make a living for 38 years and serve the public and have many, many customers that are concerned. I just -- I -- I mean, I deal in 125- to $175,000 vehicles, and I just -- and the consideration has been very -- very poor

COMMISSIONER BESERRA: Thank you.

MR. STEPPE: Thank you very much.

CHAIRMAN NICHOLLS: Thank you for coming in, sir.

MR. STEPPE: Thank you.

CHAIRMAN NICHOLLS: Who is next, please?

MS. HENRY: Carol Chamberland followed by Loren Kahn.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. If you'll state your name and address for the record, please.

MS. CHAMBERLAND: Carol Chamberland, 609 San Lorenzo Avenue, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing this afternoon, ma'am?

MS. CHAMBERLAND: Myself.

CHAIRMAN NICHOLLS: Two minutes, please.

MS. CHAMBERLAND: Okay. I have worked with the North Valley Coalition and the Health Impact Assessment as a private individual. I would like to say that I purchased my house in the North Valley 11 years ago, and I've been living happily ever after, until last year, when I learned about the city's plans to put a waste transfer station in our neighborhood.

And I heartily agree with everyone who has spoken before me to oppose this proposal. It makes no sense. But this gave me the occasion to study the city's comprehensive plan, something which I otherwise never would have done. So here you go.

I do believe, I came away with the conclusion that we are having the totally wrong conversation here. By looking at the city plan, we should basically be using our waste to create energy,

not using energy to move our waste around.

And I quote the city plan, Number 2(C)(3), the goal is economical and environmentally sound method of Solid Waste disposal which utilizes the energy content and material value of municipal Solid Waste.

It goes further, 2(C)(3)(b), encouraged Solid Waste recycling systems which reduce the volume of waste, while converting portions of the waste stream to useful product and/or energy.

Well, I've heard nothing about any of that proposal. So I looked into it a little bit more. California, in 1989, they passed a law requiring cities and counties to cut their landfill shipments 50 percent by 2000. They did that, no problem. And then in 2011, they upped that to 75 percent by 2020. And they're well on their way to doing that.

Portland, Oregon, has department 70 percent of its discards out of land area -- area landfills. And our city policy says that we should be doing the same. So waste to energy is the wave of the future, and if Albuquerque wants to look to the future, that's the way we should be looking, not backwards, by schlepping our garbage around town.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thanks for coming, in ma'am.

MS. CHAMBERLAND: My pleasure.

MS. HENRY: Loren Kahn, followed by Antoinette Vigil.

CHAIRMAN NICHOLLS: Good afternoon, ma'am, state your name and address for the record, if you would, please.

MS. KAHN: Loren Kahn, 4913, Guadalupe Trail, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. KAHN: Myself.

CHAIRMAN NICHOLLS: Then I'm going to give you two minutes.

MS. KAHN: Thank you, Commissioners, Chairman Nicholls. I agree with previous speakers, I oppose the transfer station.

For a change from M-1 to special use conditions of COA Zone Code 270-1980, have to be consistent with health, safety, morals, and welfare of the city. So I'd the address the aspects of the transfer station that would negatively impact these conditions.

First, contradictory information, either the traffic will increase by 173 percent or, according to the city, there will be no impact on traffic. How is that possible? And where is the budget and foresight to resolve the inevitable traffic mess? There's been no mention of that.

Second, air and noise pollution will increase. Don't we have to consider the health of students in the nine elementary schools within a two-mile radius of this site.

Third, morals and trust. The overall welfare of citizens isn't just about money. It's about quality of life. The main selling

point of the transfer station, as explained to us, is strictly saving money. But we want a livable city without a huge smelly factory that happens to be next to where we live.

Finally, does the project have a vision for the future. The plan doesn't even mention a compactor. There's no method to separate green waste or new ways to recycle, glass, paper or aluminum. We could learn from other cities. What if there's a technology breakdown, or a strike in this giant single transfer station? Does the garbage just pile up? What if there's a natural disaster? Albuquerque is not equipped for heavy flooding rain, and this lotion has risks. Perhaps several smaller stations at the outskirts of our city, which is growing, might be more in tune with quality of life.

I close with a quote from poet Joy Harjo: Let's not shame our eyes for seeing. Instead, thank them for their bravery.

As a resident of the neighborhood and of Albuquerque for 44 years, I say it's not too late to see that we're heading in the wrong direction and to make a U-turn. Thank you.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, ma'am.

Who's next?

MS. HENRY: Antoinette Vigil, followed by Sharon Valenzuela.

CHAIRMAN NICHOLLS: Good afternoon, ma'am, if you'd state your name and address for the record, please.

MS. VIGIL: Antoinette Vigil, 215 San Andres Avenue, Northwest, 87107.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. VIGIL: Myself. But I also am part of the Greater Gardner Neighborhood Association.

CHAIRMAN NICHOLLS: Understood. I'm going to give you two minutes.

MS. VIGIL: I oppose the Edith Waste Transfer Station. I was born and raised in Albuquerque, and specifically in the North Valley, and have chosen to live in the North Valley my whole life. My extended family has lived in New Mexico for generations and in the North Valley for over 50 years. I own a homeless than three-quarters of a mile away from the proposed site, and my extended family lives within two miles of the site, and aunt and uncle live less than half a mile from the site, and now their grandson and great grandson live there. Their son-in-law and granddaughter live two streets north of them. Another aunt, with her children and grandchildren, live at the end of 10th Street, where the Griegos Library sits. I grew up walking to La Luz elementary, walking to the bus stop to go to Taft Middle School, and then, again, Valley High School.

I walked the Alameda Drain in the morning at 5:30, and had the pleasure of smelling baking bread from Bimbo's. I also have, however, smelled odor from the Holly Asphalt, and have experienced the fly ash from my aunt and uncle's home across from JCC American Cement Company.

The applicant's request for a zone change conflicts with the city's comprehensive plan and Resolution 270-1980 and should be denied. R-270-1980, Section 1(E), states: A change of zone shall not be proved where some of the permissive uses in the zone will be harmful to adjacent property, the neighborhood or the community.

In the comprehensive plan, Section 2(D)(5) under housing, the goal states: The goal is to increase the supply of affordable housing, conserve and improve the quality of housing, ameliorate the problems of homelessness, overcrowding and displacement of low income residents and assured against discrimination and the provision of housing.

My family and I do not buy our homes as investment opportunities. It is not easy or even possible for most of us to sell our homes or move to another rental location, rental property, if this project goes forward and our neighborhood becomes full of pollution, pests and is dangerous to walk our bicycle through.

I was not always a homeowner and used to rent apartments in the North Valley. And I still know what it means to live paycheck to paycheck. Having down deposit and first month's rent is an obstacle to finding affordable house.

There are seven rentals on the same block of Edith and Rankin that will face this challenge, along with the numerous homeowners and renters.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thanks for coming in, ma'am.

MS. VIGIL: Thank you.

MS. HENRY: Sharon Valenzuela, followed by Camille Varoz.

CHAIRMAN NICHOLLS: How many more do we have signed up, Ms. Henry?

MS. HENRY: There's 34 total.

CHAIRMAN NICHOLLS: Okay.

UNIDENTIFIED FEMALE: Twenty.

CHAIRMAN NICHOLLS: Twenty to still speak. Okay.

State your name and address for the record, if you would, please

MS. VALENZUELA: Sharon Valenzuela, 3809 Los Tomases Drive, Northwest, 87107.

(Witness sworn.)

CHAIRMAN NICHOLLS: Okay. And who are you representing?

MS. VALENZUELA: Myself, but my aunt, my uncle, my mother, my sister, and lots of relatives who live by the proposed site.

CHAIRMAN NICHOLLS: Okay. I'm going to give you two minutes.

MS. VALENZUELA: Thank you. Hello. I'm hoping from this short news clip that we can learn from the mistakes made there other places so that we don't make the same one here.

You will see a J.R. Miller Waste Transfer Station that was placed close to a school and residential community that was supposed to be enclosed.

BEGIN VOICES FROM NEWS CLIP

Right over there is Margaret Friedman, who has been a teacher at Oakley Elementary School for 17 years. This is the view from her classroom. The school's neighbor is Rainbow Environmental Services.

And it processes construction waste, green waste, and most importantly, it processes trash, tons and tons of trash every single day.

She's one of many who say the smell from the facility is unbearable and has been making students sick.

It's not bad. It's pretty horrible. Well, my sister has even gotten sent home because of how bad the odor is, that she throws up.

The smell isn't their only complaint. This is recent video of seagulls flying over the school.

They poop on the lunch tables, they poop everywhere. Kids run to our awnings to escape the seagulls.

And they leave behind bones, leftovers from the scraps they've picked up at Rainbow just 100 feet away. Teachers say the facility has also been crushing concrete, sending potentially harmful dust onto the campus.

The kids sometimes come in from lunch and from playing, and they have concrete dust on them. You know, concrete is a carcinogen. This is something that should not be allowed.

The South Coast Air Quality Management District has issued four violations to the company in the past six months, most recently, in March. School board members say they're fed up with the mess. The Ocean School District is now suing.

They are conducting illegal garbage processing operations. They are tipping and they're sorting and they're transferring Solid Waste raw garbage outside an enclosure. It's supposed to be inside of the building.

They've said they might consider enclosing one of them, but that's not enough. There's a huge gigantic open area where they just take whole trucks full of chicken bones and fish pickings and dump it out on the open ground.

How is it allowed in 2015 that we can have Surf City, USA, have an open trash dump literally uncovered in our city.

A trial is set for October.

END VOICES FROM NEWS CLIP

MS. VALENZUELA: We don't have seagulls here, but we have crows and pigeons, and it's supposed to be enclosed.

CHAIRMAN NICHOLLS: Okay. Commissioner Bohannan.

COMMISSIONER BOHANNAN: I'd just like to point out, you showed us

a video of an open trash dump, and it's different.

MS. VALENZUELA: (Inaudible) enclosed and they just -- the overflow.

COMMISSIONER BOHANNAN: It was not enclosed when you looked at the structure, though. That was far open --

COMMISSIONER GONZALEZ: It was supposed to be.

COMMISSIONER BOHANNAN: It was supposed to be enclosed but it was not.

MS. VALENZUELA: There was an article, too, that says that it was supposed to be -- it was created as an enclosed, you know, whatever, that's called, waste station, but when there was overflow, they just -- they just put it on the side. It wasn't supposed to be like that. It was supposed to be enclosed.

CHAIRMAN NICHOLLS: And whereabouts exactly is this, ma'am?

MS. VALENZUELA: That was Huntington Beach. I found it on Google.

CHAIRMAN NICHOLLS: Okay. Thank you.

Who's next?

MS. HENRY: Camille Varoz, followed by Marcia Finical.

CHAIRMAN NICHOLLS: And just for the record, Commissioners, I plan to take a short break at 5:30, so we can get the blood flowing again.

Good afternoon, ma'am, state your name and address for the record, please.

MS. VAROZ: Camille Varoz, 427 El Paraiso Road, Northwest, Los Ranchos, New Mexico, 87107.

(Witness sworn.)

CHAIRMAN NICHOLLS: And, ma'am, you said you live in Los Ranchos?

MS. VAROZ: Los Ranchos.

CHAIRMAN NICHOLLS: How far away from the subject site?

MS. VAROZ: Three miles.

CHAIRMAN NICHOLLS: Three miles?

MS. VAROZ: Yes.

CHAIRMAN NICHOLLS: Okay. Thank you.

MS. VAROZ: In terms of who I represent, I represent myself. I'm also a new member of the North Valley Coalition board.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MS. VAROZ: Thank you. Chairman, Commissioners, Community Members and North Valley Coalition Colleagues.

I've been living in the North Valley for over 60 years, as well

as my family. I'm a retired APS teacher. Also I've taught at CNM as a teacher, and I've been a former employee of the City of Albuquerque in the planning and zoning department, as well as family and community services.

So I feel my experience being part of the North Valley teaching, also working for the City of Albuquerque, I feel that I have experience in terms of knowing the zoning. I also -- but my premise tonight is to address our schools that are in a two-mile radius of the proposed Edith Transfer Station.

So if I could, this is an image -- I don't know how -- I'm going to use the overhead. This is an image from the HIA impact study, and it illustrates where the proposed transfer station is, and nine nearby in a two-mile radius of APS schools. There's also daycare centers, 13 day schools, and five senior centers within the same two-mile radius.

So my concern here is, as has been addressed by other -- in testimony by other individuals before me --

CHAIRMAN NICHOLLS: I'm going to give you about 15 more seconds. You're already out of your time.

MS. VAROZ: Oh, my goodness.

Anyway, the air quality, the -- that the students and the residents and other schools and -- which directly affect our young people because they're going to be impacted with the air, with water, with noise. There is studies that show that these environmental aspects will negatively impact their academic performance.

CHAIRMAN NICHOLLS: You're out of time, ma'am.

Commissioners, any questions?

Thank you.

Who's next?

MS. HENRY: Marcia Finical, followed by Scott Hale.

MS. FINICAL: Hi.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. If you'd state your name and address for the record, please.

MS. FINICAL: I'm Marcia Finical. I live at 141 Griegos Road, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. FINICAL: Myself and the Greater Gardner Neighborhood Association.

CHAIRMAN NICHOLLS: Okay. I'm going to give you two minutes.

MS. FINICAL: Thank you. I live at 141 Griegos Road, Northwest. Well, that's within four-tenths of a mile from the proposed Edith Transfer Station.

I would like to read from the policies from the city's comprehensive plan concerning air quality, Policy 2(C)(1). The

goal is to improve air quality, to save our public health and enhance the quality of life. Policy G, pollution from particulates shall be minimized. Policy K, citizens shall be protected from toxic air emissions

We've already got Holly Asphalt, Friedman Recycling, and the cement transfer station all within a half-mile radius of the proposed waste transfer stations.

How can citizens be protected from toxic air emissions when the city keeps granting more industries the right to operate in such a concentrated area?

Also, here's from the policies from the comprehensive plan concerning water quality. Policy 2(C)(2), Policy A, minimize the potential for contaminants to enter the community water supply. Possible techniques, Number 2, systematically monitor and analyze groundwater for contaminants at various locations, invest in the aquifer

Number 4, develop and implement a program for preventing hazardous substances from entering the aquifer and water supply system.

Does the city have plans to monitor the groundwater? Where in the plan is groundwater monitoring mentioned?

Policy C, water quality contamination resulting from Solid Waste disposal shall be minimized. Possible, techniques.

Number 4, minimize storm water runoff into and out of landfill sites.

Number 8, site future landfills away from drainage channels and natural water courses.

Number 8 should be reason enough to stop this project. The Alameda Drain runs along the property less than 30 feet from the proposed site. How exactly does the city propose to keep storm water runoff from the Alameda Drain, given that less than six weeks ago, after a typical cloud burst, KOAT, Channel 7, showed a river running down Comanche with a garbage can floating down the street.

CHAIRMAN NICHOLLS: Ma'am, you're out of time.

MS. FINICAL: Thank you very much.

CHAIRMAN NICHOLLS: Just wait one second.

Commissioners, any questions?

You're off the hook.

MS. FINICAL: Okay. Thank you.

CHAIRMAN NICHOLLS: Who's next?

MS. HENRY: Scott Hale, followed by Denise Wheeler.

CHAIRMAN NICHOLLS: Good afternoon, sir. State your name and address for the record, please.

MR. HALE: Scott Hale, 2321 Camino de los Artesanos, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MR. HALE: I'm the chair of the Greater Albuquerque Bicycle Advisory Committee.

CHAIRMAN NICHOLLS: I'm going to give you five.

MR. HALE: Thank you. Mr. Chair, Members, the Edith Transfer Station project is of significant interest to the bicycle community as it directly and heavily impacts 22 important corridors in our bicycle facility network.

It is important to point out that for bicycles, the inextricable link between land use and street use is critical. We need to understand the application, as it is focused solely on issues inside the project perimeter boundaries versus the street impacts that have not been defined in enough detail for vulnerable users to understand street and bikeway facility impacts.

It is also important to consider that access to and from the facility, especially crossing movement in the north/south free rights at the signalized intersection of Griegos and Edith are particularly dangerous for bicycle travel.

Griegos is Albuquerque area's only direct bicycle lane facility connection between Rio Grande and the foothills. Obviously, an increase of over 400 to 600 heavy truck trips a day will add significant impact on those vulnerable users in this roadway.

Edith, while only a bicycle route, is the only inter-valley connection between downtown and the North Valley. The span for bicyclists to veer east or west to access another designated bicycle facility is about three miles.

For the past year, bicyclists from the community and GABAC members have invested dozens, if not hundreds of hours trying to understand the impacts of the Edith Transfer Station, including attendance at all public meetings, many HIA meetings and a two presentations by Solid Waste and the consultants, who are our bicycle advisory committee.

Sadly, we do not know any more about the impacts to vulnerable roadway users, though we suspect, they could be significant, than we did when we first heard about the Edith Transfer Station project. Some specific issues that were identified to the project team and not answered include: Impact of the three right turns at Edith/Griegos on bicycle vulnerability.

Further, we asked for but never received proposed alternatives that might include a safer intersection design. What we'd prefer is a stop right rather than a free right.

Second, roadway dimension on both Griegos and Edith, including analysis of existing conditions and any proposed improvement. We're being told that the facility on Griegos meets ASHTO guidelines, and ASHTO guidelines are much more than 3 feet. Bike lanes are insufficient, according to that guideline, but then, again, it's the guideline only.

Next, the traffic analysis was done in December, which is not representative of the time of year bikes -- to best judge bicycle travel patterns, or pedestrians, for that matter.

Further, the City of Albuquerque Solid Waste team promised to

conduct a bicycle level of service study and forward it several months ago. We have yet to receive it. This is important to our interests because the model specifically includes the study and analysis of heavy truck traffic on bicycle safety, comfort and convenience, and all three of those are key factors in encouraging participation in bicycling and alternative modes.

At this time, we feel it is in the best interest of the bicycle community to encourage the EPC to reject the Edith Transfer Station zoning change application because it circumvents addressing the facility impacts outside the perimeter of the project on our streets and roadways that are designated as bicycle facilities not only by the City of Albuquerque but MRCOG and in the bicycle plan, the Rank II bicycle plan, and also the (inaudible) plan.

We request that the EPC carefully evaluate the application and staff before recommendation. And if there is any question, reject the SU-1 application so that the facility plan required by the MU-1 zoning will be conducted. The development of the facility plan will best address on-street impact of mobility access and user safety for all models.

Thank you.

CHAIRMAN NICHOLLS: All right. We have questions.

Commissioner Hudson.

COMMISSIONER HUDSON: Thank you, Mr. Chair.

Could you share with us -- do you have any idea how many bicyclists ride along this Comanche path or along Comanche on a daily basis?

MR. HALE: No, I don't.

COMMISSIONER HUDSON: Any -- a guess? I know you don't do like traffic counts or anything.

MR. HALE: Since this project came up, I've ridden it myself, so it's kind of anecdotal, just observation, but I've ridden it a lot, and there's a surprising amount of people I never saw before. And I think maybe it's because I wasn't looking at them. But as far as a number, I've seen them in the evening, after dark, even in the summer, at 9:00 or 10 o'clock when I've been coming down. So there's a lot more use than I personally thought there was. But there is no solid traffic count number we have.

And the other thing that's important, as I mentioned, it's already a substandard facility, so it's kind of discouraging to the multimodal use. And that is another concern of ours. If we add to a substandard facility heavy trucks, what's that going to be?

COMMISSIONER HUDSON: I just want clarification. I heard you say that this -- along Comanche is the only -- is the only east/west bike lane, and there's not another one. Did I understand you that there's not for three miles?

MR. HALE: Not that connects directly in one solid facility from Rio Grande up to the foothills. There's a ton of ways you can kind of navigate the maze, for lack of a better way of putting it, but it is the only solid east/west.

COMMISSIONER HUDSON: Okay. Thank you.

CHAIRMAN NICHOLLS: Anyone else?

Thank you for coming in, sir.

MR. HALE: Thank you.

CHAIRMAN NICHOLLS: And who's next? We'll take one last speaker before we break.

MS. HENRY: Denise Wheeler.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. If you'd state your name and address for the record, please.

MS. WHEELER: My name is Denise Wheeler. I live at 3565 Rio Grande Boulevard, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. WHEELER: Myself.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MS. WHEELER: Great. Thank you.

A zoning change from M-1 light manufacturing to SU-1 for M-1 uses should be denied. This project requires major changes to the existing facility. The city proposes to dump all the trash for the City of Albuquerque at this site, proposes to compact that trash and load it from large trucks into large trucks, proposes more than 300 parking spaces. The city proposes to take half of all hazardous waste and be able to store that waste for up to 90 days. It proposes to recycle major and minor recyclable materials.

These changes are among the many changes required to create a waste transfer station. These changes are out of bounds for an M-1 light manufacturing zone designation, and as such, pose a major change in the current site.

The project conflicts with Enactment 270-1980, specifically Sections D and E in that it would significantly change the neighborhood and community conditions.

Additionally, it is in conflict with the North Valley Area Plan and it should be denied. This project will be harmful to the adjacent property, the North Valley and the city as a whole. It will increase noise, traffic, air pollution, contaminate the water table and ditch system and increase health risks by bringing all of Albuquerque's trash into the North Valley, where it will be dumped, scooped up, loaded into bigger trucks to be given to another site.

The resulting traffic noise, water contamination, housing of household hazardous waste will result in the North Valley becoming the trash bin of the City of Albuquerque. The character of the area will be significantly impacted in a negative manner. This project will not fit into the community. It will change the identity to one of trash heap, rather than preserving or enhancing the natural (inaudible) characteristics.

This proposal is the solution to the wrong problem. The problem

is not how do we get the trash from here to there. It is how do we, as a community, reduce our use, reduce trash, reduce our waste. Trash collection trucks driving a few less miles a day will not affect the needed reduction and redistribution of waste. We need systems to effectively and efficiently recycle, to compost our green waste.

CHAIRMAN NICHOLLS: Are you almost done, ma'am?

MS. WHEELER: Yes, I am.

CHAIRMAN NICHOLLS: Go ahead.

MS. WHEELER: Thank you. We need to cut the trash -- we need to cut the trash collection rather than dump it from the house to the trash bin, from the trash bin to the trash collection truck, from the trash collection truck to the floor of a building in the center of town, from there to be shoved into a bigger truck and to be dumped and buried in the outskirts of town.

I also wanted to mention that the video that you saw, Rainbow Collection, that was the site that was in the video, was one of the -- was the site that was told to us that each of (inaudible) by the city as a good example of how effective and clean their sites are.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you, ma'am.

That being the case, I'm going to recess till a quarter of.

(Recess held.)

CHAIRMAN NICHOLLS: We are back now from recess and back on -- recording?

MS. HENRY: Yes, sir.

CHAIRMAN NICHOLLS: And, Ms. Henry, if you'd call the next speaker, please.

MS. HENRY: Bernalillo County Commissioner O'Malley, followed by Jeff Newland.

CHAIRMAN NICHOLLS: Good afternoon, Commissioner. If you'd state your name and address for the record, please.

COMMISSIONER O'MALLEY: Debbie O'Malley, 839 Fitzgerald Road, Northwest, 87107.

(Witness sworn.)

CHAIRMAN NICHOLLS: Okay. I'm going to give you five minutes.

COMMISSIONER O'MALLEY: Thank you very much, Chairman.

Good afternoon, Commission Members. As I stated, my name is Debbie O'Malley, and I represent District 1 on the Bernalillo County Commission. I'm here to testify today on behalf of the residents and businesses in the North Valley that I represent. I'm also here to testify on behalf of my family, my 90-year-old mother, who suffers from pulmonary fibrosis, my husband, two daughters, their husbands and my grandchildren, all of whom reside about a mile away from the proposed dumping station the city is proposing to construct.

The independent studies which have been mentioned and which are being dismissed by the City of Albuquerque as inconclusive or irrelevant were funded through my office. I allocated the funds for these studies at the request of the North Valley Coalition because I believe that it's important that community folks, regular people, who are affected by a project of this magnitude also be able to have access to qualified professionals to help them state their case.

This was my position when Walmart applied to build a super store in the Visit del Norte neighborhood a few years ago. As then City Councillor, I was able to get the resources necessary for a traffic study where the neighborhood, not the developer, was the client. As a result, instead of another Super Walmart, we have a regional soccer field. And the only official designated site balloon -- for balloon landings in the city. No one will argue that these facilities aren't a benefit to the health and economic well-being of the surrounding and larger community.

I'm here today to appeal to your sense of fairness. This dumping waste station that is being proposed, if built, will be a detriment to the health and economic welfare of the North Valley. I refer to this facility as a dump because it is one. What is being proposed is a large scale midway dump on the way to the larger dump, the landfill on the west side.

Imagine if you were all told that all the garbage and the trash in the city was going to be dumped at your street corner, or several blocks away, in a very nice building, by the way, and you didn't need to worry about this garbage because it was going to be removed as soon as possible and taken to its final destination. This is the entire city's dirty, smelly garbage from homes and businesses. It's not sorted. It's getting dumped into one place, your community, rotting food, garbage full of maggots, along with flies, roaches and mice.

What do you suppose your reaction would be? Truthfully, would you say, "Well, the city says it's going to save them money on capital and transportation costs, so it's okay by me"?

You would say what many of these people are saying, "Take the garbage directly to the landfill, where it belongs, whether it costs more or not, because it's in the best interests of the health and welfare of the larger community."

You would argue that this facility would generate problems that do not currently exist, such as competing traffic, a stench in the neighborhood, pollution, declining property values. And you would fiercely argue that your family's and children's health would be negatively affected. You would also argue that this proposed garbage dump is too close to an elementary school and Little League fields, and you would be right.

If the department needs more revenue, then they need to come up -- they need to come up with a solution to generate more revenue that is fair to everyone. Right now, the city's residents pay about 15.75 for refuse. If we added just 50 cents to this charge, that would generate a million dollars a year in additional revenue. If we added a dollar, that would generate 2 million. And that's just on the residential side.

If you're a county residents, you're paying $30 a month to have your refuse picked up. So really, the cost to have our refuse picked up by the city is a bargain. So a dollar more each month shared by all city residents does not place a burden on just one

sector of the community. This proposed ill-conceived dumping station in the middle of the North Valley is a solution looking for a problem. Do we have neighborhood complaints now as a result of taking the city's garbage to the landfill? Do we have traffic problems now? Do we have potentially health problems that result with taking all the garbage to the dump now? No. But we will if a facility of this magnitude is constructed.

Again, I appeal to your sense of justice and fairness. Please deny the city's request for a zone change. Thank you very much.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Next speaker, please.

MS. HENRY: Jeff Newland, followed by Jen Parker.

CHAIRMAN NICHOLLS: Good evening, sir. If you'd state your name and address for the record, please.

MR. NEWLAND: My name is Jeff Newland. I live at 3515 Camel Farm Lane, Albuquerque.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today, sir?

MR. NEWLAND: I'm representing the Rio Grande Boulevard Neighborhood Association. I'm on the board. As well as my own neighborhood association.

CHAIRMAN NICHOLLS: We'll give you five minutes.

MR. NEWLAND: Thank you. My family and I first moved to Albuquerque in 1977. I resided in Los Ranchos for the first 35 years.

I'm opposed to the proposed waste transfer station at Edith an Comanche for a number of reasons. I believe we will experience a significant increase in pollution due to the 1,014 diesel trucks delivering their loads to this location rather than the landfill west of town.

In addition, traffic from general contractors, landscape companies, and the general public dropping off construction waste and their own yard waste.

Currently, the city operates three convenience centers that accommodate disposal and waste from businesses and residents. However, a large percentage of the city is closer to the proposed site than any of the current convenience centers. If you look at a map of the city, you can see how large an area this is. Starting from Rio Grande Boulevard to the west, a line south of Albuquerque Country Club, east on central to Tramway, north to Spain, west past Osuna, to El Pueblo, the village, and Rio Grande Boulevard. That's a huge part of the city that's going to choose to come to this site.

There's no question that we'll see a drop in air quality, noise and traffic, that could harm other business in the area, to include juvenile -- staff of the detention center south of the site, children and their families at the new baseball facility south and west of the property off of Edith. All of the waste delivered will be in a designated floodplain. Just north and east of the site is a busy commercial district that includes one of the oldest kennels in town, Sysco Foods, a Blue Cross Blue

Shield call center, three auto dealers, Costco, Sam's Club, American Furniture, Home Depot, UPS, Premier Distributing and REI. Are they going to be impacted by this? Or are they going to move to another site, like Admiral Beverage did?

The City of Albuquerque waste management division benefits by attaining headquarters buildings as well as a significant fuel and maintenance cost for their fleet of trucks. However, the negative impact on local businesses, low income families and individual living close by, several public and private schools, and the North Valley in general is a very high price to pay. I understand the current waste management building is in poor shape. I would propose tearing it down and building a new one, but keeping the current site for maintenance and storage of the fleet.

Thank you very much.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, sir.

Who is next?

MS. HENRY: Jen Parker, followed by Sally Bachofer.

CHAIRMAN NICHOLLS: Good evening, ma'am, if you'd state your name and address for the record, please.

MS. PARKER: Jen Parker, 1613 Bayita Lane, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. PARKER: I am reading a letter from my neighbor.

CHAIRMAN NICHOLLS: Okay. I'm going to start you with two minutes.

MS. PARKER: I'm Nancy Borden, and I live in the North Valley. I'm speaking today for myself and the South Guadalupe Trail Neighborhood Association. I'm in complete support of everyone speaking today against the requested zone change. Comp plan 2(C)(2)(a) and (c) protect water quality by minimizing contaminants to the water supply.

Is the city going to cover up their nine years of gas and oil contamination of the new buildings and parking lots and continue to allow the seepage to go into our very shallow groundwater from the cracks in the pavement? My well is 100 feet deep and there are many wells closer to this overused industrial area with much shallower wells.

How about the protection of the historic ditch located on their property? Is the aquifer going to be monitored along with the ditch? Solid Waste is proposing adding 18-wheelers to the freeway traffic, putting additional risk to the entire City of Albuquerque at an already overburdened, high density area for accidents. This violates Enactment 270-1980, Section 1(A), which protects the health, safety and general welfare of the city.

The application by the city only addresses traffic in a very small perimeter near their property. This plan would prevent the smooth flow of traffic on arterials outside of their small perimeter and noted backups already happening when the train goes

by, in violation of Section 2(B)(5)(a) and 2(C)(1)(c) and (e) of the comp plan. The city does not address this issue at all.

The city is not moving forward. New Mexico has lots of land to dump on, but I would prefer we keep it pristine. 2(C)(3)(b) encourages Solid Waste recycling systems and minimizing volume of waste. This transfer station application refers to compactors and green waste recycling, but if you look closely at their plans, there is no compactor located on the property and no area to recycle green waste.

A sampling of the neighbors' concerns include traffic. WTF will be at odds with the city's plans to become more bike friendly. Griegos is the primary route used to get to the freeway. Worry about their wells, (inaudible) the views and smells and noise and lower property values.

Because these neighborhoods are close to the heart of the city, people are moving back into these homes and modernizing and updating them in hopes that these neighbors will become revitalized, like Nob Hill, due to convenience and affordability. This will not happen if a dump is placed in it.

Please deny the requested zone change.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, ma'am.

MS. PARKER: Thank you.

CHAIRMAN NICHOLLS: Who's next?

MS. HENRY: Sally Bachofer, followed by Peggy Norton.

CHAIRMAN NICHOLLS: Good evening, ma'am, if you'd state your name and address for the record, please.

MS. GAMBRINO: Good evening. My name is Kathryn Gambrino. I'm here as proxy for Dr. Sally Bachofer.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing?

MS. GAMBRINO: I am representing Dr. Sally Bachofer.

CHAIRMAN NICHOLLS: Okay. I'm going to give you two minutes.

MS. GAMBRINO: Her statement is as follows: I'm a family physician who has had the privilege of providing primary care for the Albuquerque community for the past 32 years. I am currently caring for patients at the UNM Center for Family and Community Health at 4 -- or 3401 4th Street, Northwest.

Perhaps the most striking lesson that I have learned in my time in practice is how incredibly important it is for people to live, work, learn and play in a healthy environment.

As we all know, health is an essential element of being a productive member of society. In addition to being a practicing physician, addressing the health and illnesses of individuals, patients and families, I take seriously my responsibility as a citizen to support the accountability of local government to assure opportunities for healthy living and, at a minimum, I expect our elected and appointed officials to avoid the creation

of unhealthy and dangerous environmental conditions.

Given this background, I would like to share with you my specific concerns about the proposed Edith Transfer Station. One, the increase in heavy traffic and self-haul vehicle traffic will have a significant and negative impact on motor vehicle, bicycle and pedestrian safety. This area already suffers from some of the highest rates of collisions and injuries. Increases traffic will be a risk to those traveling in that area.

Number 2, diesel emissions, general traffic emissions, and the basic operation of the AWTF will have a negative effect on air quality that will result in increased risks for lung diseases, such as asthma and emphysema. I am particularly concerned because of the proximity to the new baseball field in which many children will be exposed while participating in Little League to harmful particulate matter and other pollutants.

Three, traffic and general operations will increase noise exposure, which is well-documented to contribute to sleep disturbances, increases in stress and irritability, a most concerning, diminishing learning capacity in children.

CHAIRMAN NICHOLLS: How much more do you have, ma'am?

MS. GAMBRINO: About 30 seconds.

CHAIRMAN NICHOLLS: Go ahead.

MS. GAMBRINO: Litter, odor, rodents and insects are more prevalent in the area in proximity to the waste transfer station, can decrease the quality of life and sense of well-being of the local residents. Into addition, too, this contributes to a vicious cycle of deteriorating property values, which in turn impacts the quality of life negatively.

Deterioration of roadways and buildings due to vibration from heavy traffic will also have its harmful impact.

In addition to these specific concerns, I am struck by the plan to locate this facility in an area of town which already struggles with a disproportionate burden of poor health, excess injuries, low income

For the reasons I have listed above, building the Edith Transfer Station will most certainly not provide these families with an opportunity to achieve the best possible health.

Thank you very much. Dr. Sally Bachofer.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, ma'am.

Who is next?

MS. HENRY: Peggy Norton, followed by Theresa Cardenas.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. Would you state your name and address for the record, please.

MS. NORTON: My name is Peggy Norton. My address is 3810 11th Street, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. NORTON: I'm president of the North Valley Coalition.

CHAIRMAN NICHOLLS: I'm going to give you five minutes.

MS. NORTON: Thank you. Good afternoon, Chairman Nicholls, Commissioners. My name is Peggy Norton, president of the North Valley Coalition. The NVC board, with 19 members present, voted unanimously to oppose the Edith Transfer Station. Sixteen reasons were listed in the submittal to the public record, but the umbrella reason, the city's single-minded desire to save money, risking the health, safety and quality of life of the thousands of men, women and children who live, work, recreate and travel in the area fails to satisfy the requirement of Enactment 270-1980, Section 1(G), economic consideration shall not be a determining factor for a zone change.

The NVC declined an invitation to attend the facilitated meeting in September 2015. The city is well aware of our concerns. There are numerous comments on their website and it does not seem productive at this late stage to spend time in a meeting.

Stronghurst Neighborhood Association noted the final proposal shared little, if any, feedback from the community in those numerous hearings. Rather than responding to the republic's request to look at other options, the city's final meeting offered residents the opportunity to choose between two sites.

Almost 60 people work on a Health Impact Assessment. The EHD staff is in their own critique of the HIA comprised of scientists and engineers who are experts in various disciplines of environmental science and public health. Why couldn't this expertise have been used to prepare a Health Impact Assessment? These experts could have designed an air quality study addressing impacts from moving and idling vehicles, which would have addressed 2(C)(1)(k)(1), develop an air toxic program to inventory existing sources of toxic emissions and assess the air quality effects of existing and future industries.

Traffic impacts have been the most frequently expressed concerns by the public and we have been unable to acquire a traffic impact study. In your packet is a three-and-a-half-page summary, with one paragraph of findings. In the summary, there is no mention of bicycles and pedestrians, the impact from the convenience center traffic on two-lane Griegos, the congested intersections on Montano, the Griegos/I-25 interchange and the Bridge.

These are concerns that the city refuses to address, claiming the project will have no measurable impacts beyond the perimeter of the site.

The comprehensive plan protects community identities. The central urban area, 2(B)(6), which includes this location, is promoted as a focus for arts, cultural and public facilities activities while recognizing and enhancing the character of its residential neighborhoods and its importance as the historic center of the city. Perhaps this is why the Little League located down the street. Who puts a transfer station in the historic center of the city?

The city argues the development dentist in the central urban area should generally be higher than in other portions of the established urban area. I doubt that the code meant a higher density of garbage trucks.

The city sites Section 1(D)(2) of Enactment 270-1980, the existing zoning is inappropriate because of changed community conditions. I consider community to be a collection of neighborhoods. The comprehensive plan supports this laddered definition, 2(C)(9). Growth is primarily on the West Side. Changing community conditions on the West Side shouldn't be justification for a zone change in the North Valley.

Additionally, the city uses the argument with budgets and resources continuing to shrink, the city has to become more nimble in efficient and providing services. Again, this violates Section 1(G).

130 trips a day by 18-wheelers driving within 10 feet of American Marine's property could only be construed as a negative impact. According to Enactment 270-1980, Section E, if adjacent property is negatively impacted, the zone change should not be approved. You have heard multiple examples from the people who live in this area of the fact that the zone change does not comply with the comprehensive plan, is based on financial reasons, and affects adjacent properties. We therefore ask that you deny this zone change request.

CHAIRMAN NICHOLLS: Commissioners, any questions?

MS. NORTON: Thank you.

CHAIRMAN NICHOLLS: Thank you for coming in, ma'am.

MS. NORTON: Thank you.

CHAIRMAN NICHOLLS: Who is next?

MS. HENRY: Theresa Cardenas, followed by Patricia Martinez.

CHAIRMAN NICHOLLS: Good afternoon, ma'am. If you'd state your name and address for the record.

MS. CARDENAS: Theresa Cardenas at 6237 Cactus Canyon Trail, Northeast.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today, ma'am?

MS. CARDENAS: I represent the Union of Concerned Scientists. We're an advocacy group based out of Cambridge. And I also -- Cambridge, Massachusetts.

CHAIRMAN NICHOLLS: Okay.

MS. CARDENAS: And I also represent -- or I was on the AIA [sic] committee to not approve this project.

CHAIRMAN NICHOLLS: I'm going to start you with two minutes, ma'am.

MS. CARDENAS: I have three points I'd like to make. The first is that the HIA used vigorous science, technical analysis, and effective advocacy to deny this zone change. It's a solid document. It's something that we would use in a congressional hearing to cite a particular environmental issue.

The organization, the Union For Concerned Scientists, puts rigorous independent science to work to combine technical analysis and effective advocacy to guide policymakers in making

choices that are practical solutions for healthy, safe and sustainable communities.

The second point that I'd like to make is about climate change. And there's a piece in the document that does talk about climate change. But I'd like to, today, verify that we are in a very vulnerable part of the country. And every impact that we feel, we will feel it heavier, harder, more extreme than anyplace. So any flood, any heat wave, any fire will be felt at that -- anywhere in the city and the state, so every choice that you make about what building you build, what zone you change, what community you decide to build, you need to look at those impacts and how that might affect it. So business is no longer as usual.

And the last point that I would like to make is an exposure that really might come up later on, and are you willing -- when you make this decision, are you willing to expose this? And it's Title 6 of the Civil Rights Act of 1964, offering protection for minority populations against intentional and unintentional discrimination. So I'm asking you, are you will to expose that?

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, madam.

Who is next?

MS. HENRY: Patricia Martinez, followed by Jen Zimmerman.

(Witness sworn.)

CHAIRMAN NICHOLLS: And your address, please.

MS. MARTINEZ: My address is 512 Grecian, Northwest. I am Patricia Garcia Martinez, long --

CHAIRMAN NICHOLLS: Okay.

MS. MARTINEZ: -- time resident.

CHAIRMAN NICHOLLS: And who do you representing today?

MS. MARTINEZ: I am a member of the North Valley Coalition, Merit Acres. And I am on the board of Guadalupe village.

CHAIRMAN NICHOLLS: I'm going to start you with two minutes.

MS. MARTINEZ: I'm not going to be redundant, because all of you are very tired and have heard all of this before. My letter is in the file. And it states almost all the reasons that O'Malley summarized.

But I wanted to go a little further and, you know, this was not -- the plans were started in '06. I didn't hear about this till probably the beginning of '05. And it just devastates me to know that people within 100 feet of this proposal were notified not very close to the date, you know, that they would have gotten this letter.

My elderly aunt still lives right next to the cement plant. She's on her way out of this life. But I think we, as residents that are here and those that cannot be here, are very concerned about this whole project. We are a democracy. Are we not allowed to vote on things like this that would affect our whole community?

You know, I'm also very concerned, and I have great respect for each one of you, you're very intelligent, but I'm very concerned in looking at the diagram that's on these plans. This city, this state has so many professionals that could -- that know our culture and our history and our long-term generational values here, morals. How can people come from out of state and want to put this in our neighborhood? It is not only going to affect the people in that certain area, it's going to affect the North Valley, the South Valley.

All the fumes generate in the North Valley. The fireplaces, the VOCs, all the negatives. And please, for the love of God, give us a chance to at least vote on this. People could not attend today. It's just going to devastate our whole city. When the immersions are not current, it will not push all of the VOCs and pollution out. We have to live here. My generations go back beyond the 1600s. My grandmother was related to Elena Gallegos. You know, this is precious, precious property.

CHAIRMAN NICHOLLS: How much more do you have, ma'am?

MS. MARTINEZ: Excuse me?

CHAIRMAN NICHOLLS: How much more time do you need?

MS. MARTINEZ: I don't need much more time, sir. I just want you to remember that, you know, these people, this will be the second one in the nation to have a facility such as this. We don't want it, we don't need it. And the old saying, if it ain't broken, why fix it? The current situation is working. Please, you know, $3 million and I think it's going to be more. Huntington Beach I think paid 12 million. It's money, but these are our lives.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, ma'am.

Who is next?

MS. HENRY: Jan Zimmerman, followed by Diana Rebolledo.

CHAIRMAN NICHOLLS: Ma'am, if you'd state your name and address for the record, please.

MS. ZIMMERMAN: Jan Zimmerman. I live at 4614 6th Street, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing?

MS. ZIMMERMAN: Myself. And I'm a member of the Greater Gardner Neighborhood Association.

CHAIRMAN NICHOLLS: I'm going to start you with two minutes, ma'am.

MS. ZIMMERMAN: Thank you. First of all, thank you very much, Commissioners, for having this hearing. I found it extremely educational, having never been to one before, and I certainty have to commend the city on its use of animated technology. I apologize, but I have an old-fashioned page from the Environmental Protection Agency.

I'm also impressed by the city's interest in educating the

population with tour buses, because I can see this on New Mexico True.

But I also want to commend my neighbors. I am incredibly impressed by their eloquence in their defense and the thousands of hours of uncompensated time that neighborhood residents have spent going to meetings, participating in the HIA, and doing a lot of other things.

I encourage you to think about the fact that the EPC would be in the tradition of opposing this transfer station under the terms of the Environmental Protection Agency. And that there are ways in which many communities have mitigated the impacts or taken the opportunity to take a waste transfer station, take that $37 million and utilize it to revitalize the community that so desperately needs it. Thank you.

CHAIRMAN NICHOLLS: Hold on, ma'am.

Commissioners, any questions?

Okay. Thank you, ma'am.

Who is next?

MS. HENRY: Diana Rebolledo, followed by Les and Debora Jolley.

CHAIRMAN NICHOLLS: Good evening, ma'am. If you'd state your name and address for the record, please.

MS. REBOLLEDO: Yes. My name Diana Rebolledo. I live at 701 Griegos, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing this evening?

MS. REBOLLEDO: Myself. And I'm a member of the Los Griegos Neighborhood.

CHAIRMAN NICHOLLS: I'm going to start you with two minutes.

MS. REBOLLEDO: I thought the applicant's animation pictures were very beautiful. Did you notice within the animation there were no cars, no trucks, and no garbage?

I have lived in Los Griegos for 30 years and never had the occasion to come to an EPC meeting. This year, I've been here three times because of projects impacting our neighborhood, many of which you have approved.

I oppose this project for all the reasons neighbors have stated. What troubles me most of all is why, when the proposed transfer station is being forced on our neighborhood, as David Wood has stated, that site was chosen by the city without community input. Why is there also a convenience center being proposed?

This is a disaster for the neighborhood. As anyone who has driven to Montessa Park or other convenience centers knows, people drive to the stations without covering their loads or covering them loosely, garbage and green fly all over the place. And because the center will be in the center of the city, it will be even more convenient for most residents and therefore, have more traffic.

I don't believe that center staff will be out on Edith, Comanche

or Griegos picking up loose waste.

Please deny this zone change.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, ma'am.

MS. HENRY: Les and Debora Jolley, followed by Katy Flamm.

MS. JOLLEY: Good evening.

CHAIRMAN NICHOLLS: Good evening, Madam. If you'd state your name and address for the record, please.

MS. JOLLEY: Debora (inaudible) Jolley. 128 through 140 Griegos Road, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: Are you both speaking?

MR. JOLLEY: I will say a little bit at the end.

CHAIRMAN NICHOLLS: Okay. I'll give you two minutes.

And I'll give you one minute.

MS. JOLLEY: I'm going to make this real quick, so you have that. I'm just the little people. We are the little people. My family purchased their property in 1955. In late 1999, my husband retired military, joined me to start Holland's Rose Medical Hospitality House right there on Griegos Road. We are an all-volunteer, nonprofit organization that solves real problems, like the housing. When you come to Albuquerque for medical treatment, you stay at Holland's Rose. We're the only organization that will take you if you're alone. We run a couple houses. We're just the little people.

Now, very quickly, we are trapped in our home because we can't sell it. And I'm looking to the documentation where we're expecting to see, on average, approximately a $27,000 decrease in our property value, although our taxes, you often look that up, you know how much they've gone up just in the last few years. So we feel kind of trapped.

And the reason I say that is because we're also Albuquerque Woodworker members and New Mexico Woodturner members. We volunteer at Valley High School. And getting these kids to come up with $20 to cover their fees is next to impossible. So we find creative ways to help these kids be able to come up with their fees. Because, like I said, we volunteer there to teach woodworking.

It's a beautiful site. Honest to God. If I thought that would really happen, and I didn't live close to it -- but our cancer patients constantly call us up in the middle of the night, "There's a gas leak here." And you all know that we're talking about the inversion and the fumes from the fireplaces, from the particular gas fumes of the propane company.

Is it the propane?

MR. JOLLEY: Yes, propane. Or some kind of petroleum product.

MS. JOLLEY: So I guess that's it. That's all I have to say at

this point. And I just -- I think it's not a good idea. And please, for God's sake, don't do this to us.

CHAIRMAN NICHOLLS: Just state your name for the record, please.

MR. JOLLEY: I'm Les Jolley. And I live at 128.

(Witness sworn.)

CHAIRMAN NICHOLLS: Go ahead, sir. I'm going to give you one minute.

MR. JOLLEY: Thank you, sir.

We were already exposed to the dust from the cement plant, GCC facility, at Griegos and the railroad tracks, the diesel fumes from the vehicles that act to transfer the cement, and we're exposed to petroleum smells and fumes from the facility, especially a quarter mile from the proposed transfer station. In other words, we're -- we live there. We're smothered with stink and dust and fumes. The GCC actually sends a street sweeper twice a day up and down Griegos Road to sweep up the dust particulates from their facility. I don't think that anybody else going to do that.

All the other transfer stations are out of town, just where they're supposed to be. Just -- I don't know if anybody else goes to the transfer stations, but I do. I use Eagle Rock. And from time to time, Eagle Rock is backed up all the way down to San Pedro, which is a mile or so away from the transfer station. And I see that Griegos is going to probably get the same condition of traffic that Eagle Rock has, and especially if these things are closed, as was in the initial proposals.

CHAIRMAN NICHOLLS: How much time do you need, sir?

MR. JOLLEY: I just -- you know, we have gas fumes, diesel fumes and why are we moving garbage into town instead of out?

Thank you very much.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you both for coming in.

MR. JOLLEY: Thank you.

CHAIRMAN NICHOLLS: And who is next, ma'am?

MS. HENRY: Katy Flamm, followed by Kristine Roy.

CHAIRMAN NICHOLLS: Good evening, ma'am. Would you state your name and address for the record, please.

MS. FLAMM: Katy Flamm, 524 Chamisa Lane, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. FLAMM: Myself.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MS. FLAMM: I'll just make this short and sweet.

If the well-being of our communities is the goal of government, then all the previous arguments should convince this body to deny this proposal.

Citizens, professionals, medical professionals, these are important testimonies that were given by people who deal and live in the community.

Now, if you look at that map up there and you see where the site is and you zoom in on it, like Google Earth, and you look at the facility that was presented to us, in the beginning, it's very beautiful, the landscaping is wonderful, the roads the little trip to the dumps that was beautiful. But if you come out and you move out and you look at the streets and the roads, let me just say this, my husband and I closed a business of 30 years, and for 14 years we were at 4th and Montano. Customers declined to come and visit our business during the peak rush hours because Montano not only serves the North Valley, it also serves the West Side.

The only way to get on the freeway is from Montano, from Osuna, which is too far north and east, and Griegos. Otherwise, you're subjected to city streets. So now, most people or many people are using Griegos for a fast access to the freeway avoiding Montano. So just from a very personal point of view, why would you want to put this kind of impact on our city streets clogging further everything we do?

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you, ma'am.

Who is next?

MS. HENRY: Kristine Roy, followed by Mary Mickler.

CHAIRMAN NICHOLLS: Good evening, ma'am, if you'd state your name and address for the record, please.

MS. ROY: Kristine Roy at 3827 San Isidro Street, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are would you representing today?

MS. ROY: Representing myself, and also Laurie Blackwood, who couldn't be here.

CHAIRMAN NICHOLLS: Okay. I'm going to give you two minutes.

MS. ROY: Mr. Chairman, Commissioners, I'm here to express my opposition to the proposed zone change for the transfer station.

As a resident of Los Griegos Neighborhood, I live two miles from the proposed site. My concerns regard traffic congestion, noise pollution, air pollution, highway safety, bicycle, pedestrian safety, reduced property values, health impact and environmental justice.

Number 1, traffic congestion. On September 12, here at 1:57 p.m., I witnessed a very dangerous potential incident by a blue trash recycling truck.

I was second in the line of a red light in the far left-turn lane on Comanche heading east, waiting to turn left onto the north frontage road on I-25. The traffic moving east and west had

green lights. The left turn arrow to turn north was red. It applied to both turning lanes. Suddenly, a blue trash recycling truck zoomed very fast, without any pause, in the right-hand lane next to me to turn north and directly through the red arrow. It was really shocking and very dangerous. Luckily, there was a break in the westbound traffic on Comanche so that no accident occurred.

When vehicles are heading downhill westbound on Comanche, they temporarily become invisible, due to a dip in the hill there, to the eastbound traffic. I'm very concerned that any increase in heavy truck traffic through this intersection will result in a serious traffic incident.

Number 2, highway safety. The increased burden of heavy trucks and exiting I-25 in this already congested area seems like trouble to me. It is already a congested area. Heavy trucks and trains exiting increase the likelihood of accidents.

Number 3, noise pollution, 2(C)(4). The goal is to protect the public health and welfare and enhance the quality of life and by reducing noise and by preventing new land-use noise conflicts. Increased noise pollution from the increase in garbage trucks, recycling truck, 18-wheelers and private vehicles coming and going with trash and recycling.

Number 4, air pollution, 2(C)(1)(a), the goal is to improve air quality to safeguard our public health and quality of life.

Bicycle pedestrian, Number 3(D)(4)(g). Isn't Griegos a bike path.

Reduced property values, 2(C)(9), 2(C)(9)(a). And I'll just conclude.

In conclusion, while don't we reduce waste altogether? Policy 2(C)(3)(b), encourage Solid Waste recycling systems which reduce the volume of waste while converting portions of the waste stream to useful products and energy. The city was going to start using smaller trash collection cans, which makes so much sense to me and to the many neighbors. Why did this not happen. It could still happen if the city would step up to the plate and encourage the reduction of waste by charging more for picking up the trash. If we do things right, we won't be generating more trash each year and we won't need a new transfer station east of the river.

Thank you.

CHAIRMAN NICHOLLS: Any questions, Commissioners?

Thank you, ma'am.

MS. HENRY: Mary Mickler, followed by Joan Brown.

CHAIRMAN NICHOLLS: Good evening, ma'am. If you'd state your name and address for the record.

MS. MICKLER: Mary Mickler, 606 Woodland Avenue, Northwest.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing?

MS. MICKLER: Myself for seniors on fixed incomes. And also I'm a board member for the Near North Valley Neighborhood Association.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MS. MICKLER: Thank you. So listening to all the things that people have said here tonight -- I don't have a prepared speech. I came because I'm curious and I want to know what's going to happen, how you're going to decide this very difficult and dangerous situation.

These people, all these people here, we don't want our neighborhood destroyed by this trash station, this garbage. And I don't think anyone of you would want it in your neighborhood. That's all I have to say.

CHAIRMAN NICHOLLS: Who is next?

MS. HENRY: Joan Brown, followed -- followed by -- excuse me -- Marlene Perrolte.

CHAIRMAN NICHOLLS: Good evening, madam. State your name and address for the record, please.

SISTER BROWN: My name is Sister Joan Brown. I live at 1004 Major Avenue, Northwest, 87107. And yes, I will.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing this afternoon?

SISTER BROWN: I represent myself. But I'm also a member of the Near North Valley Neighborhood, and also a member of the North Valley Neighborhood Coalition.

CHAIRMAN NICHOLLS: All right. I'm going to give you two minutes.

SISTER BROWN: I live in this old traditional neighborhood in the North Valley that I believe we should be caring for and protecting, because we're called to be stewards of one another and of the place in which we live.

I oppose this transfer station for a number of reasons. One, there was no citizen input about location, nor was there ever considered a different location than this location.

Two, the cumulative effects of the air quality in the neighborhood because of all of the various heavy industries in the area is a detriment to health, well-being, and especially children, elderly and those who are infirmed or sick.

Three, there are enormous environmental and economic justice issues in our neighborhood, and this exacerbates all of those.

Four, we are living in an era of climate change. And in living in the North Valley, we've experienced the consequences of smoke from fires. You add to that more of this heavy industrial pollutants, and the air quality issues go extremely to a very big concern.

Last, and finally, this is a huge moral, ethical and a justice concern. And in our state, we talk about how we are always last in everything and many other places dump on us. We have what people commonly know as sacrificial zones. I believe we're creating more sacrificial zones in the city. And the near North Valley, the North Valley, is one of those sacrificial zones.

This is an opportunity, instead of creating a sacrificial zone to create a comprehensive waste management plan, heavily relying on conservation, education, composting, recycling and less trash rather than encouraging more.

The city claims that they want to save money. The city is the people. We are the people. We are about the common good. And the cumulative expenses from this in health and other areas will be more costly. Why can't we use this as an opportunity to be visionary, to create a healthy whole and a community that really addresses the common good?

Thank you.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Who is next?

MS. HENRY: Marlene Perrolte, followed by Tova Indritz.

CHAIRMAN NICHOLLS: And how many more after that?

MS. HENRY: One.

CHAIRMAN NICHOLLS: Oh, okay.

SISTER PERROLTE: Good evening, Mr. Chairman and Commissioners.

CHAIRMAN NICHOLLS: If you'd state your name and address for the record, please.

SISTER PERROLTE: I'm Sister Marlene Perrolte. And I live at 1004 Major Avenue, Northwest, 87107.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing this afternoon?

SISTER PERROLTE: I'm representing myself and also a member of the Near North Valley Neighborhood Association, as well as the North Valley Coalition.

CHAIRMAN NICHOLLS: Okay. I'm going to give you two minutes, ma'am.

SISTER PERROLTE: Thank you so much.

To Commissioner Debbie O'Malley, I want to thank her very much. I think she has spoken in a very comprehensive way in defense of our old, beautiful North Valley Neighborhood.

And I just want to say, how many times do we have to come and gather in defense of our neighborhood? We've had to do it with -- for air quality because of the cement factory. We've had to do it for noise. The traffic on Edith is sufficient. And I think to have more and more vehicles would be detrimental.

But I do want to say, our first speaker talked about site selection. And with respect to that, we were talking about a comprehensive plan. I address environmental justice. This neighborhood has carried its burden and has paid its dues to the city. We must not have this transfer station.

I think all have been speaking about reducing trash, et cetera, et cetera. I do believe this kind of garbage, this kind of stuff, demands us to bring it to the landfill. And let's try to

do more comprehensive planning addressing waste.

Thank you very much.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you, ma'am.

Good evening, ma'am. If you'd state your name and address for the record, please.

MS. INDRITZ: Good evening. My name is Tova Indritz, and for the last 38 years, I've lived at 524 Griegos Road, Northwest, which is at the corner of 6th and Griegos.

(Witness sworn.)

CHAIRMAN NICHOLLS: And who are you representing today?

MS. INDRITZ: I'm representing myself as a resident of the neighborhood. I'm also a member of the Greater Gardner Neighborhood Association.

CHAIRMAN NICHOLLS: I'm going to give you two minutes.

MS. INDRITZ: This project was presented to the public in 2014 as a done deal, and the public was asked do we have any input on the design of this particular space and the road and so on.

But the two really much more fundamental questions were never the subject of the public participation. One, do we need a transfer station at all. And two, if so, would it be better to have half a dozen or several of these scattered throughout the city so maybe one of the west side, one in the far northeast, so we're not taking trash to the west side, bringing it to Edith and Griegos to truck it back out to the west side.

There has never been any public input, and so that makes really a travesty of this public input on do we want this in this one space, when we should have taken a step back and had public input on the questions should there be multiple stations scattered throughout the city, or should there be a need for the a transfer station, which we don't have now at all.

Other speakers have addressed traffic and health impact and the costs, but I think this public input question is a very fundamental one. And there was no opportunity to address the really big questions.

And I would say one other thing, and that is that my views on public input are shaped by the fact that I spent two years working as a city planner for the City of Albuquerque some years back, and it's really ridiculous that we only say, "Oh, we're going to put this here. Do you want to talk about how this should be designed?" That's not appropriate public input into the planning process.

Thank you.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you for coming in, ma'am.

Ms. Henry, do we have anybody else signed up?

MS. HENRY: Yes. Oscar Simpson.

CHAIRMAN NICHOLLS: Good evening sir. If you'd state your name and address for the record, please.

MR. SIMPSON: My name is Oscar Simpson. I reside at 3320 12th Street, Northwest, Albuquerque, New Mexico.

(Witness sworn.)

CHAIRMAN NICHOLLS: All right. And who are you representing?

MR. SIMPSON: Myself.

CHAIRMAN NICHOLLS: I'm giving you two minutes.

MR. SIMPSON: Thank you very much. Thank you for the opportunity to comment.

I've been to several of these meetings, and basically, to re-summarize what everybody has said already, we've had a lot of North Valley experts and local residents testify why this plan has failed and is not good for the public. I hear their sentiments. Air quality, pollution, no public input whether the site should be there, only in violating the ordinance of why it should be there.

The other key reason, looking at the overall aspects of this, this is a shortsighted plan to save a little bit of money, which is illegal, according to the zoning plan. The overall goal should be how do we reduce and eliminate most of our landfill garbage. I've been to several of the transfer facilities on occasion, and look at what's going on. There's a lot of good materials that could be recycled and eliminate or reduce the size of landfills that we need on the West Side.

Therefore, this plan is shortsighted and it does not meet the future needs of what we need to do. We need to actually truck the stuff to the West Mesa, over there where the landfill is, and put in a major recycling plant to reduce the waste and get some economic gain out of that. That is the overall, better plan that should have been addressed to the public and asked for input.

Thank you very much.

CHAIRMAN NICHOLLS: Commissioners, any questions?

Thank you.

That was the last?

MS. HENRY: Yes.

CHAIRMAN NICHOLLS: Okay. All right. To this point, moving on, we need to hear from the applicant and their response.

MS. GARCIA: Hello. My name is Sabina Garcia. I haven't been sworn in yet.

CHAIRMAN NICHOLLS: You haven't?

MS. GARCIA: No, I have not.

CHAIRMAN NICHOLLS: State your name and address for the record, please.

MS. GARCIA: Sabina Garcia, 10900 Pasquale Drive, Northwest.

NORTH VALLEY COALITION, INC.

Individuals, Neighborhood Associations, Businesses & Community Groups Working Together

Received 9/14/15 @ 4

September 14, 2015

Peter D. Nicholls, Chair
Karen L. Hudson, Vice Chair
Environmental Planning Commission
c/o City of Albuquerque Planning Department
600 2nd Street, NW, 3rd Floor
Albuquerque, NM 87102

Hand-delivered to Dora Henry

Re: Edith Transfer Station, Project #1010582, Zone Map Amendment and Site Plan for Building Permit

Dear Chairman Nicholls and Vice-Chairwoman Hudson:

Attached to this letter you will find the August 2015 North Valley Health Impact Assessment of the Proposed Edith Transfer Station, which we are submitting for your consideration and for the record in the above-referenced matter. We will also provide an electronic copy of this letter and the Health Impact Assessment to Ms. Henry.

This Health Impact Assessment was completed at the request of the North Valley Coalition by health professionals under contract with Bernalillo County. These two professionals, Kristine Suozzi and Kitty Richards, worked collaboratively with the "HIA Committee," an independent group of almost sixty committed and concerned community members, who possess in-depth knowledge of the community in which they live. This committee met twice a month over a span of ten months.

A summary of Health Impact Assessment findings and recommendations, based on community knowledge, demographic and health data sets, and peer-reviewed literature, is found in the Executive Summary on pages 6-12.

We thank you for your attention to this important report and look forward to participating in the Environmental Planning Commission hearing on October 8, 2015.

Sincerely,

Peggy Norton

Peggy Norton, President
North Valley Coalition

Copy via e-mail to:
Vicente Quevedo, Assigned Staff Planner
Savina Garcia, PE, Wilson & Company

North Valley Health Impact Assessment of the Proposed Edith Transfer Station

August 2015

Prepared by:
William Hudspeth, Ph.D., Kitty Richards, MS, MPH
and
Kristine Suozzi, MS, Ph.D.

In collaboration with
The North Valley Health Impact Assessment Committee
and the North Valley Coalition

Reviewers:

Sally Bachofer, MD, Associate Professor, University of New Mexico, Department of Family & Community Medicine

Victoria Sanchez, MPH, Dr.PH, Associate Professor, Public Health Program, University of New Mexico, Department of Family & Community Medicine

Daniel Waldman, MD, Assistant Professor, University of New Mexico, Department of Family & Community Medicine

Nina Wallerstein, MPH, Dr.PH, Professor, Public Health Program, University of New Mexico, Department of Family & Community Medicine

This Health Impact Assessment was funded by County Commissioner Debbie O'Malley on behalf of the North Valley Coalition. Thank you to Commissioner O'Malley for funding the North Valley Health Impact Assessment process and report, and for her enthusiastic support of her community and its health and wellbeing.

FIGURES

Figure 1. Death rates per 100,000 persons and life expectancy by Hispanic and non-Hispanic white in the impacted community.

Figure 2. Characteristics of impacted communities near the proposed Edith Station site and the remainder of Bernalillo County.

Figure 3. Socio-economic and demographic characteristics of census tracts adjacent to and underlying the Edith Station and other transfer stations.

Figure 4. Census tracts underlying impacted community and 2-mile radius of site.

Figure 5. Traffic Pathway

Figure 6. Air Quality Pathway

Figure 7. Water Quality Pathway

Figure 8. Cumulative Impacts Pathway

Figure 9. Economic Wellbeing Pathway

Figure 10. Noise, Vectors, Odors, Litter Pathway

Figure 11. Occupational Safety Pathway

Figure 12. Age-adjusted chronic disease death rate per 100,000 persons, Bernalillo County and impacted community for non-Hispanic white and Hispanic, 2008-2011.

Figure 13. Life Expectancy from birth, Bernalillo County and impacted community for non-Hispanic white and Hispanic, 2011.

Figure 14. Age-adjusted motor vehicle related death rate per 100,000 persons, Bernalillo County and impacted community for non-Hispanic white and Hispanic, 2008-2011.

Figure 15. Map of proposed Edith Station transportation route.

Figure 16. Map of facilities with air pollution permits, schools, day care centers, and youth detention facility within 2-mile radius of Edith Station.

Figure 17. Death rates for lower respiratory tract disease (chronic lower respiratory diseases – ICD10: J40-J47) in Hispanics and non-Hispanic whites in the impacted community and Bernalillo County.

Figure 18. Death rates for cardiovascular disease (Heart disease – ICD10: 100-109, I11, I13, 120-151) in Hispanics and non-Hispanic whites in the impacted community and Bernalillo County.

Figure 19. Death rates for strokes (Cerebrovascular diseases – ICD10: 160-169) in Hispanics and non-Hispanic whites in the impacted community and Bernalillo County.

Figure 20. Mean July maximum temperatures, Albuquerque, NM.

Figure 21. Map showing drains and laterals the SWD site and surrounding area.

Figure 22. Campylobacor Infections (2006-2014): Age-adjusted rates.

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EXECUTIVE SUMMARY

This Health Impact Assessment (HIA) was done to assess the impacts of a Waste Transfer Station (WTS) on the health of residents and others who live, work, attend school, or play in neighborhoods that are located near the site. These neighborhoods correspond with census tracts 32.01, 32.02, 30.01, and 29. If constructed, garbage trucks will haul up to 5 million pounds of waste per day to the WTS for transport by semi-trucks to the Cerro Colorado Landfill (Gordon Environmental Inc., 2015). The City of Albuquerque (COA) is proposing to build their WTS at the current 22-acre site of their Solid Waste Department (SWD) located at the corner of Comanche Rd. and Edith Blvd.

The COA has stated the WTS will benefit the neighborhood because of reduced air pollution, nearby access to a household hazardous waste drop-off center (which the neighbors currently have at Rinchem), nearby access to a convenience center for self-hauled waste, and neighborhood beautification attributed to the WTS's state-of-the-art design. Further, the COA has stated the WTS will reduce their solid waste costs.

Based on figures from the U.S. Census, a total of 18,187 people live in the impacted community (Census, 2013). The neighborhoods are more racially and ethnically diverse than Bernalillo County, with 64.6% of the population comprised of minorities, and 35.6% of the population living below 100% of the federal poverty level ($24,250 for a family of four). Some neighborhoods within the impacted community have experienced over five decades of persistent poverty (Joint Center for Political and Economic Studies, 2012). Sensitive populations close to the proposed site include residents who live in an apartment complex at the corner of Edith Blvd. and Rankin Rd., detainees at the nearby Youth Detention Center on Edith, children who play at the baseball field across the street from the proposed site, and students who attend nearby La Luz Elementary on Griegos.

Environmental and health data assessed for this report indicate residents bear a disproportionate environmental and health burden. Due to this burden and the neighborhoods' socio-economic and demographic composition, the impacted community meets the U.S. Environmental Protection Agency's (EPA) criteria for an environmental justice neighborhood.

Residents and business owners/managers living and working in the impacted community have the following concerns:

1. The WTS's impact of heavy truck and self-haul private vehicle traffic on motor vehicle, pedestrian and bicycle safety; noise levels; traffic congestion; air quality from diesel emissions; and the deterioration of roads and home foundations from truck vibrations.
2. The impact of WTS operations on air quality.
3. The impact of WTS operations on the antiquated sewer infrastructure, ground water quality, surface water quality, and flooding.

4. The cumulative impacts from the WTS, and other existing industrial facilities, on human exposures - particularly for sensitive populations.
5. The impact of the WTS on the local economy and economic wellbeing in terms of property values; recruitment of new businesses and new jobs to the area; slower freight delivery rates for area businesses; and land-use incompatibility with nearby food distribution companies.
6. The impact of WTS operations on noise, pests, odor, and litter.
7. The impact of WTS operations on worker safety due to the hazardous nature of working at WTSs.
8. The impact of the WTS on increased household hazardous waste volumes coming into the community.
9. SWD's history of poor enforcement and cleanup at the current SWD facility, the site of the proposed WTS.
10. Inadequacy of advanced notice to the affected community and an absence of public input into the WTS siting decision or siting criteria.

Predictions

Based on analysis of health outcome data by location, race, and ethnicity, the HIA concludes the WTS will contribute to existing health disparities among Hispanics and sensitive populations, and to poorer health among all population groups living in the impacted neighborhoods.

Findings

Overall

This Heath Impact Assessment (HIA), conducted by Dr. Hudspeth, Ms. Richards, and Dr. Suozzi, in collaboration with residents and business owners/managers living and working in the impacted neighborhoods, concludes the WTS does not provide for the health, safety and welfare of residents living in adjacent neighborhoods as required by Enactment 270-1980.

With the exception of a preliminary Traffic Impact Study, the COA's focus has been within, rather than outside of the WTS site's boundaries. Consequently, the COA has failed to consider health impacts that might harm residents living in neighborhoods close to the site, should the WTS proceed. As an example, although the COA claims the WTS will help the general community by providing benefits such as reductions in air pollution, the COA has not provided air quality data to substantiate their claim.

Process

Neighborhood residents learned about the proposed WTS through an Op Ed on a solid waste rate hike to pay for the WTS. In contrast to guidance by the EPA to involve impacted residents in the development of WTS site criteria and the site selection processes, the COA made an internal decision to locate the WTS at the site of their current SWD facility. Criteria, other than within 3 miles of the I-25/I-40 Interchange, used by the COA for their selection of the proposed WTS site have not been provided to residents of the impacted community. The COA has also failed to provide a cost-benefit analysis comparing the proposed site with alternative sites.

Traffic

229 additional round trips into and out of the WTS are expected to occur each weekday, a 173% increase from current round trips (132) made by SWD's heavy truck fleet. Together, heavy trucks will make a total of 361 round trips into and out of the WTS each weekday. These round trips do not include privately owned vehicles that will be self-hauling trash to the WTS's convenience center. The COA estimates the convenience center will receive 225 round trips by private self-haul vehicles each weekday and 300 round trips each Saturday and Sunday. The COA's preliminary Traffic Impact Study did not include the additional volume of garbage trucks coming into and out of the impacted community because the study assumed that garbage truck traffic would occur during off-peak hours. MRCOG has classified Pan American East - South of Comanche, and Comanche - West of Pan American East, as severely congested (volume to capacity ratio of 1.1 to > 1.5). Traffic generated by the WTS will increase congestion along these key roadways.

Hispanics of the impacted community experience disproportionately high death rates for health outcomes associated with traffic, including cardiovascular disease; cerebrovascular disease; lower respiratory disease; and vehicle related fatalities, which are 12 deaths per 100,000 persons compared to 5.9 deaths per 100,000 persons for non-Hispanic whites.

Area bicyclists have stated that heavy truck traffic, poor physical road conditions, and a lack of safety are currently the main barriers to using the Comanche bicycle facility. With additional heavy truck and vehicle traffic, barriers to using the Comanche and Edith bicycle facilities will increase. Safety risks to children who attend nearby La Luz Elementary School and who play Little League at the baseball field located across the street from the proposed WTS will increase as well. Several intersections within the impacted community experience extremely high vehicle collision rates that result in death, involve pedestrians, or involve bicyclists (Table 1).

Table 1. Collision rates at intersections within the impacted community.

Collision Rates	**Overall Collision Rates**	**Fatal and Injury Collision Rates**	**Pedestrian Collision Rates**	**Bicycle Collision Rates**
Up to 3 times above the average collision rate	4th Street and Griegos intersection	4th Street and Griegos intersection	N/A	N/A
Up to 2 times above the average collision rates	Edith and Comanche intersection	Edith and Comanche intersection	4th Street and Montano	4th Street and Montano
	I-25 and Comanche intersection	I-25 and Comanche intersection		2nd Street and Montano

Air Quality

Although the COA claims the WTS will benefit the general community because of a decrease in overall air pollution (from the reduction of garbage trucks travelling to and from the Cerro Colorado Landfill, which will be substituted by semi-trucks), there has been no air quality data provided to support their claim. Air pollution from increased diesel emissions and WTS operations in the impacted community will increase. Based on air quality records for the air monitoring station located closest to the site, measured concentrations for particulate matter have almost exceeded EPA's current standard of 150 ug/m3 on several occasions.
Although the affected neighborhoods comprise only 2.7% of Bernalillo County's population, more than 15% of facilities permitted to emit air pollutants are located within a 2-mile radius of the proposed WTS site.

With the opening of a new baseball field across the street from the proposed site, children who are playing Little League will be adversely impacted. Consideration of the health impacts from diesel emissions to children's health, which remains unaddressed by the COA, is critical given children's greater vulnerability due to lung development and higher respiratory rates.

Water Quality

Due to the gradient of the proposed site, from a high point on the eastern boundary of the site to a low point on the western boundary, and impervious surfaces, storm water runoff from the site has resulted in flooding of business properties that are located down-gradient of the site. In addition to flooding, residents are concerned about the presence of contaminants associated with WTS operations that could be carried by storm water runoff into the historic Alameda Lateral and the Rio Grande.

The assessment unit for the reach of the Rio Grande where the Alameda Lateral flows into the Rio Grande (NM-2105_50) is impaired for dissolved oxygen, e. Coli (fecal matter), PCBs in fish tissue, and temperature. According to EPA's Enforcement and Compliance History online site, the COA has a poor compliance record for water related discharges. The COA has provided little information on how they will contain storm water runoff, given the site's gradient.

Noise

The presence of prolonged loud noise contributes to the loss of sleep, increased stress levels, irritability, and diminished learning capacity among children. The major sources of noise related to the proposed WTS are the increases in traffic volume, the types of traffic, and overall operations. The noise level produced by one heavy diesel truck is equivalent to the noise produced by 32 passenger cars. Noise measurements taken in May-June of 2015 exceeded the COA's noise standards for the morning and the afternoon at all locations measured, including at La Luz Elementary. Of the schools within 2 miles of the proposed site, La Luz Elementary - the school located the closest to the proposed WTS site (.72 miles), has the highest percentages of Hispanic students, the highest percentages of students who receive free or reduced cost lunches, the lowest school rating of D, and the lowest

percentages of students who are proficient in reading and math, 34%, and 26.2%, respectively (Albuquerque Public Schools, 2013).

The COA has not provided data on the anticipated noise levels that would occur should the WTS proceed. The COA has failed to assess the health impacts from increased noise levels on the health and wellbeing of those who live in an apartment complex close to the proposed site (.03 miles), attend school at La Luz Elementary, and play Little League at the baseball field. It is predicted that noise associated with heavy trucks will contribute to stress levels and deter work and school performance.

Odor, Litter, Rodents, Insects

Waste contributes to the presence of odors, litter, and disease carrying rodents and insects negatively affecting residents' overall quality of life and sense of wellbeing. Residents who live close to WTSs in other communities have reported that odors and pervasive dust from WTSs aggravate their allergies (National Environmental Justice Advisory Council, et al., 2000). WTSs are also associated with increased litter contributing to disease carrying rodents and insects, and possible vector-borne diseases. The COA has not provided data on the WTS's impact on illegal dumping, litter, and disease carrying vectors. Due to the presence of waste streams associated with the WTS and based on reports from other residents who live adjacent to WTSs, the authors conclude the WTS will contribute to increases in odors, litter, illegal dumping, and disease carrying insects and rodents.

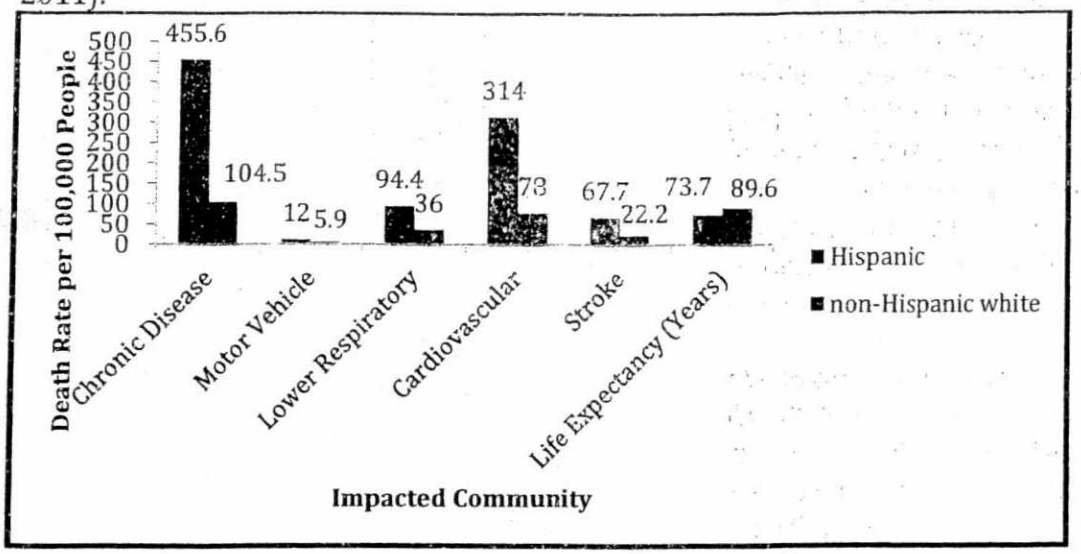
Occupational Health

Refuse and recyclable material collection is the fifth most dangerous industrial occupation in the U.S., with death rates averaging 30 per 100,000 persons (U.S. Department of Labor, 2014). Hazardous conditions include exposures to loud noise, toxic chemicals, odors, physical exertion, and heat. These conditions contribute to high death rates from unintentional injuries and cardiovascular disease. When compared with Bernalillo County, the impacted community currently experiences higher death rates for unintentional injuries, 70.3 deaths vs. 58.7 deaths - per 100,000 persons, and cardiovascular diseases, 314.5 deaths vs. 78 deaths - per 100,000. Depending on COA's policies regarding the employment of impacted residents, the impacted community's existing health burden could increase.

Cumulative Impacts and Environmental Justice

Hispanic residents of the impacted community currently experience a disproportionate health burden when compared with non-Hispanic residents of the impacted community (Figure 1). HIA results indicate that the health of our most vulnerable populations - children, the poor, and minorities will be disproportionately affected, should the WTS proceed.

Figure 1. Ave. annual age-adjusted death rates per 100,000 persons and life expectancy by Hispanic and non-Hispanic white in the impacted community (2008-2011).



Title VI of the Civil Rights Act of 1964 offers protection for minority populations against intentional and unintentional discrimination. Title VI precludes any agency from deeming a site suitable or locating a facility where it will have discriminatory effects on the basis of race, color, or national origin (40 CFR Section, 7.35 (c)).

The COA has not provided data on the cumulative impacts that could occur as a consequence of the WTS and the effect of cumulative impacts on our most vulnerable residents. The proposed site for the WTS follows a disturbing historical trend that many of today's municipalities are attempting to reverse - the siting of WTSs in low-income and minority communities.

Economic Wellbeing

Based on economic studies of residential property values near other WTSs, property values in the impacted community are expected to fall in proportion to their closeness to the proposed WTS. In their feasibility studies, the COA has focused solely on the cost savings to their operations without consideration of costs to area businesses from delays in freight shipments or increased worker's compensation claims, or costs to residents from decreased property values.

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Recommendations

The NV HIA Committee recommends denial of the COA's request for a zone change to Special Use and recommends that the COA evaluate alternative sites that are more protective of human health. The COA has failed to provide data on the impacts of the WTS to the health and wellbeing of residents living in the impacted community. HIA findings suggest the proposed WTS will result in increased health and economic stresses on an already over-burdened low-income, minority community and would not be consistent with the health, safety, and general welfare of the Albuquerque metropolitan area or the impacted community.

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Introduction

After learning about the City of Albuquerque's (COA) plans to construct a Waste Transfer Station (WTS), the Board of the North Valley Coalition (Coalition) voted to request that experienced health professionals in partnership with interested residents and businesses conduct a Health Impact Assessment (HIA) on the proposed Edith Transfer Station (Edith Station). The Coalition wanted to assess the broad health impacts the proposed WTS might have on residents and businesses. A HIA is a tool that is used to assess the potential, and sometimes unintended, effects of a proposed project on the health of a community. To meet professional standards, HIAs must adhere to the minimum requirements established by the HIA Practice Standards Working Group (2014).

The Proposed Facility

The COA is proposing to build a WTS, named the Edith Station, on the 22-acre site of its current Solid Waste Department (SWD) facility located on the west side of I-25 at the corner of Comanche Rd. and Edith Blvd., NE (4600 Edith Blvd.). In addition to the WTS - a 75,000 square-foot building that will also house a convenience center - the COA also plans to construct a household hazardous waste drop-off center (2,000 sq. ft.), a re-use center (4,200 sq. ft.), a recycling drop-off center (5,000 sq. ft.), a vehicle maintenance yard (40,000 sq. ft.), and SWD administrative offices (15,000 sq. ft.). The COA will maintain their current fueling station (Edith Station Fact Sheet).

According to the U.S. Environmental Protection Agency (EPA), WTSs are "facilities where municipal solid waste is unloaded from collection vehicles and briefly held while it is reloaded onto larger long-distance transport vehicles for shipment to landfills or other treatment or disposal facilities" (EPA, 2015). A convenience center is a collection-point for residents to drop-off their waste.

If constructed, the COA's garbage trucks would no longer drive back and forth to the Cerro Colorado Landfill to dump their municipal waste loads, but would instead dump their loads at the Edith Station. As proposed, after dumping their loads onto the tipping floor, waste would be transferred to 18-wheeler semi-trucks that would transport the waste to the Cerro Colorado Landfill.

The COA will dump up to 2,500 tons, equivalent to 5 million pounds, per day at the Edith Station for transport by semi-trucks to the Cerro Colorado Landfill (Gordon Environmental Inc., 2015). This change in SWD operations to a proposed WTS would result in a 173% increase in the number of round trips made by heavy trucks into and out of the community, and the Edith Station, each day. This figure does not include SWD employee vehicles or private vehicles that would self-haul their loads to the convenience center.

It is noteworthy the COA's contracted Traffic Impact Study did not include the additional volume of garbage trucks coming into and out of the impacted

community because the study assumed that garbage truck traffic would occur during off-peak hours.

The timeline for the Edith Station is: Planning Design (2014-2015), Permitting Processes (2015-2016), Funding Approval (2016), and Construction (2016-2018). The COA states that the Edith Station will cost $38.8 million, will result in annual savings of $2.5 million to $4.4 million, and will improve air quality because of fewer vehicle miles travelled (Edith Station Fact Sheet). Further, COA has stated they selected the current SWD facility site because it would eliminate the need to purchase other property for the WTS. During public meetings, COA staff mentioned the Edith Station would benefit adjacent communities by offering a nearby household hazardous waste drop-off center (even though there is currently a household hazardous waste drop-off center at nearby Rinchem) and a convenience center. COA staff also mentioned the WTS would beautify the neighborhood, and that although the SWD had been a bad neighbor in the past, they now intended to be a good neighbor (City of Albuquerque, Edith Transfer Station, public meeting, January 20, 2015).

The Edith Station is part of a larger COA vision begun in 2002 and articulated in the Albuquerque Integrated Waste Management Plan. The Plan recommends that the COA conduct an inventory of City-owned land according to criteria for the future siting of a WTS, Materials Recovery Facility, and Multi-Purpose Resource Recovery Park. Part of the COA's vision has already been realized with the opening of Friedman Recycling, a Materials Recovery Facility, in July of 2012. Friedman Recycling, at 5029 Edith Blvd., is located 1/3 mile from the SWD facility and processes over 120,000 tons of recyclable material each year, equivalent to 657,534 pounds per day. Some of the material originates from households and commercial businesses throughout Albuquerque and is transported to Friedman by SWD's recycling truck fleet.

The Affected Business and Residential Community

The community learned about the COA's proposed Edith Station after reading an Albuquerque Journal Op Ed, dated May 29, 2014, on a scheduled rate change for solid waste collection. After reading the Op Ed, community residents questioned the COA regarding its plans to place a WTS in their community and the City's lack of transparency, resulting in an absence of community notification or input into the site selection process. Already the home to Friedman Recycling and Rinchem's hazardous waste drop-off center, community members living close to the proposed Edith Station believe their community has become, and will continue to be, Albuquerque's ground zero for waste (public meeting, January 2015).

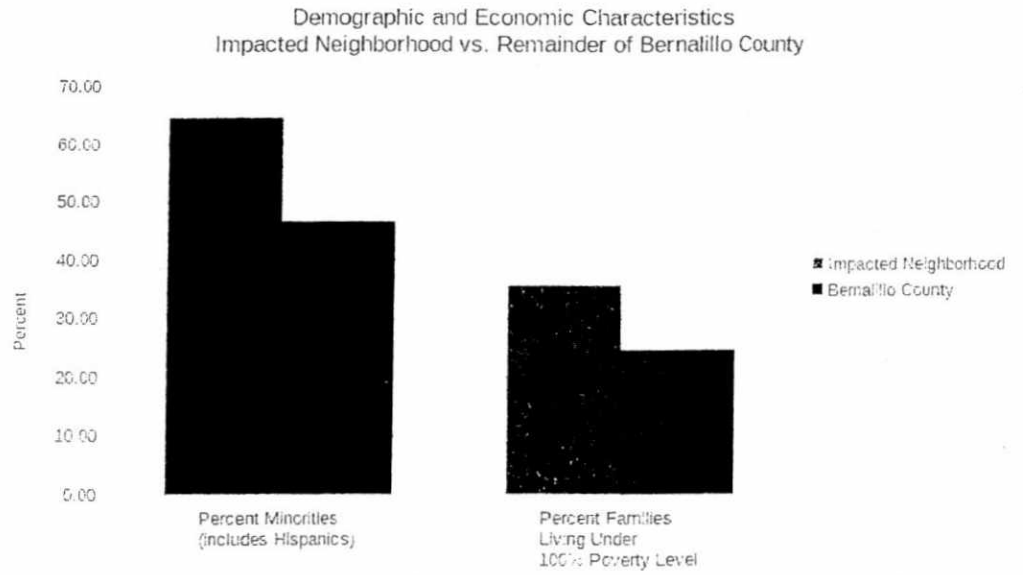
The proposed location of the Edith Station follows a disturbing historical trend. Prior to 2000, a majority of WTSs had been placed in vulnerable communities that were predominantly minority or low-income. In fact, in response to this trend, the EPA has published several resources, including, *A Regulatory Strategy for Siting and*

Operating Waste Transfer Stations: A Response to a Recurring Environmental Justice Circumstance: The Siting of Waste Transfer Stations in Low-Income Communities and Communities of Color (2000); *Hazardous Waste in Your Community* (2000); and *Waste Transfer Stations: A Manual for Decision-Making* (2002). It is important to note that all of these resources recommend working with affected communities ***prior to*** siting decisions.

Those living closest to the proposed Edith Station site, and the most likely to be adversely affected, are from the Greater Gardner, Stronghurst and Near North Valley communities. These communities correspond with Census Tracts 29, 30.01, 32.01, and 32.02, and with the New Mexico Department of Health's (NMDOH) Small Area 19. Together, these communities are predominantly minority (64.6%) and low-income, with 35.6% of families living below the federal poverty level. As a comparison, the remainder of Bernalillo County's minority population is 46.5%, with 24.6% living below the federal poverty level (Figure 2). In 2013, 18,420 people lived in census tracts 29, 30.01, 32.01, and 32.02 (Census, 2013). The closest residences are .03 miles from the proposed Edith Station site, a group of apartments located at the NE corner of Rankin Rd. and Edith Blvd.

These communities experience greater health burdens when compared with other neighborhoods in Bernalillo County. A child born in this area can expect to live 2 years less than children living elsewhere in Bernalillo County. Life expectancy is 76 years, while life expectancy for other areas of Bernalillo County is 78. Deaths from chronic disease are also greater with 564 deaths per 100,000 persons, compared with the chronic disease death rate for the remainder of Bernalillo County of 498 deaths per 100,000 persons.

Figure 2. Characteristics of the impacted community near the proposed Edith Station site and the remainder of Bernalillo County.



Nearby businesses that are likely to be affected include: Sysco, Roto-Rooter, American Home Furniture, Premier Distributing, North American Moving Services, United Parcel Service, ABC Supply Co., Public Service Company of New Mexico, New Mexico Gas Company, Conway Electric, and Maloy Mobile Storage, among others.

Residents' and Businesses' Concerns Regarding the Proposed Edith Station:

11. The impact of heavy truck and self-haul private vehicle traffic on motor vehicle, pedestrian and bicycle safety; noise levels; traffic congestion; air quality from diesel emissions; and the deterioration of roads and home foundations from truck vibrations.
12. The impact of Edith Station's operations on air quality.
13. The impact of Edith Station's operations on the antiquated sewer infrastructure, ground water, downstream surface water quality, and surface water drains.
14. The impact of Edith Station's operations on flooding.
15. The cumulative impacts from the Edith Station, and other existing industrial facilities, on human exposures - particularly for sensitive populations such as students who attend La Luz Elementary, Mountain Mahogany, and the Menaul School; children who play Little League at the nearby baseball field on Edith Blvd.; and detainees of the Youth Detention Center.
16. The impact of the Edith Station on the local economy and economic wellbeing in terms of property values; recruitment of new businesses and new jobs to the area; slower material delivery rates for area businesses; and land-use incompatibility with nearby food distribution companies.
17. The impact of Edith Station operations on noise, pests, odor, and litter.
18. The impact of Edith Station operations on worker safety due to the hazardous nature of working at WTSs.
19. The impact of the Edith Station on increased hazardous waste volumes coming into the community.
20. SWD's history of poor enforcement and cleanup at the current SWD facility, the site of the proposed Edith Station.
21. Inadequacy of advanced notice to the affected community and a complete absence of public input into the siting decision or siting criteria.

Each of these concerns, along with potential health impacts, will be addressed in this report.

Background

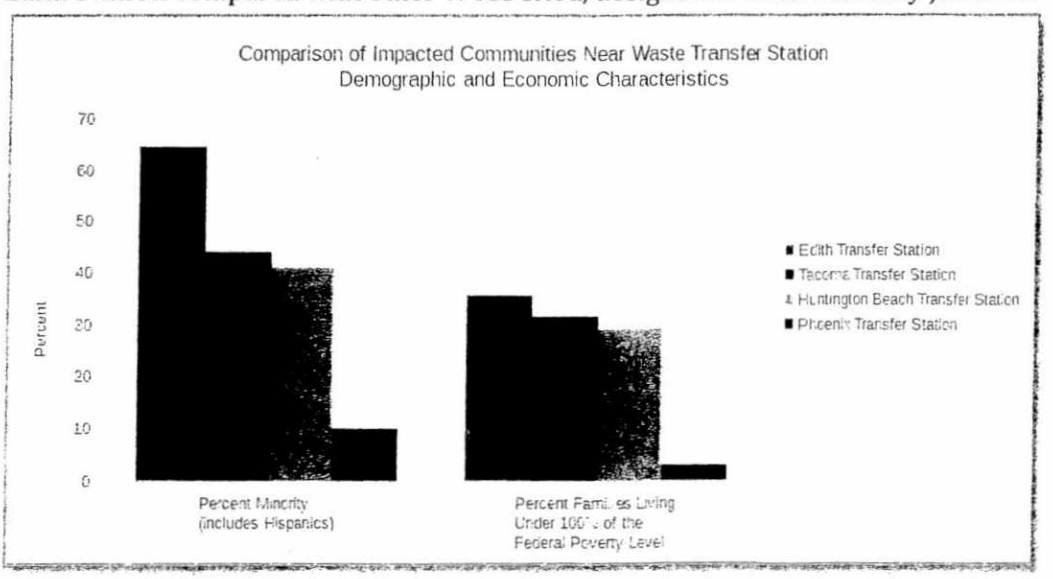
Feasibility Study

JR Miller and Associates, the consulting firm contracted by the COA to manage various aspects of the proposed Edith Station, contracted with the COA in 2011 to complete a Feasibility Study for a WTS (JR Miller & Associates, 2011). In 2014, JR Miller & Associates produced an Addendum to the 2011 Feasibility Study using recent cost estimates (JR Miller & Associates, 2014). Although one would anticipate that a Feasibility Study would include criteria for the selection of an appropriate WTS site, as well as a comparison of costs and benefits for various sites as required by the North Valley Area Plan (a rank three plan adopted by the COA in 1993), the 2011 Feasibility Study, and the 2014 Addendum only considered one site - the site of the current SWD facility.

Site Selection Process

JR Miller & Associates has been a consultant for the siting, design, or construction of WTSs in other states. Figure 3 presents a summary of demographic and socioeconomic characteristics for the census tracts adjacent to the proposed Edith Station as well as other WTSs that have been sited, designed or constructed by JR Miller & Associates. JR Miller & Associates has followed the national historical trend of locating WTSs in low-income and minority communities, with the exception of the more recently developed Phoenix WTS, which is appropriately sited close to major thoroughfares, yet on the outskirts of population centers and away from low-income and minority communities. Notably, when compared with the location of WTSs in other communities, the census tracts adjacent to the Edith Station have a greater percentage of minority (64.6%) and low-income populations (35.6%).

Figure 3. Socio-economic and demographic characteristics of census tracts adjacent to the Edith Station compared with other WTSs sited, designed or constructed by JR Miller.



Lack of Public Input

Well after the COA decided on the current SWD site for their WTS, at a COA sponsored public meeting, a local resident asked whether the COA provided the community with an opportunity to comment on the proposed site (public meeting, January 20, 2015). COA management responded that an opportunity for public comment had been provided to the community when the Feasibility Study was approved by the City Council. In fact, there was little opportunity to provide public comment on the Feasibility Study, much less the siting decision, during this City Council meeting because approval for the Feasibility Study was placed on the Consent Agenda and was not discussed (COA, City Council meeting, May 19, 2014). Instead, the City Council meeting was devoted to issues surrounding the violent behavior exhibited by some members of the Albuquerque police force.

When asked by another resident at the same meeting whether the COA had considered other sites, COA management responded that they had considered other sites that were within 3 miles of the I-25/I-40 Interchange and had decided, ***internally***, that the site of the current SWD best met their criteria (public meeting, January 20, 2015). According to COA management, other sites that the COA considered included the current site of American Furniture, located at 801 Comanche Blvd., NE, near I-25; and the site of Albuquerque's now defunct Beach Water Park, closed in 2004. Based on literature summarizing preferable siting of WTSs, either of these sites would have been preferable to the proposed Edith Station site because they are located along the I-25 frontage road and farther away from residential areas (EPA, 2002).

To date, criteria, other than within 3 miles of the I-25/I-40 Interchange, used by the COA for the their selection of the proposed Edith Station site have not been provided to the public nor has there been any consideration by the COA on the placement of smaller WTSs throughout the city, rather than a large, single WTS.

With the decreasing capacity of many of the country's landfills, there have been many more WTSs constructed to handle municipal waste disposal demands. Due to the historical pattern of siting many of these in low-income and minority communities, the EPA has emphasized the necessity for municipalities to include the meaningful input of impacted communities in the development of siting criteria and site selection processes ***prior to making decisions*** (EPA, 2002).

Approval Process

Prior to constructing the proposed Edith Station, the COA, as the applicant in this case, must first go through several processes, including: 1) a request for a zone change from the current M-1 zone, which prohibits a WTS, to Special Use; 2) a request for a solid waste permit from the New Mexico Environment Department, and 3) a request for an air quality permit from the COA's Air Quality Division.

Change of Zone Status - Environmental Planning Commission

The applicant plans to go before the Environmental Planning Commission (EPC) to request a change in zoning from M-1 to Special Use on October 8, 2015. As part of the EPC hearing, the burden is placed on the applicant to demonstrate that all conditions of the COA's Resolution 270-1980: Policies for Zone Map Change Applications, approved 12-3-1-80 (COA, R-270-1980), and updated as COA Zone Code Enactment 270-1980 (2002) cited below, have been met. The majority of these conditions consider the impact of a zone change to Special Use on the community's health, safety, and general welfare.

For approval, according to COA Zoning Code, Appendix B: Enactment 270-1980 (2002), the proposed zone change must meet each of the following:

A. A proposed zone change must be found to be consistent with the health, safety, morals, and general welfare of the City.
B. Stability of land use and zoning is desirable; therefore, the applicant must provide a sound justification for the change. The burden is on the applicant (again, in this case the City) to show why the change should be made, not on the City to show why the change should not be made.
C. A proposed change shall not be in significant conflict with adopted elements of the Comprehensive Plan or other City master plans and amendments thereto including privately developed area plans that have been adopted by the City.
D. The applicant must demonstrate that the existing zoning is inappropriate because;
    1) There was an error when the existing zone map pattern was created, or
    2) Changed neighborhood or community conditions justify the change, or
    3) A different use category is more advantageous to the community, as articulated in the Comprehensive Plan or other City master plan, even though (1) or (2) above do not apply.
E. A change of zone shall not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood, or the community.
F. A proposed zone change which, to be utilized through land development, requires major and un-programmed capital expenditures by the City may be;
    1) Denied due to lack of capital funds, or
    2) Granted with the implicit understanding that the City is not bound to provide the capital improvements on any special schedule.
G. The cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone.
H. Location on a collector or major street is not in itself sufficient justification of apartment, office or commercial zoning.
I. A zone change request that would give a zone different from the surrounding zoning to one small area, especially when one premise is involved, is generally called a spot zone. Such a change of zone may be approved only when;
    1) The change will clearly facilitate the realization of the Comprehensive Plan and any applicable adopted sector development plan or area plan, or

2) The area of the proposed zone change is different from the surrounding land because it would function as a transition between adjacent zones; because the site is not suitable for the uses allowed in any adjacent zone due to topography, traffic, or special adverse land uses nearby; or because the nature of structures already on the premises make the site unsuitable for the uses allowed in any adjacent zone.

J. A zone change request which would give a zone different from surrounding zoning to a strip of land along a street is generally called strip zoning. Strip commercial zoning will be approved only where:
   1) The change will clearly facilitate the realization of the Comprehensive Plan and any adopted sector development plan or area development plan, and
   2) The area of the proposed zone change is different form surrounding land because it could function as a transition between adjacent zones or because the site is not suitable for the uses allowed in any adjacent zone due to traffic or special adverse land uses nearby.

At their first COA sponsored public meeting, the applicant reported that the proposed Edith Station would be beneficial to the community's health, safety, and general welfare for the following reasons:

1. The general community would benefit from reduced air pollution because trips to the landfill by garbage trucks would be eliminated.
2. The adjacent community would benefit from having a nearby convenience center and household hazardous waste drop-off center (which it already has at the nearby Rinchem facility) and would no longer be required to drive farther distances to dispose of their self-hauled waste.
3. The adjacent community would benefit because the Edith Station's state-of-the-art and energy efficient design would beautify their neighborhood.
4. The Edith Station would reduce SWD expenditures because: 1) it would be located on land already owned by the COA, and 2) it would result in reduced fuel costs due to fewer trips to the landfill.

Several of the requirements of COA Zoning Code, Appendix B: Enactment 270-1980 cannot be met, so the proposed zone change should not be approved for the following reasons:

1. Based on HIA findings, the proposed Edith Station will harm, rather than benefit, the adjacent community. Therefore, conditions A; B; C; D (1), (2), (3); E, and I (1), (2) have not been met.
2. The applicant's suggestion that the site of the Edith Station would economically benefit the COA because they own the land is irrelevant because, according to G above, "the cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone".
3. The proposed Edith Station is a use that is in significant conflict with the North Valley Area Plan (1993). In fact, Goal 3 on page 5 states, "To preserve air, water and soil quality in the North Valley. To prohibit hazardous waste

disposal sites and transfer stations and solid waste disposal sites; and to address problems of individual waste disposal systems on lots of inadequate size". Further, Council number R-255, Enactment 60-1993, Section 7, states, "Solid Waste Transfer Stations shall be allowed in the North Valley Plan area only on land zoned for manufacturing uses and only if after thorough investigation of relative benefits and costs, such location is deemed appropriate and the potential impacts on adjacent residential land can be mitigated through site design". Thus far, there has been no effort by the COA to investigate the relative benefits and costs of locating a WTS in the impacted community versus elsewhere, nor has there been an attempt to assess potential impacts on adjacent residential land. Further, little information has been provided to residents on the criteria used by the COA for siting the proposed Edith Station at the current SWD facility. Additionally, while the COA had an opportunity to assess the feasibility of locating a WTS elsewhere, they chose not to and only considered the current SWD facility site for the WTS.

4. The proposed Edith Station is in conflict with the recently adopted Complete Streets Ordinance, Council number C/S 0-14-32. For example, on page 3 the Complete Streets Ordinance says of transportation routes within the applicable *Central Urban Area*, "To express the City's commitment to creating and maintaining Complete Streets within the Central and Established Urban Areas specified by the Albuquerque/Bernalillo County Comprehensive Plan...for residents and visitors, regardless of their age, ability, or financial resources, to safely and efficiently use the public right-of-way within these corridors and meet their transportation needs regardless of their preferred mode of travel". The bike facility on Comanche is a primary bike facility that traverses the city east and west. As such, in keeping with the intent of the Complete Streets Ordinance it is important to ensure safe multi-modal passage near and around the proposed Edith Station. Many in the bicycling community feel that the Comanche bike facility is already unsafe and prohibits multi-modal accessibility. Bicyclists feel that with the additional heavy truck and vehicle traffic generated by the Edith Station, current unsafe multi-modal accessibility issues will become even greater.
5. The proposed Edith Station is a use that is also in significant conflict with the Comprehensive Plan's *Established Urban Area* and *Central Urban Area* goals and policies (the applicable land-use categories for the proposed Edith Station site) as illustrated in table 2. Additionally, other important goals and policies of the Comprehensive Plan will not be met (Table 2).

Table 2. List of Comprehensive Plan Goals and Policies **Not** Met by the Proposed Edith Station (Source: Albuquerque/Bernalillo County As Amended 2003 Comprehensive Plan, Section II. Goals and Policies)

Topic	Goal Language	Reference	Policy Language
Developing and Established Urban Areas B. Land Use Section 5.	To create a quality urban environment which perpetuates the tradition of identifiable, individual but integrated communities within the metropolitan area and which offer variety and maximum choice in housing, transportation, work areas, and life styles, while creating a visually pleasing built environment.	Policy d. (pg. II-25)	The location, intensity, and design of new development shall respect existing neighborhood values, natural environmental conditions and carrying capacities, scenic resource, and resources of other social, cultural, recreational concern.
		Policy k. (pg. II-28)	Land adjacent to arterial streets shall be planned to minimize harmful effects of traffic; livability and safety of established residential neighborhoods shall be protected in transportation planning and operation.
		Policy o. (pg. II-30)	Redevelopment and rehabilitation of older neighborhoods in the Existing Urban Area shall be continued and strengthened.
Central Urban Area[1] B. Land Use Section 6.	To promote the Central Urban Area as a focus for arts, cultural, and public facilities/activities while recognizing and enhancing the character of its residential neighborhoods and its importance as the historic center of the City.	Policy a. (pg. II-33)	New public, cultural, and arts facilities should be located in the Central Urban Area and existing facilities preserved.
		Policy b. (pg. II-33)	Upgrading efforts in neighborhoods within the Central Urban Area should be continued and expanded and linkages between residential areas and cultural/arts/recreation facilities.
Air Quality C. Environmental Protection and Heritage Conservation Section 1.	To improve air quality to safeguard public health and enhance quality of life.	Policy e. (pg. II-47)	Motor vehicle emissions and their adverse effects shall be minimized.
		Policy g. (pg. II-47)	Pollution from particulates shall be minimized
		Policy i. (pg. II-48)	Air quality considerations shall be integrated into zoning and land use decisions to prevent new air quality/land use conflicts.
		Policy k. (pg. II-49)	Citizens shall be protected from toxic air emissions.

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[1] The Central Urban Area is included in the Established Urban Area boundaries; therefore, the goals and policies of the Established Urban Area apply.

Water Quality C. Environmental Protection and Heritage Conservation Section 2.	To maintain a dependable, quality supply of water for the urbanized area's water needs.	Policy c. (pg. II-52)	Water quality contamination from solid waste disposal shall be minimized.
Noise C. Environmental Protection and Heritage Conservation Section 4.	To protect the public health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts.	Policy a. (pg. II-59)	Noise considerations shall be integrated into the planning process so that future noise/land use conflicts are prevented.
Historic Resources C. Environmental Protection and Heritage Conservation Section 5.	To protect, reuse, or enhance significant historic districts and buildings	Policy b. (pg. II-61)	Research, evaluation and protection of historical and cultural properties in the City and County shall be continued.
Transportation and Transit D. Community Resource Management Section 4.	To develop corridors, both streets and adjacent land uses, that provide a balanced circulation system through efficient placement of employment and services, and encouragement of cycling, walking and use of transit/para-transit as alternatives to automobile travel, while providing sufficient roadway capacity to meet mobility and access needs.	Policy g. (pg. II-86)	Pedestrian opportunities shall be promoted and integrated into development t create safe and pleasant non-motorized travel conditions.
		Policy p. (pg. II-90)	Efficient, safe access and transfer capability shall be provided between all modes of transportation.
		Policy q. (pg. II-91)	Transportation investments should emphasize overall mobility needs and choice among modes in the regional and intra-city movement of people and goals.
Human Services D. Community Resource Management Section 8.	To site human service facilities in locations that provide the greatest possible access to services, consider human rights and human service needs in development and redevelopment throughout the Plan area.	Policy c (pg. II-103)	Development's negative effects upon individuals and neighborhoods shall be minimized.

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Health Impact Assessment

HIAs are tools to help policy makers understand the impacts that a policy, plan or project can have on the community's heath prior to making a decision. In 2008, the North American Conference on Health Impact Assessment developed guidelines for HIAs. These guidelines were updated in 2010 (North American HIA Practice Standards Working Group, 2010). As of 2013, over 80 HIAs had been conducted throughout the U.S. to provide decision makers with scientific evidence to better inform their decisions (Environmental Protection Agency, 2013).

Components of an HIA are:

1. *Screening* – determines whether HIA is an appropriate tool to use to evaluate the decision, and whether the HIA will provide useful and timely information to decision-makers.
2. *Scoping* - outlines the goals of the HIA and describes: a) the health impacts to be considered, b) the impacted population or community, c) who will conduct the HIA, and, d) the data collection and assessment methods.
3. *Assessment* - describes the current health conditions of the impacted population, or community, and forecasts impacts to health conditions that may result from deciding to pursue the proposed plan, policy, or project.
4. *Recommendations* - based on assessment findings, suggests actions to avoid adverse health impacts or to improve beneficial health impacts resulting from the pending decision.
5. *Reporting* - documents the HIA process as well as the findings both verbally, for example by meeting with or testifying before decision-makers, and in writing.
6. *Monitoring and Evaluation* - evaluates the following: a) process used to conduct the HIA, b) impact of the HIA on the pending decision and decision-making process, and c) impact of the HIA on the health outcomes that were assessed.

Screening

Screening, step one of the HIA process, considers whether an HIA should be conducted on the pending decision. Factors favorable to conducting an HIA include: a) policy makers that are willing to consider HIA findings as part of their decision-making process, b) the ability to conduct an HIA given the timeline for the pending decision, c) clearly delineated roles and responsibilities for stakeholders, and d) mutual respect for decision-makers, community members, and other stakeholders. The HIA screening process results in a decision on whether to conduct the HIA and a statement regarding how the HIA will add value to the decision-making process, inform the pending decision, and improve future health.

An HIA Committee was formed in October 2014 with an open invitation to community members to attend the bimonthly meetings. The NV HIA Committee examined what a HIA involves and stated they wanted the HIA to be community-driven with community-generated questions and concerns leading the assessment.

The NV HIA Committee also discussed what was known about the proposed Edith Station.

Committee members held multiple discussions among themselves and other stakeholders regarding the HIA. Generally, meeting deliberation consisted of the following topics: a) the timeline for the proposed Edith Station and whether an HIA could be conducted within the required time frame, b) the receptiveness and openness of policy makers to HIA recommendations as part of their decision-making process, and c) the mounting community concerns regarding potential adverse health impacts in the event the proposed Edith Station proceeded.

Ultimately, the NV HIA Committee decided to move forward in conducting the HIA given: a) the robust documentation already available via stakeholders, the Coalition's website, and the COA's website dedicated to the Edith Station, b) the public health, land-use, economic, and policy expertise available via stakeholders and Committee members, c) the significance of the decision to the historical character of the North Valley, and d) the hope that policy makers would ultimately fulfill their role as Environmental Planning Commissioners and City Councilors to protect the health and well-being of the community they serve.

During the first two meetings in October 2014, the NV HIA Committee completed the Screening portion of the HIA. Although the Committee acknowledged that they didn't know whether or not the proposed Edith Station was a "done deal", they decided the HIA was warranted as it could inform decision makers.

In anticipation of a final HIA submittal date of June 30, 2015, the NV HIA Committee met for two hours on the first and third Thursdays of the month, from October 2014 through July 2015.

Scoping

The NV HIA Committee began the Scoping portion of the HIA by brainstorming questions that they had regarding the proposed Edith Station. In November 2014, these questions were compiled on a Scoping Grid with the following categories: traffic, air quality, water quality, cumulative impacts and environmental justice, economic impacts, noise, vectors such as rodents and insects, odors, litter, occupational safety, and hazardous waste (Attachment 1). Additionally, pathways diagrams were developed to link the issue of concern with potential health impacts (Figures 5-11).

During its November and December 2014 meetings, the NV HIA Committee identified data sources and Committee members volunteered to find data for several of the scoping categories. The NV HIA Committee also developed a one-page fact sheet on the proposed Edith Station titled, *Did you Know?*

At the December 18th meeting, the NV HIA Committee discussed the fact that the COA had decided to hold a public meeting regarding the Edith Station on January

20th that would be advertised, organized and facilitated by the COA. The NV Coalition created postcards that were distributed widely to advertise the meeting.

The January 15th NV HIA Committee meeting was dedicated to getting ready for this meeting and conducting sufficient outreach. To get the community organized for this meeting, the Scoping portion of the HIA was temporarily put on hold.

On January 20, 2015, the COA held its first public meeting on the Edith Station. Over 120 people were in attendance at the meeting with many residents and businesses expressing concerns about lack of community input, potential harms with backed up traffic, inadequate management of the current SWD facility, and questions about how the Edith Station would be operated and if it would constitute a dirty materials recovery facility.

On February 19th, the NV Coalition hosted its own community meeting with approximately 130 people in attendance. COA management, and its contractors, comprised a panel to answer questions from the NV Coalition, the NV HIA Committee and the community on the Edith Station.

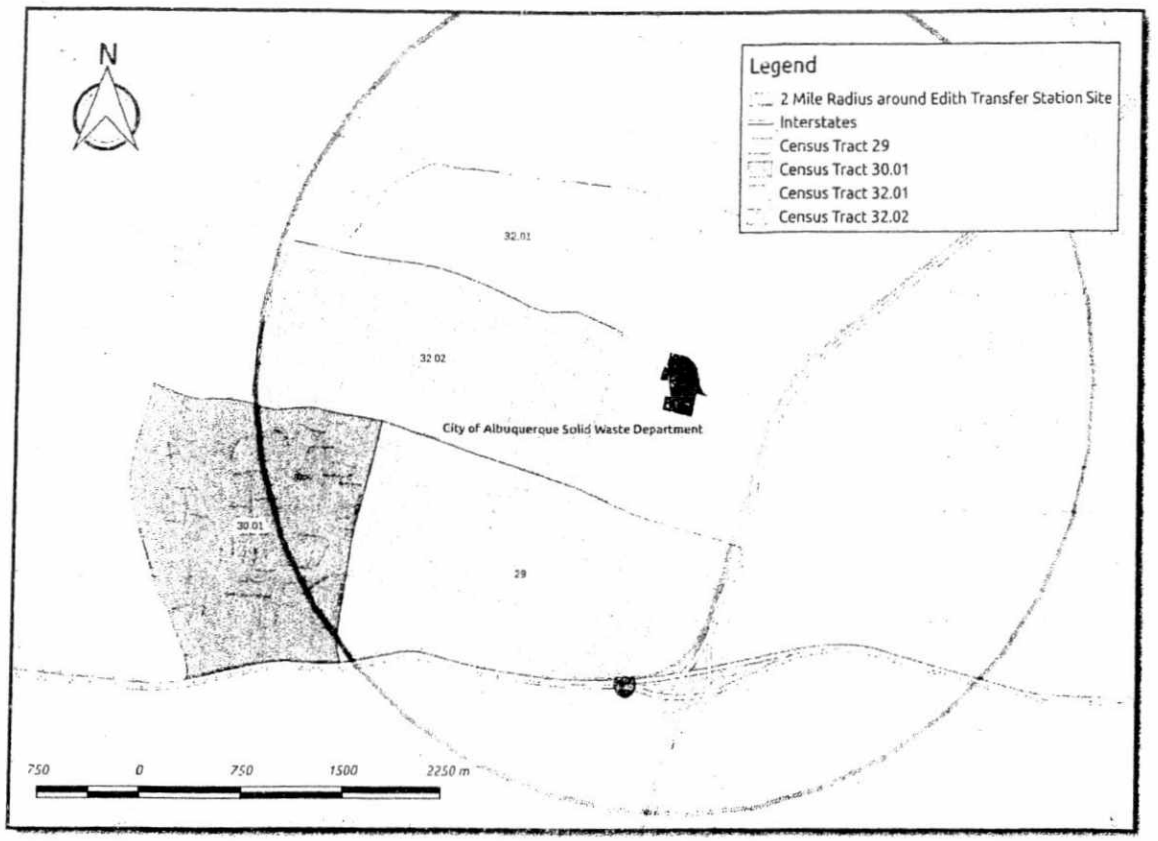
The City held two more public meetings, one on April 21, 2015, and a final public meeting on July 15, 2015. The majority of community residents and business owners/managers attending the City's three public meetings and the NV Coalition's community meeting voiced opposition to the proposed Edith Station.

Information used for this HIA was derived from data provided by the COA and its consultants, and from community members, government documents, health databases, and peer reviewed literature. Government databases that were used include the U.S. Census Bureau's American Fact Finder and the New Mexico Department of Health's (NMDOH), Indicator-Based Information System (IBIS).

For purposes of health outcomes, the "impacted community" was defined as Census Tracts 29, 30.01, 32.01, and 32.02 and NMDOH Small Area 19. The census tract underlying the Edith Station was not used because it extends all the way to Carlisle east of I-25, beyond the area that Committee members felt would be immediately affected. For purposes of industries that are either emitting air pollutants or discharging pollutants into water, the "impacted community" was defined as the as the neighborhoods that are within a radius of 2 miles of the site (Figure 4).

The Assessment Section of the HIA is found on pages 34-96. The Recommendation Section is found on pages 97-101. The Monitoring, Evaluation, and Conclusions Sections are on pages 101-102

Figure 4. Census tracts underlying the impacted community and 2-mile radius of site.



The Pathways Diagrams for each of the issues of concern are provided below.

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Figure 5. Traffic Pathway

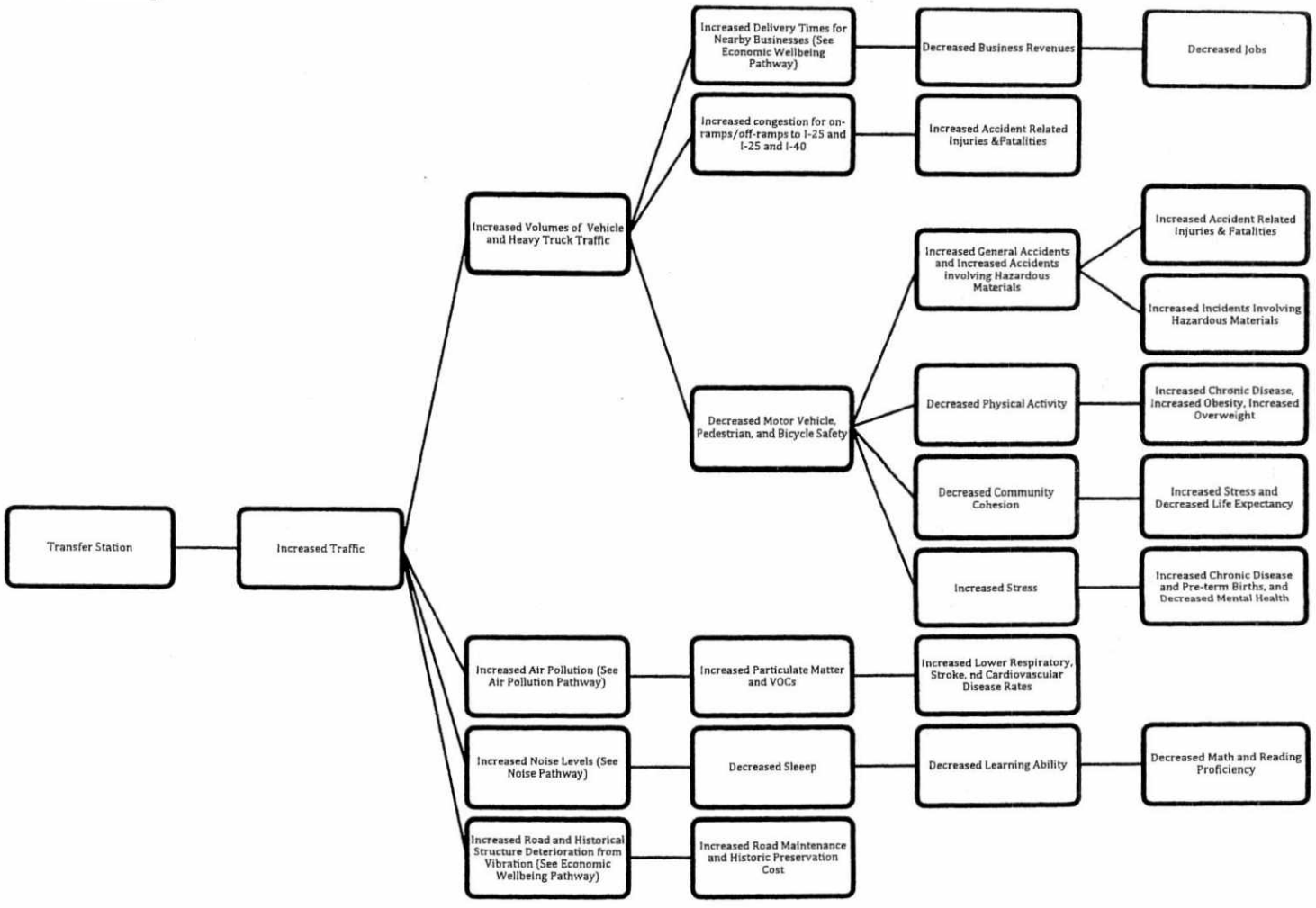

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Figure 6. Air Quality Pathway

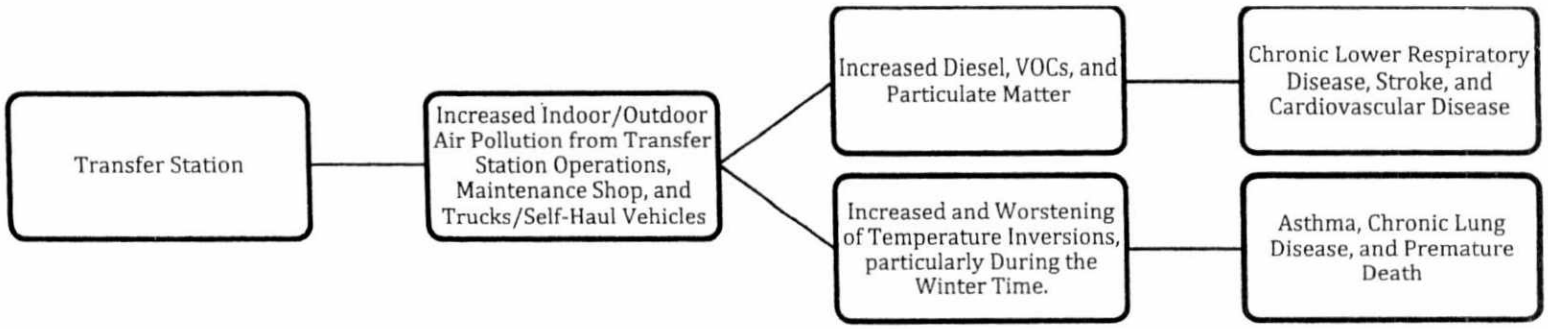

Figure 7. Water Quality Pathway

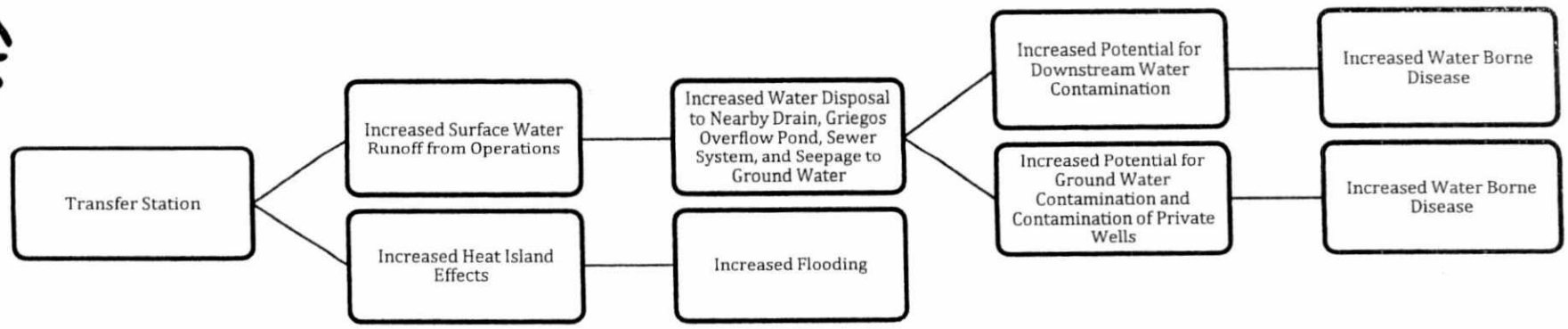

Figure 8. Cumulative Impacts Pathway

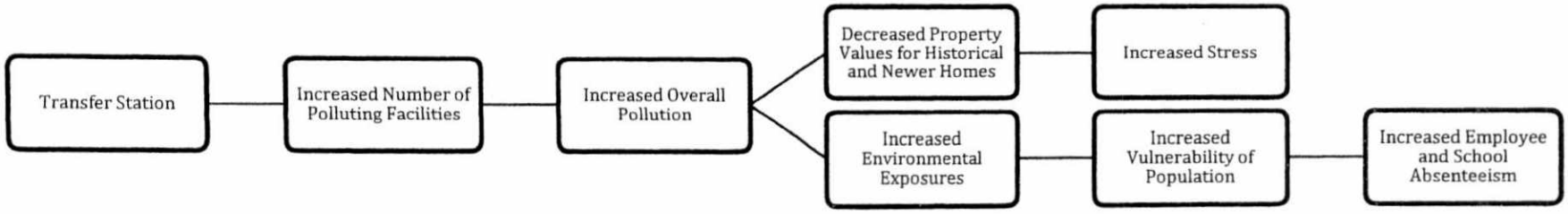

Figure 9. Economic Wellbeing Pathway

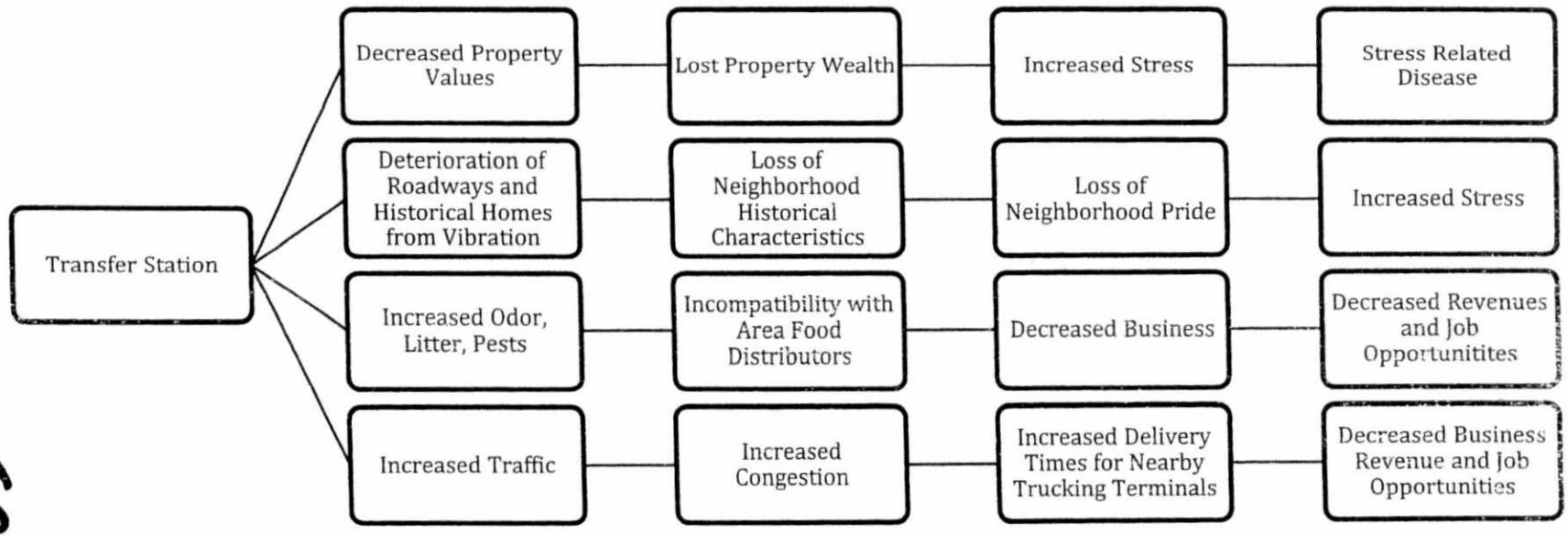

Figure 10. Noise, Vectors, Odors, Litter Pathway

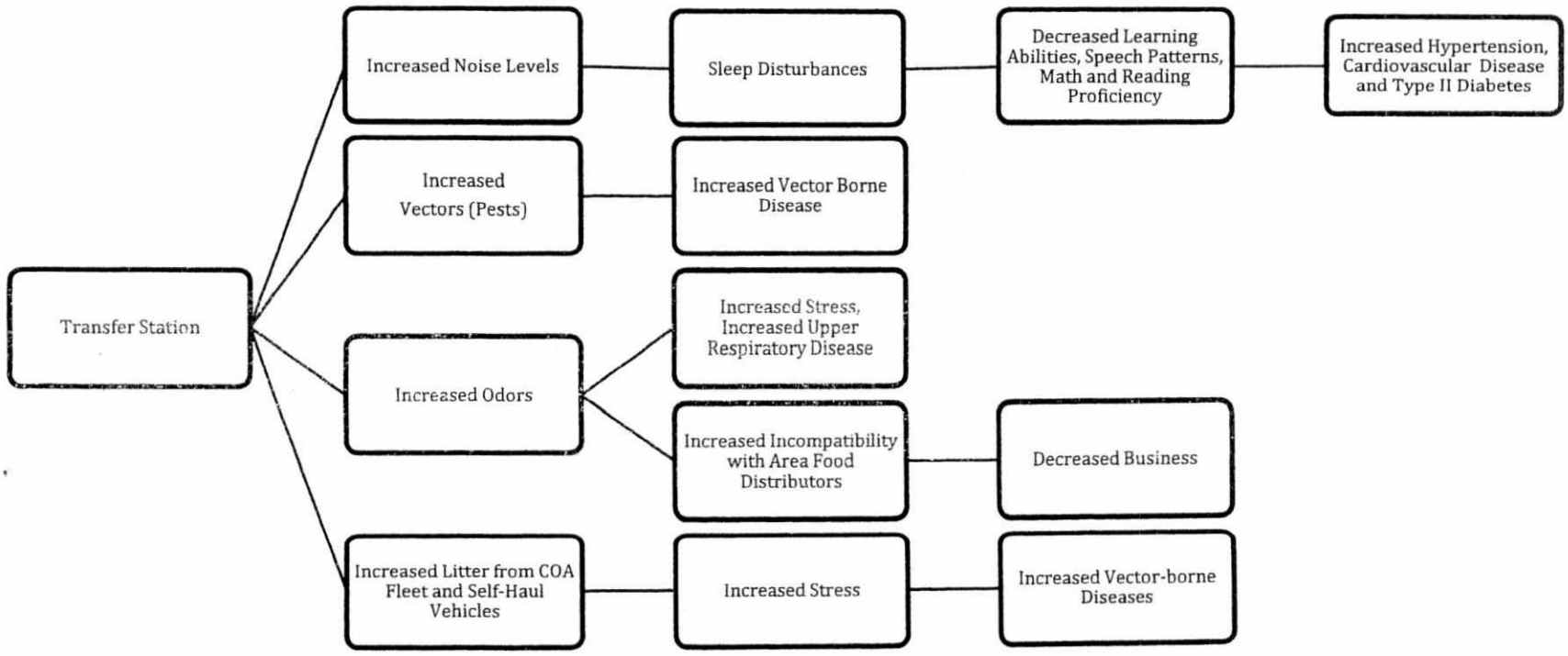

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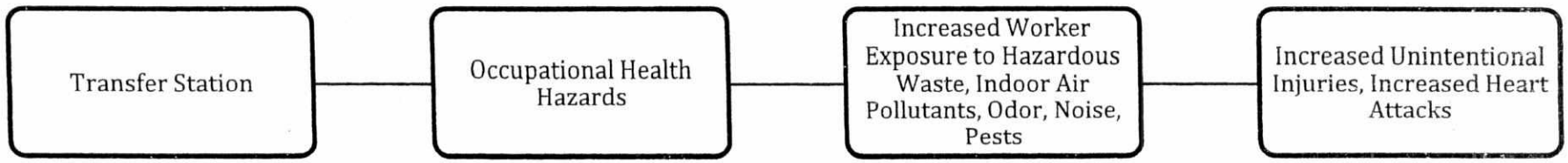
Figure 11. Occupational Safety Pathway



Assessment

Traffic

Vehicle Volume and Traffic Safety

The increase in heavy truck and private vehicle traffic generated by the Edith Station is a top concern of residents living in the impacted community, parents dropping their children off at the nearby community baseball park and schools, area business owners who haul freight into and out of nearby trucking terminals, and the bicycling community.

Residents' and Businesses' Concerns

Both residents and businesses are concerned about the impact of increased heavy truck and private vehicle volumes on:

1. Existing traffic congestion, particularly given the recent increase in heavy truck traffic generated by Friedman Recycling (2012) and increases in vehicle traffic generated by the recent commercial and residential development along nearby 4th Street.
2. Material shipment delays – the impacted community has many businesses and trucking terminals (discussion under *Economic Wellbeing* section).
3. Pedestrian safety – particularly for children attending nearby schools (La Luz Elementary, Menaul School, and Mountain Mahogany) and the baseball park.
4. Bicycle safety for those using the designated Comanche bike facility – one of the few existing "on-street" bicycle facilities that traverses the city from east and west, and Edith Blvd., which is the preferred north-south route that fills the gap between Rio Grande and the North Diversion Channel.
5. Structural integrity of historical and older homes due to road vibrations (discussion under *Economic Wellbeing* Section).
6. Road wear and tear (discussion under *Economic Wellbeing* Section).
7. Backed up traffic at the railroad crossing.
8. Traffic flow onto and off of the Comanche/Griegos I-25 interchange, designated as "severely congested" by the Mid-Region Council of Governments, and the Comanche/Edith intersection.
9. Existing traffic flow at the Big-I, along I-25, and along I-40.
10. Household hazardous waste transport to the Edith Station's hazardous waste drop-off center.
11. Traffic safety issues regarding the steep downhill grade when travelling on Comanche from east of I-25 to west of I-25 toward Edith Blvd.
12. Safe access to public transit stops and public transit commute times.

At the time of writing this HIA, various aspects of the proposed Edith Station were still unclear, such as the number of additional garbage trucks and semi-trucks that will result from the construction and operation of the proposed Edith Station should it proceed, the times of day that the trucks will go through neighborhoods, truck routes, and the number of private vehicles that can be anticipated to access the convenience center. Because of this uncertainty, an independent traffic study was requested to review the COA's Preliminary Traffic Study and to provide independent traffic analysis (Sustainable Systems Research, LLC, 2015).

Vehicle Volume

This section considers the effects of the Edith Station on traffic generation and congestion, and walking and bicycling infrastructure, with a focus on the ease of travel and the availability of safe multi-modal choices.

The Association between Vehicle Volume and Health

Vehicle volumes can have an effect on travel times and road safety. These, in turn, can impact health. Encouraging multi-modal travel through safe transportation infrastructure can improve travel time, opportunities for physical activity, and community cohesion.

Vehicle Volume, Physical Activity, and Chronic Disease

Land use, travel patterns, physical activity, and resultant chronic diseases are closely linked (Frumkin, et. al., 2004; Jackson, et al., 2001). According to bicyclists, multi-modal facilities in the area are already unsafe for travel, and with the addition of increased heavy truck and vehicle traffic, multi-modal facilities will become even more dangerous, resulting in a shift from walking and bicycling to driving. This switch will diminish opportunities for physical activity.

The lack of physical activity is associated with heart disease, hypertension, stroke, diabetes, obesity, osteoporosis, depression and some types of cancer (Policy Link, 2002; Task Force on Community Preventive Services, 2001). Research shows that regular walking and bicycling reduce deaths by 22% and 28%, respectively (World Health Organization, 2011). Additionally, obesity increases by 6% for each additional hour spent in a car per day (Frank, et al., 2004). Alternatively, obesity decreases by 4.8% for each hour walked per day (Frank, et al., 2004). Suggested measures to improve walkability include traffic calming, street connectivity, access to public spaces, well maintained sidewalks, traffic conditions that encourage maximum pedestrian visibility to drivers, safety from crime, and the presence of well-marked bike lanes (Ewing, et al., 2006; Li, et al., 2005; Frank, et al., 2004).

Vehicle Volume, Stress, and Chronic Disease

Among drivers, greater traffic volumes have been associated with higher blood pressure, more self-reported tense and nervous feelings, more self-reported colds and flu, and more days in the hospital (Wener, et al., 2006). Greater traffic volumes also decrease safe multi-modal accessibility for pedestrians and bicyclists, increasing the stress levels for those trying to navigate dangerous roadways to reach their destination.

Many health outcomes are attributed to stress, including increased risk of poorer mental and physical health for children and adolescents, increased risk for pregnant women having pre-term births, and increased likelihood of chronic disease, specifically heart disease and stroke among adults (Egerter, et al., 2011).

Vehicle Volume, Community Cohesion, and Life Expectancy

Community cohesion measures residents' sense of belonging to their neighborhood. Connection with and support from neighbors can prevent feelings of isolation and contribute to self-esteem. Transportation infrastructure can contribute to or detract from interaction among neighbors. For example, the availability of public transit, a component of the transportation system, contributes to less social isolation, decreased stress levels, monetary savings for families from using public transit rather than personal vehicles, and decreased air pollution (Bailey, 2007). For low-income families who do not own a car, public transit is a necessity to access needed services. Greater vehicle volumes detract from the ability to use public transit because of increased danger in accessing public transit stops.

Current Congestion and Health in the Impacted Community

SWD Facility Traffic Volumes

Based on information obtained from John Soladay and Jill Holbert (Attachment 2), at present SWD's heavy truck fleet and employee vehicles make a total 507 round trips into and out of the SWD each weekday and 52 round trips into and out of the SWD each Saturday. Additionally, residential and commercial recycling trucks make a total of 48 round trips into and out of Friedman Recycling, currently located in the impacted community, each day. The SWD heavy truck fleet, comprised of commercial, roll-off, and residential garbage trucks, make a total of 268 round trips to the Cerro Colorado Landfill each weekday and 36 round trips to the Cerro Colorado Landfill each Saturday.

Congestion

The Mid-Region Council of Governments (MRCOG) has designated roadway linkages with the Comanche/Griegos I-25 Interchange as "severely congested". Edith Station generated heavy truck traffic will be using these roadway linkages to access I-25. Table 3 shows congestion measures based on 2012 PM Peak Hour Congestion information provided by J. Luna, Transportation Planner with MRCOG (e-mail communication between J. Luna and K. Richards, February 2015).

Table 3. Measures of congestion within the impacted community.

Measure of Congestion	**Comanche/Griegos I-25 Interchange**	**Montgomery/Montano I-25 Interchange**	**Candelaria I-25 Interchange**
Severely Congested 2 (V/C > 1.5)	Pan American East, South of Comanche	Pan American West, South of Montano	N/A
		Montgomery, West of Pan American East	
Severely Congested 1 (V/C = 1.1 – 1.49)	Comanche, West of Pan American East	Pan American East, South of Montgomery	N/A
		Pan American East, North of Montgomery	
		Montgomery, West of Pan American East	
		Montano, East of Pan American West	

Over Capacity (V/C 1.0 – 1.09	N/A	I-25 Southbound, North of Montano	Pan American East, North of Candelaria
Approaching Capacity (V/C = .9 - .99)	I-25 Northbound, North and South of Comanche	N/A	University, South of Candelaria
	Comanche, West of Pan American West		

Physical Inactivity as a Contributor to being Overweight or Obese
Although there is no physical activity data for the impacted community specifically, data are available for Bernalillo County by non-Hispanic white and Hispanic sub-populations. When asked whether they participated in any physical activities or exercises during the past month, according to 2013 Behavioral Risk Factor Surveillance System (BRFSS) age-adjusted data, 16% of the non-Hispanic white population and 27.5% of the Hispanic population reported that they had not.

When asked how much they weighed and how tall they were without shoes, 52.7% of the non-Hispanic white population and 62.8% of the Hispanic population were considered overweight or obese, defined as having a body mass index of 25-30, and greater than 30, respectively (NMDOH, BRFSS, 2013 data).

Stress as a Contributor to Adolescent and Adult Problems with Mental Health, Pre-term Births, and Chronic Disease
Although there is no mental health data for the impacted community specifically, data are available for Bernalillo County by non-Hispanic white and Hispanic sub-populations. When asked whether their mental health, consisting of stress, depression, and problems with depression was good during the past 30 days, 12.9% of non-Hispanic whites and 14.5% of Hispanics reported 14 or more days during which their mental health was not good (NMDOH, BRFSS, 2013 data).

When students attending Bernalillo County high schools were asked whether they felt so sad or hopeless for almost every day for two weeks or more that they stopped doing the usual activities they had been engaged in for the past 12 months, 29.3% of non-Hispanic white students, and 33.4% of Hispanic students replied, "yes" (NMDOH, Youth Risk and Resiliency Survey, 2011 data).

Again, there is no data for pre-term births for the impacted community; however, data are available at the county level. In 2013, 10.9% of all births to non-Hispanic white women were considered pre-term (less than 37 weeks), compared to 12% of all births to Hispanic women (NMDOH, IBIS, 2013 data).

In addition to the above health outcomes, stress also contributes to chronic diseases such as heart disease and stroke. A discussion of the chronic disease death rates for non-Hispanic whites and Hispanics is under "Death Rates and Life Expectancy" below.

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Community Cohesion – Life Expectancy

Community cohesion, a measure of residents' sense of belonging in their community, is frequently a function of the transportation infrastructure. A lack of community cohesion contributes to greater stress levels and shorter life expectancies. Neighborhoods having major thoroughfares running through them or a mix of industrial and residential land uses tend to experience decreased community cohesion (Frumkin, et. al., 2004).

The impacted community covers four census tracts with neighborhoods that vary widely in their characteristics, with some neighborhoods having greater residential property densities and other neighborhoods characterized by a greater mix of industrial and residential land uses. Census tract 29, immediately south of the Edith Station, contains 1,778 residential units; while census tract 32.01 and 32.02, both located directly west of the Edith Station, contain 1,245 and 2,454 residential units, respectively (Census, 2013). The closest residences are .03 miles from the proposed Edith Station site, a group of apartments located at the NE corner of Rankin Rd. and Edith Blvd.

Death Rates and Life Expectancy

Table 4 shows the chronic disease death rates and life expectancy for residents of Bernalillo County and the impacted community. As mentioned previously, increased vehicle volumes have been shown to be associated with increased chronic disease rates and lower life expectancy.

Irrespective of whether one lived in Bernalillo County or the impacted community, the death rates for Hispanics is greater than for non-Hispanic whites. Additionally, the life expectancy for Hispanics is lower than for non-Hispanic whites.

Table 4. Deaths associated with increased congestion for Bernalillo County and the impacted community.

Place	Chronic Disease[2] Death Rate (Ave. Annual Age-adjusted Death Rate per 100,000 persons, 2008-2011)		Life Expectancy from Birth (2011)	
	Non-Hispanic White	Hispanic	Non-Hispanic White	Hispanic
Impacted Community	104.5	455.6	89.6	73.7
Bernalillo County	207.9	220.4	80.1	78.6

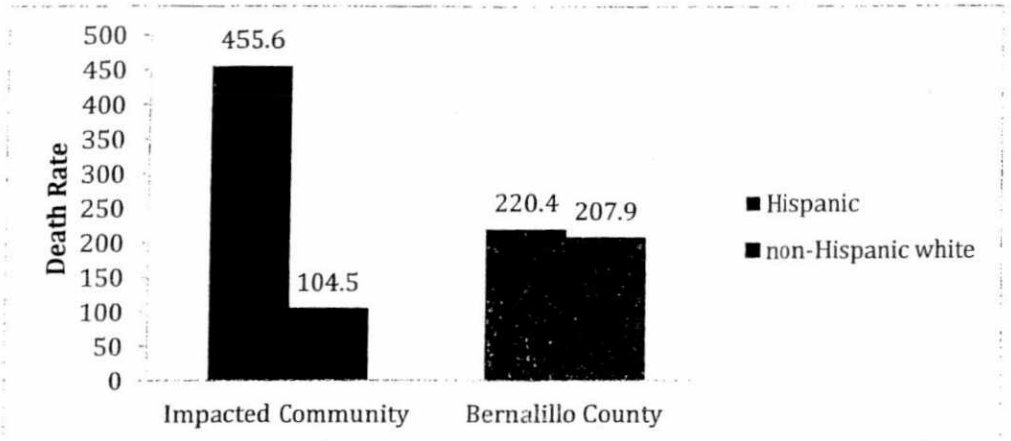
Chronic Disease Deaths

When compared to non-Hispanic whites, chronic disease death rates among

[2] For purposes of this report section, chronic diseases consist of those associated with lack of physical activity or increased stress and include: diabetes mellitus, hypertensive heart disease, ischemic heart disease, other diseases of the heart, and cerebrovascular disease (stroke).

Hispanics are greater in Bernalillo County and much greater in the impacted community, 220.4 and 455.6 deaths per 100,000, respectively. Within the impacted community, the difference between deaths attributed to chronic disease among non-Hispanic whites and Hispanics is extremely significant, 104.5 and 455.6 deaths per 100,000, respectively (Figure 12).

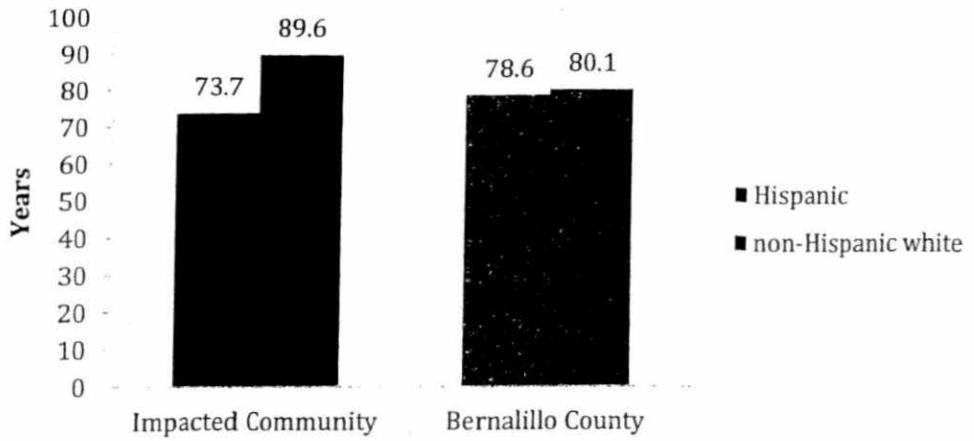
Figure 12. Ave. annual age-adjusted chronic disease death rate per 100,000 persons, the impacted community and Bernalillo County for Hispanic and for non-Hispanic white, 2008-2011.



Life Expectancy

Life expectancy is lower among Hispanics in the impacted community when compared with Hispanics in Bernalillo County, 73.7 years and 78.6 years, respectively. Significantly, there is a 16-year difference in the average life expectancy of Hispanics (73.7) and non-Hispanic whites (89.6 years) in the impacted community (Figure 13).

Figure 13. Life Expectancy from birth, the impacted community and Bernalillo County for Hispanic and non-Hispanic whites, 2011.



Predicted Congestion and Health in the Impacted Community

Edith Station Traffic Volumes

If the Edith Station proceeds, trips made by garbage trucks to the Cerro Colorado Landfill each weekday will instead travel to the Edith Station to drop off their waste loads. In addition, semi-trucks will make an estimated 65 round trips to the Cerro Colorado Landfill each weekday. Combined, these heavy trucks will make a minimum of 229 additional round trips into and out of the Edith Station each weekday[3], a 173% increase from current round trips (132) made by SWD's heavy truck fleet. Heavy trucks will make a total of 361 round trips into and out of the Edith Station each weekday (Table 5). These round trips do not include the privately owned vehicles that will be self-hauling trash to the Edith Station's convenience center. The COA estimates the Edith Station convenience center will receive 225 round trips made by private self-haul vehicles each weekday and 300 round trips each Saturday and Sunday.

Table 5. Current traffic into and out of the SWD and Friedman Recycling, and predicted traffic into and out of Edith Station, respectively.

Type of vehicle	Current # of round trips into and out of the SWD facility each weekday	Current # of round trips into and out of the SWD facility each Saturday	Current # of round trips into and out of Friedman Recycling each day	Predicted # of round trips into and out of the Edith Station each weekday	Predicted # of round trips into and out of the Edith Station each Saturday
Collection and support heavy truck fleet[4]	132	18	48	296	42
Semi-truck fleet	0	0	0	65	8
Collection support pickup trucks	28	4		28	4
Private self-haul vehicles	0	0	0	225	300
Total vehicles, not including private employee/administrative vehicles	160	22	48	614	354

Edith Station Congestion

With the addition of 229 round trips made by garbage trucks and semi-trucks into and out of the Edith Station, traffic congestion will increase, particularly for the "severely congested" Comanche/Griegos I-25 and Montgomery/Montano I-25 interchanges. Congestion on arterial streets will increase as well. Arterial streets

[3] Calculations estimate the number of new trips to the Edith Station when trips to the landfill made by the current SWD collection fleet are transferred there (2-5 round trips/day, varying by service). SSR estimate is 232-254 new truck trips because their estimate shifts the City's assumptions as described in their report.

[4] This includes heavy trucks used for trash and recycling collection and for collection and fleet support.

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that will be impacted include Edith Blvd., Comanche, and Rankin Rd., depending on the selected Edith Station ingress and egress points, as well as other arterial roads in the area.

Physical Activity

There are no planned improvements to the Comanche/Griegos I-25 intersection or to arterial streets should the Edith Station proceed. Absent any transportation infrastructure improvements, barriers to safety will increase because of greater heavy truck and vehicle traffic volumes. Research shows that higher traffic volumes negatively impact perceptions of safety and the attractiveness of walking and bicycling decreasing opportunities for physical activity. Bicyclists in the area have already stated that heavy truck traffic, poor physical road conditions, and a lack of safety are the main barriers to using the Comanche bicycle facility. With additional heavy truck and vehicle traffic, these barriers to using the Comanche bicycle facility will increase. Additionally, area bicyclists also feel that added heavy truck and vehicle traffic will negatively impact the multi-modal use of Edith Blvd., which is a convenient multi-modal route because it runs north and south through the metropolitan area.

Stress

Traffic volume impacts to multi-modal accessibility and opportunities for physical activity, and community cohesion can increase stress levels. Stress can lead to more pre-term births, poorer mental health for children and adolescents, and increased cardiovascular disease in adults. Increased heavy truck and vehicle traffic volumes will increase stress because of diminished safety while navigating roadways and increased congestion on arterial roadways near the Edith Station (Babisch, et al., 2001).

Community Cohesion

Community cohesion helps alleviate stress and is connected to longer life expectancies. Increased heavy truck and vehicle traffic will decrease neighborhood connectivity, the ease of multi-modal travel, safe access to public transit stops, and community cohesion; therefore, the health benefits of community cohesion may not be realized (Frumkin, et al., 2004).

Health Outcomes For Hispanic, Low-Income, and Children of the Impacted Community

Low-income residents of the impacted community will be disproportionately impacted by the traffic generated from the Edith Station because they are less likely to drive and more likely to walk or use public transit given the costs of car ownership. Walking and bicycling on dangerous roadways will increased stress levels. Five hundred and thirty-three households in the impacted community do not have a car, and as a result are either required to walk, bicycle, or use public transit to access their destinations (Census, 2013). Additionally, given the greater percentages of low-income residents living closer to freeways, these residents will also experience an increased burden from the added heavy truck traffic travelling on I-25 and I-40 to access the Cerro Colorado Landfill.

The health outcome data provided in this section shows that the impacted community's Hispanic population bears a disproportionately greater burden of many of the negative health outcomes associated with greater traffic volumes and congestion, including a lack of physical activity, overweight and obesity, adult and adolescent mental health problems, pre-term births, heart disease, and stroke. With the addition of more heavy truck and vehicle volumes and the absence of necessary transportation infrastructure improvements, the disproportionate health burden among Hispanics living in the impacted community will continue.

Children who attend nearby La Luz Elementary and the baseball field that is located on Edith across the street from the proposed Edith Station are also likely to be disproportionately impacted. Children perceive the built environmental differently than adults, and as a result are more likely to become victims of the increases in heavy truck and vehicle traffic while crossing a busy street to access a school, playing outside, or visiting a nearby friend.

Table 6 shows how increased heavy truck and vehicle volumes generated by the Edith Station will diminish the impacted community's health.

Table 6. Summary of congestion-related health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Lack of Physical Activity	(-)	Major	High	***
Overweight or Obese	(-)	Major	High	***
Mental Health (adolescents and adults)	(-)	Major	High	***
Percentage Pre-term Births	(-)	Major	High	**
Chronic Disease consisting of: diabetes mellitus, hypertensive heart disease, ischemic heart disease, other diseases of the heart, and cerebrovascular disease (stroke)	(-)	Major	High	***
Life Expectancy from Birth	(-)	Major	High	**

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between congestion and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Traffic Safety

This section describes: 1) the link between traffic safety, collisions and health, 2) current traffic safety conditions near the existing SWD facility, and 3) the impact of traffic generated from the Edith Station on traffic safety.

The Association between Traffic Safety and Health

Motor vehicle traffic collisions are a leading cause of injuries and death in the U.S. and the number one cause of death for those aged 5 to 34 years (Centers for Disease Control and Prevention, 2011). Motor vehicle collisions are the 3rd most common cause of death, behind cancer and heart disease. In 2011, New Mexico ranked the 10th highest in the U.S. for motor vehicle related deaths – a fatality rate of 16.95 per 100,000 persons, compared with the national fatality rate of 10.4 per 100,000 persons (MRCOG, 2011).

Pedestrians and bicyclists are disproportionately injured and killed in traffic collisions. Nationally, about 14% of motor vehicle collisions involved pedestrians, bicyclists, and motorcycles (MRCOG, 2011).

Factors Affecting Outcome Severity for Collisions

Collision and injury severity increase exponentially with the impact speed of the vehicle and in proportion to the mass of the vehicle (Rettig, et al., 2008; Evans and Frick, 1992). The chance of a motor vehicle related injury being fatal increases by 370% when the vehicle involved is a heavy truck (Kim, et al., 2010).

Truck-Related Collisions

A greater volume of heavy trucks compounds existing safety problems associated with congestion. Heavy trucks are dangerous not only to other motor vehicles, but to bicyclists and pedestrians as well because of their exaggerated lateral movements while travelling down a street and their tendency to off track while turning right (Kim, et al., 2010). Further, compared to other vehicles, heavy trucks have longer stopping distances and far more blind spots. Eighty-four percent of fatalities in heavy truck collisions are passengers in other vehicles (MIG and ICF International, 2009). Freeway ramps are challenging to truck drivers because of the trucks' increased length, weight and higher weight distribution. Traffic collisions involving trucks have been shown to decrease when trucks travel in designated truck lanes (Rakha, et al., 2005).

Vehicle-Pedestrian Collisions

In 2011, New Mexico ranked the 5th highest in the U.S. for pedestrian fatalities. Collisions involving pedestrians were the highest around noon through early evenings on the weekdays and early evenings to late nights on the weekends. Collisions involving pedestrians were the highest in the winter months (MRCOG, 2011). It is well documented that higher traffic volumes contribute to more traffic-related pedestrian injuries (Levine, et al., 1995; Jackson, et al., 2001; LaScala, et al., 2000).

The lack of traffic safety disproportionately affects low-income neighborhoods. Research shows that pedestrian collisions occur more frequently in areas characterized as industrialized and having low-income and minority populations (Roberts, et al., 1995; Cottrill, et al., 2010). Using data from four California communities, researchers found that pedestrian injuries were greater in areas characterized by higher unemployment, lower median household incomes, younger populations, and greater traffic flow (LaScala, et al., 2004). A King County, Washington study found that pedestrian injuries and fatalities were greater in communities having lower median home values, regardless of the level of pedestrian activity or population density (Moudon, et al., 2011).

Vehicle-Bicycle Collisions

In 2012, New Mexico ranked the 3rd highest in the U.S. for per capita bicyclist fatalities (NHTSA Fatality Analysis Reporting System), up from a ranking of the 18th highest in the nation in 2011. Collisions involving bicycles were the highest in mid to late afternoons on weekdays and mid to late evenings on weekends (MRCOG, 2011).

Bicyclists face a much greater risk than other vehicles because of their proximity to vehicles and absence of protection. Improvements used to decrease vehicle-bicycle collisions, include dedicated bike lanes and protected and buffered bike lanes (Reynolds, et al., 2009). Risk of serious injury for a bicyclist, reported as an odds ratio (OR) here, follows (note that higher odds ratios indicate a stronger association): collision with a motor vehicle (OR=4.6), self reported speed >15 mph (OR=1.2), and age, less than 6 years old or greater than 39 years old, OR = 2.1 and 2.2, respectively (Rivera, et al., 1997).

Hazardous Waste Transport

Nationally, over half of the incidents involving the release of hazardous waste occur during transport, loading, or unloading (Binder, 1989). Nine percent of hazardous waste incidents involved collisions, derailments, and vehicle overturns (Binder, 1989). The injury severity from exposure to hazardous waste is dependent on several factors, including the material's toxicity, one's proximity to the incident, and the timeliness of effective treatment.

Current Traffic Safety and Health in the Impacted Community

Collision Rates

As shown in Table 7, some intersections within the impacted community experience up to 3 times above the average collision rates when compared to other areas in the Albuquerque metropolitan region. Extremely high collision areas resulting in death and injury occur at the following intersections: 1) 4th Street and Griegos, 2) Edith and Comanche, and 3) I-25 and Comanche. Areas having an extremely high number of collisions involving pedestrians occur at 4th Street and Montano. Areas having an extremely high number of collisions involving bicyclists occur at: 1) 4th Street and Montano, and 2) 2nd Street and Montano. Data provided in Table 7 is from the MRCOG's General Crash Data and Trends for 2002-2011 (MRCOG, 2011).

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Table 7. Collision rates by category occurring at intersections within the impacted community.

Collision Rates	**Overall Collision Rates**	**Fatal and Injury Collision Rates**	**Pedestrian Collision Rates**	**Bicycle Collision Rates**
Up to 3 times above the average collision rate	4th Street and Griegos intersection	4th Street and Griegos intersection	N/A	N/A
Up to 2 times above the average collision rates	Edith and Comanche intersection	Edith and Comanche intersection	4th Street and Montano	4th Street and Montano
	I-25 and Comanche intersection	I-25 and Comanche intersection		2nd Street and Montano

Motor Vehicle Related Deaths

Table 8 shows motor vehicle related death rates. Irrespective of whether one lived in the impacted community or Bernalillo County, the death rate for Hispanics is greater than for non-Hispanic whites, 11.4 deaths per 100,000 persons and 12 deaths per 100,000 persons, respectively.

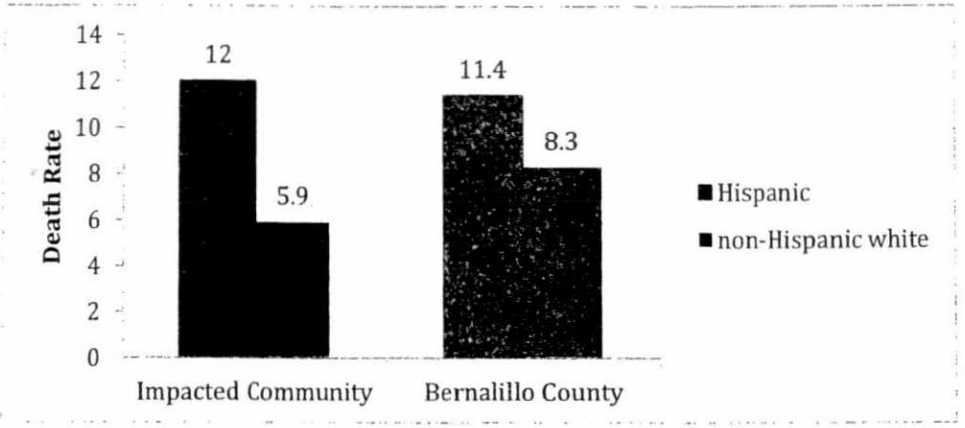
Table 8. Motor vehicle related death rates for Bernalillo County and the impacted community.

Place	Motor Vehicle Related Death Rate (Ave. Annual Age-adjusted Death Rate per 100,000 persons, 2008-2011)	
	non-Hispanic white	Hispanic
Impacted Community	5.9	12.0
Bernalillo County	8.3	11.4

When comparing the death rates for Hispanics and non-Hispanic whites in the impacted community, Hispanics experienced a far greater death burden, 12 deaths per 100,000 persons compared to 5.9 deaths per 100,000 persons for non-Hispanic whites[5] (Figure 14).

[5] Due to the small number of health events and/or population numbers, motor vehicle death rate statistics are very unstable for Hispanic and non-Hispanic whites for the impacted community. However, data from NMDOH IBIS is considered the most reliable for sub-county analysis of health.

Figure 14. Ave. annual age-adjusted motor vehicle related death rate per 100,000 persons, the impacted community and Bernalillo County for Hispanic and non-Hispanic white, 2008-2011.



Hazardous Waste Transport

In addition to the acceptance of hazardous waste at the nearby Rinchem facility, the Edith Station will also accept household hazardous waste. With two facilities accepting hazardous waste in their community, residents bear a disproportionate risk of being exposed to hazardous waste through unintended releases because of vehicle collisions, loading, or unloading. The presence of two facilities that accept hazardous waste in their neighborhood creates an environmental injustice and follows a national historical trend of locating hazardous waste sites in low-income and minority communities.

Predicted Traffic Safety and Health in the Impacted Community

Changes to Collisions on the Comanche/Griegos I-25 On-/Off-Ramps

Truck-Related Collisions

Truck collisions are highly dependent on truck volumes. Heavy truck volumes are anticipated to increase in the impacted community with the development of the Edith Station given the proposed truck routes into and out of the Edith Station (figure 15).

Figure 15. Map of proposed Edith Station Transportation Route

Research shows that many truck collisions occur on freeway ramps as trucks are merging into oncoming traffic. This research is particularly important given the already high number of collisions resulting in injuries and fatalities and the designation of the Comanche/Griegos I-25 interchange as "severely congested". Without freeway on-/off-ramp design improvements and mediating factors to alleviate already severe congestion, this interchange is predicted to have higher rates and higher severity of truck-related collisions.

As mentioned by one business owner and member of the NV HIA Committee, "the exposure of employees working in surrounding businesses and SWD employees to increased traffic and related injuries/fatalities is an OSHA concern and an insurance concern because of worker's compensation issues. My trucks have been involved in four accidents within the past year at the Comanche/Griegos I-25 Interchange. I tell my employees to avoid this interchange at all costs" (HIA Committee Meeting, 6/2015).

An increase in truck traffic will also contribute to deteriorated on-/off-ramp and interstate pavement conditions due to the immense weight of trucks when compared to other vehicles. Deteriorated road conditions can contribute to increased collision rates for all vehicles, "particularly on freeways where higher speeds occur" (Human Impact Partners, 2011).

Vehicle-Pedestrian/Bicycle Collisions
Pedestrian and bicycle collisions at intersections which contain on-/off-ramps are very dependent on the design of ramps. If the design of current on-/off-ramps accessing I-25 remains unchanged, vehicle-pedestrian/bicycle collisions will increase given the additional heavy truck and vehicle traffic generated by the Edith Station.

Changes to Collisions on Arterial Roads
Vehicle, pedestrian, and bicycle collisions off the freeway are also likely to change as a result of the Edith Station, resulting in more motor vehicle related injuries and deaths.

Vehicle-Vehicle Collisions
Vehicle volumes can be expected to increase due to the presence of a convenience center at the Edith Station. Although the COA has not provided exact numbers for vehicle round trips associated with the convenience center, they have stated they expect approximately 225 additional self-haul vehicle round trips on the weekdays and 300 additional self-haul vehicle round trips on Saturday and Sunday. As a result of increased vehicular traffic on arterial roads, it is expected that increased collisions will occur, particularly if arterial road improvements are not made.

Of particular importance is the impact of additional traffic volumes to the 4th Street and Griegos intersection, which currently experiences up to 3 times above the average injury and fatality collision rate. Due to the North 4th Street Corridor

Development Project, area traffic has increased. Should the Edith Station proceed, there will be even more traffic contributing to greater traffic volumes, greater congestion, and more collisions. Also important is the Edith and Comanche intersection, which experiences up to 2 times above the average injury and fatality collision rate when compared to the Albuquerque metropolitan region.

Truck-Vehicle Collisions

Truck collision rates are highly dependent by truck volumes. On arterials, truck volumes are expected to increase. If developed, the Edith Station will generate a 173% increase in SWD truck fleet traffic when compared to existing SWD truck fleet traffic. Since there are no anticipated roadway or intersection improvements, increased truck volumes will lead to increased truck-related collisions, which tend to be disproportionately severe due to the sheer mass of trucks.

Additionally, absent any road improvements, many garbage trucks will be turning left, across traffic headed east on Comanche, to access the Edith Station. Turning left, across oncoming traffic, is likely to increase truck-related collisions at the already dangerous Edith and Comanche intersection.

Vehicle-Pedestrian/Bicycle Collisions

Changes in vehicle-pedestrian/bicycle collisions are a function of the volumes of vehicles, pedestrians, and bicyclists on roadways. Recall that Comanche is a COA designated bike facility and that Edith is a heavily used south-north designated bike route. The Comanche bike facility is one of only a few that traverses the city east and west. Assuming that volumes of pedestrians and bicyclists do not change, the predicted increase in vehicles using the Edith Station's convenience center and heavy trucks travelling into and out of the Edith Station will result in an increased frequency of vehicle-pedestrian/bicycle collisions, which will be disproportionately severe when the vehicle involved is a truck. At present, there are four ghost bikes, each representing the death of a bicyclist, on Comanche.

Other key intersections likely to be impacted are 4th Street and Montano and 2nd Street and Montano, which currently experience up to 2 times above the average collision rates involving bicyclists, and 4nd Street and Montano, which currently experiences up to 2 times above the average collision rates involving pedestrians. Because of their close proximity to the Edith Station site, Edith and Comanche and 2nd Street and Griegos intersections will also be affected.

Motor Vehicle Related Deaths for Hispanic, Low-Income, and Children of the Impacted Community

The impacted community is quite different from other communities in Bernalillo County in terms of demographics and socio-economic status. The impacted community is largely low-income, with 35.6% of families living in poverty, and minority (64.6%). As previously mentioned, the lack of traffic safety disproportionately affects low-income and minority neighborhoods (Roberts, et al., 1995; Cottrill, et al., 2010). When compared with non-Hispanic whites, the Hispanic

population in and outside of the impacted community experiences more motor vehicle related deaths. When compared with non-Hispanic whites from the impacted community, Hispanics from the impacted community bear an even greater health burden attributed to motor vehicle related deaths, 12 deaths per 100,000 persons compared to 5.9 deaths per 100,000 persons. Based on the current trend, Hispanics are disproportionately affected by motor vehicle related deaths. It is expected this trend will continue and that Hispanics will be disproportionately affected by motor vehicle related deaths attributed to the heavy truck and vehicle traffic generated by the Edith Station.

Low-income populations that cannot afford a car and instead walk or bicycle to their destination and children who perceive the built environment differently than adults will also be disproportionately affected by increased collisions and increased collision severity due to increased heavy truck and vehicle volumes associated with the Edith Station. As mentioned previously, collision severity increases when the collision involves a pedestrian or a bicyclist, or involves a heavy truck.

Hazardous Waste Transport

The potential for residents of the impacted community to become exposed to hazardous waste will increase because: 1) the Edith Station will accept household hazardous waste, and as a result more vehicles will be transporting hazardous waste, and 2) the Edith Station will generate more heavy truck and vehicle traffic increasing the potential for collisions with vehicles transporting hazardous waste.

Table 9 provides a summary of injuries and fatalities caused by collisions that would result from the additional traffic generated by the Edith Station, along with information on the magnitude and severity of collisions.

Table 9. Summary of injuries and fatalities caused by an increase in traffic collisions

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Vehicle-Vehicle injuries/fatalities	(-)	Major	High	***
Truck-Vehicle injuries/fatalities	(-)	Major	High	***
Vehicle-Pedestrian/Bicyclist injuries/fatalities	(-)	Major	High	***
Incidents Involving Hazardous Wastes	(-)	Moderate	High	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between vehicle collisions and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Air Quality

In March 2014, the World Health Organization (World Health Organization, 2014a) reported that air pollution is the single biggest threat to health. Shortly thereafter, the American Lung Association released its annual report indicating that more than 147.6 million people, 47% of the nation, live where pollution levels are too dangerous to breathe (American Lung Association, 2014b). Individuals living in cities are exposed to a variety of air pollutants that can affect health. Air pollution has numerous sources, but is primarily a consequence of inefficient combustion of fuels used for transport, power generation, and other human activities (World Health Organization, 2014b). Many emissions are produced by the combustion of fossil fuels. Those that are considered primary air pollutants and are directly emitted into the air include fine particulate matter ($PM_{2.5}$, PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO and NO_2), carbon monoxide (CO), and volatile organic compounds (VOCs). The introduction of a WTS will significantly increase the amount of air pollution in the impacted community.

Residents' and Businesses' Concerns

1. Residents feel that they are already exposed to high levels of air pollution because of their location in the North Valley, an area with a high concentration of industries that release air pollutants.
2. Residents are concerned about the respiratory health of children who attend public schools, baseball parks, and day care centers within a short distance of the proposed Edith Station.
3. Residents are concerned about the location of their neighborhood within the context of winter air inversions, and the concentration of air pollutants in the bottom of the Rio Grande Valley.
4. Residents are worried about diesel emissions from the increased number of garbage trucks entering the neighborhood and idling trucks, the additional air pollution produced by the maintenance shop and Edith Station operations, and the cumulative increase in air pollution generated by the Edith Station and existing industries in their community.
5. Businesses are concerned about their employees' health.

<u>The Association between Air Quality and Health</u>

The presence of particulate matter in the atmosphere, referred to as PM_{10} and $PM_{2.5}$, constitutes a major health risk. Because particulate matter is inhaled deep into the lungs, it causes damage to lung tissue, resulting in respiratory and pulmonary diseases, as well as cardiovascular risks (Cordero, et. al., 2013). Each 10 $\mu g/m^3$ jump in concentration of $PM_{2.5}$ is tied to an 8% increase in lung cancer mortality, a 6% increase in cardiopulmonary mortality, and a 4% increase in mortality from general causes (New Mexico Indicator-Based Information System, 2015a). Similarly, an increase of 20 $\mu g/m^3$ causes an increase in hospital or emergency room visits of 4% - 8%. For childhood asthma, a 20$\mu g/m^3$ increase in PM_{10} has been associated with a 3.2% increase in emergency room visits (Trenga, et al., 2006).

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The effects of ozone on health are no less pernicious. Because ozone has limited solubility in water, the upper respiratory tract is not as effective at removing this molecule from inhaled air. Instead, it reaches the lower respiratory tract where it dissolves in the epithelial lining fluid. Here it reacts rapidly with sensitive tissues to impede or obstruct full lung capacity. Symptoms include persistent cough, throat irritation, pain or burning in the chest, and wheezing or shortness of breath. Observational studies indicate that long-term effects due to high concentrations of ozone may lead to outcomes that include an increase in the number and severity of asthma attacks, an increase in hospital admissions, and an increase in daily deaths.

Exposure to air pollution in metropolitan areas also carries an increased risk of developing various types of cancers, especially among racial and ethnic minorities living in segregated neighborhoods (Morello-Frosch, et al., 2006). At a national level, this pattern was especially marked for Hispanics.

Finally, seasonal changes in weather and temperature have the potential to create inversions where colder air is found near the surface, atmospheric convection and mixing is impeded, and ground level air becomes stiller from the concentration of dust and pollutants that are no longer able to escape higher into the atmosphere (Wikipedia, 2015). In the Albuquerque area, while temperature inversions are most common in the winter, they may occur at any time of the year when warmer air 'caps' colder air below. Epidemiological research indicates that winter inversions are positively associated with increased rates of emergency department visits for asthma over and above baseline rates (Beard, et al., 2012).

Effects of Air Pollution on Children

Abundant research demonstrates the dangers of air pollution for children. Evidence from epidemiological data and toxicological studies have shown the higher susceptibility of children to respiratory damage from exposure to particulate matter. Among children, increases in the concentration of $PM_{2.5}$ are linked to decreases in breathing function, peak expiratory flow, maximal mid-expiratory flow, exacerbation of allergic disease and asthma, and increases in pulmonary injury and inflammation (Peel, et al., 2005). Because children breathe more closely to the ground (where particles are concentrated), and have a higher ventilation rate, children typically inhale more pollutants than adults per unit of body weight. Hospital or emergency room visits for asthma and respiratory infection in children can climb with even short-term increases in $PM_{2.5}$ (EPA, 2004). Finally, because children's lungs continue to grow for up to 10 years post-birth, the effects of air pollutants have permanent, irreversible consequences that will persist throughout adulthood.

Current Air Quality and Health in the Impacted Community

The EPA maintains a network of air quality monitoring stations across the U.S. that record the concentration of the six major air pollutants. In Albuquerque, there are a number of air monitoring stations that collect air quality data. Based on data collected from the EPA, Bernalillo County currently meets attainment of all National

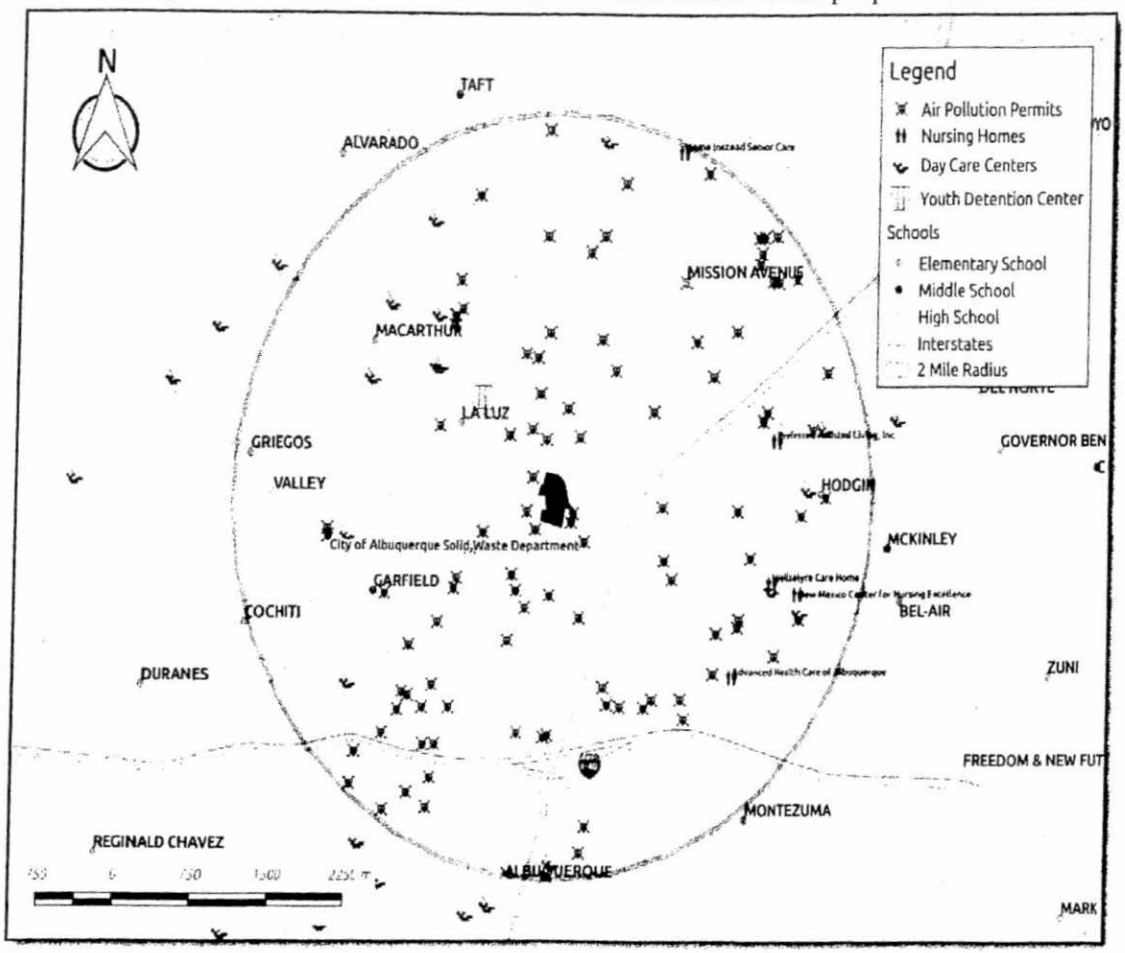
Ambient Air Quality Standards (NAAQS). However, inspection of specific station data indicates that air contaminant concentrations have come close to exceeding the PM_{10} standard on several occasions in the past few years. The air quality monitoring station located the closest to the impacted community is identified as No. 35-001-0026/Jefferson Station, and is sited at 3700 Singer Blvd., NE, approximately 1.9 miles from the proposed Edith Station site. Table 10 shows the three highest values measured for PM_{10} at this air monitoring station.

Table 10. Measured concentrations and associated NAAQS values for PM10 during 2014 at EPA Station No. 35-001-0026 (3700 Singer Blvd NE). Source: http://www.epa.gov/airdata/

Date	Air Monitoring Station ID	Measurement	Measurement Value	Standard	Units
02/19/2014	35-001-0026	Daily Mean PM10 Concentration	147	150	ug/m3
05/07/2014	35-001-0026	Daily Mean PM10 Concentration	131	150	ug/m3
10/07/2014	35-001-0026	Daily Mean PM10 Concentration	127	150	ug/m3

Residents of the impacted community are concerned with the high density of polluting industries already located within their neighborhood and the burden it imposes on community health. Although the impacted neighborhoods comprise only 2.7% of Bernalillo County's population, more than 15% (105/694) of facilities permitted to emit air pollutants are located within a 2-mile radius of the Edith Station (Figure 16; Attachment 3).

Figure 16. Map of facilities with air pollution permits, schools, day care centers, nursing homes, and youth detention facilities within a 2-mile radius of the proposed Edith Station.

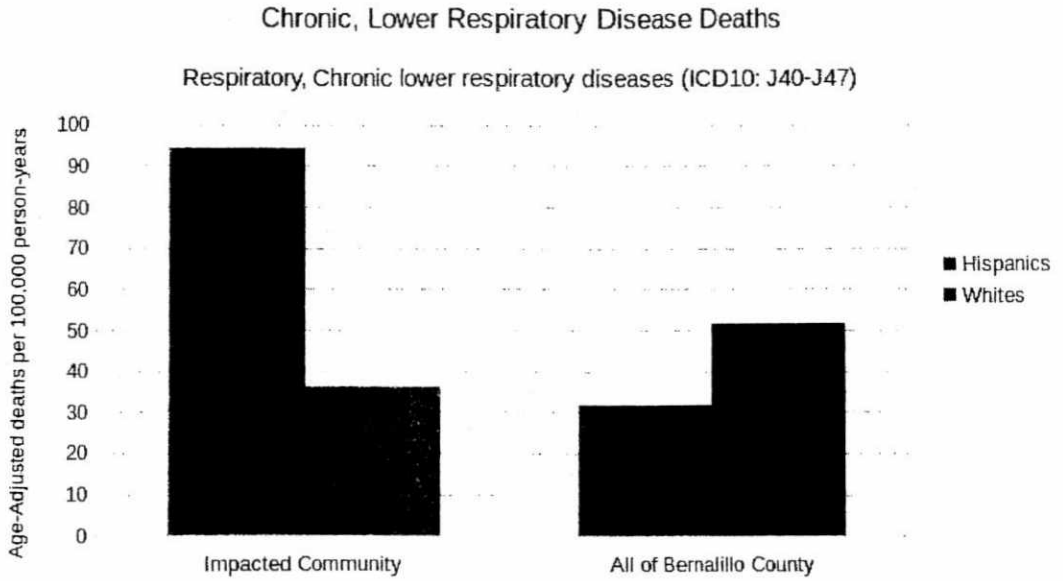


These facilities represent a variety of industries, and include fuel stations, boilers, sheet metal manufacturers, dry cleaners, wood manufacturers, aggregate processing, auto body shops, asphalt plants, concrete production plants, abrasive blasting, assorted manufacturing, and crematoria. Air pollutants that are emitted consist of carbon monoxide, nitrogen oxides, sulfur dioxide, $PM_{2.5}$, PM_{10}, VOCs, and lead (Attachment 3). Based on seasonally prevailing winds, pollutants from these facilities can be transported throughout the adjacent neighborhoods and are likely to contribute to the health inequities observed in the impacted community.

The SWD facility is currently permitted by the COA (Permit No. 659) as a gas service/fleet station. According to officials with Albuquerque-Bernalillo County Air Quality Control Board (personal communication), the SWD fleet station is currently permitted to release up to a maximum of 0.42 tons per year of VOCs. While no data is currently available on actual emissions from this site, the operation of the proposed Edith Station would likely result in increased emissions of air pollutants simply due to a more intensive land use and a larger truck fleet.

A comparison of death rates for health outcomes that can be attributed to air pollution, including lower respiratory disease, cardiovascular disease, and cerebrovascular (stroke) disease indicate that Hispanics of the impacted community experience a far greater death rate when compared to Hispanics and non-Hispanic whites of Bernalillo County and to non-Hispanic whites of the impacted community (Figures 17-19).

Figure 17. Ave. annual death rates for lower respiratory tract disease (chronic lower respiratory diseases – ICD10: J40-J47) in Hispanics and non-Hispanic whites in the impacted community and Bernalillo County.



Source: NM Dept. of Health, IBIS.

Figure 18. Ave. annual death rates for cardiovascular disease (Heart disease – ICD10: 100-109, I11, I13, 120-151) in Hispanics and non-Hispanic whites in the impacted community and Bernalillo County.

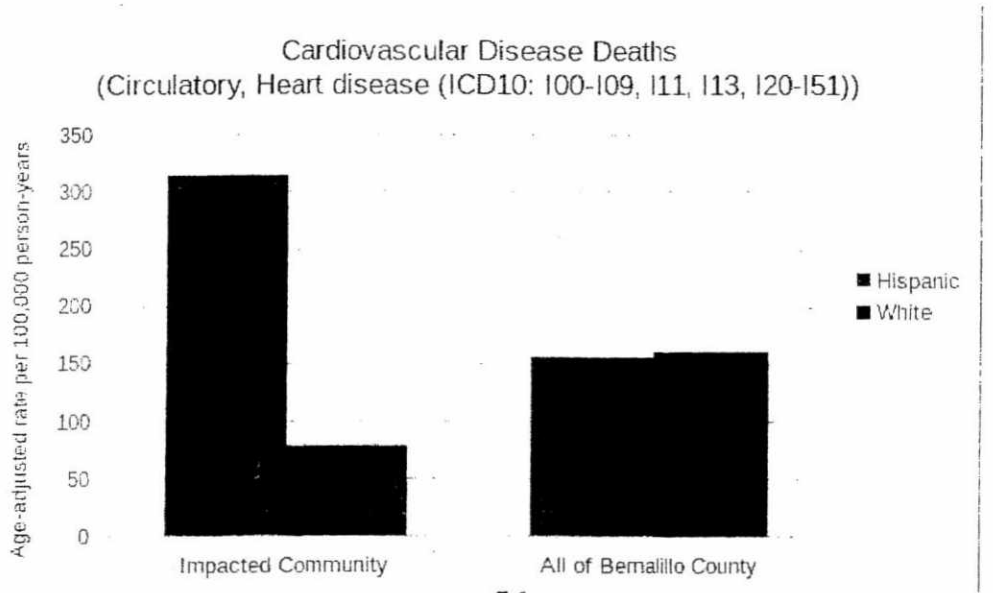


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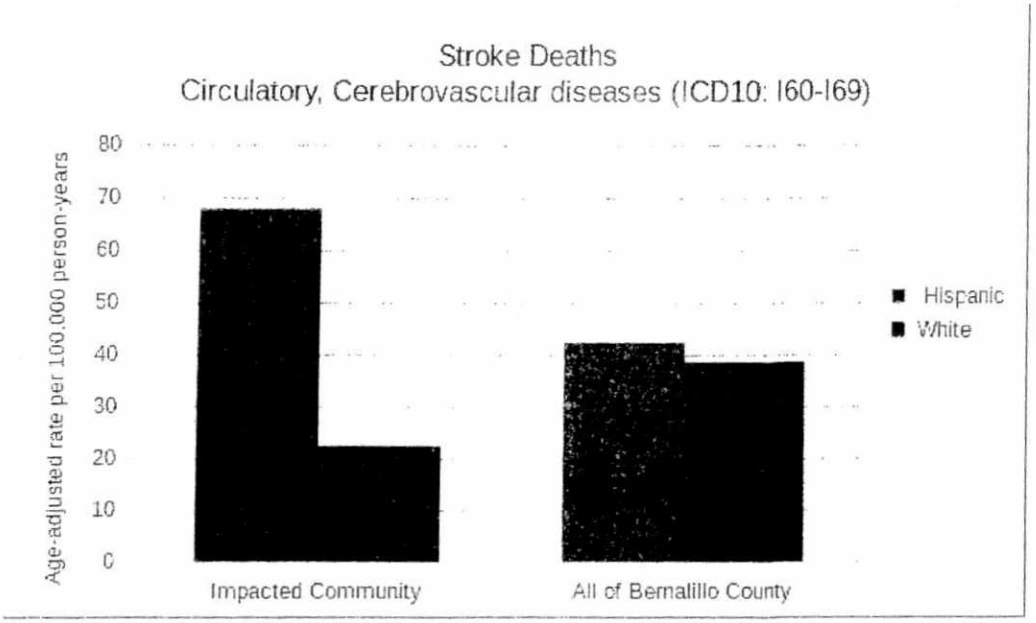
Figure 19. Ave. annual death rates for strokes (Cerebrovascular diseases – ICD10: 160-169) in Hispanics and non-Hispanic whites in the impacted community and Bernalillo County[6].



Source: NM Dept. of Health, IBIS

While no particular facility can be associated with specific instances of lower respiratory disease, cardiovascular disease or cerebrovascular disease, the presence of a high density of air pollution sources contributes to the burden of high death and disease observed for Hispanics residing in the impacted community. In other U.S. communities where WTSs have been placed, residents report experiencing unusually high asthma rates and respiratory problems, among other health concerns (National Environmental Justice Advisory Council, Waste and Facility Siting Subcommittee, and Waste Transfer Station Working Group, 2000).

Predicted Air Pollution Issues in the Impacted Community

Air emissions from WTSs can originate from a number of sources. These may include dry, dusty waste delivered to a WTS and exhaust from trucks, loaders, equipment, and vehicles. Some measures that have been proposed to mitigate air pollution include requiring garbage trucks to reduce unnecessary idling, using more efficient engines with cleaner fuels, spraying or misting wastes upon unloading, and keeping internal and external arterial streets clean and paved (EPA, 2001). Air emissions can also increase in the vicinity of a WTS because more garbage trucks are accessing the site within a given period of time. Garbage trucks in particular are some of the oldest (nationally, 41% are over a decade old), least fuel efficient, highest polluting vehicles on the road.

[6] Due to the small number of health events and/or population numbers, cerebrovascular death rate statistics are unstable for non-Hispanic whites for the impacted community. However, data from NMDOH IBIS is considered the most reliable for sub-county analysis of health.

The majority of garbage trucks (90%) use diesel fuel. While the EPA, in recognizing the extreme toxicity of diesel fuel emissions, has repeatedly lowered emission standards for heavy truck diesel engines, owners of older diesel vehicles have not been required to meet these low emission levels (Richards and Suozzi, 2011). These older vehicles continue to comprise a substantial proportion of the existing fleet nationwide and pose significant threats to the communities in which they operate.

Diesel engine emissions include carbon monoxide, nitrogen oxides, and fine particulate matter consisting of over 40 carcinogens, including benzene, arsenic and formaldehyde, which are among the most dangerous to health. These emissions, unlike power plants or other fixed emitting sources, are released near ground level, thereby significantly increasing exposure to those nearby (Richards and Suozzi, 2011). Death and disease from exposure to diesel exhaust particulate matter is high, with approximately 21,000 individuals in the U.S. succumbing each year. It is estimated that over 400,000 asthma attacks and 27,000 heart attacks can be attributed to diesel emission particulate matter each year. The increase in emergency room visits, hospitalizations, and lost school or workdays is significant (Clean Air Task Force, 2005).

Predicted Air Pollution and Health in the Impacted Community

Current data on the burden of a high density of air polluting industries in neighborhoods surrounding the proposed Edith Station and high poverty and minority representation appear to be linked to high rates of stroke, heart disease and lower respiratory disease among Hispanics within the impacted community (Figures 17-19). The health burden among Hispanics would likely become greater with air pollution generated by the Edith Station's operations and increased traffic.

Moreover, given the evidence of the alarming health effects of air pollution on children, it is worth noting that the site of the proposed Edith Station is in close proximity to locations where children are concentrated. If we restrict our attention to all schools, daycare centers, baseball parks, and youth facilities within a 2-mile radius of the Edith Station site, it is clear that a substantial number of young people are already exposed to a high density of polluting sources during those hours when these facilities are regularly used.

Additionally, with the opening of a new baseball field across the street from the proposed site, many children are now playing Little League there. According to Mary Werner, president of the North Valley Little League, 2-3 teams (playing T-Ball to Softball) practice at the field 3 times a week during Little League season. In total, there will be 190-202 games played (telephone call with Jen Parker and Mary Werner, 5/17/2015 and 5/19/2015). Children will be at an increased risk of respiratory disease attributed to air pollutants because of their age and the development of their lungs and greater respiratory rates while exercising. Table 11 documents the distances for each of the public schools within a 2-mile radius of the proposed Edith Station. Table 12 presents analogous information for day care centers and nurseries within this catchment area, and Table 13 shows

distances for senior residential facilities.

Table 11. Distances of public schools to the proposed Edith Station.

School	Address	Distance
La Luz Elementary School	225 Griegos Rd. NW	0.72 miles
Garfield Middle School	3501 6th St. NW	1.22 miles
Mission Avenue Elementary School	725 Mission Ave. NW	1.36 miles
MacArthur Elementary School	1100 Douglas MacArthur Rd. NW	1.41 miles
Hodgin Elementary School	3801 Morningside Dr. NE	1.65 miles
Valley High School	1505 Candelaria Rd. NW	1.73 miles
Griegos Elementary School	4040 San Isidro St. NW	1.89 miles
Albuquerque High School	800 Odelia Rd. NE	1.99 miles
Cochiti Elementary School	3100 San Isidro Rd. NW	2.01 miles

Table 12. Distances of day care centers to the proposed Edith Station.

Day School	Address	Distance
Creative Cooperative	606 Candelaria Rd. NW	0.99 miles
Debbie Gomez Home Day Care	513 Delamar Ave. NW	0.99 miles
All Angel's Episcopal Day School	601 Montano Rd. NW	1.22 miles
Toddler Town	1105 Candelaria Rd. NW	1.30 miles
Guillermina Becerra Child Care	5007 San Luis Pl. NW	1.31 miles
Altamonte Child Development Center, Inc.	3305 Alta Monte Ave. NE	1.40 miles
The Children's House Montessori School	915 Montano Rd. NW	1.44 miles
Schools with Special Academic	3802 Hermosa Dr. NE	1.56 miles
Choices for Children Day School	808 Menaul Blvd. NW	1.59 miles
ABC Preschool and Childcare	3615 Candelaria Rd. NE	1.61 miles
Dove's Child Care	633 Camino Floretta NW	1.64 miles
Children's Center	4001 Montgomery Blvd. NE	1.71 miles
Calico Butterfly Preschool	1100 Indian School Rd. NE	1.89 miles

Table 13. Distances of senior living centers to the proposed Edith Station.

Senior Living Centers	**Address**	**Distance**
Preferred Assisted Living, Inc.	4308 Tulane Dr NE	1.39 miles
Wellesely Care Home	3209 Wellesley Ct NE	1.40 miles
Advanced Health Care of Albuquerque	2701 Richmond Dr NE	1.43 miles
New Mexico Center for Nursing Excellence	3200 Carlisle Blvd NE # 205	1.59 miles
Home Instead Senior Care	585 Osuna Rd NE Suite F, NE	1.95 miles

Given the proposed increase in the number of daily visits by garbage trucks and semi-trucks to the proposed Edith Station and the more intensive land-use of a WTS, it is evident that the considerable increase in diesel emissions, other vehicle emissions, and Edith Station operation emissions would lead to greater levels of air pollutants in the impacted community.

Data gathered from other WTSs indicate that increases in particulate matter, such as dust and glass, can be expected (National Environmental Justice Advisory Council, et. al., 2000). One can expect corresponding increases in the burden of respiratory diseases, cardiovascular diseases, and strokes among residents, especially so among vulnerable children. Table 14 shows how air pollutants generated by the Edith Station will diminish the health of residents who reside or exercise in the impacted community.

Table 14. Summary of air pollutants and health

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Chronic Lower Respiratory Disease (disease and deaths)	-	Moderate	High	***
Cardiovascular Disease (disease and death)	-	Moderate	High	***
Stroke (disease and deaths)	-	Moderate	High	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between air pollution and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship.

Climate Change, Water Quality, and Flooding

Climate Change

According to the Assessment of Climate Change in the Southwest United States, a report prepared for the National Climate Assessment (NCA, 2013), the Southwest is considered to be one of the most "climate-challenged" regions of North America. Climate variability has caused droughts, floods, heat waves, cold snaps, heavy snowfalls, severe winds, intense storms, and acute air-quality conditions. Climate scientists have high confidence that the climate of the Southwest will continue to change through the 21st century and beyond in response to human-generated heat trapping greenhouse gas emissions, and will continue to vary in ways that can be observed in historic and paleoclimate records (NCA, 2013).

According to the Union of Concerned Scientists, New Mexico is the sixth-fastest-warming U.S. state; its average annual temperature has increased by an average of 0.603 degrees per decade since 1970. Regionally, the average annual temperature across the Southwest has increased by approximately 1.5°F and is projected to rise another 2.5 to 8°F by 2100. Average precipitation will decrease in the southern Southwest and perhaps increase in northern Southwest. Precipitation extremes in winter will become more frequent and more intense. Late-season snowpack will continue to decrease as will declines in river flow and soil moisture. In some areas, surface water quality will be affected by scarcity of water, higher rates of evaporation, and higher runoff due to increased precipitation intensity, flooding, and wildfire.

Climate Change and Ozone Pollution

Higher temperatures associated with climate change could make air pollution worse. The strong positive relationship between high temperatures and ozone formation is well established (Jacob, et al., 2009). This relationship has been shown both in large cities such as New York City and small cities such as Albuquerque. In addition to enabling the basic chemical reactions that create ground-level ozone, high temperatures often create stagnant air conditions that cause air pollution to settle over an area and remain for a longer time, which in turn increases the potential for human exposure to harmful ozone concentrations (Logan, 1989).

Residents' and Businesses' Concerns

1. Residents are concerned that negative impacts associated with the Edith Station will be compounded by changes brought about by climate change.
2. Residents are concerned about how the Edith Station might contribute to contamination of surface water routes (e.g., the Rio Grande and laterals) from surface water runoff occurring during more frequent and severe episodes of flash flooding attributed to climate change.
3. Residents are concerned about how the presence of increased rooftops and concrete might intensify the heat island effects should temperatures increase with climate change.
4. Businesses are concerned about how flash flooding may impact them.

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The Association between Climate Change and Health

According to the EPA, changes in climate may enhance the spread of some diseases. Disease-causing agents, called pathogens, can be transmitted through food, water, and animals such as deer, birds, mice, and insects. Climate change could affect all of these transmitters. Food-borne diseases, water-borne diseases such as Giardia, and animal-borne diseases such as Lyme disease and West Nile virus are health risks. In 2002, a new strain of West Nile virus, which can cause serious, life-altering disease, emerged in the United States. Higher temperatures are favorable to the survival of this new strain.

Impact of Climate Change on Low-Income and Communities of Color

The disproportionate impacts that climate change has on vulnerable communities most often can be linked to the historical economic disenfranchisement of these neighborhoods through decades of well-documented financial redlining by banks and harmful land-use decisions by local governments. Many lack the basic infrastructure and economic opportunity to withstand environmental disasters, thus making the public health and economic consequences more severe. Events like Hurricane Katrina, Superstorm Sandy, California's record-breaking drought, and the recent snowstorm in the east have brought to surface the raw inequalities in vulnerable communities' resources to withstand and recover from these disasters.

Given their limited access to healthcare, low-income and some minority groups tend to suffer greater impacts when exposed to air pollution. Socioeconomic status is an important determinant of differences in asthma prevalence and severity among ethnic minorities in the United States. Further, very young children, poor children, and children from Spanish-speaking families appear to be at particularly high risk for inadequate asthma therapy—e.g., the use of inhalers (Miller, 2000).

Current Climate Change and Health in the Impacted Community

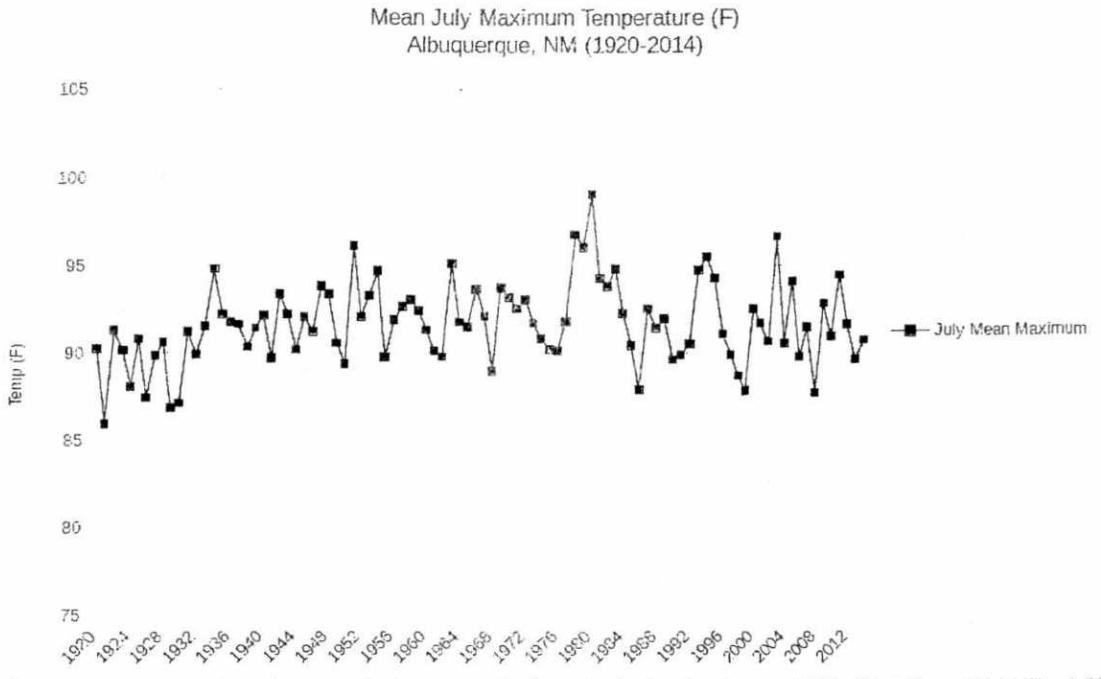
Infrastructure, such as concrete, pavement, and metal have lower albedo and higher heat capacity, which means more energy is absorbed within the community raising surface temperature. As surface temperature rises, air temperatures also rise, which can affect local microclimate conditions (Voogt and Oke, 2003).

Vegetation plays an important role in regulating surface and air temperature. Deciduous trees provide shading for the ground's surface and blocks sun radiation. Plants also release water into the surrounding air via evapotranspiration, which dissipates ambient heat and lowers air temperature (EPA, 2013). Reducing impervious surfaces and increasing tree canopy decreases ambient air temperatures.

Albuquerque experiences higher average annual temperatures than other regions of the US, with mean July temperatures ranging from 85 to 100 degrees, depending on the year (figure 20). Local temperatures at or near the Edith Station site are likely higher since there is a lack of protective vegetation cover as shade, a high

proportion of impervious surfaces, and the presence of metal buildings and rooftops.

Figure 20. Mean July maximum temperatures, Albuquerque, NM.



Predicted Climate Change and Health in the Impacted Community

The Edith Station is likely to contribute to higher localized surface temperatures, particularly if metal is used for buildings and rooftops, and if planted vegetation is typical of desert landscape, which provides little, if any, natural shading.

Table 15 shows how higher localized temperatures will diminish the impacted community's health.

Table 15. Summary of climate change and temperature-related health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Vector-borne Disease	(-)	Negligible	Mod.	***
Heat related illness	(-)	Moderate	Mod.	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal

relationship between climate change/increased local temperatures and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Water Quality and Storm Water

Water quality is determined by the physical and chemical properties of the water (EPA, 2012). Factors that influence water quality include land use, topography, presence of vegetation, soil composition, and pollutants. Storm water has three directions of movement in the hydrologic cycle: into the air (as evapotranspiration), underground (as downward infiltration and percolation), and over the land (as surface runoff) (EPA, 2003).

Impermeable surfaces, such as concrete and pavement, prevent storm water from infiltrating to the groundwater (Hsieh and Davis, 2005). Instead, water flows as runoff and pools in low-lying areas. As storm water runoff moves across a surface, it picks up solids that can be suspended in water (Hsieh and Davis, 2005).

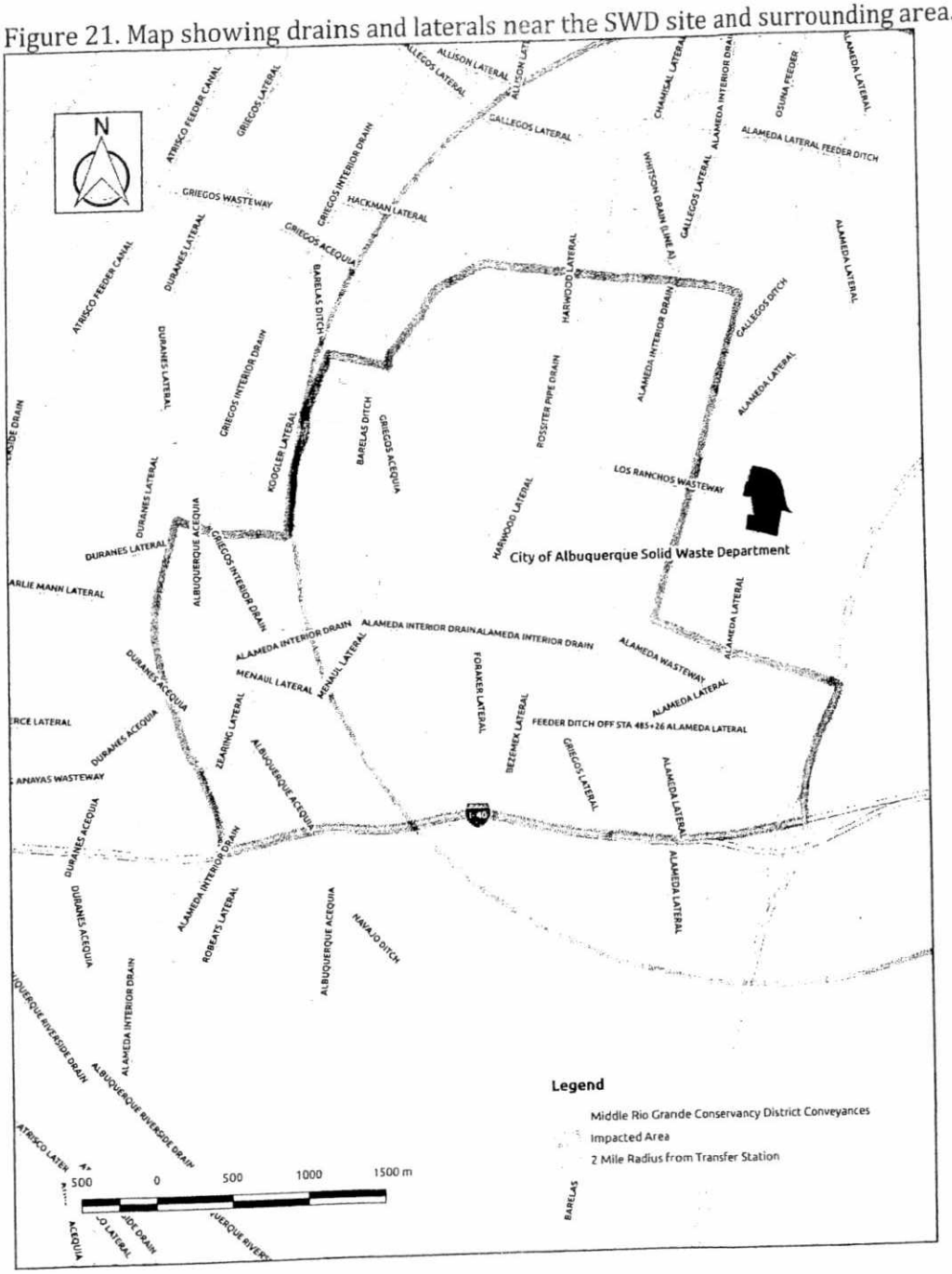
According to the EPA, pollutants deposited on the ground's surface are the leading cause of surface water impairment (EPA, 2003). Pollutant sources include vehicles, air pollution, dumpsites, and pollutants washed from rooftops. Pollutants from vehicles include engine oil and grease. Pollutant sources from illegal dumping include toxic chemicals and pathogens that can migrate from the surface to ground water or along the surface to nearby underground storm water drains, laterals or surface depressions.

Residents' and Businesses' Concerns

1. NV HIA Committee members and neighborhood residents have concerns regarding the Edith Station's contribution to storm water runoff and impacts to surface water and ground water quality.
2. Residents and business owners are concerned about possible drainage and storm water run off from the Edith Station.
3. Residents and business owners are concerned that the city's antiquated sewer system will be unable to handle the additional wastewater loads generated by Edith Station operations.

Due to the topography of the Edith Station property, which goes from a high point at the east to a low point at the west of the property, storm and surface water runoff has the potential to impair not only the water quality of the neighborhood's intricate surface water drainage and acequia systems (figure 21), but also the Rio Grande (since surface water runoff to the City's storm water drains goes untreated into the Rio Grande), and ground water.

Figure 21. Map showing drains and laterals near the SWD site and surrounding area.



The Association between Water Quality and Health

Water quality is directly linked to health (EPA, 2012). Substances such as heavy metals, pesticides and chemicals impact health. Exposure to waterborne pathogens can affect the gastro-intestinal tract causing diarrhea, vomiting, and abdominal pain. Exposure to toxic chemicals through ingestion of contaminated water or skin contact can also create illness or cause death (Craun, et. al, 2006). The Federal Clean Water Act has established water quality standards for pollutant discharges and regulated the discharge of pollutants into surface waters to protect human health.

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Current Water Quality and Health in the Impacted Community

If not properly managed, industrial land-uses such as the current SWD and the proposed Edith Station can contribute to surface water and ground water pollution as a result of activities, such as: 1) equipment and vehicle washing, from which detergents, oils, and grease can travel into streets or storm drains and not into the sanitary sewer, 2) fueling at fueling islands that are uncovered and on a permeable surface, 3) storing hazardous substances outside without a canopy and in unsealed barrels, and 4) a lack of proper cleanup procedures in the event of a spill.

According to the EPA, the assessment unit for the reach of the Rio Grande where the Alameda Lateral flows into the Rio Grande (NM-2105_50) is impaired for the following pollutants: dissolved oxygen, e. Coli (fecal matter), PCBs in fish tissue, and temperature. A Total Maximum Daily Load (TMDL) is currently being drafted for the e. Coli impairment. Designated uses that are fully supported for this reach of the Rio Grande include irrigation, wildlife habitat, and livestock watering. This reach of the Rio Grande does not support primary contact (e.g., wading in water) or marginal warm water aquatic life. This reach of the Rio Grande has not been assessed for use as a public water supply.

According to EPA's Enforcement and Compliance History online site, the COA has a poor compliance record for water related discharges. COA has been in violation of their water discharge permit for every quarter for the last three years, is currently out of compliance, and has had one significant violation and two formal enforcement actions in the last 5 years (EPA, 2015).

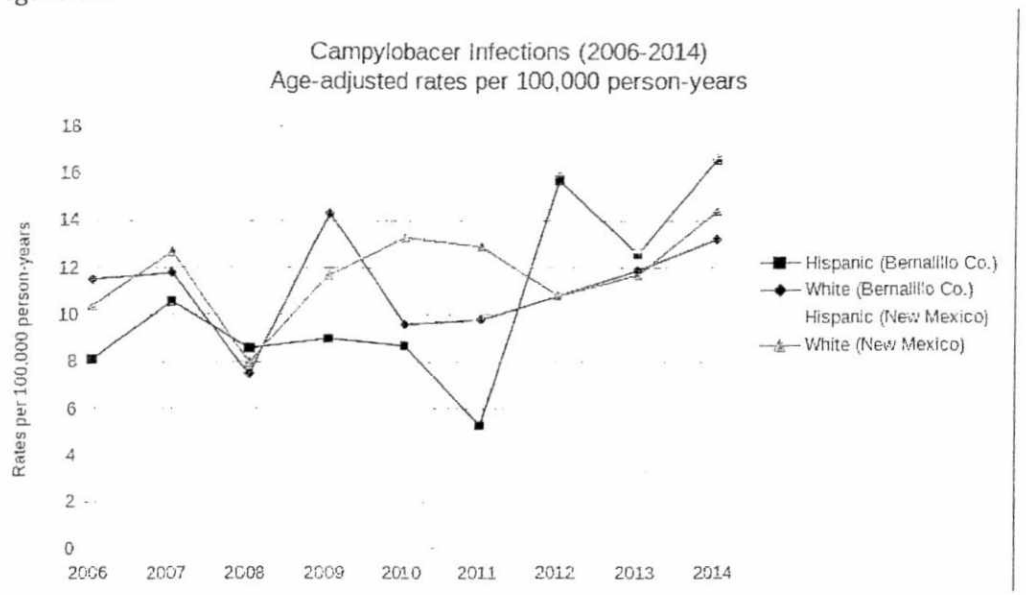
Although there have been no water samples collected from the Alameda Lateral that runs along the west side of the SWD site, in the absence of Best Management Practices, pollutants from SWD activities could impair the surface water flowing through the Alameda Lateral which drains into the Rio Grande where it is mixed with outflows of treated sewage effluent as it moves downstream.

Digestive diseases associated with exposures to waterborne pathogens are difficult to track and for this reason they are often underreported. Symptoms associated with exposure to waterborne pathogens include diarrhea, nausea, vomiting, and abdominal pain.

Figures 22-24 illustrate the time trends in water-borne diseases for Bernalillo County and New Mexico by Hispanic and non-Hispanic white. Unfortunately, these data are not available for the impacted community.

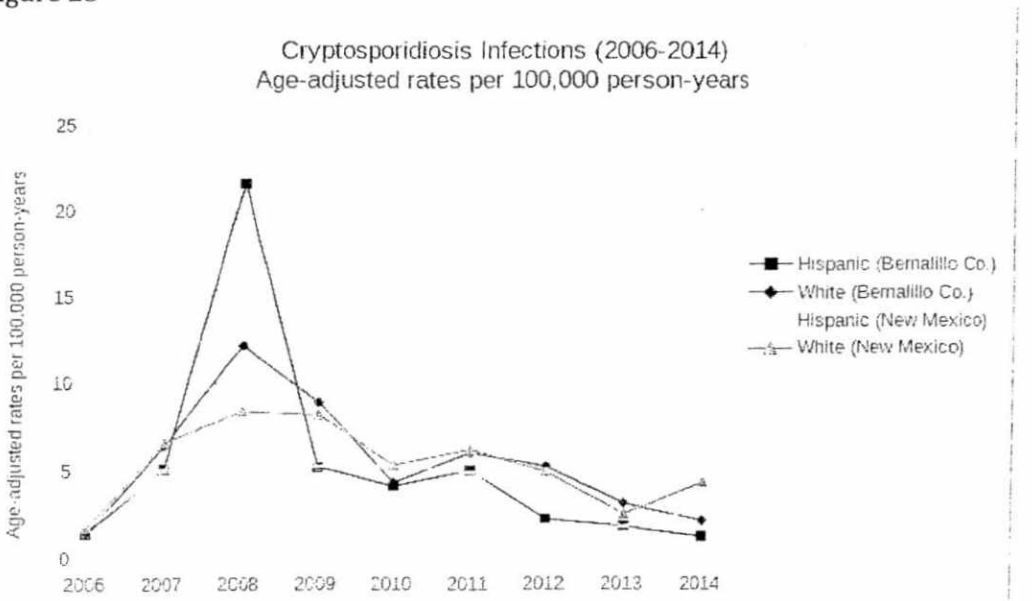
As indicated in Figure 22 below, campylobacter infections were greatest for Hispanics living in Bernalillo County and New Mexico from 2012 onward.

Figure 22



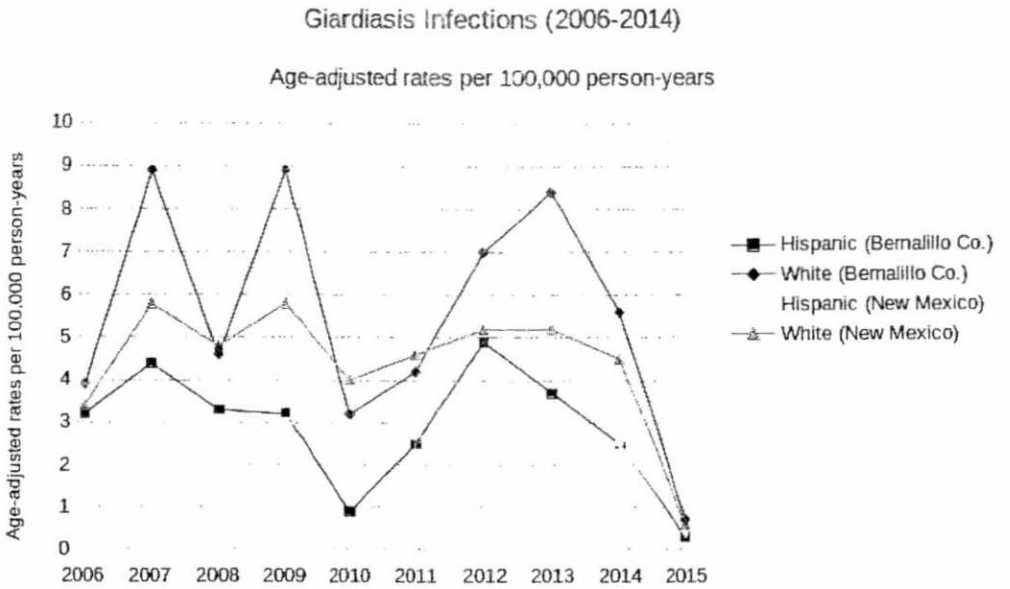
As indicated in Figure 23 below, with the exception of 2008, the trend in cryptosporidiosis infections occurring in Bernalillo County and New Mexico are quite similar.

Figure 23



As shown in Figure 24 below, with the exception of 2010 and 2011, giardiasis infections among non-Hispanic whites in Bernalillo County were greater than for Hispanic populations and for New Mexico as a whole.

Figure 24.



Predicted Water Quality and Health in the Impacted Community

The Edith Station will likely further impair ground water and surface water quality simply because of the more intense land use for this property – from administration offices, a vehicle storage facility and maintenance shop, and fueling station to a WTS that will also house a convenience center, a household hazardous waste drop-off center, a re-use center, a recycling drop-off center, and a vehicle maintenance yard. Further, an increase in the SWD fleet, to include semi-trucks, will contribute to increased air emissions that will eventually settle onto the ground's surface, increased wastewater discharges to the antiquated sewer system, and an increased likelihood of unanticipated spills occurring during routine vehicle maintenance.

Potential risk of exposure to toxic chemicals in the impacted community will increase because of the more intense land use and increased contaminants associated with a WTS. Vulnerable populations (e.g., immune-compromised, elderly, and children) will be more at risk.

Table 16 shows how decreased water quality caused by Edith Station operations will diminish the impacted community's health.

Table 16. Summary of water quality-related health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence	Notes
Water-borne Disease	(-)	Minor (see notes)	Moderate	***	Impact is dependent on whether exposure to water occurs through ingestion or contact with the skin.

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between water quality and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Flood Management

Residents' and Businesses' Concerns

1. Flooding is one of the community's and the businesses' major concerns. NV HIA Committee members mentioned that after heavy rainfalls, water flows from the high elevation of the SWD site at the eastern boundary to the low elevation of the site at the western boundary.
2. Although there is a large storm water pond at the northwest corner of the site, according to residents it rarely holds water due to site topography. Residents mentioned that water flow from the SWD site runs onto their property during heavy rain events.
3. A newly developed baseball field located across the street from the SWD property on Edith Blvd. required the installation of pumps to prevent flooding during rains.
4. Sometimes the Alameda Lateral, which runs through the SWD site on the west side, overflows because of debris washed into the lateral during high rain events.

<u>The Association between Flooding and Health</u>

Flooding not only causes property damage, but also leads to storm water overflows and infrastructure and building damage (Plate, 2002). Flash flooding increases the risk of injury by creating hazards for falls and injury from floating debris (Maantay and Maroko, 2009).

Flooding and Housing Quality

When a home is damaged through flooding, resident displacement, mold and bacterial growth, and pest infestations can result. Health outcomes associated with poor housing conditions include lower quality of life, higher levels of stress, increased risk of heart disease, premature death, and increased risk of Hantavirus and Salmonella due to rodents. Indoor mold contributes to respiratory symptoms, allergies, asthma, and perturbation of the immunological system (WHO, 2009). As exemplified during Hurricane Katrina in New Orleans, low-income communities are frequently the least able to recover from flood damage because of their limited resources, for example a lack of flood insurance and limited access to health care.

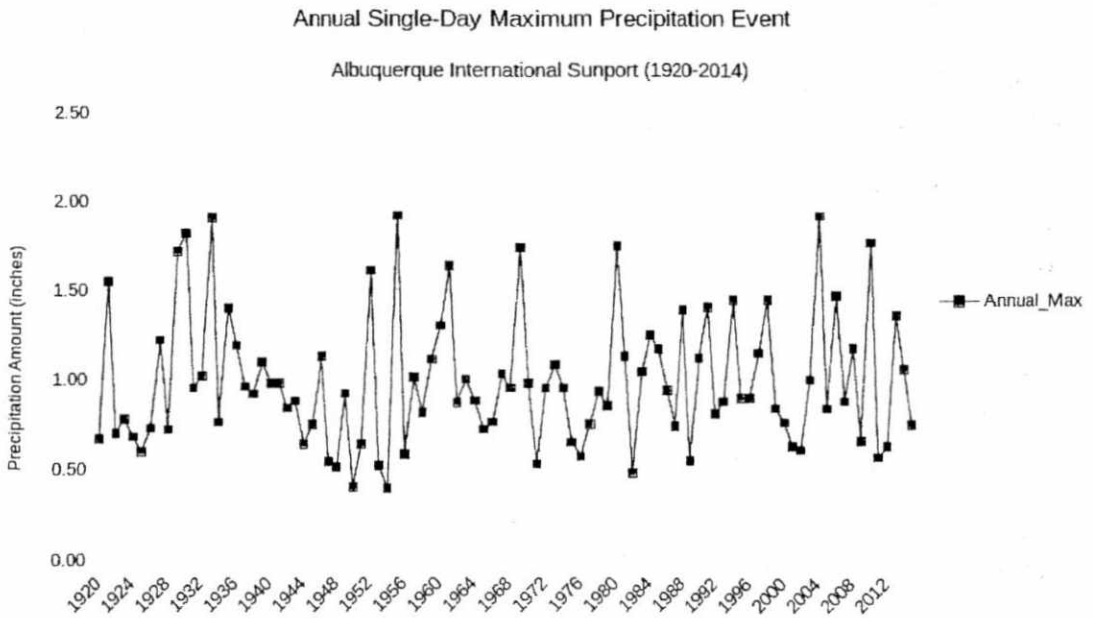
Flooding and Vector Borne Disease

Populations that live in low lying areas have an increased risk of flooding along with an increased risk of being exposed to vector-borne diseases because of animals that may inhabit areas that hold stagnant water, such as illegally dumped tires (Calhoun, et. al., 2007; Vazquez-Prokopec, et. al., 2010; LaDeau, et. al., 2013).

Current Flooding and Health in the Impacted Community

As Figure 25 demonstrates, single day maximum precipitation events resulting in greater than 1.5 inches of rainfall have occurred on eleven occasions since 1920. Of the eleven events, 2 have occurred since 2004.

Figure 25



High precipitation events can lead to very localized flash flooding, the impacts of which can lead to severe flood damage if storm drains and laterals back up. As illustrated in figure 26, the community located directly west of the Edith Station site is at risk should protective laterals, canals, or drains fail. The green area represents

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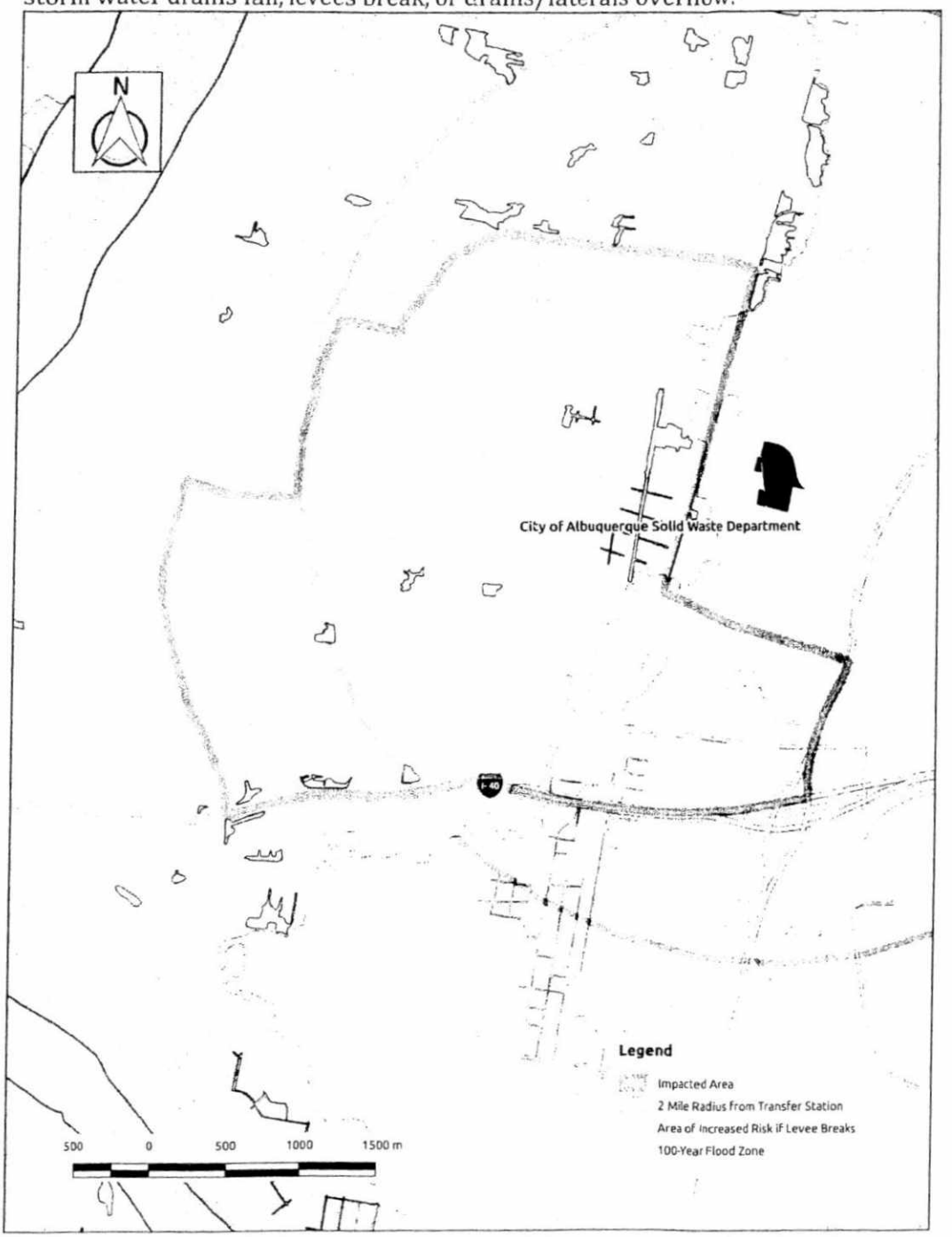
the area that is most likely to be impacted by heavy rainfall and flash floods should laterals overflow due to increased debris or water loads. Further, communities impacted by a 100-year flood are dispersed throughout (light blue).

Figure 26. Map illustrating 100-year flood zone designations and potential areas at risk if storm water drains fail, levees break, or drains/laterals overflow.



Predicted Flooding and Health in the Impacted Community

Since the Edith Station site and surrounding area is predominantly covered by pavement and concrete it is largely an impervious area. Therefore, depending of the duration and severity of a rainfall event, flash flooding is likely to occur in communities that are located down-gradient of the site. Flash flood events negatively affect commercial and residential buildings through water damage that contributes to the growth of mold spores indoors and the presence of vectors in post-flood outdoor areas having stagnant water.

Table 17 shows how flooding occurring up-gradient of and at the Edith Station site will diminish the down-gradient community's health.

Table 17. Summary of health impacts in the event of flooding and increased storm water runoff to down-gradient communities.

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Vector-borne Disease	(-)	Moderate	Moderate	***
Respiratory Disease	(-)	Moderate	Moderate	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between flooding and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Noise

Noise is unwanted sound that is measured in decibels (dB). Noise reporting takes into account the frequency range of the human ear and is measured in Aweighted decibels (dBA) Normal conversation ranges about 50–60 dBA, while a fire engine siren at 100 feet is about 110–120 dBA (Berland and Lindvall, 1995). The World Health Organization (WHO) considers noise to be an environmental pollutant (WHO, 1972).

Residents' and Businesses' Concerns

1. Residents feel that noise in the area is a major contributor to decreased quality of life and to many health outcomes, including high blood pressure and heart disease, from which many residents suffer.
2. Residents are concerned about the effect of noise on children's ability to learn.
3. Residents worry about noise's potential effects on migraine headaches.
4. Residents are worried about noise associated with idling trucks, the maintenance shop, machinery, the air treatment systems, and overall Edith Station operations.
5. Businesses are concerned about the potential impact from noise on worker's health and safety.

The Association between Noise and Health

Former U.S. Surgeon General William H. Stewart (1967) stated, *"Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere".* In 1972, the federal Noise Control Act was passed, instructing the EPA to investigate and publish scientific information about exposure to noise and its effects. In response, the EPA issued the Level Documents (1974) describing exposure levels to noise necessary to protect public health.

Noise exposure is associated with sleep disturbance, hearing impairment, learning difficulties, performance reduction, increased blood pressure, cardiovascular disease, ischemic heart disease, changes in stress hormone levels, decreases in immune system functions, and Type II diabetes (WHO, 1999; Babisch, 1998; Berland and Lindvall, 1995). The EPA (1974) recommends an average 24-hr exposure limit of 55 dBA to protect the public from all adverse effects on health and welfare in residential areas.

There is a dose-response relationship for noise; as persistent noise levels increase, adverse health outcomes also increase. The biological pathway between noise and cardiovascular disease (hypertension and myocardial infarction) is based on noise-induced stress, which triggers the release of hormones such as cortisol and adrenaline, which in turn affect hypertension, blood lipids, and blood glucose, all of which are risk factors for cardiovascular disease (Berland and Lindvall, 1995; Van Kempen, et al., 2002). People who live near chronic road noise are twice as likely to have hypertension, while men are almost 4 times more likely to have hypertension (Barregard, et al., 2009). Furthermore, increasing community noise, such as traffic

noise, increases the risk of myocardial infarction at noise levels above 50–60 dBA (Babisch, 2014),

Traffic and Noise

Vehicle traffic is a significant source of noise in urban areas. The noise generated by vehicles depends on the number of vehicles, the speed of vehicles, the type of vehicles (trucks or cars), and the road surface. The more vehicles on the road, the higher the speeds, and the greater the proportion of trucks, the louder the traffic will be (Federal Highway Administration, 2006). An increase in traffic volume leads to a proportional increase in noise.

The literature states that noise from garbage trucks and diesel trucks ranges from 84 to 100 dBA, respectively (Berland and Lindvall, 1995). Exposure to 85 dBA for prolonged periods can result in gradual hearing loss, while exposure to 100 dBA for greater than one minute can result in permanent hearing loss. One diesel truck produces the noise effect of 32 passenger cars, and the noise level for starting up a diesel truck can exceed 90 dBA, the threshold for hearing loss (Transport Action, 2001).

Vulnerable Populations and Noise

Adverse health outcomes are particularly pronounced in children who have less well-developed immune, cardiovascular, and neurological systems, and therefore, have an additional risk from excessive ambient noise exposure. Evans examined children exposed to moderate road traffic noise (outside daytime > 60 dBA) (Evans, et al., 2001). The night time urine of children exposed to >60 dBA contained increased concentrations of free cortisol compared to children living in quieter areas (outside daytime level < 50 dBA). Studies have found that children exposed to intense ambient noise from traffic and aircraft at school may have lower reading and math scores than children who attend quieter schools (EPA, 1978). Populations vulnerable for adverse health outcomes from exposure to noise include children, the elderly, people with chronic illnesses, and people with a hearing impairment (Van Kemp and Davies, 2013).

<u>Current Noise Issues and Health in the Impacted Community</u>

The COA adopted a Noise Control Ordinance in 1974, re-adopted it in 1975 and again in 2001. The introduction to this Ordinance states, "A substantial body of scientific research has shown that exposure to excessive sound and vibration is a serious hazard to the public health, welfare, safety and quality of life. It is therefore declared to be the intent of the City Council (through this ordinance and through other City regulations) to minimize the exposure to the psychological dangers of excessive noise, and protect, promote and preserve the public health, safety and welfare. It is the express intent of the City Council to control the level of noise in a manner that promotes the use, value and enjoyment of property, conduct of business, sleep and repose and an environment free from unnecessary and excessive sound" (COA, Ordinance 9-2001).

This Ordinance further states that unnecessary noise should not be produced anywhere adjacent to a school, library, other institution of learning, religious institutions or hospitals. It also establishes acceptable general noise levels as follows:

Table 18. COA noise standards

Land Use Category	Time	Maximum dB
Residential	Daytime Nighttime	55 50
Office/Commercial	Daytime Nighttime	65 60
Industrial	Daytime Nighttime	75 70

Source: COA Noise Ordinance (accessed on line at: www.cabq.gov/environmentalhealth/ documents/chapter9noiseordinance.pdf). Accessed on May 2015.

The major sources of environmental noise related to the proposed Edith Station are the increases in traffic volume, the types of traffic, overall operations, and the cumulative impact of all noise-producing sites in the area. The current major noise producing facilities in the area include the SWD, Friedman Recycling, Holley Asphalt Plant, and the American Cement Company. Additionally, there are businesses such as the Gas Company of NM, the NM Public Service Company, Sysco, RotoRooter of New Mexico, and many others that use heavy trucks.

Members of the NV HIA Committee conducted noise measurements at the SWD, next door to the SWD on the corner of Edith and Comanche, at La Luz Elementary School, and in a variety of residential neighborhoods within a two-mile radius of the proposed Edith Station site from May 27 through June 4, 2015. These results are provided in table 19. Noise measurements exceeded the COA's noise standards both for the morning and the afternoon at all locations measured.

Table 19. Measured noise levels dated 5/27/15 - 6/4/15.

Site	Noise Level Standards (reported for daytime) per the COA noise ordinance	Measured Noise Level (dbA)	Time
Comanche, East of Edith	75	85-100 75-90	7:30 4:30
Garbage trucks travelling west on Comanche to enter the SWD	75	85-100 86-92	7:30 4:30
La Luz Elementary	55	75-85 75-85	7:30 4:30
Neighborhoods	55	88-95 88-95	7:30 4:30

The schools (two elementary, one middle school and one high school) within a two-mile radius of, and closest to the proposed Edith Station are primarily Hispanic and

have academic performance issues. Of the four closest public schools within a 2-mile radius of the proposed Edith Station site, La Luz Elementary is the nearest to the proposed Edith Station site (.72 mile), has the highest percentages of Hispanic students, the highest percentages of students who receive free or reduced cost lunches, the lowest school rating of D, and the lowest percentages of students who are proficient in reading and math, 34%, and 26.2%, respectively (Albuquerque Public Schools, 2013, accessed on-line May, 2015). Noise measurements taken at La Luz Elementary exceeded noise standards established by the COA noise ordinance. Student demographics, reading and math proficiencies, and distance to the proposed Edith Station site for all four of these schools are provided in table 20.

Table 20. School demographics, rating, distance to proposed Edith Station site.

School	Hispanic (%)	Free Lunch (%)	Rating	Reading Proficiency All	Reading Proficiency Hispanic	Math proficiency All	Math proficiency Hispanic	Distance to Edith Station site (miles)
La Luz Elem.	93.4	90	D	34	35.1	26.2	26.6	.72
McArthur Elem.	83.3	68.4	C	69	68.8	56.1	54.8	1.41
Garfield Middle	86.1	80.3	C	43.6	40.9	28.3	25.7	1.22
Valley	77.6	38.7	B	46	45	30.9	28.2	1.73

Predicted Noise and Health in the Impacted Community

The proposed Edith Station would result in a significant increase in traffic and noise due to increased heavy truck and vehicle traffic and Edith Station operations. These would negatively impact the health of the community. Negative outcomes include impaired or loss of hearing, increased stress and cardiovascular disease, and decreased performance at work and in school (Table 21).

Table 21. Summary of noise exposures and health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Hearing impairment or loss	-	minor	high	***
Cardiovascular disease	-	minor	high	***
Sleep disturbances, impaired learning, and decreased school/work performance	-	major	high	***
Increase in stress levels, corresponding increase in hormone levels, and potential increases in Type II diabetes.	-	major	high	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between noise and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Nuisances – Odors, Litter, Pests, and Vectors and Health
Residents' and Businesses' Concerns:

1. Residents are concerned about the impact of the proposed Edith Station on increased odors, litter, and pests – a common consequence of WTSs, and the potential for garbage being left overnight.
2. Residents and businesses are concerned about an increase in disease given the increase in garbage containing roaches, animal carcasses, and maggots.
3. Residents and business owners near the existing SWD facility feel that they are already exposed to high levels of odors, litter and pests.
4. Business owners near the existing SWD facility have repeatedly contacted the COA to complain about the ongoing presence of litter in their neighborhood without receiving adequate responses.
5. Residents are concerned that the establishment of a convenience center in their neighborhood will lead to a greater burden of illegal dumping when visitors bring waste to the facility during hours when it is not in operation.
6. Residents are concerned with an increase in vector-borne diseases.
7. Residents are concerned about trucks that remain parked overnight, and the pests that would be attracted to the Edith Station, including feral cats and rats.

Odors

A nuisance is considered to include anything that is injurious to health or offensive to the senses, interfering with the comfortable enjoyment of life and property. Nuisances may affect individuals or an entire community. When communities are affected by the storage, removal, transport, processing, or disposal of solid waste, the likelihood of nuisance problems becomes greater. Nuisances that have been associated with landfills and WTSs include odors and poor air quality, litter, and pests that serve as vectors for associated infectious diseases (Carpio, et al., 2015; Reynolds and Matt, 2013; Zak, 2013).

<u>The Association between Odors and Health</u>

An odor can be defined as "a chemical in the air that is 'smelled' or sensed by our nose (olfactory system)" (Ohio Bureau of Environmental Health, 2015). Humans breathe some 10,000 to 20,000 liters of air per day; thus, the olfactory systems may detect a variety of chemical odors throughout the day. Usually, odors can alert people to potential risks, but they also allow people to detect odors of chemicals that are present at concentrations below those that endanger health.

While exposure to unpleasant odors may indicate potential risks to health, they may also impose risks in and of themselves. Exposure to large industrial projects for example, whether animal production facilities, wastewater treatment plants, or landfills and WTSs, have been associated with health problems as diverse as eye, nose, and throat irritation, headache, nausea, vomiting, diarrhea, hoarseness, sore throat, cough, chest tightness, nasal congestion, palpitations, shortness of breath, tachycardia (increased heart rate), increased blood pressure, stress, drowsiness, and mood alterations (Schiffman, and Williams, 2005). Odors have been also been

linked to social and behavioral problems, stress, a reduced sense of well-being, and diminished enjoyment of life and ability to perform daily activities (Clougherty and Kubzansky, 2009). For those who are chemically sensitive, or who have asthma, exposure to certain odors related to industrial production and vehicle emissions are significantly more likely to report both upper and lower respiratory symptoms such as wheeze and dyspnea (Baldwin, et al., 1999). Sensitive populations include young children, pregnant women, the elderly, people with chronic health problems (especially those with asthma, emphysema, COPD), and persons with anxiety, depression and stress-induced illness (Ohio Bureau of Environmental Health, 2015). Because industrial operations and waste management sites are frequently sited near or in poor and minority communities, these groups are frequently exposed to unhealthful odors.

While some odors are caused by harmful chemicals that are regulated by the EPA under the Clean Air Act, other odors may not be regulated, making it quite difficult to address and/or enforce nuisance odor-type complaints (Ohio Bureau of Environmental Health, 2015). Complaints about odors are nonetheless widely reported by communities living adjacent to industrial operations. Whether an individual gets sick from exposure to odors depends on what they are exposed to, the amount they are exposed to, and how frequently they are exposed to the odor (New Hampshire Department of Environmental Services, 2012).

Current Odor Conditions and Health in the Impacted Community

Residents living in the impacted community and close to the proposed Edith Station are already exposed to environmental odors. Residents with conditions such as hypertension and migraines are particularly concerned about the effects of increased odors on their health.

Irritation of the upper respiratory tract can occur with chronic or acute exposures to toxic gases. This is especially true of the more water-soluble gases such as chlorine, ammonia, sulfur dioxide, and hydrogen chloride, which dissolve in the upper airway and immediately cause mucous membrane irritation. Though noxious odors may initially cause symptoms of nose and throat irritation and cough, prolonged exposure may lead to permanent damage to the upper respiratory tract, as well as distal airways and lung tissues (Newman, 2015). Damage to the upper respiratory tract may also give rise to infections by bacteria and viruses.

Data on death rates from respiratory diseases caused by pneumoconioses (damage from inhalation of dust) and certain toxic chemicals (represented by ICD10 codes of J60-J66, and J68), collected from New Mexico's Indicator-Based Information System (IBIS), suggest that existing levels of this particular category of respiratory disease are not common. Both whites and Hispanics exhibit an age-adjusted death rate that is 0.2 per 100,000 persons in Bernalillo County.

Although there is no mental health data for the impacted community specifically, data are available for Bernalillo County by non-Hispanic white and Hispanic sub-

populations. When asked whether their mental health, consisting of stress, depression, and problems with depression, was good during the past 30 days, 12.9% of adult non-Hispanic whites and 14.5% of adult Hispanics reported 14 or more days during which their mental health was not good.

Predicted Odor Conditions and Health in the Impacted Community

The placement of the Edith Station in the impacted community can result in an increase in the presence of unhealthful or obnoxious odors. Residents of other states who live close to WTSs have reported that odors and pervasive dust from these facilities aggravate allergies and impose housekeeping problems. This is especially true when the weather is hot, and residents must stay inside and incur the costs of running air conditioners to avoid odors. In addition, deodorizers frequently used to mitigate unpleasant odors have proven ineffective, and may themselves be aggravating allergies (National Environmental Justice Advisory Council, Waste and Facility Siting Subcommittee, and Waste Transfer Station Working Group, 2000).

Litter and Vectors

The Association between Litter, Vectors and Health

Vectors are defined as populations of birds, animals, mosquitoes, or other insects that can potentially transmit disease to humans. Landfills and WTSs, with their rich collections of garbage, attract vectors that harbor infectious diseases. Mosquitoes are among the most well known vectors in the world for transmitting infectious diseases to humans. In New Mexico, mosquitoes are known to transmit West Nile Virus, Saint Louis encephalitis, and Western equine encephalitis to humans. Similarly, flies are also known to create important public health problems, as they are vectors for many infectious diseases.

Rodents are known vectors or carriers of infectious diseases that carry risks for humans. Besides consuming and contaminating foods and animal feed, they may also cause structural damage to buildings through chewing, gnawing, and nest building activities.

Finally, illegal dumping is the illegal disposal of waste in an unpermitted area, and has become a serious problem in many communities in the US (EPA, 1998). Illegal dumping poses significant problems for public health, safety, property values, and quality of life. Illegal dumping is more common in low-income areas where residents may not be able to afford waste disposal fees, and where there are an abundance of industrial or undeveloped lots. It is also more common near existing junk yards, active and closed landfills, WTSs, and temporary dump areas near construction sites (EPA, 1998).

While most materials dumped illegally are not hazardous materials, they typically attract more waste, potentially introducing hazardous wastes such as asbestos, household chemicals, automotive fluids, or commercial and industrial wastes. These wastes may pose considerable health risks, as areas used for illegal dumping may be

accessible to children, rodents, insects, and other vermin. Moreover, illegally dumped material such as automotive tires can hold stagnant water, which are ideal breeding grounds for mosquitoes (EPA, 1998).

Current Conditions for Litter, Vectors and Health in the Impacted Community

Normal operations at landfills and WTSs generate stray waste that can become litter. This material includes litter that falls from garbage trucks as they transport waste, or material that is transported from the tipping area to areas outside. Residents and businesses that are adjacent to the SWD facility have long complained of litter that has piled up along fences, buildings, vehicles and other barriers. Litter attracts mice, rats, birds and mosquitos. Residents of the impacted community have complained of receiving multiple mosquito bites during the summer season and have expressed fears of contracting West Nile virus.

Birds can pose a significant nuisance, and may carry infectious diseases. Community residents and businesses have complained of a steadily increasing pigeon population in and around the existing SWD facility. Conway Electric, a company located adjacent to the SWD, recently removed all outdoor decorations as they had been ruined by pigeons.

Both mice and rats in New Mexico can infect people with diseases that include Hantavirus and rabies. Bubonic plague, while not carried by commensal rodents in New Mexico, can be transmitted from wild rodent species by fleas. Both bubonic plague and Hantavirus have been on the increase in New Mexico. To reduce the risk of acquiring these diseases, the Department of Health recommends limiting exposure to trash where rodents nest (New Mexico Department of Health, 2015).

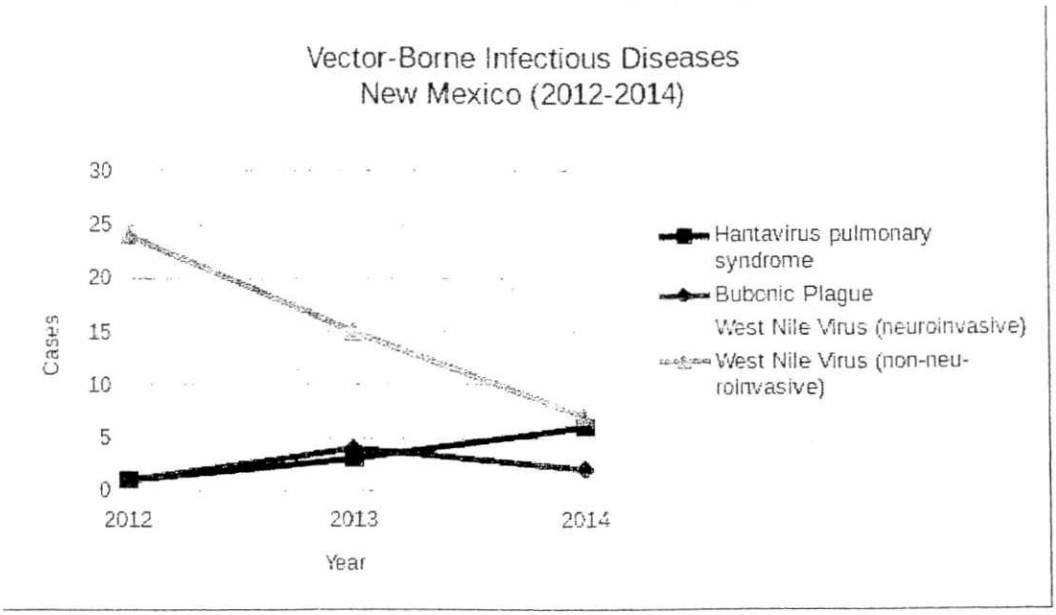
The number of vector-borne infectious diseases recorded in New Mexico between 2012 and 2014 are presented in Table 22 and Figure 27. While the numbers are low, Hantavirus pulmonary syndrome has increased from 1 case in 2012 to 6 confirmed cases in 2014. Bubonic plague, with similarly small numbers, has been observed each year through this period. The numbers of cases of West Nile Virus are significantly larger, and indicate that individuals living close to the Rio Grande (including the neighborhoods near the proposed Edith Station) are already at a greater risk of being exposed to mosquitoes carrying this virus.

Table 22. Number of cases of Hantavirus pulmonary syndrome, bubonic plague, and West Nile Virus in New Mexico between 2012 and 2014

Disease	**2012**	**2013**	**2014**
Hantavirus pulmonary syndrome	1	3	6
Bubonic Plague	1	4	2
West Nile Virus (neuroinvasive)	23	23	17
West Nile Virus (non-neuroinvasive)	24	15	7

Source: New Mexico Department of Health, 2015b.

Figure 27. Number of cases of Hantavirus pulmonary syndrome, bubonic plague, and West Nile Virus in New Mexico between 2012 and 2014.



The Edith Station will result in an increased probability of contracting diseases transmitted from mosquitoes and other vectors as the Edith Station can be expected to result in an increase in the quantity of rodents, insects, and birds.

Table 23 shows how nuisances, consisting of odors, litter, and vectors generated by the Edith Station will diminish the impacted community's health.

Table 23. Summary of nuisances, consisting of vectors, odor, and litter, on health

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Vector-borne Disease	-	Moderate	Mod.	*
Upper Respiratory Disease	-	Major	High	***
Experiences of Stress	-	Major	High	**
Eye, nose, and throat irritation, headache, nausea, vomiting, diarrhea, hoarseness, sore throat, cough, chest tightness, and nasal congestion.	-	Moderate	High	***
Overall quality of life	-	Major	High	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect on the health effect and life expectancy and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between nuisances and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Occupational Safety and Health

Residents' Concerns

1. Residents are concerned their community will be subjected to significant increases in occupational injuries and risks associated with the proposed Edith Station.
2. Residents have greater career aspirations for their families than handling other people's trash.

The Association between WTS Occupational Safety and Health

The U.S. Department of Labor has concluded that 'refuse and recyclable material collection' is the fifth most dangerous industrial occupation in the U.S., with death rates averaging 30 per 100,000 persons (Bureau of Labor Statistics, U.S. Department of Labor, 2014). WTSs constitute a central node in many solid waste processing streams, as they concentrate commercial haulers, general public self-haulers, and facility operators into a high-activity, confined area where workers are exposed to a plethora of hazards (Sutton, 2014). Hazards are related to the physical dangers of working in the WTS, the nature of the material being handled, and the growing complexity of separation and processing activities. Individuals working in WTSs are exposed to health and safety risks that include falls, slips, and trips; lacerations, punctures, and cuts; flying objects and projectiles; collisions (vehicle-vehicle, vehicle-pedestrian, vehicle-building); spills, splashes, or release of acids, caustics and toxics; moving parts of vehicles and machinery that move waste; falling material; electrocution; fires; explosions, confined space hazards; and environmental exposures to dust, noise, toxic fumes, exhaust gases and smoke, or infectious agents. Moreover, heavy physical labor also poses risks of heart attacks or other medical/health emergencies. Clearly, risk exposure varies considerably amongst facility employees and users, though the lowest-paid workers on the WTS floor are the most at risk (Sutton, 2014).

Current Occupational Safety and Health in the Impacted Community

There are currently a total of 50 employees who work in Vehicle Maintenance with the City, all of whom would be eventually moved to the proposed Edith Station. In addition, 193 SWD employees would pass through the Edith Station in the course of their daily rounds. While it was not possible to locate information about occupational hazards by New Mexico Department of Health Small Areas, it was possible to locate data on unintentional injuries by Small Area.

Figure 28 shows age-adjusted unintentional injury death rates in both the impacted community and in Bernalillo County. The death rate in the impacted community is considerably higher (70.3 versus 58.7 per 100,000 persons).

Figure 28. Ave. annual age-adjusted unintentional injury death rates (per 100,000 persons) for the impacted community and Bernalillo County. Source: NM Dept. of Health, 2015b

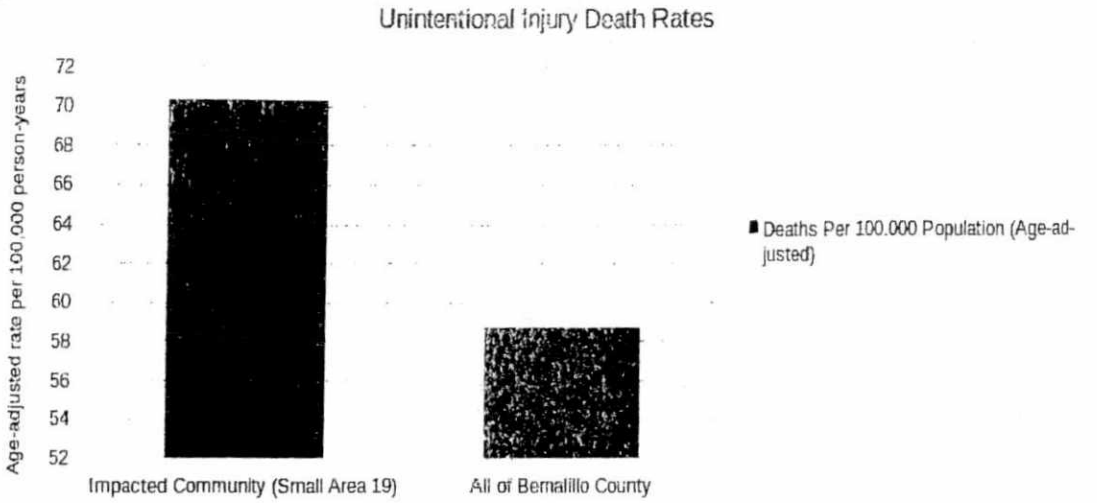
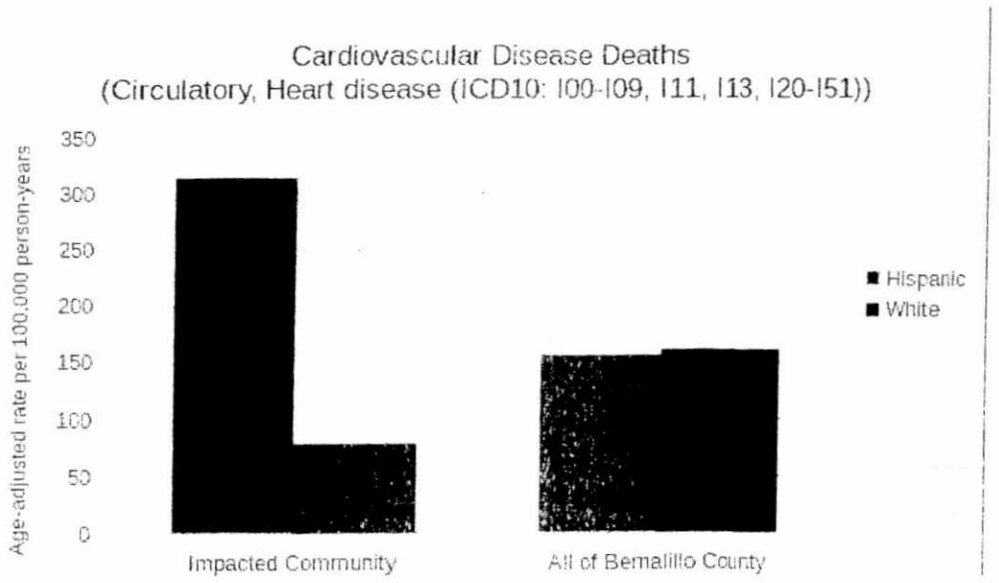


Figure 29 shows cardiovascular deaths in the impacted community and Bernalillo County. Among Hispanics, the rate of cardiovascular deaths in the impacted community is 314.5 per 100,000 persons and 155.8 per 100,000 persons in Bernalillo County. Particularly striking are the comparisons in deaths among Hispanics and non-Hispanic whites in the impacted community, 314.5 versus 78 per 100,000 persons.

Figure 29. Ave. annual age-adjusted cardiovascular disease death rates in the impacted area and Bernalillo County for Hispanics and whites. Source: NM Dept. of Health, 2015b



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Predicted Occupational Safety and Health in the Impacted Community

While all vehicle maintenance and SWD employees would be exposed to some level of occupational risk associated with Edith Station operations, employees that work on the tipping floor are at a greater risk from accidents associated with vehicles and machinery. It is expected that the impacted community would be subject to significant increases in occupational injuries and risks associated with this extremely dangerous occupation.

Workers at the Edith Station can be expected to experience many or all of the occupational risks outlined above. This includes physical, chemical, environmental and equipment injuries; exposure to indoor air pollution and odors from toxic substances; and exposure to heavy labor and its associated risks, such as cardiovascular disease. The number of occupational injuries would surpass existing levels simply by virtue of the creation of new jobs at the site.

Table 24 shows how occupational hazards generated by the Edith Station will diminish workers' health.

Table 24. Summary of occupational safety health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Unintentional Injuries	-	Major	High	***
Heart Attacks	-	Moderate	Moderate	***
Medical emergencies	-	Major	High	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect on the health effect and life expectancy and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between a lack of occupational safety and possible health outcomes: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Cumulative Impact and Environmental Justice – Protections for Minorities
Title VI of the Civil Rights Act of 1964 offers protection for minority populations against intentional and unintentional discrimination. Title VI of the Civil Rights Act applies to all recipients of federal financial assistance and precludes any agency from using methods of administration, which have the effect of subjecting individuals to discrimination because of their race, color, or national origin (40 CFR, Section 7.35(b)). Title VI also precludes any agency from deeming a site suitable or locating a facility where it will have discriminatory effects on the basis of race, color, or national origin (40 CFR Section, 7.35 (c)).

Cumulative Impacts
The EPA states that, "the combined, incremental effects of human activity, referred to as cumulative impacts, pose a serious threat to the environment. While they may be insignificant by themselves, cumulative impacts accumulate over time, from one or more sources, and can result in the degradation of important resources" (EPA, accessed online May, 2015).

For projects that are located on federal property or that use federal dollars, the assessment of cumulative impacts are required per the National Environmental Policy Act (CEQ, 1987). To assess cumulative impacts, the CEQ recommends its handbook entitled "Considering Cumulative Effects under the National Environmental Policy Act" (CEQ 1997).

New Mexico House Bill 458, which was introduced during the 2013 Regular Session of the New Mexico State Legislature, defines cumulative impacts as "the incremental environmental impacts of an individual project combined with the environmental impacts caused by past projects, the environmental impacts caused by other current projects and the environmental impacts caused by reasonably foreseeable future projects" (NM HB 458, accessed online at www. nmlegis, May, 2015). Cumulative impacts are operating in the impacted community and present a disproportionate environmental and health burden to the impacted community.

Environmental Justice
The EPA defines environmental justice as, "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies". It further defines "fair treatment" to mean, "no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies" (EPA, 2015, p.20).

The EPA states that "disproportionate public health and environmental effects may be related to a population's differential proximity and associated exposure to environmental stressors, often stemming from evolving mixed land use patterns (EPA, 2015, p. 19).

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In order to address potential environmental injustice issues, the EPA recommends that "meaningful involvement" be promoted with communities that are potentially impacted. According to the EPA (2015) "meaningful involvement" means that:

1 People have an opportunity to participate in decisions about activities that may affect their environment and/or health.
2 The public's contribution can influence the regulatory agency's decision.
3 The public's concerns will be considered in the decision-making process.
4 The decision makers seek out and facilitate the involvement of those potentially affected.

The EPA suggests that the following questions be asked; "How did the public participation process provide transparency and meaningful participation for minority populations, low-income populations, tribes and indigenous people and how were disproportionate environmental and public health impacts on minority and low-income populations identified and addressed?" (EPA, 2015, p. 23).

In 1995, President Clinton signed Executive Order 12898, directing federal agencies to address disproportionately high and adverse human health or environmental effects on minority and low-income populations.

On November 18, 2005, Governor Richardson issued Environmental Justice Executive Order 2005-056 instructing New Mexico's state agencies to work together to address environmental justice and to form a multi-agency Environmental Justice Task Force to make recommendations regarding environmental justice in the state. Furthermore, this Executive Order included the need to address cumulative impacts, especially in low-income communities of color.

The New Mexico Environment Department and the COA's Environmental Health Department share the goal of protecting public health, safety and welfare of all residents of the State of New Mexico and of the City of Albuquerque. The City's Environmental Health Department has the mission to "responsively and professionally serve the people of Albuquerque by promoting and protecting public health, by preventing disease, and by preserving the integrity and quality of our environment through sustainable management and responsible stewardship" (accessed on-line at www.cabq.gov/environemtnalhealth, June, 2015).

Residents' and Businesses' Concerns About Environmental Injustice

1. Residents and businesses of the impacted community feel that they have not been afforded meaningful involvement in the decision-making process regarding the proposed Edith Station site selection.
2. Residents and businesses feel that they have not had a voice in the site selection process. They only found out about it when they read an Op Ed in the Albuquerque Journal announcing a solid waste rate increase for a WTS.
3. Residents feel that they are the dumping ground for the entire city.

4. Residents feel that they already experience the burden of more than their fair share of junk.
5. Residents feel as if they don't count because they are not a wealthy community.
6. Residents and businesses feel that the proposed Edith Station would contribute negatively to existing environmental, health and economic burdens.
7. Residents expressed concerns that the SWD management has not listened to community members' input at the COA's public meetings and other meetings.

The Association between Cumulative Impact, Environmental Justice and Health

As many have pointed out (Kaplan, 1996; Marmot, et al., 1987; Morello-Frosch, 1997), there is a clear association between socio-economic status and health outcomes, which holds true both at the individual and at the community level. The more affluent the community, the less it experiences both chronic and infectious diseases. There is also a relationship between the number of polluting industries, increases in economic and social uncertainty, increases in corresponding stress levels, and increases in chronic diseases (Gee and Payne-Sturges, 2004). The authors refer to this phenomenon as the exposure-disease paradigm, concluding that community stress promotes human vulnerability.

Current Cumulative Impacts, Environmental Justice, and Health in the Impacted Community

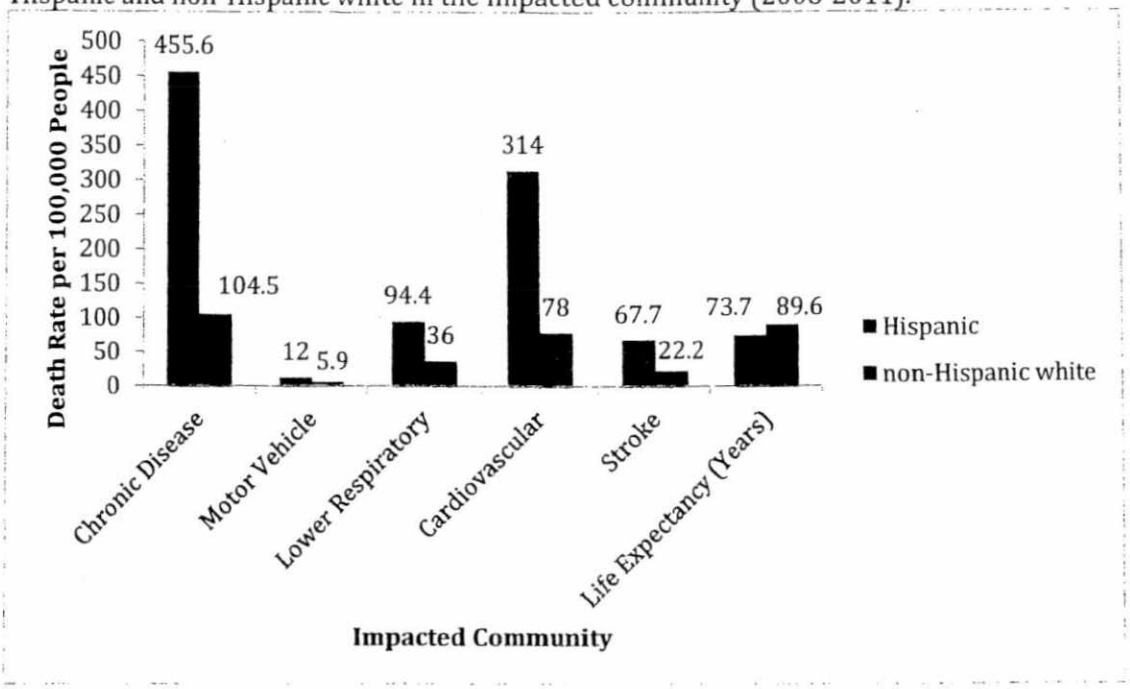
The impacted community is predominantly minority (64.6%) and low income, with 35.6% of families living below the federal poverty level. Partly because of residents' proximity to industrially zoned property (for example, the nearest residence to the proposed Edith Station is less than .03 miles), the impacted community is disproportionately affected by industrial operations. By EPA's definition, the impacted community is an environmental justice community because of its demographic and socio-economic characteristics and its proximity to polluting industries, which have resulted in greater health burdens among the minorities who live there.

Based on the disproportionate health burdens experienced by Hispanics in the impacted community, it appears that residents' immune systems may be compromised. The Joint Center for Political and Economic Studies also found disproportionate rates of death among Hispanics living in the impacted community, using life expectancy as an indicator. This finding was published in a report titled, "Place Matters for Health in Bernalillo County: Ensuring Opportunities for Good Health for All". This report shows areas of the impacted community as having the highest density of environmental hazards per square mile, lower life expectancies, and multi-generational poverty spanning over 5 decades when compared with other areas of Bernalillo County (2012). Bullard, among others, terms this environmental racism (Bullard, 1990).

Figure 30 below illustrates the disproportionate health burden for Hispanics when compared with non-Hispanic whites for the impacted community. Listed health outcomes are those associated with traffic, air quality, temperature, water quality,

flooding, noise, odors, litter, vectors, and occupational health – selected indicators for the Edith Station.

Figure 30. Ave. annual age-adjusted death rates per 100,000 persons and life expectancy by Hispanic and non-Hispanic white in the impacted community (2008-2011).



Predicted Cumulative Impacts, Environmental Justice, and Health in the Impacted Community

If the proposed Edith Station were to proceed at the current site, Hispanics of the impacted community would experience increases in chronic and infectious diseases, increases in stress levels and corresponding diseases, increases in environmental degradation, and decreases in overall well-being, quality of life, and social cohesion (Kawachi and Berkman, 2000).

Table 25 shows how increased cumulative impacts generated by the Edith Station and other neighborhood facilities will diminish the impacted community's health.

Table 25. Summary of cumulative exposures and health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
School and work absenteeism	-	major	high	**
Life expectancy at birth	-	major	high	**
Experiences of stress among adults and adolescents.	-	major	high	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect on the health effect and life expectancy and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between cumulative impacts and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Individual and Business Economic Wellbeing
Residents' and Businesses' Concerns

1. Saving the COA money at the expense of individual property and business owners is not a real savings.
2. Property values will plummet with the realization of the Edith Station. I am concerned about my property values decreasing. My home is my only insurance against a personal health catastrophe. I don't regard a humongous garbage transfer station a mile from my home to be a selling point.
3. How can having a WTS with all of its health and environmental issues do anything but decrease my property value?
4. We already have more than our fair share of junk in this community.
5. Please don't bring all the trash in Albuquerque to this neighborhood. It will decrease our property values.
6. The Edith Station is a land use that is incompatible with existing food distributors located nearby. Food distributors that may be impacted include SYSCO and the Rainbow Bakery.
7. The Edith Station would result in increased freight delivery times for freight distribution centers and businesses near the intersections of Montaño and Edith, on Comanche, and on Candelaria.
8. The Edith Station would result in increased employee health problems because of more dangerous driving conditions resulting in increased worker compensation claims.

Economic Wellbeing

The Association between Economic Wellbeing and Health

Wellbeing is considered to be a positive outcome that provides meaning to people when they perceive that their lives are going well. Wellbeing is shaped by good living conditions, adequate housing and employment opportunities, high quality relationships, and overall satisfaction with life. It is associated with a variety of health, job, family, and economically related benefits. Higher levels of wellbeing are associated with decreased risk of disease, illness, and injury, better immune functioning, faster recovery from illness, and increased longevity. Higher wellbeing is also associated with higher productivity at work, and greater contributions to communities. Environmental and social resources for health in a community can include peace, economic security, a stable ecosystem, and safe housing. Thus, central to wellness is a sense of economic security and economic wellbeing (Centers for Disease Control and Prevention, 2015).

Existing literature suggests that, for employers to attract high quality employees, they must offer a good quality of life by locating their businesses in neighborhoods where there are opportunities for quality education, upward economic mobility, and physical amenities such as libraries, safe streets that are enjoyable to walk, and parks (Salvesen, David & Renski, Henry, 2003). Land-use patterns are also known to affect the degree to which residents feel a sense of community and security. Land uses that do not encourage neighborhood interaction are often plagued by crime and a reduction in safety (Yen and Bhatia, 2002).

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Current Economic Wellbeing and Health in the Impacted Community
The impacted community is currently a mix of residential, commercial and industrial land uses. Businesses include several food preparers and distributors, including SYSCO Foods and the Rainbow Bakery. Residents have been discouraged by the presence of so many polluting industries in their neighborhood and would like to see cleaner, locally owned businesses become part of the economic fabric of the neighborhood. The Edith Station is highly incompatible with this goal. At the same time, neighborhood businesses feel the Edith Station is incompatible with their efforts to transport materials in a timely and safe manner throughout the area.

Predicted Economic Wellbeing and Health in the Impacted Community
The proposed Edith Station is a departure from the desire of residents to attract clean industry and commercial development and it may discourage other businesses from locating in the neighborhood because of quality of life factors for future employees. It is also incompatible with food processing and distribution activities, having the potential to increase vectors and associated diseases.

Property Values
WTS's are not considered a benign land use; they are officially recognized as "noxious" (NEJAC, 2000; USEPA, 2002). The National Environmental Justice Advisory Council (NEJAC) suggests that the impact of WTSs on property values and the ability to attract and maintain appropriate businesses needs to be examined. Farber (1998) established that environmental risks pose economic risks to adjacent property values. There are both health risks and public image risks associated with WTSs. Lober and Green (1995) found that public opposition to solid waste sites in general diminished with more distance from the site. Because of negative public opinions of WTSs and their impact on property values, many municipalities (Pawtucket, Rhode Island, Minneapolis, Nashville and New York City) have stopped WTSs from locating in their communities.

Eshet, et al (2007) conducted the most definitive study on property values and proximity to a WTS in Israel. The authors found statistically significant negative impacts on the value of residences extending up to 1.8 kilometers from the facility. Property values were reduced by 6.4% to 8.4% within one kilometer of the WTS and by 2.6% to 3.2% within two kilometers. Comparable studies in the United States have been conducted on landfills with similar results.

Most of these studies use hedonic pricing, which is a methodology that explains demand for a property by valuing each of its component characteristics, including proximity to a WTS. Ready (2005) found that all "high-level" (greater or equal to 500 tons of waste/day) landfills are associated with a12.9% depreciation in property values for adjacent properties with an estimated property value gradient of 6.2% per mile. BBC Research and Consulting (2012) found that properties within .75 miles depreciate by 9% while those within 1.5 to 1.75 miles depreciate by 0.8%. Zeiss and Atwater (1989) claim that perceptible dis-amenities, such as a WTS, affect

housing values and suggest that "property-value guarantees" may be a way to compensate nearby property owners. Finally, Branden, Feng and Won (2011) in a meta-analysis on waste sites and property values concluded that all classes of waste sites affect real estate prices.

The Association between Property Related Wealth and Health

The loss of property related wealth is associated with increased property vacancy rates, which contribute to blighted neighborhoods, increased crime, and public and private disinvestment. Together, these factors contribute to stress-related diseases, such as heart disease and stroke (Frumkin, et al., 2004). These negative health impacts are particularly stark in communities having greater racial and income segregation (Kaplan, et al., 2009).

Current Property Values and Health in the Impacted Community

As already established in other sections of this HIA, Hispanic residents of the impacted community bear a disproportionate burden of death and disease. Further, census tracts within the impacted community have experienced over 5 decades of persistent poverty, defined as census tracts with a poverty rate of at least 20% for at least two consecutive census periods (this concept of persistent poverty is based on the U.S. Department of Agriculture's research on persistent poverty counties). Among Hispanics, the rate of cardiovascular deaths in the impacted community is 314.5 per 100,000 persons compared to 78 per 100,000 persons for non-Hispanic whites. Hispanic residents of the impacted community also experience a much higher death rate from strokes when compared with the impacted community's non-Hispanic white population (Figure 30).

Predicted Property Values and Health in the Impacted Communities

Based on the literature cited above, one can conclude that property values near the proposed Edith Station would decrease if the station proceeded, with property value decreases more pronounced closer to the Edith Station site. Several local realtors concur with this statement, stating that increases in traffic, noise, noxious odors, and the perception of degradation of the neighborhood would all contribute to decreases in property values near the proposed Edith Station (telephone conversations, May, 2015).

As community members already feel disengaged from the siting decision-making process and feel victimized by the potential environmental, health, and economic consequences of the proposed Edith Station, their stress-associated health outcomes would be further compromised.

Structural Integrity of Roadways and Historical Properties

The Association between Structural Integrity and Traffic Vibrations

Increases in heavy truck volumes deteriorate road conditions due to the immense weight of trucks when compared to other vehicles. Additionally, vibrations caused by heavy trucks can negatively impact the structural integrity of historical properties because vibration effects accelerate the process of deterioration initiated

by other causes, such as wet and cold weather, and nearby construction activities.

Current Structural Integrity of Roads and Historical Properties in the Impacted Community

Based on appearance, arterial roads surrounding the proposed Edith Station and in the impacted community have exceeded their lifecycle. Based on a letter provided by Michelle Ensey (2015), an archaeologist with the State of New Mexico's Department of Cultural Affairs, Historic Preservation Division, several historic properties are located nearby and one historic property is located within the site of the proposed Edith Station. Two properties listed on the State Register of Cultural Properties and the National Historic Register of Historic Places at Griegos Rd. and Edith Blvd., are: 1) SR #586 (the Juan Cristobal Armijo homestead) at 207 Griegos Rd., and 2) SR #939 (the Juan de Dios Chavez house) at 205 Griegos Rd. Additionally, the Alameda Lateral that crosses the western boundary of the site is eligible to be listed on the State and National Registers.

Predicted Structural Integrity of Roads and Historical Properties in Impacted Community

Unless preventive measures are introduced, increased traffic is likely to contribute to the deterioration of arterial roads. Deteriorated road conditions can contribute to increased collision rates for all vehicles. Further, truck traffic could also contribute to the deterioration of the two historical properties located close to the proposed Edith Station site. In direct conflict with the intent of the North Valley Area Plan and the Comprehensive Plan to revitalize communities within the *Established Urban Area* and *Central Urban Area* (the designation of the proposed Edith Station site), the Edith Station will contribute to the deterioration of two important historical properties and the possible impairment of the historical Alameda Lateral, which will in turn, detract from the historical and cultural identity of the community. Table 26 provides predicted health outcomes associated with the loss of economic wellbeing.

Table 26. Summary of loss of economic welibeing and health impacts

Indicator	Health Impact	Magnitude	Severity	Strength of Evidence
Experiences of stress and depression among adults resulting in stress-related health outcomes such as cardiovascular disease and stroke.	-	Major	High	**
Vector-borne disease	-	Moderate	High	***
Disinvestment and loss of property values	-	Major	Mod.	**
Workers' compensation claims and insurance costs for businesses due to accidents.	-	Moderate	Mod.	**
Material shipment times.	-	Moderate	Mod.	**
Historical and cultural neighborhood identity	-	Major	Mod.	***
Quality of life	-	Major	Mod.	***
Motor vehicle related collision rates	-	Moderate	High	***

Explanations (Table adapted from Human Impact Partners, 2011):
Impact refers to whether the Edith Station will improve (+), harm (-), or not impact health effects (~).
Magnitude reflects a qualitative judgment of the size of the anticipated change in health effects (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major.
Severity reflects the nature of the effect on the health effect and life expectancy and its permanence: High = severe, Mod. = moderate, Low = not severe.
Strength of causal evidence refers to the strength of the research showing causal relationship between loss of economic wellbeing and the health outcome: * = plausible but insufficient evidence, ** = likely but more evidence is needed, *** = high degree of confidence in causal relationship. A causal effect means the effect is likely to occur, irrespective of the magnitude and severity.

Recommendations

The proposed Edith Station should be denied because there is no degree of mitigation that can sufficiently address the impacts listed below:

Traffic

1. Added heavy truck and vehicle traffic on Comanche and Edith generated by the Edith Station will negatively impact multi-modal accessibility affecting the biking and pedestrian communities, as well as the general community.
2. Comanche is a designated bike facility; therefore it must be safe for bicyclists to travel. From the perspective of bicyclists and pedestrians, heavy truck traffic is the worst kind of traffic because of the collision severity.
3. Unsafe multi-modal accessibility caused from traffic generated by the Edith Station is in direct conflict with the recently adopted Complete Streets Ordinance.
4. Unsafe multi-modal accessibility will negatively impact access to the nearby Rail Runner Station on Montano.
5. It is likely that necessary arterial and Comanche/Griegos I-25 on-/off-ramp improvements will not occur because of cost and space constraints.
6. The Edith Station's proposed household hazardous waste drop-off center will increase the impacted community's risk for hazardous waste exposure because of increased hazardous waste shipments through the community, a decrease in road safety, and a predicted increase in heavy truck and vehicle collisions based on increased volumes.
7. Increased danger from traffic generated by the Edith Station to existing truck traffic as trucks travel north on I-25, exit off Comanche heading west, and head back onto I-25 south to access facilities via Candelaria.
8. Increased danger from Edith Station generated traffic for vehicles travelling through the Big-I, on I-25, and on I-40.
9. Increased danger from Edith Station generated traffic to vulnerable populations, such as the elderly, children, low-income, and minorities.

Air Quality

1. The COA lacks the funding to retrofit the diesel heavy truck fleet to natural gas; therefore, residents of and workers in the impacted community will be affected by the increase in diesel emissions.
2. The COA does not have a plan to reduce idling of their truck fleet.
3. The COA's proposed siting of the Edith Station demonstrates a lack of consideration of the disproportionate air pollution impacts to Hispanic residents of the impacted community when compared with other areas of Bernalillo County.
4. The COA's proposed siting of the Edith Station demonstrates a lack of consideration given to smaller WTSs, which would decrease the concentration of air pollutants in the low-lying valley neighborhoods near the proposed site.

5. The COA's proposed siting of the Edith Station demonstrates a lack of consideration to an alternative WTS located further from population centers and outside of an already burdened low-income, minority community.

Climate Change, Water Quality and Flooding

1. Absence of natural shading by deciduous trees to reduce health island effects.
2. Lack of shading structures comprised of high albedo materials.
3. Absence of ground water monitoring system to monitor current SWD and future Edith Station impacts to underlying ground water.
4. Lack of commitment to sewer infrastructure improvements to improve the infrastructure's capacity to handle increased wastewater discharges into the sewer system.
5. Inappropriate site grading, contributing to water flows from the east to the west of the property and to down-gradient adjacent properties.
6. Lack of enough storm water drains along Comanche to prevent flooding of Comanche and other nearby arterial roads during heavy rains.
7. Incorrect placement of surface water runoff ponds, as witnessed by residents who have received storm water runoff from the SWD site during high rainfall events.
8. Lack of management practices, such as added vegetation and soil permeability, to capture and treat surface water runoff before going into the storm water system.
9. Historical evidence of a lack of cleanup of litter and illegally dumped waste occurring near the recycling containers that can contribute to surface water and ground water contamination.
10. Evidence of COA's lack of compliance with federal water discharge permits.
11. Increased likelihood of the down-gradient Alameda lateral overflowing or becoming contaminated due to increased surface water runoff and debris from the proposed Edith Station during high rainfall events.

Noise

1. Recent noise monitoring revealed noise levels that exceeded the COA noise standards in the industrial and residential areas surrounding the SWD. Existing noise levels will increase with increased heavy truck and vehicle traffic, as well as with Edith Station operations.
2. Increased noise levels will likely contribute to learning impairment of students attending the school closest to the proposed Edith Station, La Luz Elementary, a school with a rating of D. Children are at the greatest risk of increased noise levels because of their less well-developed immune, cardiovascular, and neurological systems.
3. Chronic high noise levels will increase the stress levels and associated stress related health outcomes of those working or living near the proposed Edith Station site. The closest residences are less than .03 miles from the site.
4. Thus far, there has been no information regarding COA's plans for noise mitigation should the Edith Station proceed.

Nuisance

1. Communities that live next to WTSs in other parts of the country experience harmful odors.
2. Scientific evidence indicates that odors can be harmful to human health, specifically as they are associated with allergies and respiratory tract problems.
3. Chemical substances used to control odors can themselves pose risks to health.
4. Residents of the impacted community already complain of odors related to industrial operations in these neighborhoods.
5. WTSs can generate stray waste that can become litter, which is known to attract rodents, insects, and other pests that may introduce infectious diseases into a community.
6. Individuals and businesses that find themselves adjacent to the existing SWD facility have long complained of litter that has piled up along fences, and against buildings, vehicles and other barriers, and of other vectors, such as birds and rodents.
7. The numbers of cases of West Nile Virus are higher in the impacted community and indicate that individuals living close to the Rio Grande (including the neighborhoods near the proposed Edith Station) are at a greater risk of being exposed to mosquitoes carrying this virus.

Occupational Health

1. Occupations involved in the processing of refuse and recyclable material are known to be the fifth most dangerous industrial occupation in the U.S., with death rates averaging 30 per 100,000 persons. Thus, WTSs impose a number of physical, chemical, and other occupational hazards to workers in these facilities.
2. The impacted community is disproportionately affected by high death rates attributed to unintentional injuries.
3. The COA Plan must explicitly address how occupation safety risks will be minimized. This is particularly important in light of the current lack of occupational health protections at the SWD facility. While conducting noise monitoring activities, NV HIA Committee members witnessed that many garbage truck drivers failed to wear earplugs to protect against hearing loss, a basic occupational safety requirement.
4. Assuming that jobs associated with the Edith Station are prioritized for residents of the impacted community, the impacted community will be burdened by more deaths attributed to unintentional injuries and cardiovascular disease. This is particularly relevant for Hispanic residents.
5. Residents would rather work in high quality jobs that provide a living wage, pose fewer occupational dangers, and do not involve handling garbage.

Cumulative Impacts and Environmental Justice

1. The COA did not include the impacted community in the site selection process or in the development of criteria used by the COA for site selection.

2. As demonstrated throughout the HIA, based on health outcome data provided by the New Mexico Department of Health, Hispanics of the impacted community experience higher age-adjusted death rates for many different types of disease when compared to non-Hispanic whites in the impacted community and to Hispanics and non-Hispanic whites in Bernalillo County.
3. The proposed Edith Station will result in greater health burdens for the impacted community. Deaths in the impacted community will disproportionately impact the most vulnerable, including the elderly, children, and minority and low-income populations.
4. The proposed Edith Station operations will adversely impact those who live closest to the facility. The nearest residents (a cluster of apartments located on the northeast corner of Rankin Rd. and Edith Blvd.) live less than .03 miles from the site.
5. Siting the proposed Edith Station at the selected site violates the requirements of Enactment 270-1980, stating that zone changes to special use cannot adversely impact the health, safety and welfare of the adjacent community.
6. Siting the proposed Edith Station at the selected site has the potential to violate Title VI of the Civil Rights Act as follows, "Title VI of the Civil Rights Act of 1964, which apply to all recipients of federal financial assistance, preclude any agency from using methods of administration, which have the effect of subjecting individuals to discrimination because of their race, color, or national origin." 40 CFR, Section 7.35(b). "Title VI also precludes any agency from deeming a site suitable or locating a facility where it will have discriminatory effects on the basis of race, color, or national origin." 40 CFR, Section 7.35 (c).

Individual and Business Economic Wellbeing

1. A decline in property values is likely to occur.
2. The proposed use for a WTS is in direct conflict with goals outlined in Comprehensive Plan and the North Valley Area Plan "to promote the Central Urban Area as a focus for arts, cultural, and public facilities/activities while recognizing and enhancing the character of its residential neighborhoods and its importance as the historic center of the City." (Comprehensive Plan, B. Central Urban Area, Land Use, Section 6).
3. The COA has not provided a plan to reroute and restrict heavy truck traffic away from historical properties in the impacted community.
4. The COA has a lack of resources to repave and address surface irregularities of arterial roads and freeway on/off-ramps that are likely to become impaired due to the weight of heavy trucks.
5. The COA has a lack of resources to provide trenching, or other preventive measures, between vibration sources and historical properties.
6. The COA has not provided provisions to prevent negative impacts to the historical Alameda Lateral as a consequence of a more intensive land-use on the current SWD site.

7. The COA does not consider the effects of increased traffic on the freight transportation activities of established businesses in the neighborhood.
8. The COA does not consider the basic incompatibility between the proposed Edith Station and existing food processing and distribution centers in the impacted community.
9. The COA does not consider the Edith Station's impacts to increased insurance costs due to a greater number of worker's compensation claims because of increased motor vehicle accidents.

Monitoring and Evaluation

Along with the health professionals, members of the NV HIA Committee and the NV Coalition will evaluate the HIA process to assess the development of HIA skills among community members and to evaluate the strengths and weaknesses of the HIA process that was used. They will also monitor the health determinants (traffic, air quality, climate change, water quality, flooding, noise, nuisances, occupational health, cumulative impacts and economic wellbeing), along with the associated health outcomes, based on the health data provided in this report.

Also to be monitored is how the HIA will influence the decision-making process and the pending decision on the development of the proposed WTS at the site that was selected by the COA.

Conclusions

The HIA resulted in a clearer understanding of the potential health effects of the Edith Station, should it proceed. Additionally, the HIA provided residents with baseline data on the existing health status for their neighborhood and highlighted the existing disparities in health occurring among Hispanics in the impacted community.

This HIA is a robust document because it not only incorporates information from existing data sources and peer-reviewed literature, but also includes the invaluable knowledge of community members who experience day-to-day life in the impacted community – knowledge that cannot be found in a journal article. Together, this information provides a more complete picture of the potential health effects to the impacted community should the Edith Station proceed.

Additionally, by conducting the HIA together through a collaborative partnership, community members increased their capacity and resources to evaluate land-use decisions that directly affect them and they now have the capacity to provide decision makers with scientifically-based evidence to enable them to make sound decisions that promote the health of their community. It is in the best interest of the COA to promote equal opportunities for health by ensuring health protections to populations considered the most vulnerable. These populations include children, the disabled, the elderly, the poor, and minorities.

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This HIA is unique because it considers the health impacts of WTSs in general, and in particular; it considers the health effects of the Edith Station on a low-income, minority community that is located in one of the most historical areas of the Albuquerque metropolitan area; an area that community residents feel should be revitalized rather than the home to Albuquerque's waste.

The HIA provides policy-makers with the information they need to consider the health effects of the proposed Edith Station in order to make a sound land-use decision that will benefit nearby communities as well as all of Albuquerque.

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Attachment 1. Scoping Exercise Worksheets

Project: COA Edith Transfer Station			
Health Determinant: TRAFFIC			
Geographic Scope: 2 mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
What is the cumulative impact of the Station, as well as other area businesses, on traffic volume (particularly heavy trucks), traffic congestion, traffic delay, etc.?	Existing traffic counts, congestion measures, delays at key locations.	MRCOG C of A	Data analysis.
How will traffic generated from the Station impact pedestrian safety and parent drop-off/pick-up at schools?	Projected traffic based on additional traffic volumes.	MRCOG	Data analysis.
How will traffic generated from the Station impact the bike paths and bicycle safety?	Projected traffic based on additional traffic volumes.	MRCOG	Data analysis.
How will traffic generated from the Station impact the vehicles stopped at the railroad crossing?	Projected traffic based on additional traffic volumes sequenced with rail traffic at Griegos/Edith & Rail Runner	MRCOG BN&SF	Data analysis.
How will Station construction impact traffic?	Projected traffic based on additional traffic volumes	MRCOG C of A	Data analysis.
How will heavy truck traffic generated from the Station impact the road quality of neighborhoods?	Projected traffic based on additional traffic volumes. Adequacy of existing road network.	MRCOG C of A	Data analysis.
Has traffic increased on Griegos since Montano Bridge?	Pre- and post traffic counts since Montano Bridge construction	MRCOG C of A	Data analysis.
How will the traffic generated from the Station increase traffic (by type of vehicle, time of day, time of year)?	Projected traffic counts based on feasibility study, and Traffic Impact Assessment.	C of A	Data analysis. 18-wheelers = 100%/time; garbage trucks off 80% time – inconsistent.

How will the Station operate? Do trucks all go out at the same time? What time do they return? Do trucks travel throughout the day? What will the truck routes be? What will be the total number of trucks and from where will they originate? How will the route increase the number of large trucks in the area? # of trucks/day?	Projected traffic counts based on feasibility study, Traffic Impact Assessment.	C of A	Data analysis.
How will traffic to this Station be impacted if other Stations are shut down?	Projected traffic counts based on data from Montessa Park, Don Reservoir, and Eagle Rock Stations.	C of A	Data analysis. Received weekly and weekend counts from Byron.
How will the on-off of I-25 be impacted by the Station's traffic? Will the on-ramps off-ramps be re-designed/re-graded? What is the historical traffic data in the area – going toward the freeway, frontage road?	Projected traffic counts. I-25 off-ramp/onramp plans	MRCOG C of A	Data analysis.
How will traffic affect historical house structures (i.e Battan House - Griegos and Edith)	Projected traffic counts. Structural engineer analysis	MRCOG Structural engineer	Data analysis. Document review.
How will traffic impact students at Menaul, La Luz, Little League Teams, YDDC?	Projected traffic counts with emphasis on traffic congestion impacts on entrance/exists from subject facilities	MRCOG Other stakeholders C of A	Data analysis. Interviews. Document review.
How will the Station's traffic impact citywide traffic?	Projected traffic counts.	MRCOG C of A	Data analysis.
How will the City plan for road repairs and maintenance in the North Valley?	Road maintenance budget.	C of A Bernalillo County NMDOT	Data analysis.
What has happened in other areas, i.e. Phoenix? What has happened with other transfer stations when were they built and what happened after they opened? What was the impact on traffic/housing?	Review of related materials, website searches.	Interviews with Public Works Departments in other communities.	Data analysis. Interviews.
What are the complaints on existing transfer stations in Albuquerque?	Complaint roster – 311.	C of A, Betty Green	Document review.

Project: COA Edith Transfer Station			
Health Determinant: AIR QUALITY			
Geographic Scope: 2 mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
What is the impact of traffic generated by the Station on air quality (particulate matter from diesel engines, and ozone levels)?	Projected air quality (particulate matter, ozone)	C of A air monitoring stations C of A emission inventory C of A operations plans for Station	Data review and analysis.
How will construction of the Station, and associated traffic, impact air quality?	Traffic related pollutants such as particulate matter (# of construction related vehicles)	Literature review. Baseline air quality data from air monitoring stations and emission inventories.	Data review and analysis.
What are the existing concentrations of air pollutants at the site? In the neighborhood?	Concentrations of particulate matter, ozone, carbon monoxide.	EPA – existing air quality data.	Data review and analysis.
What are the emissions from existing facilities?	Existing concentrations of air pollutants.	EPA – emissions inventory.	Data review and analysis.
What are the emissions from compacting and other equipment, and fleet, at the Station?	Modeling based on fleet number and characteristics, miles, etc.	Literature review.	Literature review and data collection/analysis.
Is this going to be an enclosed facility? Will the air circulation be closed? What happens when it breaks down?	Air circulation/filtration system. Air quality protection protocols.	C of A, Architectural design.	Document review.
What are the emissions from existing SWD facilities (air quality concentrations by time of day? Time of year?)	Particulate matter concentrations. Indoor air quality concentrations.	C of A EPA	Data review.

What are the waiting times to get into the Eagle Rock Station?	Waiting time (in minutes) by number of vehicles in line. Number of vehicles that sit idle. Number of service kiosks. Number of lanes. Capacity of Transfer Station.	Architectural design for proposed Transfer Station. C of A for data on Eagle Rock and Montessa Park Transfer Stations.	Interviews. Document review. Data analysis.
Where are Transfer Stations in other cities? Where are landfills? How far do they drive to get to the Transfer Station? What contribution does this have on air quality?	Proximity (in miles) of Transfer Stations to population centers. Location of Transfer Stations in low-income or minority populations. Proximity (in miles) of Transfer Stations to landfills. Number of miles travelled between Transfer Stations and landfills.	Literature. Maps. MapQuest.	Literature review.

Project: COA Edith Transfer Station			
Health Determinant: WATER QUALITY			
Geographic Scope: 2 mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
How will the Station impact surface water quality of the acequias?	Baseline water quality data. Existing EPA storm water runoff permit. Number of violations.	NM Environment Dept., C of A Environmental Health Dept., EPA	Document review.
How will the City control surface water runoff from equipment washing and other Station operations?	Architectural Design. Storm water runoff prevention protocols.	C of A Operations Plan. Part of our questions on January 6th or 7th	Document review.

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Project: COA Edith Transfer Station			
Health Determinant: CUMULATIVE IMPACTS – ENVIRONMENTAL INJUSTICE			
Geographic Scope: 2 mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
How does the Station contribute to existing environmental burdens?	Baseline air quality, traffic, water quality, and other environmental parameters within x distance of the site, plus the subject Station's impact to air quality, traffic, water quality and other environmental parameters.	NM Environment Dept. C of A, Environmental Health Dept., EPA Air Toxins database, literature review of diesel emissions based on fleet age and numbers.	Document review. Literature review. Statutes review. Operations review.
How does the Station contribute to existing health burdens?	Existing prevalence of asthma, upper respiratory, lower respiratory, cardiovascular, diabetes disease rates.	NM Department of Health, IBISS.	Data analysis. Database review.
What is the impact of the Station to nearby vulnerable populations (students, Little League teams, YDDC)	Demographic, socio-economic status of impacted community by 5-year age cohorts. Number of participants/students/detainees.	US Census. YDDC demographics. La Luz/Menaul student demographics. Little League frequency.	Data analysis. Database review. Primary data collection.

Project: COA Edith Transfer Station			
Health Determinant: ECONOMIC WELLBEING			
Geographic Scope: 2 mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
How will the Station impact property values?	Comparison of property value depreciation of post-construction for other Transfer Stations.	Peer-reviewed literature. Realty Trac data on neighborhood property depreciation.	Literature review. Data collection and analysis.
How will the Station improve the City's economic situation?	Costs associated with land lease/purchase, fuel and maintenance costs of fleet for travel to/from Cerro Colorado, Transfer Station construction/maintenance, etc.	C of A feasibility study.	Document review, underlying assumptions, economic impact analysis.
How will the Station impact the revenues of local businesses?	Annual business revenues	Business annual reports	Data analysis. Document review.
How will the Station impact historical properties?	Aesthetic and monetary value of existing historical properties. Structural integrity measure of existing historical properties.	Engineering report.	Document review.

Project: COA Edith Transfer Station			
Health Determinant: NOISE			
Geographic Scope: ¼ mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
How much noise will be generated during the Station's construction?	Noise meter measurements (decibels). Noise prevention protocols at other Stations.	Primary data collection. Noise prevention protocols.	Noise meter. Document review. Literature review.
How will the Station contribute to noise (e.g., idling heavy truck traffic, operations, general traffic)?	Noise meter measurements – during weekend hours (decibels). Noise prevention protocols at other Stations. Number of resident complaints regarding noise at other Stations.	Primary data collection. Noise prevention protocols. C of A logged complaints database.	Noise meter. Document review of architectural design. Document review of noise abatement protocols. Document review of complaint database. Literature review.

Project: COA Edith Transfer Station			
Health Determinant: PESTS			
Geographic Scope: ¼ mile radius of Edith Station			
Impact – Research Questions	**Indicator**	**Data Sources**	**Methods**
How will the Station impact vector-related diseases and vectors?	Vector control protocols. Incidence of vector-borne disease among residents of impacted community compared with Bernalillo County as a whole. Vector related complaints from residents near other Stations.	C of A vector control protocols for other Stations. NM Department of Health IBISS. C of A logged vector related complaints.	Document review. Data analysis of health data.

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Attachment 2. Trucks to and from SWD facility, Friedman, and Landfill (Provided by J. Holbert & J. Soladay).

Type of service	#/Type of trucks	# Daily structured routes	Non-scheduled	Service days	# trips/day to landfill per truck	Total trips to landfill per day	# trips/day to Friedman	# trips/day/weekend	# trips/day/weekday
Commercial bin	47 front load trucks	26		M-F	2	52		0	26
Commercial bin-hazard	Front loader	8		M-F	2	16		0	8
Commercial bin	Front loader	7		Sat	2	14		7	0
Commercial recycling	Front loader	2		7 days/week		0	4	2	2
Rear loader	Rear loader	1		Sat	2	2		1	0
Roll-off service	27 roll-off trucks	17		M-F	5	85		0	17
Roll-off service	Roll-off truck	1		Sat	5	5		1	0
Roll-off service	Roll-off truck	Specials	110 containers	M-Sat	15	15		3	0
Residential trash	92 automated trucks	48		M-F	2	96		0	48
Residential recycling	Automated	22		M-F		0	44	0	22
Collection support vehicles	4 pickup trucks		28	M-Sat				4	28
Missed pickup	Pup automated	2	Missed routes from day	M-F	2	4		0	2
Collection bin support	4 flatbed trucks	3	1	M-F				0	3

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Fleet services support	4 heavy duty service trucks	Dispatched as needed	4	M-Sat				4	4
Administration	Personal vehicles of staff (341 employees)			M-F				30	341
Administrative support	6 pickup trucks		6	M-F				0	6
Total	**241**	**137**				**275**	**48**	**52**	**507**

Attachment 3

Facilities permitted to release air pollutants within a two-mile radius of the proposed Edith Station. Permitted pollutants may include VOC (volatile organic compounds), PM 2.5 (particulate matter less than 2.5 microns in diameter), PM 10 (particulate matter less than 10 microns in diameter), NOX (nitrogen dioxide), CO (carbon monoxide), TSP (total suspended particles), HAPS (hazardous air pollutants), and SOX (sulfur dioxide). The existing COA facility is registered under permit number 659.

Permit No.	Facility Name	Facility Address	Permit Type	Industry Type
231	GIANT INDUSTRIES INC.	135 CANDELARIA RD NW	VOC, PM10	Gas Service/Fleet Stations
238	GIANT INDUSTRIES INC.	6242 4TH ST NW	VOC, PM10	Gas Service/Fleet Stations
247	PETROLINK/EVERREADY OIL COMPANY	1201 CANDELARIA RD NW	VOC, PM10	Gas Service/Fleet Stations
289	CITY OF ALBUQUERQUE FLEET MGMT DIV. - 4TH STREET SITE	1801 4TH ST NW	VOC, PM10	Gas Service/Fleet Stations
336	DIAMOND SHAMROCK STORE #1216	401 MONTANO RD NW	VOC, PM10	Gas Service/Fleet Stations
407	BREWER OIL COMPANY	3200 CANDELARIA RD NE	CO, PM10	SVES
437	FIREPROOFING PRODUCTS INC.	5119 EDITH BLVD NE	NOX, TSP, PM10	Aggregate Processing
441	ROADWORKS	6001 CHAPPELL RD NE	TSP, PM10	Aggregate Processing
460	RIO GRANDE PORTLAND CEMENT	100 MONTANO RD NE	TSP	Cement Distribution Terminal
567	PHILLIPS 66 COMPANY SITE # 2706247	5605 4TH ST NW	VOC	Gas Service/Fleet Stations
603	UNITED PARCEL SERVICE	2401 COMANCHE RD NE	PM10	Gas Service/Fleet Stations
632	RENTAL SERVICE CORPORATION	2401 MENAUL BLVD NE		Gas Service/Fleet Stations
659	CITY OF ALBUQUERQUE SOLID WASTE MANAGEMENT - EDITH FACILITY	4600 EDITH BLVD NE	VOC	Gas Service/Fleet Stations
685	CIRCLE K STORE NO. 1777	2001 MENAUL BLVD NE	VOC	Gas Service/Fleet Stations
698	7-ELEVEN	3808 MONTGOMERY BLVD NE	VOC	Gas Service/Fleet Stations
708	7-ELEVEN	3610 CANDELARIA RD NE	VOC	Gas Service/Fleet Stations
717	UNIVERSITY OF NEW MEXICO CONTINUING EDUCATION	1634 UNIVERSITY BLVD NE	NOX	Boilers
817	CHARM CURTAIN CLEANERS INC	5813 4TH ST NW		Dry Cleaners
826	SUN RAY CONSTRUCTION	523 RANKIN RD NE	TSP	Wood Manufacturing

859	ALBUQUERQUE CABINETS	730 RANKIN RD NE	VOC, TSP, HAPS	Wood Manufacturing
860	FAME MFG	3900 BOGAN AVE NE	TSP	Wood Manufacturing
861	WESTWOOD CABINETS	3011 2ND ST NW	TSP	Wood Manufacturing
869	DIAMOND PRESS	2901 EDITH BLVD NE		Sheetfed Offset Lithography
873	AURORA PUBLISHING LLC	2400 MENAUL BLVD NE	VOC	Sheetfed Offset Lithography
1146	ECONOMY GAS & FOOD MART	2523 4TH ST NW	VOC	Gas Service/Fleet Stations
1149	PLATEAU GAS STATION #119	5565 4TH ST NW	VOC	Gas Service/Fleet Stations
1194	COMANCHE GAS INC.	600 COMANCHE RD NE	VOC	Gas Service/Fleet Stations
1238	RIO GRANDE OIL COMPANY	3205 MONTGOMERY BLVD NE	VOC	Gas Service/Fleet Stations
1247	BREWER OIL CO. STORE # 66	2021 MENAUL BLVD NE	VOC	Gas Service/Fleet Stations
1251	BREWER OIL CO. STORE # 62	3208 RICHMOND DR NE	VOC	Gas Service/Fleet Stations
1292	MEGA CORPORATION	700 OSUNA RD NE	CO, NOX, SOX, VOC, TSP, HAPS, PM10	Manufacturing
1294	J&S MARBLE INC	2501 COMMERCIAL ST NE	VOC	Manufacturing
1300	GARFIELD MIDDLE SCHOOL	3501 6TH ST NW	CO, NOX,	Boilers
1304	NW REGION STRONGHURST	120 WOODLAND AVE NW	CO, NOX,	Boilers
1314	HODGIN ELEMENTARY SCHOOL	3801 MORNINGSIDE DR NE	CO, NOX,	Boilers
1321	MISSION AVE ELEMENTARY SCHOOL	725 MISSION AVE NE	CO, NOX,	Boilers
1333	ALBUQUERQUE HIGH SCHOOL	800 ODELIA RD NE	CO, NOX,	Boilers
1510	COMMERCIAL DOOR AND HARDWARE	2914 GIRARD BLVD NE	VOC	Wood Manufacturing
1541	THE PAINT SHOP	1441 CANDELARIA RD NE	VOC, HAPS	Coating and Spraying
1555	TRAVEL CENTERS OF AMERICA	2501 UNIVERSITY BLVD NE	VOC	Gas Service/Fleet Stations
1558	TWIN MOUNTAIN CONSTRUCTION II COMPANY	NW CORNER OF BIG I	CO, NOX, SOX, VOC, TSP, PM10	Aggregate Processing
1586	PETROLINK/EVERREADY OIL COMPANY	2524 4TH ST NW	VOC	Gas Service/Fleet Stations
1587	PETROLINK/EVERREADY OIL COMPANY	5640 4TH ST NW	VOC	Gas Service/Fleet Stations
1589	PETROLINK DBA EVER-READY OIL COMPANY	501 CANDELARIA RD NE	VOC	Gas Service/Fleet Stations
1644	LOWE'S #99 PAY AND SAVE	4701 4TH ST NW	VOC	Gas Service/Fleet Stations
1648	STERICYCLE INC.	1920 1ST ST NW	CO, NOX, VOC,	Nonsource

1661	RIGHT WAY ROOFING	1626 1ST ST NW	TSP	Aggregate Processing
1781	SAM'S EAST INC.	4921 CULTURE DR NE	VOC	Gas Service/Fleet Stations
1850	JOHN S. PALONI	1915 MENAUL BLVD NE	VOC	SVES
1897	CITY OF ALBUQUERQUE POLICE DEPARTMENT	5350 2ND ST NW	PM 2.5	Incinerator
1907	JVP 1 SOIL VAPOR EXHTRACTION SYSTEM	3412 BRYN MAWR DR NE	VOC, HAPS	SVES
1948	FREEWAY LIQUORS	2034 2ND ST NW	VOC	Gas Service/Fleet Stations
1988	NEW MEXICO FLEET DESIGN	4901 EDITH BLVD NE		Paint and Body
1990	DISCOUNT COLLISION	109 HEADINGLY AVE NW		Paint and Body
1995	LUCKY STRIPES & SIGNS	2107 MENAUL BLVD NE		Paint and Body
2002	CARMERS BODY SHOP	119 AZTEC RD NW		Paint and Body
2005	ABQ COLLISION INC.	3610 2ND ST NW		Paint and Body
2009	LOID'S RIDES LLC	4150 EDITH BLVD NE		Paint and Body
2010	L-3 COMMUNICATIONS	3825 EDITH BLVD NE		Paint and Body
2011	CAR CRAFTERS	600 MONTANO RD NE		Paint and Body
2012	SOUTHWEST COLLISION CRAFTSMEN	3401 CLAREMONT AVE NE		Paint and Body
2013	HAROLD'S BODY REPAIR INC.	3811 EDITH BLVD NE		Paint and Body
2026	ADVANCED COLLISION REPAIR	2714 GIRARD BLVD NE		Paint and Body
2044	CROWN COACHWORKS	431 EDMON RD NE		Paint and Body
2067	DIRECT FUNERAL SERVICES	2919 4TH ST NW	CO, NOX, SOX, TSP, PM10, PM 2.5	Crematory
2071	A-ONE COLLISION LLC	2370 AZTEC RD NE		Paint and Body
2074	SERVICE ONE AUTO BODY REPAIR	6446 EDITH BLVD NE		Paint and Body
2095	EARTHGRAINS BAKING COMPANIES INC.	111 MONTANO RD NE	CO, NOX, VOC, TSP, HAPS, PM10, PM 2.5	Manufacturing
2160	SOUTHWEST BIO FUELS LLC	2371 AZTEC RD NE	PM 2.5	NULL
2163	ACTION QUALITY PAINT & BODY	2415 2ND ST NW		Paint and Body
2165	NEW MEXICO SCIENTIFIC LABORATORIES	1101 CAMINO DE SALUD NE	CO, NOX, SOX, PM 2.5	NULL
2184	TLC Company Inc	5000 EDITH BLVD NE	TSP, PM 2.5	Minor NSR
0096r1	LAFARGE SOUTHWEST INC.	6001 CHAPPELL RD NE	TSP	Aggregate Processing

0362m3	Chappell Road Main Hot Mix Asphalt Plant	6001 CHAPPELL RD NE	CO, NOX, SOX, VOC, TSP, PM10, PM 2.5	Hot Mix Asphalt Plant
0363m2	CHAPPELL ROAD MAIN	6001 CHAPPELL RD NE	TSP, PM10	Aggregate Processing
0491m7rv1	OSO BIOPHARMACEUTICALS MANUFACTURING LLC	4401 ALEXANDER BLVD NE	CO, NOX, SOX, VOC, TSP, HAPS, PM10, PM 2.5	Manufacturing
0493m1	RICCOBENE MASONRY COMPANY INC.	6141 EDITH BLVD NE	TSP, PM10, PM 2.5	Manufacturing
0505m1rv2	HOLLYWOOD CONCRETE BATCH PLANT	6001 CHAPPELL RD NE	CO, NOX, TSP, PM10	Concrete Production
0521m1	EARTHGRAINS BAKING COMPANIES INC.	111 MONTANO RD NE	CO, NOX, VOC, TSP, HAPS, PM10, PM 2.5	Manufacturing
0559m3rv1	NK ASPHALT PARTNERS D/B/A HOLLY ASPHALT COMPANY	4949 EDITH BLVD NE	CO, NOX, VOC, TSP, HAPS, PM10	Asphalt Production
0599m1	COSTCO WAREHOUSE #116	1420 N RENAISSANCE BLVD NE	VOC	Gas Service/Fleet Stations
0601m1	LOVE'S COUNTRY STORES	2200 6TH ST NW	VOC	Gas Service/Fleet Stations
0611m1	PUBLIC SERVICE COMPANY OF NEW MEXICO	4201 EDITH BLVD NE	VOC	Gas Service/Fleet Stations
0612rv1	NMGC SERVICE CENTER	4625 EDITH BLVD NE	CO, NOX, VOC, PM 2.5	Gas Service/Fleet Stations
0677m2	CIRCLE K STORE NO. 8698	6600 2ND ST NW	VOC	Gas Service/Fleet Stations
0689m2	CIRCLE K STORE NO. 1428	6130 EDITH BLVD NE	VOC	Gas Service/Fleet Stations
0729m1	DIAMOND SHAMROCK CORNER STORE #1223	1425 UNIVERSITY BLVD NE	VOC	Gas Service/Fleet Stations
0800m3	SUNSET MEMORIAL PARK DBA BEST FRIENDS PET CREMATION	924 MENAUL BLVD NE	CO, NOX, TSP, PM10, PM 2.5	Crematory
0831m1	BARBONES CLEANERS	3812 CARLISLE BLVD NE		Dry Cleaners
0882rv1	NAVARRO'S PAINT & BODY	2401 4TH ST NW		Paint and Body
0902m3rv2	GCC RIO GRANDE INC.	4702 CARLTON ST NW	TSP, PM 2.5	Cement Distribution Terminal
0935m1rv1	CREGO BLOCK	6140 2ND ST NW	TSP, PM10, PM 2.5	Concrete Production
1097m1rv2	OSO BIOPHARMACEUTICALS MANUFACTURING LLC	4401 ALEXANDER BLVD NE	CO, NOX, PM 2.5	Manufacturing
1150m1	RIO GRANDE OIL COMPANY	2012 7TH ST NW	VOC	Gas Service/Fleet Stations
1200rv2	GIANT # 842	3200 MONTGOMERY BLVD NE	VOC	Gas Service/Fleet Stations
1237m1	RIO GRANDE OIL COMPANY	3641 12TH ST NW	VOC	Gas Service/Fleet Stations
1291m1rv1	CREAMLAND DAIRIES	1911 2ND ST NW	CO, NOX, PM 2.5	Boiler
1478rv1	PLASCO SALES	1900 7TH ST NW	VOC, HAPS	Manufacturing

1479m2	TWIN MOUNTAIN CONSTRUCITON II COMPANY	OLD SPRINGER SITE/I40&I25	CO, NOX, SOX, VOC, TSP, PM10	Asphalt Production
1506rv1	KOHLHASS CORPORATION	2212 1ST ST NW	VOC, TSP	Manufacturing
1580m1	J & B MANUFACTURING	5150 EDITH BLVD NE	VOC, NOX, TSP	Abrasive Blasting
1626rv3	LAFARGE SOUTHWEST	6001 CHAPPELL RD NE	CO, NOX, SOX, VOC, TSP, PM10	NULL
1629m1rv2	LAFARGE SOUTHWEST	6001 CHAPPELL RD NE	CO, NOX, VOC, TSP, PM10	NULL
1630rv1	CIRCLE K STORES	1400 MONTANO RD NE	VOC	Gas Service/Fleet Stations
1645m1	PAVEMENT MAINTENANCE OPERATION	3001 COMANCHE RD NE	TSP, PM10, PM 2.5	Aggregate Processing
1829rv1r3	J&H Services	516 MARTINEZ LN NE	CO, NOX, VOC, TSP, PM10, PM 2.5	Aggregate Processing
1987rv1	APM WEST	5531 MIDWAY PARK PL NE	CO	Manufacturing

Attachment 4. Did You Know Community Poster on Edith Station.

THE FUTURE OF OUR NEIGHBORHOOD

If the proposed Waste Transfer Station is allowed to happen at Edith and Griegos

- **1,443 tons of garbage will be dropped off each day**
- **City garbage trucks will bring it in FROM ALL OVER TOWN**
- **18-wheeler trucks will make at least 65 trips per day to transfer the waste**
- **7-day residential trash Drop Off Center like Eagle Rock**
- **Residents and Businesses are concerned about:**

AIR & WATER POLLUTION
HEAVY TRAFFIC
PEDESTRIANS & CYCLISTS
NOISE
LITTER
PROPERTY VALUES
ROADS & BUILDINGS

This is a community sponsored event
Not a City Presentation

Ask your questions! Get real answers!

You owe it to yourself to attend this meeting!

Thursday, February 19, 2015 6:00 - 8:30 PM

North Valley Senior Center • 3825 4th St. NW
North Valley Coalition • nvcabq@gmail.com • 505-918-0978

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9-24-15
#1010582

Mr Nicholls, Chair EPC

I have read the application, Resolution 270-198, policies and goals and all the printout given by the city at Meetings. I have worked on the North Valley Health Impact Assessment since last November.

Resolution 270-1980(A) The proposed zone change may be found to be consistent with the health, safety, morals and general welfare of 3/4's of the city but not for the close businesses and residents or the North Valley.

Policy 11.B.5d: The location does not respect the existing neighborhood values, natural environmental conditions or the carring capacities. The city is not concerned about its neighbors or the traffic it will generate.

Policy 11.B.5i: The noise and pollution will drift down on us and into the valley; especially in winter. Refer. to the NVHIA.

Policy 11.B.5K: None of the residents of 7 homes in the NE Corner of Edith and Rankin knew of these plans. The employees of WTS will use Rankin to get to parking And garbage trucks will have the parking lot 92 feet from them.

Policy 11.C.1e: Motor vehicles emissions and their adverse effects will be minimized for the city but not for the area of the WTS, ... us ... the valley.

Policy 11.C.1g: Pollution from particulates shall be minimized. See HIS. Pollution can not be avoided in close in area.

Policy 11.C.1h: During air stagnation episodes the garbage will be collected and hauled away as usual. There are no plans to stop collection at these times.

Policy 11.C.1K: The citizens who work closest to the N.S will not be protected from Toxic air emissions. However the employees will probably wear protective suits, gloves and masks.

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Policy II.C.2a: We asked if water would be monitored and were told no. . no need. See HIS

Policy II.C.2c: Water contamination resulting from solid waste disposal shall be minimized. The place is to be scrubbed nightly for concrete floors crack, splash etc. How is this to be handled?

Policy II.C.3b: No plan has been mentioned to convert waste to energy. Which should be what we are doing instead of transferring it to the landfill. There is no green waste collection and we either.

Policy II.C.3c: Illegal dumping in the immediate area to the WTS and CS will not be minimized. When the center is closed the people will dump all over the area rather than haul it back home. The recycle areas are dumps of everything . . toilets, matresses, paint, oil - any and everything.

Policy II.C.3f: I fear how household hazardous waste will be handled. We have watched and taken pictures of the recycle center outside our door and the way it was mishandled.

Policy II.C.4b: How can noise not effect businesses close to the WTC. Are we not neighbors? Neighbors who work, pay taxes and will be greatly effected by the noise of trucks, doors, backup safety signals all day long. The truck park closer than 1300 feet from the neighbors on Rankin and Edith.

Policy II:D The plan began in 2006. Who knew? They want to provide a sustainable method for solid waste collection and transport. The new "state of the art", energy efficient, aesthetically pleasing facility seems none of the above. It is to transfer garbage to a landfill. It is not collecting, composting green waste. Turning waste to energy. It seems to be as the city says . . very beautiful but old school and obsolete.

Policy II.D.4a: Peak hour traffic in this area is

Quevedo, Vicente M.

From: =David Wood CPA= <wood_cpa@msn.com>
Sent: Monday, September 28, 2015 9:53 AM
To: Quevedo, Vicente M.
Cc: G.G.N.A. BOARD
Subject: Document submission #1
Attachments: 1990 Zone Decision001.pdf

Importance: High

Good morning Mr. Quevedo,

Please accept the attached document as evidence for the Commissions consideration.

This is 1 or 3 submissions we will make before 5 pm today.

Thank you for your distribution of this document.

Respectively,

David Wood
GREATER GARDNER NEIGHBORHOOD ASSOCIATION

David Wood, C.P.A.

(505) 221-2626
Email: Wood_CPA@msn.com

IRS Circular 230 disclosure: We must inform you that any US tax advice contained in this message was not intended or written to be used, and cannot be used, for the purpose of avoiding penalties that may be imposed under federal tax law. By regulation, a taxpayer cannot rely on professional advice to avoid federal tax penalties unless that advice is reflected in a comprehensive tax opinion that conforms to strict requirements.

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North Valley Area Plan - Goals and issues:

1. The proposed zone change does not recognize the North Valley as a unique and fragile resource or as an inestimable and irreplaceable part of the entire metropolitan community. See the HIA The North Valley should not take in what the entire city dumps.

Air Quality - see HIA

Drainage - see HIA

Transportation: The city and county should encourage the smooth flow of traffic on arterials.

The traffic will be congested and dangerous on Comanche, on ramp to I 25, the Big I, returning from Big I to frontage road and Comanche. There is a huge amount of trucks already. They have to have 2 lanes to turn. There is a short distance between the lights on the 2 frontage roads under the I25. The railroad crossing below Edith sometimes ties up AM & PM traffic clear to I 25. There is no way to encourage a smooth flow of traffic in this area.

This is not a good location for WTS.

The WTS is out dated garbage disposible.

We should on the west side of town where the future growth is located be building an Energy from waste, State of the art facility.

I oppose the zone change.

Marian Pavone
4404 Edith NE
4013 Julane NE
Alb. NM 87107

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OFFICERS

David Wood, President wood_cpa@msn.com
Jill Gatwood, Vice President jillgat@gmail.com
Marca Finical, Treasurer marcia_finical@yahoo.com
Antoinette Vigil Secretary, antovigil@gmail.com

Greater Gardner Mailing List
ggnaabq@gmail.com

Greater Gardner Neighborhood Association

A North Valley Association of Concerned Albuquerque Residents

September 28, 2015

=*Transmitted Electronically*=

Mr. Peter D. Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: ZONE MAP AMENDMENT: Proposed Edith Transfer Station
EPC Project # 1010582

Commissioner Nicholls:

Our Neighborhood Association respectively submits a 1990 Bernalillo County Planning Commission notification of their decision for a *Special Use Permit for a Solid Waste Transfer* station, *on a portion of the same parcels* that the applicant is now requesting the same zone change for in 2015.

While we fully recognize that this was a County zoning decision, prior to that same property being annexed by the City in 2002. We believe this is relevant to the current zone map amendment request for the following reasons:

1. **This decision sets *precedence*, in that a Transfer Station has *previously been proposed and rejected* on a portion of the current site.**

2. **The findings that, *"This requested use is incompatible with the surrounding land uses"*, is in our judgement, more valid today, than back in 1990, and not in conflict with R270-1980.**

3. **The second finding, *"This location is near to several food manufactures (SYSCO), and pests will be a problem"*, is still relevant to this requested zone map amendment.**

Thank you for your consideration of this document.

Sincerely,

Greater Gardner Neighborhood Association

David Wood President

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OFFICIAL NOTICE

NOTIFICATION OF DECISION

DATE: APRIL 6, 1990

LOCATION: Tract 108-A-3-B, Tract 108-A-1-A-2-B-1, and Tract 108-A-1-A-2-B-2, Middle Rio Grande Conservancy District Map Number 33 zoned M-1, located on the north side of Rankin Road, NE, south of Griegos Road, NE, and east of Edith Boulevard, NE, containing 5 acres (C-15-Z).

T. Brown Constructors, Inc.
P. O. Box 26508
Albuquerque, NM 87125

FILE: CSU-90-20

DECISION AND CONDITIONS

At the April 4, 1990 public hearing the Bernalillo County Planning Commission Denied your request for a Special Use Permit for a Solid Waste Transfer station, based on the following Findings.

FINDINGS:

1. The requested use is incompatible with surrounding land uses.
2. This location is near to several food manufacturers and pests will be a problem.

If you wish to appeal this decision, you must so do by APRIL 19, 1990 in the manner described below. A filing fee of $40.00 is required for properties consisting of one (1) acre or less, and $60.00 is required for all others.

APPEALS: Appeal of any denial or approval of an application by the Bernalillo County Planning Commission may be submitted in writing to the office of the Zoning Director within 15 days after the date of determination by the Bernalillo County Planning Commission. The date the determination in question is issued shall not be included in the 15-day period for filing an appeal, and if the fifteenth day falls on a Saturday, Sunday or holiday, the next working day shall be considered as the deadline for filing the appeal.

A building permit or Certificate of Occupancy & Compliance shall not be issued until any appeal is decided, or the time for filing such appeal has expired. If a written protest is signed by the owners of 20% or more of either the area of the lots and lands included in such proposed change or of those immediately adjacent within 100 feet of the area proposed for change, disregarding public ways, such change to the Zone Map shall require the majority vote of the members of the Board of County Commissioners.

WRITTEN NOTICE OF APPEAL SHALL BE FILED WITH THE ZONING DIRECTOR ON THE PRESCRIBED FORM ALONG WITH PAYMENT OF THE REQUIRED FILING FEE.

Susan F. Connors

Susan F. Connors, Senior Planner

SFC:mes:11239

cc: File
County Manager
County Zoning Director
Boleslo Romero, County Public Works Department
Ted F. Brown, PO Box 26508; 87125
W. J. Hall, 3424 Vasser, NE; 87106
Mike Kauffman, 601 Comanche Rd., NE; 87107
Guy Conway, 567-C Comanche, NE; 87107
Ed Tinsley, 800 Rankin Road, NE; 87107

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September 28, 2015

Mr. Peter D. Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

=Transmitted Electronically=

RE: ZONE MAP AMENDMENT: Proposed Edith Transfer Station EPC Project # 1010582

Commissioner Nicholls:

I was one of the members of the **Citizen Design Advisory Task Force** team. We were invited by the City of Albuquerque to join them in developing a "wonderful project" for the proposed Edith Transfer & Convenience centers. The City and its Consultant team developed this working group to meet with concerned citizens. The community appointed four people initially to meet with the City and its team, then a couple more people joined in occasionally for a few of the meetings. This group came to be known as the "DATF" – Design Advisory Task Force.

Our purpose for accepting was our belief that we would bring neighborhood and community input to the design table, in a good faith effort to mitigate some of the community concerns identified.
What we ended up, was a feeling of being used by the City to claim public involvement in their process.

The process was not entirely smooth or transparent.
On one occasion early on, the citizen group asked for a topographic survey which the City was using to study and develop alternatives; we had wanted to see the problem areas to better see the issues through the City's & consultants' eyes as alternatives were considered. This request was not honored.

At a later meeting the consultants showed us a drawing with turning radii for various truck types, as demonstrations of possible needed property acquisitions if certain schemes under consideration were adopted. Again we requested copies for study, and again we were not given them.

The final plans and building design / elevations and landscape were *never shared* with the working group – the first time the designs were known or available to the Citizens was upon final submission to the EPC.

The process was, overall, not ideal from the point of view of citizen input, and for that reason we request your Commission to **not consider the City's claim of public involvement in their application**, when our input was only marginally considered for appearance.

Also, the City in its application states they have been working on this project since 2006.
The public only found about the project from a Journal article in mid-2014
That is no way entitles the City to claim public involvement, or conforms to Policy.

David Wood
Design Team Advisory Task Force member.

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September 27, 2015

Peter Nicholls, Chairman
Environmental Planning Commission
c/o Planning Department
600 Second St. NW
Albuquerque, NM 87102

Dear Mr. Nicholls,

Please add my voice (once again) as strongly opposed to the construction of the Edith Transfer Station in my neighborhood here in Albuquerque.

I cited many reasons for my opposition in previous letters (sent in January and March) to City Councilors, and the "appropriate" City and Wilson company contacts provided at that time. Later I was informed that the process was over, that the City had voted to proceed. Now I understand that the waste transfer project violates Albuquerque's own Comprehensive Plan and the traffic analysis was based on invalid and "faulty" information.

Traffic has always been one of my primary concerns, as our local streets (like Griegos and Fourth) were never intended for the heavy trucks already ruining our infrastructure. This project involves bringing ALL the City's huge garbage trucks down our narrow, already congested streets. As I stated previously, I've lived in my home for 25 years and previous plans that were to keep commercial traffic on 2nd or Montano never work. Traffic has constantly increased on Fourth and Griegos to the point we can barely access our own homes!

I've also learned that a required zoning change (to proceed with this project) is still pending! This was not revealed previously. In fact we (area residents) were led to believe that that the process of hearings and zoning changes were done, so many of us had simply given up on voicing our continued opposition.

Many other residents, the North Valley Coalition and State Senator Bill O'Neill have provided in depth details about misleading and erroneous information used to proceed with the project. I ask that you take a serious look at all the information submitted and consider that we have been repeatedly duped with sketchy information and sometimes outright LIES about the status of this project that will essentially "finish off" our neighborhood and lifestyle.

Sincerely,

Jamelle Morgan

613 San Lorenzo Ave. NW, Albuquerque, NM 87107

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OFFICERS

David Wood, President wood_cpa@msn.com
Jill Gatwood, Vice President jillgat@gmail.com
Marca Finical, Treasurer marcia_finical@yahoo.com
Antoinette Vigil Secretary, antovigil@gmail.com

Greater Gardner Mailing List
ggnaabq@gmail.com

Greater Gardner Neighborhood Association

A North Valley Association of Concerned Albuquerque Residents

[Insert Date]

Mr. Peter D. Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: ZONE MAP AMENDMENT: Proposed Edith Transfer Station
COA Project No. 7006.92 EPC Project # 1010582

Dear Chairman Nicholls:

The Greater Gardner Neighborhood Association has the following concerns about this zone amendment change request based on R270-1980, and the City Comprehensive Plan.

A. A proposed zone change must be found to be consistent with the health, safety, morals, and general welfare of the City.

II.B.5

Policy k

Land adjacent to arterial streets shall be planned to minimize harmful effects of traffic; livability and safety of established residential neighborhoods shall be protected in transportation planning and operation.

II.C.1

Policy k

Citizens shall be protected from toxic air emissions.

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II.C.1

Policy i

Air quality considerations shall be integrated into zoning and land use decisions t new air quality/land use conflicts.

II.C.2

Policy c

Water quality contamination resulting from solid waste disposal shall be minimized.

B. **Stability of land use and zoning is desirable; therefore, the applicant must provide a sound justification for the change. The burden is on the applicant to show why the change should be made, not on the City to show why the change should not be made.**

A requested zone change that may not be necessary, does not provide stability of land use zoning, is not a desired community condition. The request makes a mockery of R270-1980.

II.D.d

Policy d

Public service expansion costs, benefits, and effects should be evaluated and balanced between new service recipients, existing users and the community at large.

C. **A proposed change shall not be in significant conflict with adopted elements of the Comprehensive Plan or other City master plans and amendments thereto, including privately developed area plans which have been adopted by the City.**

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II.B.5.k
Policy k

Land adjacent to arterial streets shall be planned to minimize harmful effects of traffic; livability and safety of established residential neighborhoods shall be protected in transportation planning and operation.

II.C.3.d
Policy d

The potential for water and air pollution from regional landfills shall be minimized.

Since there is no specific policy for transfer stations, Policy d, is also applicable to a transfer station and convenience station

D. **The applicant must demonstrate that the existing zoning is inappropriate because (1) there was an error when the existing zone map pattern was created or (2) changed neighborhood or community conditions justify the change, or (3) a different use category is more advantageous to the community, as articulated in the Comprehensive Plan or other City Master Plan, even though (1) or (2) above do not apply.**

Application says, no change is needed. It that is true, then there is no basis for a zone change under R270-1980. Applicant admits they do not have a facility plan. If the use is permitted then the existing zoning is not inappropriate.

As for more advantageous to the Community:

1. If you take their assumption that they can do it anyway, then ipso facto per say, they don't meet the requirement as being more advantageous.
2. If they can do the functions they propose under IP zoning, than a zone change to IP is not more advantageous.
3. Removal of the requirement for consistency with a facilities plan is not more advantageous to the community.
4. Zoning now says, the applicant does not need a facility plan, but has not stated if this is a declaratory ruling, or something else.

E. ***A change of zone will not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood, or the community.***

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II.C.1.i

II.C.1.i

Policy i

Air quality considerations shall be integrated into zoning and land use decisions to prevent new air quality/land use conflicts.

You have seen, many policy based letters from Valley residents. Traffic, Water, and Air Pollution are the key areas. Please refer to these letters on specific policies of concern.

Submitted for the record, September 28th 2015

Greater Gardner Neighborhood Association.

Jill Gatwood, Vice President

September 20, 2015

Peter Nicholls, Chairman
Environmental Planning Commission
c/o Planning Department
600 Second St. NW
Albuquerque, NM 87102

Dear Mr. Nicholls,

I am a concerned citizen writing to you about the City's proposed Waste Transfer Station at Edith and Griegos. I have attended the public meetings about this project and still feel my questions have gone unanswered, my voice unheard.

I understand the City has requested a zoning change in order to proceed with this project. I hope you will take my concerns into consideration when reviewing the proposal. I have taken the time to study the Goals and Policies of the Albuquerque/Bernalillo County Comprehensive Plan and would like to point out some policies that will be violated if this transfer station is allowed to move ahead.

II.C.3 The Goal is an economical and environmentally sound method of solid waste disposal which utilizes the energy content and material value of municipal solid waste.

II.C.3.b Encourage solid waste recycling systems which reduce the volume of waste while converting portions of the waste stream to useful products and/or energy.

II.D.3 The Goal is to maintain an adequate, economical supply of energy through energy management techniques and use of alternative and renewable energy sources.

II.D.3.b Efficient and economic use of alternative and renewable energy sources such as solar, wind, solid and liquid waste, and geothermal supplies shall be encouraged.

Pardon my pun, but with this Waste Transfer project Albuquerque sits at a tipping point for the direction of its future. Will we adhere to our stated goals and join forward-thinking cities that use WtE technologies - or will we slink into the dustbin of history with our oversized, environmentally appalling landfills?

The first consideration in this process must be to reduce our quantity of generated waste (waste diversion). Recycling and composting are tried and true techniques to achieve this reduction. I have noticed that few of my neighbors put out their blue recycling bins on trash day. Instead, they pull out their black garbage bins, overflowing with cardboard, plastic and other obviously recyclable materials. Albuquerque residents need better incentive to recycle and compost.

According to a Journal article by Megan Cruz of KOAT dated 9/7/15, the city has an agreement with a local recycler to bring in 3200 tons of paper, plastic and cardboard a month. When the city falls short, it has to pay a shortage fee. In June, the city was short and

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paid $16,000. In July there was no penalty. In August we were short again.

We can learn from the many American cities that have successfully reduced their volume of waste. I cite here just a few examples.

California dominates the field of waste diversion. In 1989 they passed a law that required cities and counties to cut their landfill shipments in half by 2000; another law passed in 2011 upped that to 75 percent by 2020.

San Francisco is the undisputed queen of recycling cities in the country, with an 80 percent success rate at keeping discards out of landfills as of 2013. That's partly because of the heightened environmental awareness among San Franciscans. It's also because the City by the Bay has spent the last decade instituting sweeping—and strict—rules about how its residents and businesses can discard items they no longer want. For instance, the city's 2007 ban on disposable plastic bags - the first in the nation - was subsequently adopted by other cities and soon the entire state of California. The ban prompted more use of reusable shopping bags, cutting down on the amount of litter reaching local landfills.

Two years later, San Francisco made recycling and composting mandatory: residents, businesses, and events face fines if they put recyclables or compostables like food waste in regular trash instead of the proper curbside bins.

Guillermo Rodriguez, policy director for San Francisco's Department of the Environment, said, "People like to poke fun at 'San Francisco Values,' but the reason our program is so successful is that reaching Zero Waste has really become one of the core values of San Francisco."

Los Angeles diverted more than three-quarters of its waste from landfills in 2012, and the city has set an aggressive waste reduction goal of 90 percent by 2025, with Zero Waste as an ultimate goal.

Portland, Oregon, has kept 70 percent of its discards out of area landfills, and the diversion rate for households was an impressive 74 percent. That's especially noteworthy given that Portland's waste managers have to coordinate recycling and source reduction programs among the 40 independent private haulers that handle curbside pickup of both recyclables and trash.

Austin, Texas uses single stream recycling. Single stream requires no sorting, as residents are able to recycle paper, glass, metals and plastic all in one recycling cart. What sets Austin apart, though, is their recent introduction of curbside composting to select neighborhoods. Starting in January, 7,800 Austin residences have been using 96-gallon carts to compost organic material for weekly pickup.

When it comes to processing that reduced load of trash, WtE (Waste to Energy) is the wave of the future. It appears that no thought was given to this policy by the drafters of Albuquerque's Waste Transfer Station plan. If the City planners would like to research this topic, listed below are some places to start.

As of 10 years ago, there were 431 WtE plants in Europe and 89 in the United States. The following are some examples.

Waste incineration WtE plants
- Essex County Resource Recovery Facility, Newark, New Jersey
- Lee County Solid Waste Resource Recovery Facility, Fort Myers, Florida, USA
- Montgomery County Resource Recovery Facility in Dickerson, Maryland, USA

Plasma Gasification Waste-to-Energy plants
- The US Air Force Transportable Plasma Waste to Energy System (TPWES) facility (PyroGenesis technology) at Hurlburt Field, Florida

Refuse-derived fuel (RDF) or solid recovered fuel/ specified recovered fuel (SRF) is a fuel produced by shredding and dehydrating solid waste (MSW) with a Waste converter technology. RDF consists largely of combustible components of municipal waste such as plastics and biodegradable waste.

II.C.9 The Goal is to preserve and enhance the natural and built characteristics, social, cultural and historical features that identify Albuquerque and Bernalillo County sub-areas as distinct communities and collections of neighborhoods.

II.C.9.a The City and County differentiate into thirteen sub-areas as shown on the Community Aras map; the unique character and constituent neighborhoods of each area identified on the Community Areas map shall be respected in all planning and development actions.

I bought a home in the North Valley 11 years ago precisely because it was peaceful, quiet and friendly. Older homes, ethnic diversity, a plethora of flora and small businesses to support our community needs were big factors in my decision. It was small-town feel within a major New Mexico city.

I converted the yard to xeriscaping, upgraded appliances to environmentally friendly models and consistently recycle and compost. However, in the intervening years, I have noticed a distinct degradation of our quality of life.

With the implementation of the City's North Fourth Corridor "improvement" plan we have seen an increase of multiple story, high-occupancy buildings in our single-story neighborhood, resulting in increased traffic on our streets. It is no longer practicable to make left turns onto 4th Street. I find myself driving extra blocks to make a left turn at a signal – an increase of driving time, idling time at lights, and gas consumption overall.

It seems the planners of the Waste Transfer Station at Edith and Griegos have not taken into consideration the already increased traffic burden on nearby N. 4th St. Additional huge trucks on our narrow streets will certainly cause further traffic jams and accidents. This combination of plans negatively impacts the North Valley disproportionately, directly violating the City's own policy of preserving and enhancing our neighborhood's qualities. What was once

peaceful and quiet is now a dangerous and increasingly hostile traffic corridor. Let's not make it worse by adding 18-wheeler garbage trucks to the mix!

II.D.5.c The displacement of low income households shall be ameliorated and the objectives of historic preservation and conservation of affordable housing balanced.

Possible Techniques
1) Monitor the effects of home improvement and preservation programs on nearby land costs, property values and rents, and conversion to non-residential uses.

Placing the waste transfer station in an existing neighborhood will almost certainly reduce property values. For low-income residents, this is a double whammy. They could not afford to sell their homes and move to a more desirable location. The homes will become unsalable once the waste facility is installed.

Here is how one local realtor puts it:
" If a home meets 100% of a buyer's criteria and the photos look beautiful...they will IMMEDIATELY cross it off of their list if they don't like the area/neighborhood...end of story. Therefore, the most important factor in purchasing a home begins with the surrounding area. So values/prices will fall. When owners dislike their surrounding neighborhood they will leave; this creates an excess supply of homes on the market which drives the values/prices downward. Combine this with un desirability of the area and values/prices fall further."

Reduced property values will also result in reduced property tax income for the city. It is a downward spiral.

Mr. Nicholls, these are just three examples of the violations to our Comprehensive Plan inherent in this Waste Transfer Station project. Please listen to the community and stop this travesty before it becomes a dreadful reality.

Sincerely,

Carol P. Chamberland

Carol P. Chamberland

609 San Lorenzo Ave. NW, Albuquerque, NM 87107

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Nancy Bourne
5029 Guadalupe Trl NW
Albuquerque, NM 87107
(505) 259-1034

September 28, 2015

Peter Nicholls, Chairman
Environmental Planning Commission
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Re: Edith Transfer Station, Case No 1010582

Dear Mr. Nicholls,

I am a concerned resident of the North Valley. I am opposed to the proposed Edith Transfer Station ("ETS") for many reasons. I cannot give them all adequate time and attention, so I only list the ones that are most important to me. I have attended every public meeting since January 2015. I did not attend meetings before that because I was unaware of this project.

1. **Traffic** –The Edith/Comanche area will inconvenience each and every resident of Albuquerque that uses either I-40 or I-25 at or near the interchange. Please be aware that the City has downplayed the ETS as a North Valley issue. Attached is a map showing accidents on the interstate that will be used by the transfer trucks. According to Wilson & Company's Zone Map Amendment letter to you on page 3, paragraph 3, "the transfer trucks will only circulate between the site and Interstate 25 via Comanche Road" and "[Tr]ansfer trucks entering the site will utilize Interstate 25 northbound" and "[T]ransfer trucks leaving the site will take a right onto Edith northbound, Comanche Eastbound, and onto Interstate 25 southbound." In other words, all the transfer trucks and 18-wheelers are instructed by the Solid Waste Division to use only the interstates to get from all the neighborhoods to the ETS, thereby inconveniencing the ENTIRE City of Albuquerque's commuters, the travelers passing through our fine City, the neighbors close by, and all the other businesses nearby using this area to deliver to other parts of the City. The Comanche/Griegos exit located on I-25 in either direction is a complete mess every day with multiple accidents, bottlenecked traffic, and a confusing area to outsiders. The traffic coming west on I-40 and heading north onto I-25 is one little lane (backed up and multiple accidents since being built on the Big I Interchange remodel 15 years ago). That traffic then must merge over two lanes to go north or they will exit onto Comanche/Griegos traffic. By the way, this exit ramp has six lanes by the time you get to Comanche and it still backs up onto I-25 and not just during peak hours. The people on I-25 going South who need to go West onto I-40 run into the entrance ramp of Comanche/Griegos traffic and must try to merge with those getting onto the freeway and then merge over two lanes. Now picture all this traffic with an additional 350 trips of dump trucks and 18-wheelers getting on and off the Comanche/Griegos exits each and every weekday. Please see the two very small turning lanes under the freeway to go North from Comanche to the frontage road to access the freeway. One semi-truck uses both lanes backing up all traffic going east on Comanche. There is not room under the freeway to expand these

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lanes. At the public meetings, the City was asked and the public was told that the dump trucks and 18-wheelers are instructed to use these ramps and the freeways whenever possible. Please note that Wilson & Company's letter to you does not mention the 18-wheel semis that will be moving the trash every day to the landfill. All this additional traffic is contrary to **Resolution 270-1980(A)** and will adversely affect the "health, safety, and general welfare of the City." It is in direct conflict with the **North Valley Area Plan pp. 5-6** (all listed goals and issues relate to this issue), **93** ("to provide a balanced circulation system through efficient placement of employment and services, and encouragement of bicycling, walking, and use of transit/paratransit as alternatives to automobile travel, while providing sufficient roadway capacity to meet mobility and access needs."), **112** ("The City and County shall encourage the smooth flow of traffic on arterials.") **and 113** ("The City and County shall limit conflicts between rail travel, roadways, and land use."). Please also see **Comprehensive Plan II-71.C.9.a** ("The City and County differentiate into thirteen sub-areas as shown on the Community Areas map; the unique character and constituent neighborhoods of each area identified on the Community Areas map shall be respected in all planning and development actions."), **II-90.D.3.P** ("Efficient, safe access and transfer capability shall be provided between all modes of transportation."). The residents living as far as Rio Grande Blvd. from Candelaria to Los Ranchos use Griegos to access the freeways. Please see **R270-1980E** ("A change of zone will not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood, or the community.")

As a side note, I would like to mention the railroad tracks west of Edith on Comanche. The traffic will back up east of Edith when a long train is going through. This causes a bottle-neck of traffic that the Edith Transfer Station will have to contend with at both its proposed entrance on Comanche and its proposed exit on Edith. See **North Valley Area Plan, p. 14(4)** ("The City and County shall limit conflicts between rail travel, roadways, and land use.").

2. **Pollution** - From listening to area residents at the public meetings, I don't believe the transfer station will be a good neighbor. They have already shown that keeping the property free of pollution, whether it is trash flying out of the trucks, the smell of diesel trucks, to polluting the groundwater, they have for the last 9 years not proved to be good neighbors in keeping the property in good condition as they state they are going to do now. This area is so polluted from the many trucks that use this area to transport their goods. See **minutes of City meetings** where Pat Maloy, owner of Maloy Storage and across Comanche from the site, stated that he has to clean up his property every single day from trash that has blown into his front area from the trucks' bad designs. See **minutes of the City meetings** where Larry Stepp, business owner that is adjacent to the property, has multiple pictures of trash dumped by the public next to the recycling bins, or the picture of the dirt where oil from the trucks has leached into the ground for many years, or hazardous waste from people just dropping it off outside the closed fence during off hours. This industrial area must be considered as unusual, because it has people living right next door. This is contrary to **R270 1980E** ("A change of zone will not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood, or the community.") This is why the City has not complied with the Comprehensive Plan, **II-27-5.i** ("Employment and service uses shall be located to complement

residential areas and shall be sited to minimize adverse effects of noise, lighting, pollution, and traffic on residential environments."), **II-28.k.1** ("Amend City Zoning Ordinance to improve lot configuration requirements for sites adjacent to arterial streets to prevent conflicts between private driveways and arterial traffic.") **and 3** ("Use noise impact analysis for noise-sensitive uses proposed adjacent to arterial streets; analyze projected traffic and noise impacts of proposed street widening and similar project upon adjacent neighborhoods and mitigate accordingly.") **See also North Valley Area Plan, pp. 65 (air pollution) and 87 (water quality).**

3. **Water Quality** - I have a well as my only source of water for my home. It is only 100 feet deep. There are people living closer to this site that have wells that are only 30 feet deep. There is not adequate depth to the groundwater to minimize percolation or leaching of pollution. See policy **II-56-d.1 of the Comprehensive Plan**. It states "sites will have geologic and soil characteristics and adequate depth to groundwater . . . ." The North Valley is downhill from the ETS. See **North Valley Area Plan, page 87** ("The valley floor . . . generally slopes from north to south with an average slope of 5' per mile and has little or no slope from east to west.") Any spillage, even through cracks in the concrete or asphalt, will go right into the groundwater and right to the North Valley neighbors' wells. Spillage is a very good possibility and/or water will permeate through their multiple asphalt parking lots. Contrary to **II-56-3.d.1** ("Select any additional sites which will not contaminate groundwater. Sites will have geologic and soil characteristics and adequate depth to groundwater which will minimize development or percolation of leachate. Where existing landfill sites do not have adequate natural protection against groundwater contamination, use impermeable liners, leachate collection and treatment systems, and groundwater monitoring well networks."), the City cannot possibly clean up all the oil and gas that has already seeped into the dirt areas from their trucks being parked on that site for the last 12 years and then add impermeable liners. Since household hazardous waste will be stored there for at least 90 days (quoted from an open City meeting), the City have not mentioned any way of developing and implementing a program for preventing hazardous substances from entering the aquifer and the water supply system. This is also contrary to **II-52-C.2.c.**9 ("Prevent the disposal of hazardous waste in municipal or County solid waste landfills."); **II-52-C.2.c.2** ("Use impermeable liners with leachate collection and treatment system in landfills which lack adequate natural groundwater protection.") **and 8** ("Site future landfills away from drainage channels and natural water courses."). At a minimum, all overflow ponds, historic ditches, and aquifers should have in place monitoring systems. **II-56-C.d.4** ("Establish a groundwater monitoring program at all landfills which includes the installation of monitoring wells.")

4. **Overburdened Area** – Contrary to **II-57.3.e.1** ("Improve coordination between landfill site selection and city-wide land use planning."), this area has multiple businesses that use 18 wheel trucks to move their products throughout the day to various places in the City. There have been multiple accidents in this area even prior to the transfer station being built. I have tried using the Griegos area to get from place to place in the City and now use the smaller roads away from the traffic on Griegos. I heard a businessperson at one of the City meetings, say that he instructs his truck drivers NOT to use the on and off ramps at the freeway on Griegos, because of the multiple accidents in the area. As an avid bicycle rider, I never use the area near

Edith/Comanche/freeway. It is a deathtrap. Comanche/Griegos is a City designated bikeway that goes all the way from the Rio Grande Blvd. to Tramway Blvd. There are four ghost bikes along this stretch. This is also one of the few routes taken by North Valley residents that live off of Rio Grande and Griegos. These people are very inconvenienced by the congestion in trying to get to the freeways the only way available to them. The train is a whole other issue. I have witnessed the west bound traffic backed up into the intersection of Comanche and Edith blocking the entire area from moving. This will affect the ETS's trucks and further burden the area. Please see **II -5.d.1** (no environmental impact analysis of air has been done), **5.d.3** (the City picked this site without any input from the surrounding areas or the many neighborhoods that will be effected by this), and **II.B.5.k** (the safety of all of Albuquerque has not been taken into account by the City picking this site). Please also see **R270-1980(G)** ("the cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone").

5. **Common Sense** – Is the City crazy? Who builds a major transfer station in the middle of a City? Dumps, transfer stations, and landfills are placed outside of populated areas because they are a nuisance! They attract bugs, mice, rats, and other disease carrying vermin. I don't know how clean you try to make a dump, it does not belong in the middle of a City where it can cause all sorts of neighborhood problems! Please note that on the first page of the Wilson & Company's letter, they state, "The proposed use of the site would remain very similar to its current use". When is parking garbage trucks, a maintenance yard, and a gas station the same as a transfer station that is going to have **all** the trash from every resident of the City dumped there, picked back up, and transported to the landfill considered "very similar to its current use"? This is against the **North Valley Area Plan at pp. 5(1), (2), (3); (6), (7), (8).** Please also see **R270-1980(G)** ("the cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone").

6. **Forward-thinking** - Let's get with the 21st Century! Look to Europe for ideas on how to turn trash into energy. Most of my trash in the summer is green waste from all the weeds that grow in my yard. Can't we find a way to separate and convert green waste to mulch or fertilizer that can be then be purchased by the City residents? Can we have deposits on our glass bottles? The state of Oregon has been doing this successfully for more than 40 years! The City of Albuquerque doesn't even have a compacter to reduce what trash goes to the landfill. I believe there are ways to make our trash productive rather than burdening our land with more waste, inconveniencing our neighbors, and making a whole City have to deal with an even worse traffic issue. Please note in Wilson & Company's letter, they mention a compacter, but there is no specifications stated in the letter or no map showing a compactor. At the City meetings, they explained the transfer trucks go into the transfer building and dump their loads into a tilted floor that holds the semi-trucks. When the semi-trucks are full they leave with their load to the dump. When do they compact the trash? There is a mention of the first page of a "waste-to-energy facility." They mention recycling green waste, but there is not an area on their maps that show that is in the plans. Instead, they are just moving the trash from this dump to the landfill. This is contrary to Comprehensive Plan, **II-55.C.3.a.1** ("Continue investigating and using up-to-date equipment and collection methods."), **II-55.C.3.b.1** ("Encourage marketing of containers which

are biodegradable or recyclable; support legislation which prohibits distribution and sale of beverages in non-recyclable cans or non-returnable bottles.") and **.5** ("Periodically evaluate the feasibility of a recovery plan to reutilize valuable materials from municipal solid waste and to generate energy for local use or sale."), and **II-78.D.3.b.3** ("Consider development of a recovery plant to produce energy from municipal waste.").

Please reject this proposed change in zoning of the transfer station and request the City build less invasive transfer stations outside of City limits in each of the City's quadrants where growth is occurring and where it will be less harmful to all the residents of the City of Albuquerque and more in compliance with the Comprehensive Plan and city-wide land use planning.

Very truly yours,

Nancy Bourne

Nancy Bourne

Enclosures

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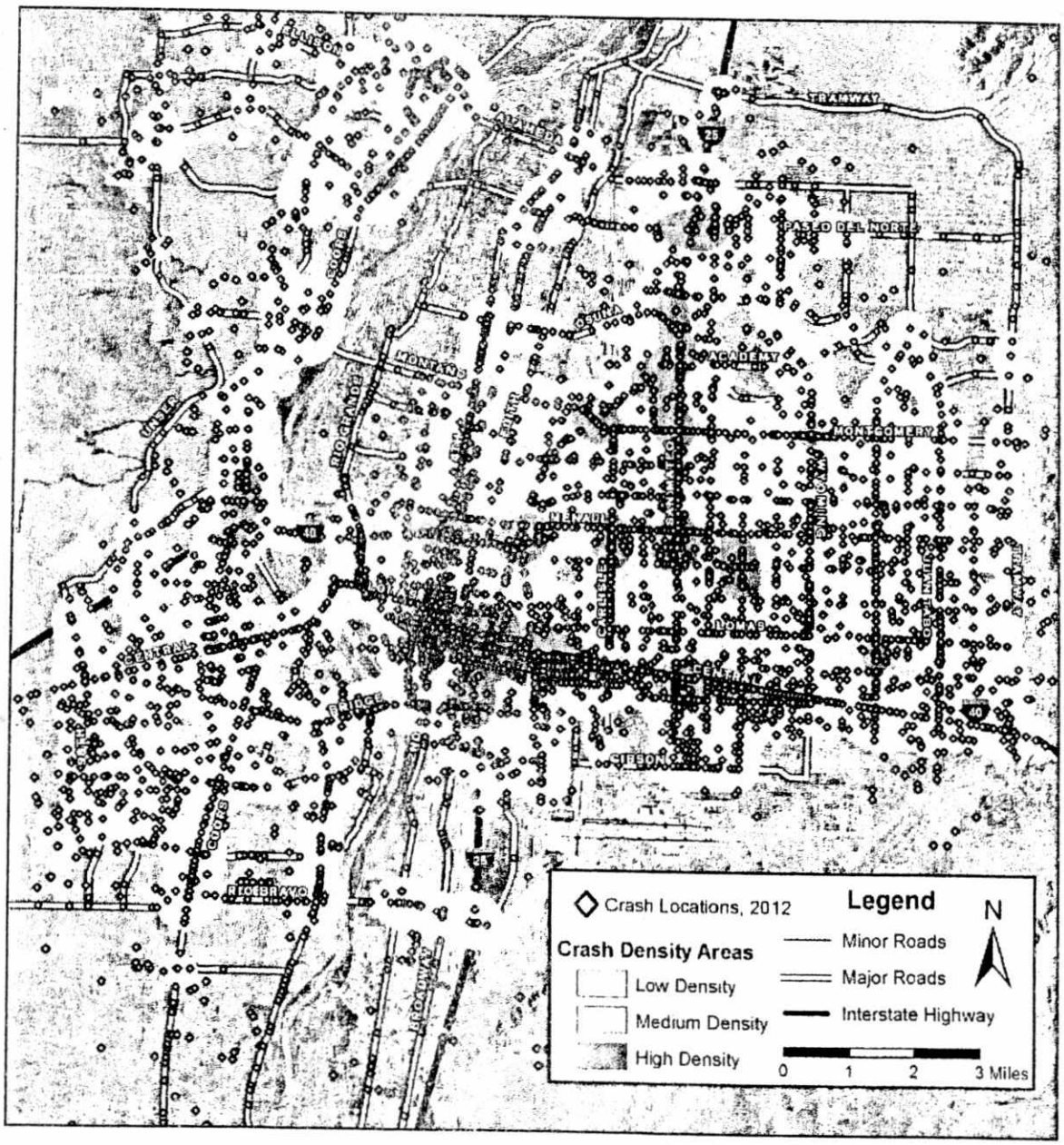
Map 14: Density[38] of All Crashes in Albuquerque, 2012



All maps are available in high-resolution color at tru.unm.edu.

[38] All density maps in this report use a green dot to identify a location with one or more crashes in 2012. Crash density color is calculated using both the number of crashes at each location and the proximity of each location to other crashes.

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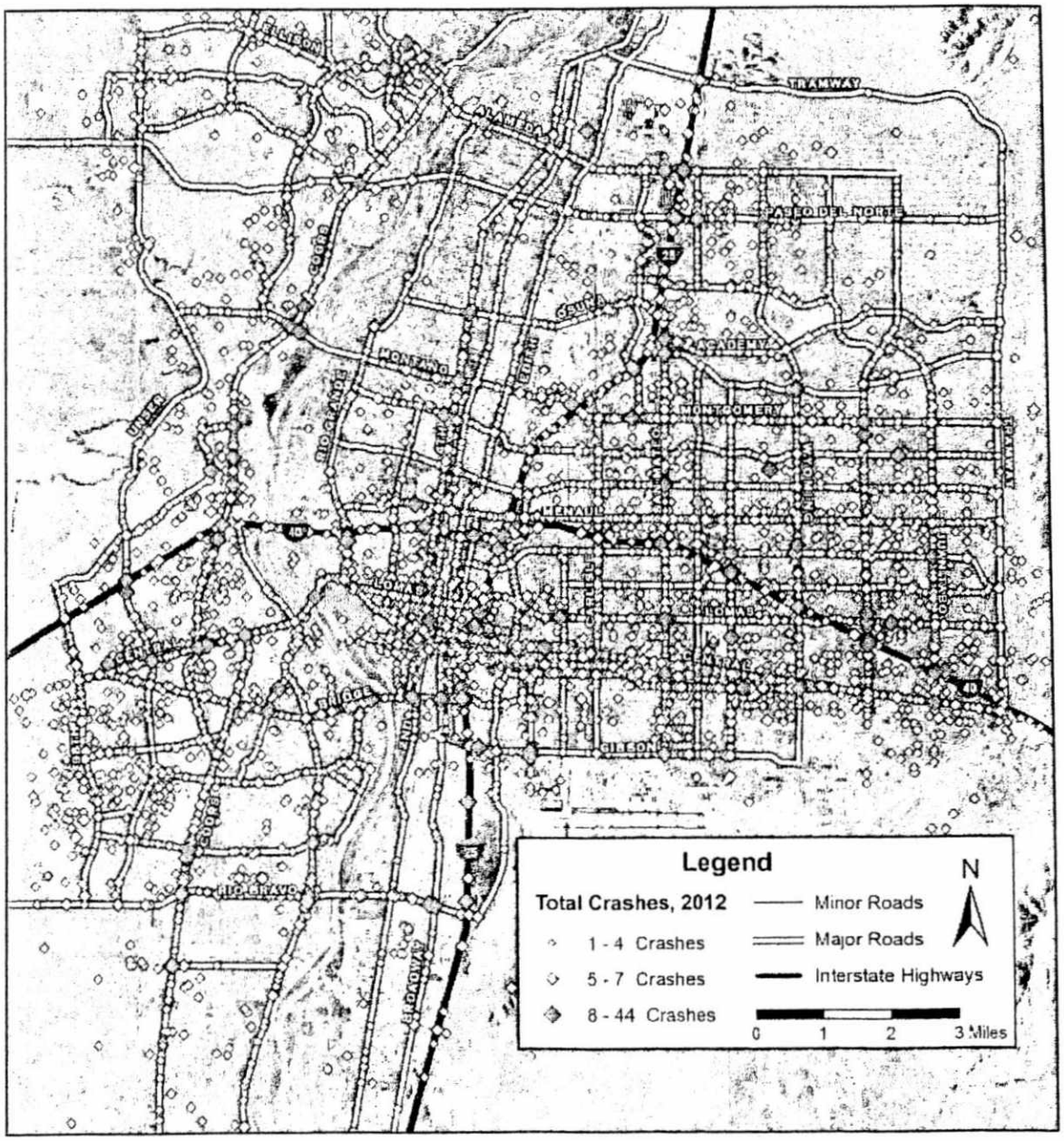
Map 13: Albuquerque Crashes, 2012



All maps are available in high-resolution color at tru.unm.edu.

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Nancy Bourne
5029 Guadalupe Trl NW
Albuquerque, NM 87107
(505) 259-1034

September 28, 2015
VIA HAND-DELIVERY AND EMAIL

Peter Nicholls, Chairman
Environmental Planning Commission
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Re: Proposed Edith Transfer Station, Case No 1010582

Dear Mr. Nicholls,

I am the South Guadalupe Trail Neighborhood Association representative. I have written to the members of this Association and asked for their opinions of the proposed Edith Transfer Station ("ETS"). These are the comments I have received.

1. **Traffic** – The majority of the people in my neighborhood are opposed to the proposed Edith Transfer Station because of the added traffic burden it will cause. The shortest route to get on I-25 from this neighborhood is by way of Griegos/Comanche. There are many other North Valley associations that utilize this way to get on I-25 and also use these entrances to get on I-40, especially going East. The impact the proposed ETS will have on traffic was mentioned as especially injurious for this area. All this additional traffic is contrary to **Resolution 270-1980(A)** and will adversely affect the "health, safety, and general welfare of the City."

2. **Bicycle Riders** – My next most frequent complaint from the residents are the bike riders. Many of the neighborhood residents commute either for enjoyment or as a way to get to work. They informed me that this is one of the few East/West corridors for bicyclists in the City. Griegos/Comanche goes from Rio Grande Blvd. to Tramway Blvd. in a straight line. There is Tramway to the North and a patchwork along Silver Ave. but ends at Washington in the SE part of the City. There is the North Diversion channel, but you have to use Griegos/Comanche to get to it from the North Valley. It also veers to the North part of the City. Griego/Comanche also has four ghost bikes along it because the bicyclists are forced to share the road with automobile traffic.

3. **Pollution** – I heard multiple neighbors complaining the proposed ETS will further pollute the already overburdened North Valley. The North Valley has inversions of air most days in the winter. The air settles in the lowest part of the City. That is right where our area is. We have no monitoring station for the air pollution near us, even though we are one of the most polluted areas of the City. This is contrary to **R270 1980E**. This industrial area must be considered as unusual, because it has people living right next door. Dumps, transfer stations, and

landfills are placed outside of populated areas because they are a nuisance! They attract bugs, mice, rats, and other disease carrying vermin.

4. **Water Quality** - I have a well as my only source of water for my home. It is only 100 feet deep. There are people living closer to this site that have wells that are only 30 feet deep. There is not adequate depth to the groundwater to minimize percolation or leaching of pollution. See policy **II-56-d.1 of the Comprehensive Plan**. It states "sites will have geologic and soil characteristics and adequate depth to groundwater . . . ." The North Valley is downhill from the ETS. Any spillage, even through cracks in the concrete or asphalt, will go right into the groundwater and right to the North Valley neighbors' wells. Spillage is a very good possibility and/or water will permeate through their multiple asphalt parking lots. Contrary to **II-56-3.d.1** ("Select any additional sites which will not contaminate groundwater. Sites will have geologic and soil characteristics and adequate depth to groundwater which will minimize development or percolation of leachate. Where existing landfill sites do not have adequate natural protection against groundwater contamination, use impermeable liners, leachate collection and treatment systems, and groundwater monitoring well networks."), the City cannot possibly clean up all the oil and gas that has already seeped into the dirt areas from their trucks being parked on that site for the last 12 years and then add impermeable liners. Since household hazardous waste will be stored there for at least 90 days (quoted from an open City meeting), the City have not mentioned any way of developing and implementing a program for preventing hazardous substances from entering the aquifer and the water supply system. This is also contrary to **II-52-C.2.c.9** ("Prevent the disposal of hazardous waste in municipal or County solid waste landfills."); **II-52-C.2.c.2** ("Use impermeable liners with leachate collection and treatment system in landfills which lack adequate natural groundwater protection.") **and 8** ("Site future landfills away from drainage channels and natural water courses."). At a minimum, all overflow ponds, historic ditches, and aquifers should have in place monitoring systems. **II-56-C.d.4** ("Establish a groundwater monitoring program at all landfills which includes the installation of monitoring wells.")

Thank you for your attention to this matter. The South Guadalupe Trail Neighborhood Association would appreciate your denying this application.

Very truly yours,

Nancy Bourne

Nancy Bourne

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Nancy Bourne
5029 Guadalupe Trl NW
Albuquerque, NM 87107
(505) 259-1034

September 28, 2015
VIA HAND-DELIVERY AND EMAIL

Peter Nicholls, Chairman
Environmental Planning Commission
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Re: Proposed Edith Transfer Station, Case No 1010582

Dear Mr. Nicholls,

I am the South Guadalupe Trail Neighborhood Association representative. I have written to the members of this Association and asked for their opinions of the proposed Edith Transfer Station ("ETS"). These are the comments I have received.

1. **Traffic** – The majority of the people in my neighborhood are opposed to the proposed Edith Transfer Station because of the added traffic burden it will cause. The shortest route to get on I-25 from this neighborhood is by way of Griegos/Comanche. There are many other North Valley associations that utilize this way to get on I-25 and also use these entrances to get on I-40, especially going East. The impact the proposed ETS will have on traffic was mentioned as especially injurious for this area. All this additional traffic is contrary to **Resolution 270-1980(A)** and will adversely affect the "health, safety, and general welfare of the City."

2. **Bicycle Riders** – My next most frequent complaint from the residents are the bike riders. Many of the neighborhood residents commute either for enjoyment or as a way to get to work. They informed me that this is one of the few East/West corridors for bicyclists in the City. Griegos/Comanche goes from Rio Grande Blvd. to Tramway Blvd. in a straight line. There is Tramway to the North and a patchwork along Silver Ave. but ends at Washington in the SE part of the City. There is the North Diversion channel, but you have to use Griegos/Comanche to get to it from the North Valley. It also veers to the North part of the City. Griego/Comanche also has four ghost bikes along it because the bicyclists are forced to share the road with automobile traffic.

3. **Pollution** – I heard multiple neighbors complaining the proposed ETS will further pollute the already overburdened North Valley. The North Valley has inversions of air most days in the winter. The air settles in the lowest part of the City. That is right where our area is. We have no monitoring station for the air pollution near us, even though we are one of the most polluted areas of the City. This is contrary to **R270 1980E**. This industrial area must be considered as unusual, because it has people living right next door. Dumps, transfer stations, and

landfills are placed outside of populated areas because they are a nuisance! They attract bugs, mice, rats, and other disease carrying vermin.

4. **Water Quality** - I have a well as my only source of water for my home. It is only 100 feet deep. There are people living closer to this site that have wells that are only 30 feet deep. There is not adequate depth to the groundwater to minimize percolation or leaching of pollution. See policy **II-56-d.1 of the Comprehensive Plan**. It states "sites will have geologic and soil characteristics and adequate depth to groundwater . . . ." The North Valley is downhill from the ETS. Any spillage, even through cracks in the concrete or asphalt, will go right into the groundwater and right to the North Valley neighbors' wells. Spillage is a very good possibility and/or water will permeate through their multiple asphalt parking lots. Contrary to **II-56-3.d.1** ("Select any additional sites which will not contaminate groundwater. Sites will have geologic and soil characteristics and adequate depth to groundwater which will minimize development or percolation of leachate. Where existing landfill sites do not have adequate natural protection against groundwater contamination, use impermeable liners, leachate collection and treatment systems, and groundwater monitoring well networks."), the City cannot possibly clean up all the oil and gas that has already seeped into the dirt areas from their trucks being parked on that site for the last 12 years and then add impermeable liners. Since household hazardous waste will be stored there for at least 90 days (quoted from an open City meeting), the City have not mentioned any way of developing and implementing a program for preventing hazardous substances from entering the aquifer and the water supply system. This is also contrary to **II-52-C.2.c.9** ("Prevent the disposal of hazardous waste in municipal or County solid waste landfills."); **II-52-C.2.c.2** ("Use impermeable liners with leachate collection and treatment system in landfills which lack adequate natural groundwater protection.") **and 8** ("Site future landfills away from drainage channels and natural water courses."). At a minimum, all overflow ponds, historic ditches, and aquifers should have in place monitoring systems. **II-56-C.d.4** ("Establish a groundwater monitoring program at all landfills which includes the installation of monitoring wells.")

Thank you for your attention to this matter. The South Guadalupe Trail Neighborhood Association would appreciate your denying this application.

Very truly yours,

Nancy Bourne

Nancy Bourne

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Henry, Dora L.

From:	Ken Balizer <kenbalizer@gmail.com>
Sent:	Monday, September 28, 2015 9:45 AM
To:	Henry, Dora L.
Subject:	Letter to EPC re: Edith Waste Transfer Station Project 1010582
Attachments:	Transfer Station Letter to EPC.docx; [NVC HIA] Final HIA on the North Valley - kenbalizer@gmail.com - Gmail.webarchive

Dear Ms.Henry;
Please accept this letter and attached Health Impact Analysis regarding the above project. Sincerely, Ken Balizer

PS Please contact me at 505-573-2648 if there are questions or you do not receive the above materials.

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September 27, 2015

Peter Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re. Waste Management Station at Edith and Cherokee NE
Proposed Zone Map Amendment, EPC Project 1010582

Dear Chairman Nicholls;

In a July 10 editorial the Albuquerque Journal, gave an unqualified endorsement to the Solid Waste project, the Edith Transfer Station, accepting the City perspective without question.

For example, the Journal states, "The City has listened to the public and made adjustment to the plan". In reality, the City made the decision to create an all City waste transfer station and decided where to put it long before the neighborhood ever heard about the project. The public input is all about the "design of the building," the least consequential aspect of the project.

Does the Solid Waste Department plan really help the environment as they claim? A City concerned about the environmental impacts of its solid waste stream would be putting more effort into diverting recyclable and compostable material away from the landfill and into productive uses. It wasn't that long ago (2009) that Albuquerque announced a Zero Waste goal. More recently Zero Waste as a goal seems to have disappeared. Less waste means less garbage into the landfill, less greenhouse gas and less danger of contamination

of the aquifer. It also means less justification for the transfer station as there is less waste to haul and bury.

The Journal says "Money Matters" and that is the big reason for building a transfer station. However, we can't lightly ignore the costs to the health, safety and property of the people and businesses living and working nearby. Health professionals were contracted by the North Valley Coalition to conduct a Health Impact Analysis (HIA) of the proposed Waste Transfer Station. That analysis demonstrates disparate impacts on the 18,000 closest neighbors in terms of health, air and water pollution, traffic, noise and loss of property values. Reading the HIA report leaves one asking: **Does the City's waste transfer station really save money or does it just shift the burden of costs to its closest neighbors?**

To sum up: the City has not listened to the community. A waste transfer station at that location was decided without public knowledge. The project does not respect the environment as a zero waste agenda would do much more to reuse and recycle the waste and reduce the amount being buried at the landfill. And, it is questionable whether it saves money given the uncompensated cost burden for the neighbors and the forgotten alternative of reducing waste rather than hauling it to the landfill.

Solid Waste could best use our tax dollars to help us all to produce less garbage and divert more waste to beneficial uses.

Clearly The Solid Waste Department has not met the tests laid out in City Enactment 270-1980 for a Zone Map Change. Section 1A. The proposed zone change is not consistent with the health, safety, morals and general welfare of the City. And, Section 1E, A proposed zone change shall not be approved

where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood or the community. Clearly the North Valley Health Impact Assessment of the Proposed Edith Transfer Station, August 2015 demonstrates that the facility being proposed by the Solid Waste Department is not beneficial and is harmful to the health and well being due to the extra burden of traffic, air quality, noise, water quality, odor, litter and loss of property value. (the HIA is incorporated here by reference).

Furthermore, Section 1G of 270-1980 states "The cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone." The argument that the Solid Waste Department makes over and over is that by building this facility at the proposed location they will save $75million over 20 years leads one to believe that this is the overriding concern of the City. Even the Albuquerque Journal in making its case (Money Matters) for the WTS emphasizes this conclusion. In a Executive Communication to the City Council EC 14-44 the Solid Waste Department states, "The primary goal of building a transfer station is to reduce the overall cost of transporting waste to the landfill." This is not a valid reason for a zone change under 270-1980. Even if saving money or making a profit was a valid excuse for a zone change, the error in logic is to ignore the cost of the uncompensated negative impacts on the 18,187 neighbors as identified by the HIA, Aug, 2015.

For these reasons, the Jardines Escondidos Homeowners Association Board of Directors does not find the Edith Transfer Station in keeping with the North Valley Area Plan or the Albuquerque Bernalillo County Comprehensive Plan and is unanimously opposed. We ask the EPC to reject the Solid

Waste Department proposal as the wrong project in the wrong location.

Sincerely,
Ken Balizer, Vice Chairman,
Jardines Escondidos Homeowners Association

cc. Karen Hudson, EPC
Moises Gonzales, EPC
Victor Beserra, EPC
Derek Bohannon, EPC
Maia Mullen,EPC
James Peck, EPC
Bill McCoy III, EPC
Vicente Quevado, Staff

Henry, Dora L.

From: Marcia Finical <marcia_finical@yahoo.com>
Sent: Sunday, September 27, 2015 4:33 PM
To: Henry, Dora L.; Quevedo, Vicente M.; David Wood
Subject: objections to the proposed Edith Transfer Station

September 27, 2015

Dear EPC,

I live at 141 Griegos Rd NW, less than .4 of a mile from the proposed Edith Transfer Station. I am very concerned about the effects of the Edith Transfer Station on the air and water quality within my neighborhood and adjacent areas.
When GCC and Friedman Recycling applied for operating permits, the Greater Gardner Neighborhood Association where I live was told by the City's Air Quality Board that there was no way to measure the cumulative impacts of toxic particular matter in the neighborhood. Yet 105 out of 694, or over 15% of facilities permitted to emit air pollutants in Bernalillo County are located within a 2-mile radius of the proposed Waste Transfer Station. Given that Albuquerque encompasses 189.5 square miles, and the above mentioned 2 mile radius (or 12.6 square miles) equals less than 6.7% of the total square miles of the City, this tiny area is home to over 2.275 times the number of permitted air polluters compared to the rest of the City.

Here are some of the policies adopted by the EPC that directly address my concerns:

EPC Policy II.C.1. – The Goal is to improve air quality to safeguard public health and enhance quality of life
Policy k – Citizens shall be protected from toxic air emissions.
Policy g – Pollution from particulates shall be minimized.

Given that the average high temperatures in Albuquerque are over 80 and 90 degrees in June, July, August, and September, can you imagine the smell of over 2 million pounds of garbage every day that will be transported in and out of this area? And what happens during the summer when air inversions trap pollutants at ground level instead of circulating them away? The Edith Transfer Station will only magnify the stench, trapping it inside the city where it could remain for weeks if not months and adversely affect the health of the residents and businesses nearby. With the siting of this project at Edith and Comanche, the City is disregarding its own policies concerning air quality, toxic air emissions and quality of life.

I'm also concerned that the City will have inadequate storm water runoff collection devices during monsoon rains.

EPC Policy II.C.2 Water Quality
Policy a - Minimize the potential for contaminants to enter the community water supply.
Possible techniques:
2. Systematically monitor and analyze groundwater for contaminants at various locations and depths in the aquifer.
4. Develop and implement a program for preventing hazardous substances from entering the aquifer and water supply system.

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Henry, Dora L.

From: Denise Wheeler <deniserw@unm.edu>
Sent: Friday, September 25, 2015 4:00 PM
To: Henry, Dora L.; Quevedo, Vicente M.
Cc: Peggy Norton
Subject: Proposed Edith Waste Transfer Station Project 1010582
Attachments: ltr to Peter Nicholls.docx; ATT00001.txt

Please confirm that you have received the attached document and that it has been added to the public record.

Thank you

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Peter Nicholls, Chairman
Environmental Planning Commission
c/o City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Re: Project # 1010582

I am writing to voice my opposition to the Proposed Edith Waste Transfer Station at 4600 Edith NE. I ask that my letter be part of the public record.

A zoning change from M-1 Light Manufacturing to SV-1 for M-1 Uses should be denied. This project makes major changes to the existing site. The City proposes to dump all the trash for the City of Albuquerque at this site; proposes to compact that trash and load it into larger trucks; proposes to add parking for employees, the public and visitors with more than 300 parking spaces. The City proposes to take household hazardous waste and be able to store that waste for up to 90 days. The City proposes to recycle major and minor recyclable materials. These changes are among the many changes required to create a waste transfer station. These changes are out of bounds for a M-1 Light Manufacturing Zone designation and as such pose a major change to the current site.

The project conflicts with Enactment 270-1980 specifically Section D. (2) in that it would significantly change the neighborhood and community conditions, and Section E. A change of zone shall not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood or the community. This project will be harmful to the adjacent property, the North Valley and the city as a whole. The project will increase noise, traffic, air pollution, contaminate the water table and ditch system and increase health risks by bringing all of

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Albuquerque' s trash into the north valley where it will be dumped, scooped up, loaded into bigger transfer trucks to be driven to another site. The resulting traffic, noise, potential water contamination, housing of household hazardous waste, will result in the North Valley becoming the trash bin for the City of Albuquerque. The character of the area will be significantly impacted in a negative manner. As the city grows the need for more trash collection will increase and more and more trash would need to be dumped into the center of the city. Pollution from toxic and cancer causing diesel fuel will be increased hundreds fold. Pollution from the increase in public vehicles including employees and visitors to the site will affect those working at the site, those on adjacent property, those traveling through the area by vehicle, bike or walking as well as the city as a whole. People walking and biking through this area will be adversely affected by the increase in traffic and noise from the increase in the number of trash trucks and other vehicles. The criteria has not been met.

The reason given for this project is that it will save money. The savings are projected for 20 years. With regard to Policy II.D.d. Public Service expansion costs, benefits, and effects should be evaluated and balanced between new service recipients, existing users and the community at large. There does not appear to be a fiscal analysis of the potential savings and or cost to the citizens. There is no guarantee that a rate increase will be forestalled. There is no guarantee that this proposed project will not need significant improvements and expansion over time as it becomes obsolete. The criteria has not been met.

According to the Albuquerque/Bernalillo County Comprehensive Plan II.C.3.a and b: The Goal is an economical and environmentally sound method of solid waste disposal which utilizes the energy content and material value of municipal solid waste. Policy a Planning and implementation of more efficient

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and economical methods of solid waste collection shall be continued. Technique 2) Encourage designs utilizing advanced waste collection technology (e.g. hydraulic or collection tube systems). This criteria is not met. There is no comprehensive recycling or green waste system within the project. There is no comprehensive system to recover or reduce waste. The criteria has not been met.

This project is using the same old school method of collecting trash and dumping it somewhere. It does not have advanced methods of reducing its volume, its reclamation, or its use to the city. II.c.3.b.5) There is no feasibility study for recovery to reutilize valuable materials from municipal solid waste and to generate energy for local use or sale. The criteria has not been met.

With regard to II.C.3.d: The potential for water and air pollution from regional landfills shall be minimized. Water and air pollution will not be minimized but rather increased. Water will be used throughout the day to wash down the concrete. Concrete fails and cracks. Liners below the concrete will fail at some point allowing the water to seep into the water table. There will be increased hard surfaces for the parking lots that will allow accumulation of standing water. The water from the parking surfaces and the floors where the trash is dumped will be contaminated by the contents of the trucks leaking, spilling and being dumped, fluids from the trucks, fluids from the repair bays, public and employee vehicles. The existing maximum allowable discharge of 47.6cfs is not changed to accommodate the increase in needed capacity for drainage creating further potential problems. In the event of heavy rains the streets, ditches and water table will be contaminated. The criteria has not been met.

Section II.C.4 Noise: The Goal is to protect the public health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts. Noise of more than 600 trash collection trucks per day, plus transfer trucks, employees, visitors and the public will not be mitigated by a few trees and landscaping. Diesel trucks are loud, 600 diesel trash truck

trips a day is very loud. Trucks will be going in and out of the site. They will be idling on the site on Comanche and on Edith. They will be idling at the freeway entrances and exits. They will be driving on the freeway and other roadways. Any trash compacting and sorting will be additional increased noise. This is a centralization of noise rather than a reduction in it. There is no noise study available to the public. The criteria has not been met.

II.C.9 9. COMMUNITY IDENTITY AND URBAN DESIGN: The Goal is to preserve and enhance the natural and built characteristics, social, cultural and historical features that identify Albuquerque and Bernalillo County sub-areas as distinct communities and collections of neighborhoods. This goal is undermined by the proposal. The criteria has not been met.

Policy c: The identity and cohesiveness of each community shall be strengthened through identification and enhancement of community Activity Centers that have a scale, mix of uses, design character, and location appropriate to the unique character of the community. (See also policies under "Activity Centers")

This project will not fit into the community. It will change the identity to one of trash heap rather than preserving or enhancing the natural and built characteristics. Each day will see hundreds of trash trucks and other vehicles dumping waste. That is what will be seen as you drive the freeway and as you drive, bike or walk the roadways in this area.

II.D.3.b.3. Policy b Efficient and economic use of alternative and renewable energy sources such as solar, wind, solid and liquid waste, and geothermal supplies shall be encouraged. This is not met. There is no plan for alternative or renewable energy sources.

Traffic problems will increase and intensify if this project is allowed. There are already traffic problems getting off and on the freeway at Comanche and I-25. The freeway is congested during peak hours and shut down almost weekly

with traffic accidents during the daytime. It is not safe to walk or ride a bike on Comanche especially near the existing waste site. No safety accommodations have been made for pedestrians, bikers or people traveling through the area on their daily commutes. I have watched as trash trucks wait for the light, backing up traffic on Edith and on Comanche. This will be increased to an intolerable degree with the proposed traffic to and from the proposed site. People will then seek alternative means to get off and on the freeway and to avoid Edith. Businesses using Comanche and Edith will be affected as traffic congestion will be increased. The project will negatively impact traffic on both I-25 and I-40. The goals of migrating traffic cannot be met.

This proposal is a solution to the wrong problem. The problem is not how do we get the trash from here to there. It is how do we as a community reduce our use, reduce our trash, reduce our waste. Trash collection trucks driving a few less miles a day will not affect the needed reduction and redistribution of our waste. We need systems to effectively and efficiently recycle, to compost our green waste. Just doing those two things would reduce the amount of waste being trucked through our city by at least 25%. We need to cut the need for trash collection rather than dump it from the house to the trash bin, from the trash bin to the trash collection truck, from the trash collection truck to the floor of a building in the center of town, from there to be shoved into a bigger trash truck to be dumped and buried on the outskirts of town. We need a project that looks to the future, that looks to protecting our citizens, our environment, our water, air, our fragile resources and irreplaceable environment. This project is in conflict with the North Valley Area Plan for these reasons it should be denied.

Denise Wheeler

3565 Rio Grande Blvd. NW

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Albuquerque, Nm 87107

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September 24, 2015

Peter Nicholls, Chair
Environmental Planning Commission
c/o Albuquerque City Planning Department
600 Second Street NW, 3rd Floor
Albuquerque, NM 87102

Project #1010582, City of Albuquerque zone amendment and site plan

Dear Chairman Nicholls:

I oppose granting the City of Albuquerque Department of Municipal Development a zone map amendment and site development plan approval for a transfer station at the southeast corner of Edith and Griegos. I have been involved in preparing a Health Impact Assessment (HIA) of the proposed project and have attended all city and community meetings. I have spent many hours educating myself on this project and conclude that it violates Section 1 (E) of Enactment 270-1980 which states "A change of zone shall not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood or the community". I think the facts indicate it would be harmful to all three of those entities.

Adjacent to the city property on the south is American Marine, a small business that has been in business at that location for 40 years. The Edith entrance to the site will be moved south 70 feet and the semi trucks (130 one way trips a day) will be driving in and out along the north side of his property. The noise and fumes will make this location unworkable for his business. He will not be able to stand in his parking area to talk with his customers about the vehicles they bring in to his shop. Conway Electric, adjacent to the east, currently experiences problems with noise, fumes, and odors. Odors from garbage and fumes are always apparent and more so when trucks are waiting to be fixed. This will obviously be increased as more garbage passes through the site and diesel trucks are added. Maloy Storage, across the street on Comanche, has problems accessing Comanche with the current traffic load and will spend much more wait time trying to access Comanche with the increased truck traffic load (173%).

The City has represented the site plan as state of the art and that there will be no impact beyond the footprint of the site. The preliminary traffic study ignored the impact of the convenience center traffic and their estimate of convenience center traffic is very low, as noted in the Review of Traffic Impacts by Sustainable Systems. The other convenience centers are on the edge of town, which is where garbage should be. If a convenience center is built in the middle of the city, more than 25% of the traffic to outlying convenience centers will use the more central location. These vehicles will be idling while waiting in line, polluting the air with gasoline emissions.

Because of traffic flow created by the design of the project, garbage trucks will be polluting the air with emissions as they wait for a left turn (no light) across

Comanche to the site, 18-wheelers will be polluting the air with diesel emissions as they wait for a left turn light at Comanche/Edith, as they wait for a left turn (no light) across Edith onto the site, and as they leave the site (no light) to take right turns at those intersections. There has been no report prepared by the City to study the effects on air quality. The site is currently permitted to release up to a maximum of 0.42 tons per year of volatile organic compounds (VOC's). However, no data is currently available on actual emissions from this site. WHY NOT? Therefore, it is impossible to quantify the total pollution created by the current traffic, additional garbage truck trips, 18 wheelers and private vehicles, and the data should include both on-site and off-site (while idling in the roads) emissions.

This additional pollution directly impacts residences nearby, the closest one being within 100 feet, an apartment complex within 700 feet, not the 1300 feet the city indicates is the closest. However, air MOVES and with it goes the pollutants so the effect is far beyond the nearest residences. There will also be negative impacts on cyclists, pedestrians, and children.

Nearby intersections affected by the additional traffic have ratings of D and F. While the routes of the garbage trucks are primarily between the site and I-25, there has been no thought given as to the routes of the private vehicles for the convenience center. They will be coming through these D and F intersections. There is no contingency plan offered by the City but what will happen when the highway is closed (which has happened at least 5 times in the last month)? These trucks will be using alternative streets which impact nearby neighborhoods and these intersections.

The City claims Section 1D (2) of Enactment 270-1980 "the existing zoning is inappropriate because of changed community conditions" justifies the change. The City seems to consider community to be the entire City of Albuquerque - their argument being "The City's population continues to grow and there is more demand for services". I consider the community to be more a collection of neighborhoods and could be expanded to mean the North Valley. The ABQ/BernCo Comprehensive Plan supports this latter definition (IIC9). This growth, however, is primarily on the West Side, not in the North Valley. Changed community conditions on the West Side don't support a zone change in the North Valley. Additionally, the City uses the argument "with budgets and resources continuing to shrink, the City has to become more nimble and efficient in providing services". However, Section 1G states "The cost of land or other economic considerations pertaining to the applicant shall not be the determining factor for a change of zone". Therefore, the City's reasoning is a violation of Section 1G of Enactment 270-1980.

I am also concerned that a zone change for this site makes it easier for a future applicant in the area to claim 1D(2) "changed neighborhood or community conditions justify the change". This proposed zone change and project WILL change the neighborhood and community.

I would also like to point out violations of Section 1C of the same Enactment: "A proposed change shall not be in significant conflict with adopted elements of the

Comprehensive Plan or other City master plans and amendments thereto including privately developed area plans which have been adopted by the City". While significant is a subjective determination, I will discuss elements I think would fit that determination.

Not providing an air quality study of the effects of the proposed project violates IIC1k of the Comprehensive Plan. "Citizens shall be protected from toxic air emissions. IIC1k1 states possible techniques "Develop an air toxic program to inventory existing sources of toxic emissions and assess the air quality effects of existing and future industries". As noted above, data is not available on the existing sources of the site and there has been no assessment of the proposed future project.

The Goal (of Solid Waste) is an economical and environmentally sound method of solid waste disposal which utilizes the energy content and material value of municipal solid waste. Policy IIC3a states "planning and implementation of more efficient and economical methods of solid waste collection shall be continued". Possible techniques (1): "Continue investigating and using up-to-date equipment and collection methods". There is no indication that this project satisfies this technique. The project continues the method of picking up garbage in trucks, dumping it (at the transfer station), picking it up in another truck, driving it to a landfill and dumping it. There is no discussion of any innovative methods of reducing volume, if only by compaction.

Policy IIC3b states "Encourage solid waste recycling systems which reduce the volume of waste while converting portions of the waste stream to useful products and/or energy". I am a gardener and a prime method to accomplish this goal would be to accept green waste as its own waste stream and compost it. The Rainbow Transfer Station in Huntington Beach (an example on the city web site www.abqets.com), has an area set aside for compost dumping and selling compost products; they also rent out bins for this purpose. That is not part of the design of this project and there is not space accommodation for it. At the July 21 public meeting, a person asked if the site would be collecting green waste or at least Christmas Trees (like at Eagle Rock). Ms. Savina Garcia answered there were no plans for this.

In addition to Huntington Beach, two other transfer stations were identified as being similar to this. However, the Tacoma station is actually located on a 200 acre landfill in South Tacoma. The Phoenix station is located on the outskirts of the city. Another station closer to home, Buckman, is located at the Santa Fe city limit. Nobody moves garbage to the middle of town.

There are numerous policies in the Comprehensive Plan protecting community identities. The Central Urban Area (IIB6) is promoted as a focus for arts, cultural, and public facilities/activities while recognizing and enhancing the character of its residential neighborhoods and its importance as the historic center of the city. Perhaps this is why the Little League (public facilities/activities) located just down the street. A transfer station does not fit any of the three categories. And who puts a transfer station in the historic center of the city?

The applicant could not demonstrate that the existing zoning is inappropriate (1D of Enactment 270-1980). I have cited several instances where this proposed project violates the ABQ/BernCo Comprehensive Plan which violates 1C of Enactment 270-1980. The applicant has cited economic reasons as justification for the zone change which violates 1G of Enactment 270-1980. And I have articulated negative effects on adjacent properties and neighborhoods which supports 1E of Enactment 270-1980, "a zone change shall not be approved where some of the permissive used in the zone would be harmful to adjacent property, the neighborhood or the community".

I therefore ask that you deny the request for a zone change and site plan approval by the City of Albuquerque, project #1010582.

Sincerely,

Peggy Norton

Peggy Norton
3810 11th Street, NW
Albuquerque, NM 87107

#1010582

Mr Nicholls, Chair EPC

I oppose the zone change at 4600 Edit. because what the city plans to build and do with the garbage is a waste of money. It does not follow Policy 11.0.3b3 Community Resource Management

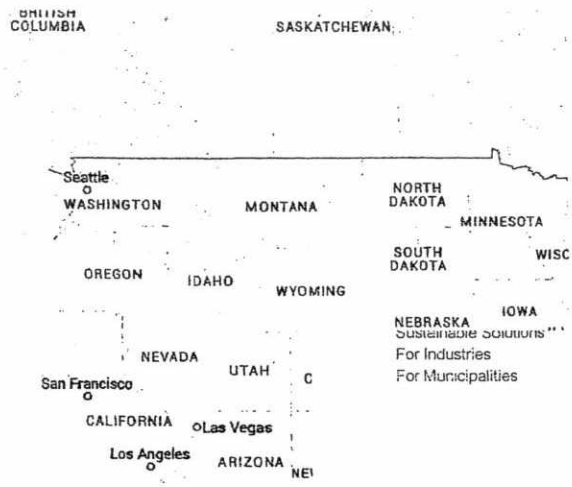
3. Energy Management

b. Efficient and economic use of alternative and renewable energy source such as solar, wind, solid and liquid waste.

3. Consider development of a recovery plant to produce energy from municipal waste.

The city plan is archaic, outdated and costly. The money should be spent on Energy from waste plant.

Marian Savioni



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Energy-from-Waste Facility Americas-Facilities

Facilities

- Facility by Location
- Asia-Pacific
- Development Projects
- Other Renewable Energy Projects
- Community Commitment
- Environmental Justice Policy

Locations

Safe, Reliable Renewable Energy for Communities

Covanta currently operates over 40 modern Energy-from-Waste (EfW – also known as waste-to-energy) facilities around the world. These facilities safely and securely convert approximately 20 million tons of solid waste into more than 9 million megawatt-hours of clean energy each year. Processing more than five percent of the waste in the United States, our facilities provide a sustainable solution to the solid waste disposal needs of more than 20 million people in communities.

Energy-from-Waste Offsets Greenhouse Gases to Combat Climate Change

According to the U.S. Environmental Protection Agency (EPA), for every ton of municipal solid waste processed at an EfW facility, the release of approximately one ton of carbon dioxide equivalent emissions into the atmosphere is prevented due to the avoidance of methane generation at landfills, the offset of greenhouse gases from fossil fuel electrical production, and the recovery of metals for recycling.

Click the above map to learn more about our facilities.

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Energy-from-Waste facilities are the only solid waste disposal option with state-of-the art air pollution control technology unlike incinerators of the past as well as landfills.

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- Understanding the Difference Between Incinerators and Energy-from-Waste Facilities
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Energy-from-Waste Facility

Covanta Marion Inc.

Brooks, Oregon

The Marion County Energy-from-Waste facility began commercial operation in March 1987, serving the solid waste management needs of the 300,000 people of Marion County, Oregon. The facility operates as Covanta Marion and processes 550 tons per day of municipal solid waste (MSW), which generates up to 13.1 megawatts of renewable energy sold to Portland General Electric. The facility was the first mass-burn waterwall resource recovery facility combusting MSW in the United States to use dry flue gas scrubbers and fabric filter baghouses to control acid gases and particulates. In addition to MSW, the facility processes about 250 tons-per-month of supplemental waste. It is located in Brooks, a small farming community about four miles north of Salem, the state capital, and 40 miles south of Portland.

Notably, the facility has been a member of Oregon's safety and health recognition program, the Safety and Health Achievement Recognition Program (SHARP) Alliance , since 2006 and an Occupational Health and Safety Association (OSHA) Voluntary Protection Program (VPP) Star member since 2008.

Published Date

Address:

4850 Brooklake Road, NE
Brooks, OR 97305
(503) 393-0890

Size:

15.2 acres in Brooks, OR

Commercial Operation:

March 1987

Combustion and Furnace:

Two 275 ton-per-day waterwall furnaces with Martin® reverse-reciprocating grates and ash handling system

Boiler Design:

655 psig/700°F superheater outlet conditions

Air Pollution Control Equipment:

Semi-dry flue gas scrubbers injecting lime, fabric filter baghouses, nitrogen oxide control system, mercury control system, and continuous emissions monitoring system

Plant Design Capacity:

550 tons per day

Energy Conversion Capability:

up to 13.1 megawatts from one condensing steam turbine generator

Steam Off-taker:

Portland General Electric Company

Covanta Marion

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Henry, Dora L.

From:	North Valley Coalition <nvcabq@gmail.com>
Sent:	Monday, September 28, 2015 2:23 PM
To:	Henry, Dora L.; Quevedo, Vicente M.; Savina Garcia
Cc:	NVC Executive Committee
Subject:	Submission from NVC re' Project #1010582, Edith Transfer Station
Attachments:	NVC 9-28-15 letter to EPC w-Traffic Review re' Project #1010582.pdf; 08-11-15 Sustainable Systems letter w- Traffic Review.pdf; 08-11-15 WasteXfer Traffic Impacts Aug11 Final.pdf

Good afternoon Ms. Henry, Mr. Quevedo and Ms. Garcia:

Attached please find the following:

9-28-15 Letter from the North Valley Coalition to the EPC
8-11-15 Letter from Sustainable Systems Research, LLC
8-11-15 Review of Traffic Impacts prepared by Sustainable Systems Research, LLC

A hard copy is being hand-delivered to Ms. Henry as well.

These three documents are being submitted for the EPC's consideration and for the record in Project #1010582, the proposed Edith Transfer Station.

We would appreciate your confirming your receipt of these documents.

Thank you.

NVC Executive Committee

-

North Valley Coalition

Visit our website at bit.ly/nvcabqweb

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NORTH VALLEY COALITION, INC.

Individuals, Neighborhood Associations, Businesses & Community Groups Working Together

September 28, 2015

Peter D. Nicholls, Chair
Karen L. Hudson, Vice Chair
Environmental Planning Commission
c/o City of Albuquerque Planning Department
600 2nd Street, NW, 3rd Floor
Albuquerque, NM 87102

Hand-delivered to Dora Henry

Re: Edith Transfer Station, Project #1010582, Zone Map Amendment and Site Plan for Building Permit

Dear Chairman Nicholls and Vice-Chairwoman Hudson:

Attached to this letter you will find a document entitled "Review of Traffic Impacts from the Proposed Waste Transfer Station in Albuquerque, New Mexico," and dated August 11, 2015, along with a cover letter from the author, which we are submitting for your consideration and for the record in the above-referenced matter. We will also provide an electronic copy to Ms. Henry.

This Review of Traffic Impacts was completed at the request of the North Valley Coalition by Sustainable Systems Research, LLC, with funding from Bernalillo County.

We appreciate your consideration of this document.

Sincerely,

Peggy Norton

Peggy Norton, President
North Valley Coalition

Copy via e-mail to:
Vicente Quevedo, Assigned Staff Planner
Savina Garcia, PE, Wilson & Company

Sustainable Systems Research, LLC
27276 Meadowbrook Dr.
Davis, CA 95618
August 11, 2015

To:

North Valley Coalition
Kitty Richards
Kristine Suozzi

As requested, we have completed our review of the Draft Traffic Study and documents related to traffic impacts of the Proposed Edith Waste Transfer Station. We have completed a report examining the potential impacts of the Proposed Waste Transfer Station. In brief, our findings are as follows:

1. **The project-related traffic information that has been presented is inconsistent.** The information that has been presented about the trips generated by the proposed Waste Transfer Station varies, and many of the estimates are not justified or seem to conflict with each other. This makes it difficult to ascertain the traffic-related impacts of the project. In our analysis of trips generated by the project and their potential impacts, we relied on the more detailed project information that has been presented to date.
2. **The Draft Traffic Study relies on a number of faulty assumptions, causing its analysis to underestimate the impacts of the project.** In particular,
    a. Our analysis indicates that the project will likely result in 390 to 732 new trips per weekday; 232 to 254 of these will be truck trips. This range exceeds the projections presented by the City. (See pages 25-26.)
    b. Collection truck trips will likely occur during peak travel periods, although they were excluded from the analysis of peak hour traffic in the Draft Traffic Study. (See pages 14 – 15.)
    c. Convenience center and other household drop-off trips were substantially underestimated in the Draft Traffic Study. (See pages 17 – 21.)
    d. Trips made by collection trucks and vehicles traveling to and from the convenience center are likely to occur on routes that were not considered in the Draft Traffic Study (such as on Griegos Rd west of the project, and on Montano Rd, 2nd St, and 4th St.). (See pages 16-17, 21-22.)
3. **The project has the potential to worsen traffic in the project area.**
    a. On the most heavily impacted corridors, the project will increase vehicle volumes by 3% to 7% and truck volumes by 47% to 151%. (See pages 27-30.)
    b. On corridors that currently exhibit volume-to-capacity ratios greater than 1 during the afternoon peak period, the project will increase peak traffic volumes by up to 6%. (See pages 30, 33-34.)

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4. **The project has the potential to reduce safety and bike/pedestrian/transit accommodation on nearby corridors.**
    a. Given that greater traffic volumes, speeds, and truck shares can adversely impact safety there is elevated concern about safety on nearby corridors (particularly on routes carrying vehicles to/from the project and I-25). Safety impacts are of particular concern in areas that already exhibit safety risks, such as Montaño Road & 4th Street and Montaño Road & Edith Blvd. (See pages 35-37.)
    b. In light of the increased traffic volumes (particularly truck volumes), the project's new trips may adversely impact the accommodation of non-auto modes. (See pages 37 – 43.) Corridors that are of particular concern include:
        - Comanche Road, which has a bike lane and a bus line, and which will carry the greatest number of new trips (including truck trips) of the arterials in the project area.
        - 2nd Street, which has two bus lines and a bike route where cyclists share the road with vehicles.
        - Edith Blvd, which has a bike route where cyclists share the road with vehicles, which will carry a majority of new truck trips.
        - Griegos Road, which has a bus line and a bike lane with a gap directly in front of a school.
        - 4th Street, which has a bus line and which is planned for improved non-auto accommodation under the 4th Street Corridor Plan.
        - Montaño Road, which has a bus line, a Transit Center, and a bike lane with a gap.
5. **The project has the potential to increase noise and air pollution in nearby residential areas.**
    a. In light of the additional vehicle and truck travel on corridors in the project area, the project will increase emissions in the project area. (See pages 43 – 49.) Areas of elevated concern include:
        - Residences at the northeast corner of Edith Blvd and Rankin Road, approximately 100 to 200 feet from the project site. These residences are the closest to the project site itself and to the most heavily impacted corridors.
        - Residences located northwest of Edith Blvd & Griegos Road, along Carlton Street, and near Carlton Street. These residences are also near the project site and the most heavily impacted corridors, although they are not as close as the homes at Edith Blvd and Rankin Road.
        - Additional corridors of concern include Griegos Road west of 2nd Street, Montaño Road west of 2nd Street, Montaño Road just east of Edith Blvd, and 2nd Street from Candelaria Road to north of Montaño Road. Traffic increases along these corridors are more modest than along Edith Blvd, Rankin Road,

Comanche Road and I-25, but potentially affected residents are located relatively close to these roads.

b. Given that high vehicle speeds and high volumes of truck traffic can increase noise, the corridors of greatest concern are those that carry new project truck traffic and are close to nearby homes and La Luz Elementary School (including Edith Blvd just north of the Griegos Road, Griegos Road just west of Edith Blvd and west of 2nd Street, Montaño Road between 2nd Street and 4th Street, Montaño Road and Edith Blvd, and 2nd Street from Candelaria Road to north of Montaño Road.) (See pages 49-50.) Homes that are of particular concern include:
   - The homes at the northeast corner of Edith Blvd and Rankin Road are in proximity to the greatest weekday volume of truck traffic that will occur near residents. During the busiest hour, nearby access points will carry approximately one truck every 41 seconds, 600 to 800 feet away.
   - The homes on Edith Blvd just north of Griegos Road, near Montaño Road and Edith Blvd (on Tahoe Place NE), and on 2nd Street north of Montaño Road are also in proximity to weekday truck traffic. During the busiest hour, these corridors will carry approximately one truck every five to six minutes.

6. **We close with a number of recommendations for conducting an improved evaluation of traffic impacts. (See pages 54-55.)**

Note that our analysis was limited in several respects; noise, safety, air quality, and bike/pedestrian/transit accommodation impacts were not quantified, and concerns about other environmental considerations such as odors, pests, and water quality, were not addressed in our report but may also be of concern.

Attached please find the full report. Please contact me if you have any questions.

Sincerely,
Dana Rowangould, PhD
Principal
Sustainable Systems Research, LLC

Enclosures:

Technical Memorandum: Review of Traffic Impacts from the Proposed Waste Transfer Station in Albuquerque, New Mexico.

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Review of Traffic Impacts from the Proposed Waste Transfer Station in Albuquerque, New Mexico

August 11, 2015

Prepared by:
***Sustainable Systems** Research, LLC*

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Executive Summary

The City of Albuquerque proposes to build a Waste Transfer Station (WTS) at 4600 Edith Blvd at the southeast corner of Comanche Road and Edith Blvd. The site is currently owned and occupied by the City's Solid Waste Department (SWD), and is home to central administrative offices, the SWD dispatch center, and the main hauling yard where waste collection vehicles are stored and maintained.

The proposed project will reconfigure the site to expand its current uses to include a WTS. The City's waste collection vehicles will unload their waste at the WTS before returning to their routes to continue waste collection (instead of traveling directly to the landfill as they do currently). The facility will also serve as a convenience center for the general public to unload waste that will go to the landfill. Transfer trucks will then carry waste (from the City's collection and from the convenience center drop-offs) from the WTS to the landfill each day. The project will also include a Household Hazardous Waste Collection Facility and a Recycling Drop-off for the general public as well as a gatehouse and scale complex to serve vehicles dropping off waste. The site may also house a Re-Use area [1]. The proposal has been narrowed down to two possible designs (Design Plans C and D.)[1] The final design determination will occur at a later date.

Residents and businesses in the area have raised a number of concerns about the project's traffic, noise, odor, pest, economic, and environmental impacts. In an effort to evaluate those concerns, the Board of the North Valley Coalition requested that health professionals partner with interested residents and businesses to conduct a Health Impact Assessment.

The City has released a Draft Traffic Study which found that the project would not have traffic impacts [2]. A number of residents and businesses have expressed ongoing concern about the traffic impacts of the project and skepticism about the Draft Traffic Study findings. This report provides additional analysis of the project's transportation impacts in concert with the Health Impact Assessment effort. The focus is primarily on distilling the available information into reasonable and transparent estimates of new project trips traveling to and from the proposed WTS to allow for re-examination of the project effects in the project area.

In examining new project trips that will be generated by the proposed Waste Transfer Station, we are unable to verify the estimates that have been reported by the City. Depending on the source, estimates of expected new project trips vary, and many of the estimates are not justified or seem to conflict with each other. In order to determine reasonable and transparent estimates of project trips, we relied on

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[1] http://www.abqets.com, accessed July 1, 2015

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more detailed information about the underlying assumptions that were used to generate estimates. This allows us to unpack the trip estimates that have been reported by the City, evaluate the merits of the underlying assumptions, adjust assumptions where appropriate, and repack trip estimates using transparent assumptions. In many cases, more detailed information was provided after the Draft Traffic Study was released; we anticipate that some of the adjustments made in this report may also be made in a Final Traffic Study (which may be underway).[2]

Overall, our analysis indicates that the project will likely result in 390 to 732 new trips per weekday and 528 to 680 new trips per weekend day. Of these total trips, 232 to 254 trips per weekday and 33 to 43 trips per weekend day will be truck trips. These ranges exceed trip estimates calculated by summing the City's trips estimates. We also find that collection truck trips will likely occur during peak travel periods although they were excluded from the analysis of peak hour traffic in the Draft Traffic Study. Additionally, we find that trips made by collection trucks and made to and from the convenience center are likely to travel to and from the proposed site via intersections that have not been considered in the Draft Traffic Study (such as intersections along Montaño Road).

Finally, we find that residents' concerns about air quality, bike and pedestrian and transit accommodation, noise, and safety were not addressed in the Draft Traffic Study. Our analysis suggests that these potential project impacts should be analyzed more thoroughly in a Final Traffic Study to determine whether they are significant, and if so, to evaluate design and/or mitigation alternatives. We note too that this analysis was limited in several respects; noise, safety, air quality, and bike/pedestrian/transit accommodation impacts were not quantified, and concerns about other environmental considerations such as odors, pests, and water quality, were not addressed here.

[2] Since the Draft Traffic Study was completed, the City has presented additional information about baseline weekend traffic levels and the exact timing of project trips; it seems particularly likely that a Final Traffic Study will account for these details.

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Introduction

The City of Albuquerque proposes to build a Waste Transfer Station (WTS) at 4600 Edith Blvd at the southeast corner of Comanche Road and Edith Blvd. The site is currently occupied by the City's Solid Waste Department (SWD), and is home to central administrative offices, the SWD dispatch center, and the main hauling yard where waste collection vehicles are stored and maintained.

The proposed project will include a reconfiguration of the site to continue to house its current uses as well as to provide a WTS. The City's waste collection vehicles will unload their waste at the WTS before returning to their routes to continue waste collection (instead of traveling directly to the landfill as they do currently). The facility will also serve as a convenience center for the general public to unload waste that will go to the landfill. Transfer trucks will then carry waste (from the City's collection and from the convenience center drop-offs) from the WTS to the landfill each day. The project will include a Household Hazardous Waste Collection Facility and a Recycling Drop-off for the general public as well as a gatehouse and scale complex to serve vehicles dropping off waste. The site may also house a Re-Use area [1]. The City's recycling collection fleet is currently housed at the site and unloads at the Friedman Recycling Center; this configuration is expected to remain unchanged when the project is built. Several potential site layouts have been considered, each with different routes for access to and egress from the site. The proposal has been narrowed down to two designs (Design Plans C and D.)[3] The final design determination will occur at a later date.

Residents and businesses in the area have raised a number of concerns about the project's potential for increasing traffic, noise, odor, pests, economic, and environmental impacts. In an effort to evaluate those concerns, the concerned residents and businesses have partnered with health professionals to conduct a Health Impact Assessment.

In June of 2014, Draft Traffic Study was completed for the City. The Study found that the project would not have traffic impacts [2]. A number of residents and businesses have continued to express concern that report's assessment of traffic impacts has been vastly under-estimated.

This study provides external assessment of the project's transportation impacts, including discussion of the air quality, bike and pedestrian, noise, and safety impacts. This analysis accompanies a Health Impact Assessment that has also been performed.

In order to evaluate the potential traffic impacts of the facility, we reviewed a number of documents and data sources, including several that provided details

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[3] http://www.abqets.com, accessed July 1, 2015

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about the project specifically. Our analyses relies primarily on information presented in: the Draft Traffic Study [2], the 2014 Feasibility Study [3], the City's Traffic Slide [4], the Design Memorandum [1], and the City's Data Table [5]. Each is further described below.

Draft Traffic Study (June 2014): The draft traffic study (prepared by Wilson & Company for the City of Albuquerque) estimates the expected traffic impacts of the project at buildout in 2018, assuming a background 1% annual growth rate in traffic levels along the affected corridors. The study evaluates peak traffic flows at five intersections: Griegos Road & 4th Street, Griegos Road & 2nd Street, Griegos Road/Comanche Road & Edith Blvd, Comanche Road & I-25 Pan American Frontage Road S, and Comanche Road & I-25 Pan American Frontage Road N.[4] The study found that the project would not have any significant traffic impacts in the project area as the existing level of service (LOS) at four of the studied intersections is acceptable and would remain so under project conditions. The fifth intersection, Griegos Road & 4th Street, operates at LOS F during the afternoon peak (with an average of 102.9 seconds of intersection delay per vehicle), however the analysis predicts no new trips during the afternoon peak at that intersection due to the project.

2014 Feasibility Study (February 2014): The 2014 Feasibility Study (prepared by J.R. Miller & Associates for the City of Albuquerque) is an update to a 2011 Feasibility Study. It provides project parameters and evaluates the economic feasibility of various project alternatives.

City's Traffic Slide (April 2015): A slide entitled "Existing and New Traffic" shows the expected traffic associated with the project by time of day alongside the peak traffic volumes at the five intersections examined in the Draft Traffic Study. The slide is posted at the City's website and has logos for the City of Albuquerque, J.R. Miller & Associates, Wilson and Company, CDM Smith, and MRWM Landscape Architects.

Design Memorandum (March 2015): A report detailing the design parameters for the facility. The report was prepared for the City of Albuquerque by J.R. Miller & Associates.

City's Data Table (unknown date): A hard copy of a data table provided by the City of Albuquerque to the Health Impact Assessment team in February 2015 summarizes the current landfill, Friedman Recycling Center, and SWD facility trips by vehicle type. The table includes information about the timing

[4] Peak periods are defined as weekdays 6:30 am – 9:30 am ("AM peak"), 11 am-1:30 pm ("mid-day peak"), and 3 pm – 6:30 pm ("PM peak"). Peak turning movement counts were collected at the five intersections on December 4, 2013 and December 12, 2013.

of trips (weekends vs. weekdays, time leaving and returning to the SWD facility).

We start by evaluating baseline traffic conditions in the project area. We then evaluate the potential for additional vehicle trips that can be expected in the project area as a result of the project. Subsequent sections discuss the potential impacts of those additional vehicle trips.

Due to limited time and resources we present a quantitative evaluation of the trips that will result from the project and a qualitative discussion of the impacts of those trips. We also provide a number of specific recommendations for improving the City's Traffic Study. It is beyond the scope of this analysis to quantify the traffic impacts in terms of intersection delay, specific changes in noise or air pollution levels, or other quantitative metrics.

Baseline Traffic Conditions

The project will result in additional collection truck trips, transfer truck trips and convenience center trips to and from the project site. Most of these trips will occur via I-25 to/from Comanche Road, although some trips will occur along other routes. Convenience center trips will likely be greatest on weekends.

In order to assess the effect of these trips on traffic flow in 2018, we review the baseline traffic conditions in the study area. When evaluating impacts in 2018, the Draft Traffic Study assumes a 1% growth rate in baseline traffic over existing conditions (which were measured in 2013). The 1% growth estimate is based on historic trends in traffic data and does not specifically account for development projects planned in the area [2, 6].

Intersections

Under the 2010 Highway Capacity Manual guidelines for signalized intersections, level of service (LOS) A, B, C, or D is generally considered acceptable and F represents highly congested conditions. The Draft Traffic Study states that the current LOS at the five study intersections during the AM, Mid-Day, and PM peaks are as follows, [2]:

- Griegos Road & 4th Street: C / C / F
- Griegos Road & 2nd Street: C / C / D
- Griegos Road/Comanche Road & Edith Blvd: C / C / D
- Comanche Road & I-25 Pan American Frontage Road S: C / C / C
- Comanche Road & I-25 Pan American Frontage Road N: C / C / D

The Draft Traffic Study also identifies the LOS for each approach direction, showing service levels of E and F for the following locations:

- Griegos Road & 4th Street: Eastbound PM (F), Westbound PM (F), Northbound PM (F)
- Griegos Road & 2nd Street: Northbound PM (E)
- Comanche Road & I-25 Pan American Frontage Road N: Westbound PM (E)

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The LOS estimates presented in the Draft Traffic Study are based on peak period data collected at the five intersections on December 4, 2013 and December 12, 2013. Each intersection was observed during one day, and the Comanche Rd & I-25 Pan American Frontage Road S intersection was observed during slightly different periods than the other intersections (7:45am – 10:45am, 12:30pm – 3pm, and 4:15pm – 7:45pm instead of 6:30am – 9:30am, 11am – 1:30pm, and 3pm – 6pm, respectively); this variance was not explained in the Draft Traffic Study.[5]

The Bernalillo County Public Works Department's (BCPWD's) Traffic Impact Assessment (TIA) guidelines (Appendix A of the Draft Traffic Study) indicate that "...the minimum intersection analysis area requirement is site access and adjacent intersections, plus the first major intersection in each direction from the site." (page 6). Under this guidance and in light of the predicted trip routes (discussed later in this report), it is unclear why intersections located north or south of the site were not considered in the Draft Traffic Study (e.g. along Montaño Road or Candelaria Road).[6]

Roadways

The TIA guidance document discusses the evaluation of traffic for road segments as well as intersections. Below we review the available data for existing roadway traffic conditions in the area.

Weekdays

Figure 1 and Figure 2 show weekday afternoon peak period volume-to-capacity ratios (V/C) in the project vicinity (based on 2012 traffic data from the Mid-Region Council of Governments). These data indicate that several road segments are over capacity or severely congested during the afternoon peak period:

- Comanche/Griegos Road (westbound between Edith Blvd and 2nd Street and between the I-25 overpass and I-25 Pan American East Northbound) is severely congested,
- Edith Blvd (in both directions from Candelaria Road to Montaño Road) is over capacity and severely congested,

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[5] According to the Draft Traffic Study Appendix B, the four other intersections were observed from 6:30 am – 9:30 am, 11 am – 1:30 pm, and 3 pm – 6 pm on December 4, 2013 (4th Street & Griegos Road, 2nd Street & Griegos Road, Griegos/Comanche Road & Edith Blvd) or December 12, 2013 (Comanche & I-25 Pan American Frontage S, Comanche & I-25 Pan American Frontage N).

[6] The Draft Traffic Study assumes that peak hour traffic travels along Comanche Road to/from the I-25 interchange and west of the interchange and to/from Edith Blvd south of the proposed WTS. It assumes that no traffic travels through the 4th Street / Griegos Road and 2nd Street / Griegos Road intersections (these intersections were evaluated), while it is very likely that the traffic assumed to travel south on Edith Blvd would travel through the Edith Blvd/Candelaria Road intersection (this intersection was *not* evaluated). In the Additional Project Trips section of this report, we evaluate routes and find that it is likely that a portion of new project trips will travel through the intersections examined in the Draft Traffic Study as well as intersections along Montaño Road and Candelaria Road.

- 4th Street (in both directions from Candelaria Road to Griegos Road and northbound to Montaño Road) is over capacity and severely congested,
- Montaño Road (in both directions between 4th Street and I-25 and westbound west of 4th Street) is severely congested,
- Exiting I-25 southbound and existing and entering northbound to/from Comanche/Griegos Road is over capacity and severely congested.

Weekends

The City has also collected weekend traffic counts along Comanche Road (west of Edith Blvd) and Edith Blvd (south of Comanche Road) from April 17th – 19th.[7] These counts indicate that traffic at these locations is below capacity on the weekends, with the exception of Edith Northbound which exceeds its capacity during the Friday afternoon peak.[8]

[7] These data were provided in a personal communication from Jill Holbert (City of Albuquerque) to Kitty Richards (Health Impact Assessment Team) on June 12, 2015.

[8] The highest volumes observed from Friday through Sunday are as follows: Comanche Road EB (834 on Friday 4 pm), Comanche Road WB (615 on Friday at 8 am), Edith Blvd NB (645 on Friday at 4 pm), and Edith Blvd SB (504 on Friday at 4 pm). Corresponding capacities (based on MR COG 2012 data) are as follows: Comanche Road EB and WB (1200) and Edith Blvd NB and SB (600). The Edith Blvd NB volume exceeds capacity on Friday at 4 pm, while the next highest volume at that location, 568 observed on Friday at 3 pm, does not exceed capacity.

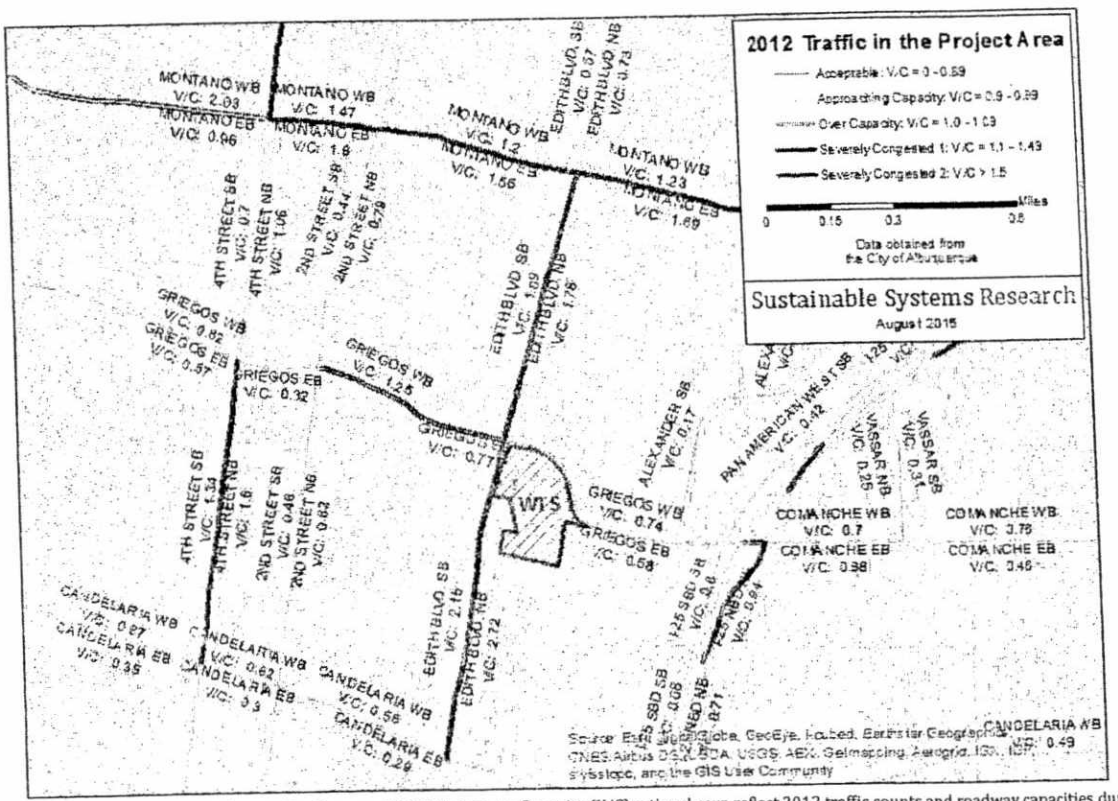

Figure 1: Traffic along roads near the Proposed WTS. Volume to Capacity (V/C) ratios shown reflect 2012 traffic counts and roadway capacities during the afternoon peak period. Roadway data provided by MRCOG. WTS property outline based on city owned property data obtained from the City of Albuquerque.

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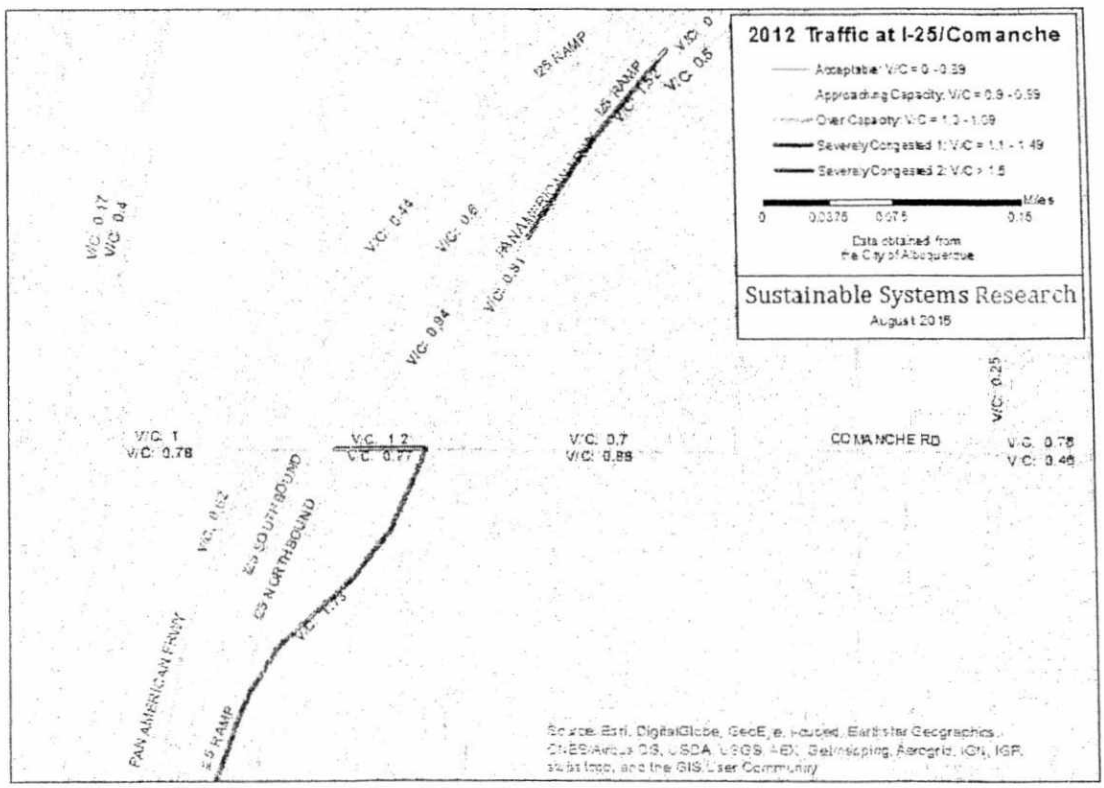

Figure 2: Traffic at the I-25 & Comanche/Griegos Road intersection. Volume to Capacity (V/C) ratios shown reflect 2012 traffic counts and roadway capacities during the afternoon peak period. Roadway data provided by MRCOG. WTS property outline based on city owned property data obtained from the City of Albuquerque.

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Additional Project Trips

This report focuses on the *additional* transportation impacts of the project (those impacts that occur due to the project changes rather than impacts associated with existing site activities). Once the proposed WTS is completed, several new streams of traffic will access the site. First, waste collection vehicles will return to the facility during their routes to drop off waste rather than driving to the landfill. Additionally, the general public will visit the facility to drop off landfill waste, household hazardous waste, and recycling and re-use materials. Finally, transfer trucks will transport waste from the facility to the landfill.

In this section we estimate the timing, routes, and number of trips associated with collection trucks, public drop-off trips, and transfer trucks. As described below, we find that the City's estimates[9] varied widely and the assumptions behind many of the estimates were not transparent. We use the most detailed and transparent information available to conduct our analysis.

Collection truck trips

Table 1 summarizes the City's trip estimates and the estimates used in this report. The City's estimates of the current collection truck trips to the landfill range from 246 to 250 round trips per day.[10] These estimates are total landfill trips rather than new trips due to the project.

The estimated number of new trips to the WTS would be lower because the fleet is currently parked at the proposed facility.[11] The City's estimates of new collection

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[9] For brevity we use this phrase to refer to estimates reported to the City in reports drafted by consultants and estimates reported by the City at public meetings, in presentation and web materials, etc.

[10] The Draft Traffic Study counts 246 trips going to the landfill currently [2], which is similar to information in the feasibility studies (246 trips in the 2011 Feasibility Study [7] and 248 in the 2014 Feasibility Study [3]), the July 15, 2015 public meeting presentation [8](248 collection trips/weekday), and in the Design Memorandum [1] (250 load/day estimate); based on this value the Draft Traffic Study estimates 500 one-way trips to the landfill per day. Note that cross checking these values with the City Data Table (which provides detailed information about current trips) yields a difference of 22 trips: based on the City Data Table, we estimate 268 trips to the landfill per weekday currently [5]. (According to the City Data Table there are 52 commercial bin trips, 16 commercial bin-hazard trips, 85 roll-off service trips, 15 roll-off special service trips, 96 residential trash trips, and 4 missed pickup trips delivered to the landfill on weekdays.)

[11] Waste collection vehicles are currently parked at the project site at the start and end of each day. These vehicles currently travel to the landfill to drop off waste during and at the end of their routes. Once the project is built, these trucks will drop their waste at the WTS instead of the landfill. Because the collection fleet is currently housed at the site of the proposed WTS, the actual number of **new** trips to the WTS is equal to the number of trips per day that each truck will make to drop off waste minus one. For example, a truck dropping off two loads of waste will result in one additional round trip (or two one-way trips) at the WTS. A truck dropping off five loads of waste will result in four additional round trips (or eight one-way trips) at the WTS.

To illustrate this calculation, consider that a residential collection truck making two trips to the landfill currently travels as follows: Origin at proposed WTS, travel route to collect waste, travel

trips that will result from the project also cover a range of values (from 125 to 149 round trips per weekday).[12] These estimates are low when compared with more detailed information: based on the City Slide [4], the City's Data Table[13] [5] and proposed route maps [10] we estimate 154 to 167 new weekday round trips.[14]

For weekends, the City presented an estimate of 20 new round trips for Design Plans B, C, and D and 10 new trips for Design Plan A (which may be a typo) [9]. However there was no indication of the assumptions used to generate those estimates. We estimate the total number of collection trips currently occurring on

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to landfill (first drop-off), travel route to collect waste, travel to landfill (2nd drop-off), return to proposed WTS to park for the night. Under the proposal, the same vehicle will travel as follows: Origin at proposed WTS, travel route to collect waste, *travel to WTS (first drop-off)*, travel route to collect waste, travel to WTS (2nd drop-off and park for the night). The additional trip to the WTS occurs at the first waste drop-off and is shown in *italics*. Note that this illustration assumes that trucks unload at the end of the day even when they are not full (it assumes that they do not hold waste overnight).

[12] The FAQ on the City's website [6] indicates that there will be 125 new weekday trips while the City's Slide [4] and Design D in the July 15, 2015 presentation [8] indicate that there will be a total of 149 new weekday trips. The City's April 2015 presentation to the Edith community [9] indicates that the project will have various new weekday trips with each design option (50 for design B, 149 for designs A and D, and 199 for design C); two of these values (50 and 199) may be typos. Each of these estimates is lower than estimates based on the more detailed information in the City Data Table, as described below. The City's presentation on July 15, 2015 indicates that there will be 224 or 298 (224+74) new collection trips in site plan C [8]; this may be a typo or a combination of new and existing trip estimates.

[13] The City Data Table shows the current number of trips to the landfill and the number of routes and trucks. New trips are estimated from the City Data Table as follows: (# trips to the landfill per truck per day – 1) × (# routes) for weekday travel. Weekend and recycling trips listed in the City Data Table are not included in this estimate.

[14] The estimate of 154 to 167 new trips is calculated as follows: 50 residential trash waste collection trips + 34 commercial front load waste collection trips + 70 to 83 commercial roll off waste collection trips. More detail about these estimates is as follows:

Residential trips: The City's Slide [4] counts 45 new residential collection trips collecting two loads each, which conflicts with an estimated 48 (residential routes) + 2 (missed pickup) collecting two loads each shown in the City Data Table [5]. We use the City Data Table estimate as it is consistent with the 48 residential routes shown for the proposed facility at the City's website. [10]

Commercial roll-off trips: The City's Slide counts 70 new trips from commercial roll-off trucks, in contrast to 80 – 83 new trips estimated from the City Data Table [4, 5]. The City Data Table estimate is more detailed. Based on the City Data Table: 17 roll-off trucks make five trips to the landfill each (for an estimated 17 × (5 – 1) = 68 new trips) in addition to 15 trips per day to the landfill for special roll-off collection (which may require three trucks of its own or may be carried out by the roll-off trucks engaged in regular pickups, for an estimated 12 to 15 new trips), which yields a total of 80 to 83 trips made by 17 to 20 trucks. The City Slide indicates that 20 commercial roll-off trucks drop off 4.5 loads to make 70 new trips (likely estimated as 10 trucks dropping 5 loads yield 10 × (5 - 1) = 40 new trips plus 10 trucks making 4 loads yield 10 × (4 - 1) = 30 new trips). It is unclear why the projected number of trips shown in the City Slide would be less than the current number of trips shown in the City Data Table while the number of trucks would remain the same. In light of this uncertainty we use the range of these estimates.

Commercial front-load trips: There are 34 new commercial front- and rear-load collection trips (as indicated in both the City Slide and in the City Data Table).

Saturdays based on the detailed information in the City's Data Table [5] as 24 trips/day.[15]

Note that the City's Data Table [5] presents the current trips for waste collection, so it does not account for the growth in waste collected in the future. We recommend accounting for growth in waste collection activities when estimating trips that will occur in 2018. Based on the details presented in the City Data Table and an assumed annual growth rate in waste of 1.5%[16], we estimate that the project will result in 163 to 177 new collection truck trips per weekday and 25 new trips per weekend day in 2018.[17] Note that if the assumptions about how many loads each truck takes to the landfill are incorrect then the number of new trips estimated would also need adjusting.[18]

Trip timing

The greatest potential for traffic impacts will occur during times of peak travel. The Draft Traffic Study does not evaluate the impacts of new collection truck trips as it indicates that the new trips will occur outside of peak travel hours (without providing the exact timing of the trips). However, the City Slide provides detail about the timing of new collection truck trips and the timing of the peak hour at each intersection, and it does indicate some overlap between new trip timing and peak hours in a number of cases [4].[19] We note that the traffic counts at the

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[15] A total of 24 trips comes from 7 commercial bin trips + 1 rear loader trip + 4 roll-off service trips + 12 special roll-off service trips. New trips are estimated as: (# trips to the landfill/truck/day – 1) × (# routes) for weekend travel. Weekday and recycling trips listed in the spreadsheet are not included in this estimate.

[16] A 1.5% rate of growth for waste (as used in the Design Memorandum [1]) would result 6% more waste in 2018 (the year the facility will be completed) than in 2014. This growth rate in waste is roughly consistent with anticipated growth in Bernalillo County, which is estimated to be 1.63% per year from 2010 to 2015 and 1.58% per year from 2015 to 2020 according to the Bureau of Business and Economic Research at the University of New Mexico (see https://bber.unm.edu/demo/PopProjTable2.htm.)

[17] Assuming that the City's Data Table presents data for waste collection in 2014, and assuming that the new truck trips grow in proportion to waste.

[18] At the January 20, 2015 public meeting it was noted that with more efficient collection (reduced travel time to drop-off waste loads) fewer trucks would be needed. We did not account for a reduction in trucks because the most detailed projected trip estimates (the City Slide and the proposed route maps posted at the City's website) assume the same number of trucks and routes as the City Data Table, which is the basis of our estimate.

[19] Specifically, the commercial front- and rear-load trips are predicted to occur between 8:30 am and 10:30am; this overlaps with the peak hour at Comanche Road and I-25 southbound (which occurs from 8:30 am to 9:30am, as indicated in the City Slide [4] and in Appendix B of the Draft Traffic Study). The commercial roll-off collection trucks are predicted to occur from 7:45 am to 1 pm, overlapping with the peak hours at the following intersections: 4th Street & Griegos Road (7 – 8 am and 12:15 – 1:15 pm), 2nd Street & Griegos Road (7:15 – 8:15 am and 12:15 – 1:15 pm), Comanche Road & Edith Blvd (7:30 – 8:30 am and 12:15 – 1:15 pm), Comanche Road & I-25 Northbound (7:30 – 8:30 am and 12:15 – 1:15 pm), and Comanche Road & I-25 Southbound (8:30 – 9:30 am).

Note that for the intersection at 4th Street & Griegos Road, peak hours reported here are from the City Slide, although Appendix B from the Draft Traffic Study indicates that at 4th Street and Griegos Road the peak morning peak hour is from 7:15 to 8:15am and the peak mid-day hour is from

intersection of Comanche Road & I-25 Southbound in the Draft Traffic Study Appendix B did not include the period from 11 am to 12:30 pm; this omission is not noted or explained.

According to the City Slide, the residential collection trips are predicted to occur between 9:30 and 11:30 am,[20] not overlapping with any of the observed peak hours. If the City's assumption that these trucks travel to the landfill twice during each route is accurate, then this estimate is reasonable; however if these trucks make three or more landfill trips currently or in the future, then these trips would occur over a longer range of time and would overlap with peak hours at some locations.[21] Similarly, if commercial front-load and rear-load trucks make more than two trips to the landfill then the actual time range of those trips would extend earlier and later.

In light of the information in the City Slide, which indicates that there is some overlap between new collection truck trips and peak hours [4], we find that collection truck trips merit analysis in order to determine their traffic impacts. Additionally, the greatest rate of collection trips may overlap with portions of the peak period that do not fall during the peak hour.[22] It is possible that traffic levels are just slightly lower for these periods, so we recommend an analysis of traffic impacts for each hour of the peak periods in order to determine the worst project impacts[23], rather than simply evaluating the current peak hours. We also recommend that the omission of part of the mid-day peak period in the traffic counts collected at the intersection of Comanche Road & I-25 Southbound be corrected or explained.

11:45 am to 12:45 pm. Overlaps occur with these periods as well. Similarly, for 2nd Street and Griegos Road, peak hours reported here are from the City Slide, although Appendix B from the Draft Traffic Study indicates that the peak morning hour at the intersection of 4th Street & Griegos Road is 7:30 – 8:30 am. Overlap occurs with these periods as well as those described above.

[20] This timing is also roughly consistent with information presented in the City's Data Table, which indicates that residential trucks unload at the landfill twice and leave between 7 and 7:30 am and return between 2:30 and 3:30 pm.

[21] With the time saved by traveling to the WTS instead of the landfill it is possible that fewer trucks could be used to carry more loads per truck. However this analysis assumes that the number of trucks remains constant based on the available data (see footnote 18.)

[22] The Draft Traffic Study defines *peak periods* as 6:30 am to 9:30 am (AM), 11 am to 1:30 pm (Mid-day), and 3 pm to 6:30 pm (PM) [2]. Traffic counts were collected for the Draft Traffic Study during these peak periods in order to determine the traffic levels during the peak hours. These *peak hours* are the hours during which the traffic counts are greatest, and they are determined for each intersection and or each peak period. For example, at the intersection of Griegos/Comanche Road & Edith Blvd, traffic was observed during the three peak periods, and the highest traffic counts were observed during peak hours of 7:30 am to 8:30 am, 12:15 pm to 1:15 pm, and 3:45 pm to 4:45 pm.

[23] The worst project impacts might occur during a time period that isn't currently the worst peak hour if the project trips shift the peak hour.

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Table 1: Collection truck trip estimates presented in WTS documents and estimated in this report. Round trip values are presented. One-way trip estimates are twice as much as the values shown.

All weekday	New weekday	New weekend	Notes
246 (~ 250)	--	--	Draft Traffic Study [2], consistent with the 2011 Feasibility Study [7]
248	--	--	2014 Feasibility Study [3], July 15 public meeting presentation [8]
250	--	--	Design Memorandum [1]
--	125	--	City FAQ [6]
--	149		City Slide [4]
--	50 (Design B - typo?), 149 (Designs A, D), 199 (Design C - typo?)	10 (design A, typo?), 20 (designs B, C, D)	April 2015 community meeting presentation [9] (shows one-way trips so they are halved here to show the number of round trips) [9]
--	**163-177 trips/day in 2018**	**25 trips/day in 2018**	**SSR Estimate (assumes a 1.5% annual growth rate)**

Trip routes

The effect of new collection truck trips is also a function of where they travel. Because they are not included in the Draft Traffic Study's analysis of peak period traffic, the Study does not provide an indication of the routes that collection vehicles will use.

The City's response to questions at the January 20, 15 public meeting [11] and the City FAQ [6] indicate that all trucks will be routed to/from the interstate via Comanche.[24] However the 2014 Feasibility study notes that "...some collection vehicles do not travel through the [I-40 & I-25] interchange but might use surface streets to access the transfer station" [3, page 3].

The City has posted proposed route maps for residential and commercial collection on their website [10]. The route maps (created in February 2015) indicate that for residential and commercial collection trips, most routes to and from the WTS travel via Comanche Road and I-25 northbound and southbound. However there are a number of exceptions, particularly for routes traveling along Montaño Road.[25]

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[24] At the January 20, 2015 public meeting, the City indicated that Montaño Road is not a truck route so all trucks would be routed to the interstates. The City of Albuquerque GIS Viewer (http://coagisweb.cabq.gov/GeoSilver/Viewer.html?ViewerConfig=http://coagisweb.cabq.gov/Geocortex/Essentials/geo42/REST/sites/AddressLookup/viewers/Advanced/virtualdirectory/Config/Viewer.xml) indicates that Montaño is restricted from Unser to 4th Street (on the west side) and that Griegos Road is restricted from Rio Grande to 4th Street; these restrictions apply to trucks weighing more than five tons.

[25] Estimated exceptions for residential collection routes include: two routes traveling on Edith Blvd north of Comanche Road on Tuesdays as they travel to or from the WTS, 6 to 8 routes traveling along Montaño Road/Edith Blvd to and from the WTS on Thursdays (including 3 to 5 that travel through the intersection of 4th Street & Griegos Road), and 10 to 20 routes traveling down 2nd Street to

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Appendix A shows the approximate direction of the routes in the project area as inferred from the City route maps[26]. We note that a number of the routes shown on the proposed maps may not be accurate unless the truck routes are restricted to the routes shown and drivers do not deviate from their routes.[27] We recommend that the Final Traffic Study clearly delineate the proposed collection routes in the project area. In light of the project travel that is proposed to occur along Montaño and the current congested conditions observed there (see the Baseline Traffic section of this report), we also recommend that the traffic analysis evaluate traffic for potentially impacted intersections along Montaño Road.

The route that trucks use to enter the facility will depend on the final design selection. As of this report writing, the City is considering Designs Plans C and D. If Design Plan C is selected, collection trucks will access the site via Comanche Road NE and Edith Blvd NE and will exit via Edith Blvd NE [12]. If Design Plan D is selected, collection trucks will enter and exit the site from Rankin Road (via Comanche Road NE) [12]. Collection trucks currently access the site via Comanche Road NE. Note that access and egress for some existing collection truck trips (e.g. leaving the site at the beginning of the day and returning at the end of the day) will change under each design scenario (to Edith Blvd in Design C and to a location farther to the east on Comanche Road in Design D). We recommend that the traffic analysis evaluate the impact of the change in existing trip access to and from the project site, in addition to evaluating the impacts of new trips.

Convenience center, recycling, hazardous waste, and re-use drop-off trips

The proposed convenience center will accommodate residents' and small waste haulers' drop-offs of landfill waste.[28] These drop-offs are currently accommodated at the City's three existing convenience centers, located along the northeast, southeast, and southwest edges of the city (see Figure 3).

Information provided by the City includes a range of estimates of the traffic that will stem from convenience center drop-off of waste. Estimates range from 150 to 300

Montaño Road to Edith Blvd on Fridays as they return to the WTS). Ranges are presented here because it is difficult to visually determine each route on the maps provided. Similarly, the maps presented for commercial front-load regular collection trips indicate that on most weekdays four routes travel via Edith Blvd north of Comanche Road, with three routes traveling through Montaño Road and Edith Blvd.

[26] The maps show the routes that trucks take when traveling to their collection area and returning to the WTS when collection is complete. They do not show the point at which a truck might return to WTS mid-collection to drop off waste. Therefore we assume that the share of new trips taking each route is proportional to the share of all trips taking each route.

[27] If collection truck routes are unrestricted, on Thursdays 1 to 2 residential routes might take Montaño Road/Edith Blvd instead of I-40, 1 to 2 residential routes might take Candelaria Road/Edith Blvd, and 2 to 5 residential routes might take Greigos Road directly to the WTS. On Fridays, it may be easier to cross the river on Montaño Road rather than I-40 for 8 to 12 residential routes.

[28] According to https://www.cabq.gov/solidwaste/trash-collection-drop-off/facilities, "the [existing] convenience centers are provided for residents and small commercial haulers only."

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round trips per weekday[29] with an estimated 350 round trips per day on weekends [6]. The weekday estimates are based on assumptions about the rate of diversion from the three existing convenience centers; assumed diversion rates range from 25 to 50%.

The diversion rates used in the City's estimates were not explained, and rates as low as 25% seem unlikely given the central location of the proposed WTS . We estimate a diversion rate based on the shortest travel time to the convenience centers from residences across Bernalillo County, arriving at a value of 50%.[30] Given the central location of the WTS, we recommend that the traffic study revisit the potential diversion rate from the three convenience centers to arrive at a more transparent estimate.

The estimated number of trips to the three convenience centers is not clearly explained, but appears to range from 297 to 900 trips per weekday, and from 885 to 1200 trips per weekend day.[31] Based on the wide range of these estimates, we

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[29] The Draft Traffic Study presents estimates that are labeled as recycling center drop-off trips; these trips appear to be convenience center drop-offs (based on the explanation of the assumptions in the Draft Traffic Study and from an explanation in the City's FAQ website [6]). These trips are estimated as 25% of the trips that occur at the other three convenience centers, totaling 48 round trips during the three peak hours. According to the City's FAQ, these peak hour estimates are based on a total of 150 trips per day, with one third of that traffic occurring during the peak hours. The FAQ also presents estimates of 225 trips per day on weekdays. This value is consistent with those presented in the City's Slide, which indicates that there will be 225 round trips per day using the convenience center from 8 am to 5pm, for an average of 25 trips per hour [4]. It is also consistent with estimates provided in recent correspondence with the City of Albuquerque (personal communication from John Soladay to Kitty Richards on May 14, 2015 and from Jill Holbert to Kristine Suozzi on June 25, 2015). In contrast, a letter to Kyle Silfer (of the North Valley Coalition) dated March 30, 2015 [13] indicates that there will be 150 to 180 weekday trips based on a diversion rate of 25-30% from existing customer trips to the convenience centers. Additionally, the Design Memorandum [1] indicates that there will be approximately 150 to 300 trips per weekday based on diversion estimates of 25-50%.

[30] To arrive at this estimate we assign the population of each census tract in Bernalillo County to the closest existing convenience center or the proposed WTS convenience center based on the fastest trip time from each census tract's population-weighted centroid to each convenience center. The resulting diversion estimate is 52%, which we round to 50%. Fastest trip times are determined using driving directions in Google Maps. We assume that vehicles visiting the WTS enter from Comanche (as indicated in Designs Plans C and D). For tracts where trip times are equal for the WTS and a convenience center (i.e. Google Maps indicates that the number of minutes traveling to the WTS and one of the convenience centers is equal), we assign the tract's population to the WTS because it is more centrally located than the three convenience centers and is therefore more likely to be visited by residents running a number of errands during one trip. The US Census Bureau's 2010 decennial census population and population centroid data are used in this analysis.

[31] Based on the City's information, we infer three weekday trip rate estimates to the three convenience centers: 600 trips per weekday, 297 trips per weekday, and 900 trips per weekday, and three weekend estimates: 885 trips per weekend day, 933 trips per weekend day and 1200 trips per weekend day:

Using the diversion rates and trips rates outlined in footnote 29 (and those presented in the Draft Traffic Study), which imply that there are 600 round trips per weekday to the three existing convenience centers.

Data provided in an email correspondence with the City of Albuquerque (to Byron Gatwood from Betty Green on November 9, 2014 and November 12, 2014) indicates that visitation is 255 trips

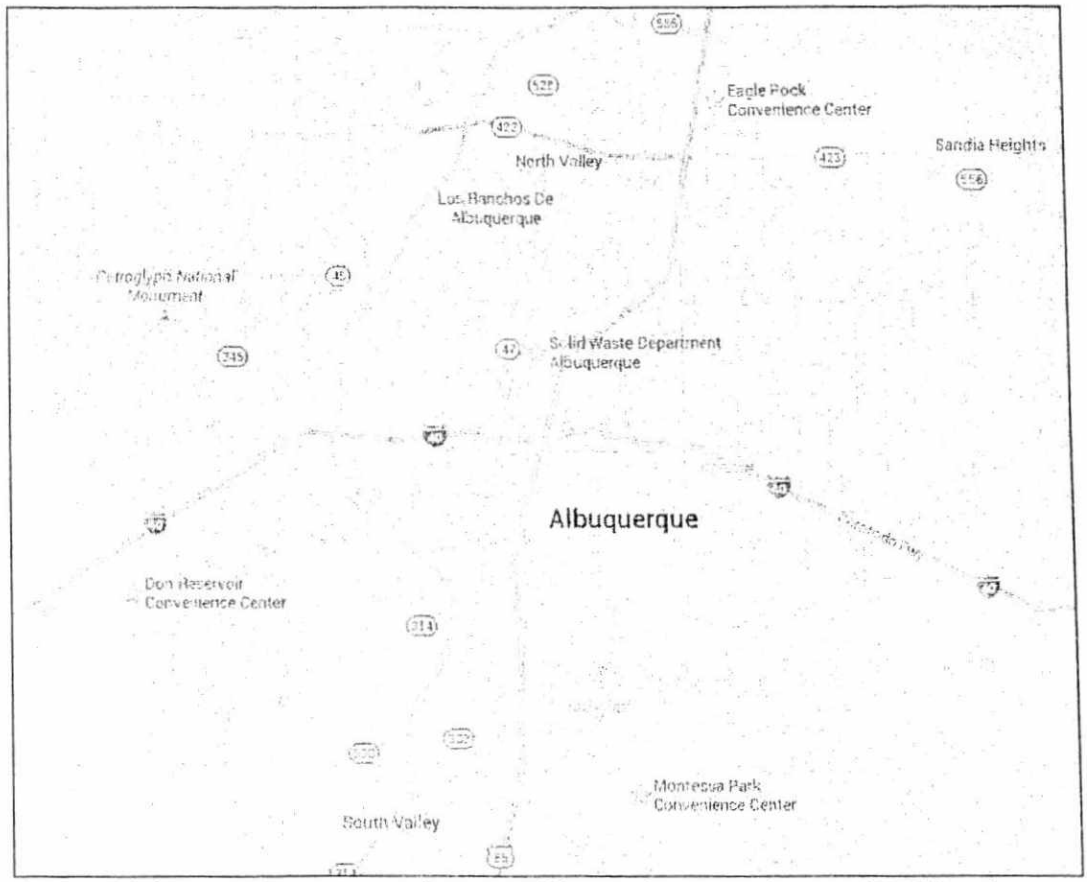

Figure 3: Existing convenience center and current solid waste department (proposed WTS) locations. Map created using Google Maps.

recommend that the Final Traffic Study present more transparent information about typical convenience center visitation and/or collect traffic counts at the three

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per weekday and 762 trips per weekend day at Eagle Rock and Montessa (2 of the 3 of the convenience centers). Scaling this information based on waste tonnage for each convenience center (as presented in the 2014 Feasibility study) implies approximately 297 trips per weekday and 885 trips per weekend day at the three convenience centers.

A final estimate is available in the Design Memorandum [1], which shows a design capacity for the self-haul area based on accommodation of all existing convenience center traffic (personal communication from Jill Holbert to Kristine Suozzi on June 25, 2015). The facility will be designed to accommodate 900 trips per weekday and 1200 trips per weekend day. The Design Memorandum indicates that these values are peak vehicles per weekday and weekend based on 2014 Waste Data from the City.

Diversion rates were not indicated for the City's weekend trips estimate of 350 trips/day, so the City estimates did not imply a trip rate for the three convenience centers. To arrive at an estimate of weekend trips rates to all three convenience centers, we assume that the City's estimate of 350 weekend trips (which was presented alongside an estimated 225 weekday trips) is based on the same diversion rate on weekdays and weekends. A diversion rate of 37.5% of 600 trips yields 225 weekday trips to the WTS. A diversion rate of 37.5% of 933 weekend trips yields 350 weekend trips to the WTS.

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convenience centers on weekdays and weekends. Because the weekend convenience center visitation is expected to exceed weekday visitation, these impacts will occur when background traffic levels are lower than during the weekday peak. So while we don't expect major impacts on weekends, we recommend that the traffic study consider weekend traffic impacts or explain the their omission more transparently.

Using this 50% diversion of 297 to 900 trips per weekday and 885 to 1200 trips per weekend day from the three convenience centers we estimate that there are 149 to 450 convenience center trips per weekday and 443 to 600 round trips per weekend day to the WTS. As with the collection vehicles, these estimates are based on current convenience center visits. Growing this traffic by 1.5% per year from 2014 (consistent with the growth rate used in the Design Memorandum [1]), we estimate 158 to 478 round trips per weekday and 470 to 637 round trips per weekend day in 2018 for convenience center drop-offs.

Note that convenience center trips will be greater if the City closes any of the other three convenience centers. Although the 2014 Feasibility Study indicates that full buildout of the proposed Solid Waste Department facilities is only cost effective if the convenience centers are closed[32], the City has indicated that the three existing convenience centers will remain open.[33] The Design Memorandum [1] presents WTS design parameters that are based on a worst case scenario that will accommodate all of the existing convenience center traffic.[34] If there is a possibility of closing the three convenience centers, we recommend accounting for full diversion of convenience center trips to the WTS in the traffic study.

The City has not presented trip estimates for the recycling drop-off, household hazardous waste drop-offs, or re-use center that will be at the site when the project is built. Without any data about existing trips for these services we are unable to quantify the trips that will be associated with these facilities. Based on an evaluation of existing and proposed facilities, we posit that the share of recycling trips that will be diverted to the proposed WTS is likely to be small,[35] the number of hazardous

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[32] In the 2014 Feasibility Study, Scenarios 1, 2, 4, and 5, which all include closing the convenience centers, show savings of $61-133 million over the project lifecycle. Scenario 3, which assumes that the convenience centers would remain open and just the Transfer Station (but not other facilities) is built, shows $18 million in savings over the 20 year project life cycle. Scenario 6, which assumes full project buildout similar to the Design Memorandum with convenience centers remaining open, shows losses of $3.2 million over the 20-year lifecycle of the project. Notes from the public meeting on January 20, 2015 indicate that the project is justified by cost savings of $2.5-4 million/year [11]. The basis for this estimate is unclear.

[33] Notes from the public meeting on 1-20-2015 indicate that this will be a fourth convenience center and that the existing convenience centers will remain open [11].

[34] Personal communication from Jill Holbert to Kristine Suozzi on June 25, 2015.

[35] According to http://www.cabq.gov/solidwaste/recycling/recycling-dropoff, recycling can currently be dropped off at 18 locations across the city. These drop-off locations include the Eagle Rock convenience center (so some recycling trips may be included in the total convenience center trip estimates) and the current solid waste main office (the site of the proposed WTS facility).

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waste trips that will be diverted to the WTS is unknown,[36] and the share of re-use trips that will be diverted to the WTS is unknown[37]. We recommend explicit consideration of recycling, re-use, and hazardous waste drop-off trips in the traffic study; omitting these trips from the analysis means that all estimates of travel to and from the WTS are under-estimated, as their omission means that the actual trips resulting from the project may be greater than the trips estimated in the analysis.

Trip routes

As with collection truck trips, the location of these trips is important for determining their impacts. In the Draft Traffic Study convenience center trips (labeled as "recycling center only") are shown as 15% coming to/from Edith Blvd south, 30% to/from I-25 to the north, 25% to/from I-25 to the south, and 30% to/from Comanche Road on the east side of I-25. These estimates are not explained, and they do not support the notion that a significant portion of traffic will come from the neighborhoods around the project site. [38]

We have estimated the share of convenience center traffic that is likely to take various routes to the project site based on more detailed information about the location of residences across Bernalillo County.[39] Based on our analysis, a number of vehicles may use portions of Montaño Road and Griegos Road to travel to and from the convenience center (see Appendix A for route details). Whether Design Plan C or D is selected, convenience center drop-offs will occur via Comanche Road.

In light of the likely routes that convenience center users will travel and the existing traffic along Griegos Road and Montaño Road, we recommend that the traffic study

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Therefore the additional recycling that may result from the project is likely to be small and is not estimated separately in this analysis.

[36] According to http://www.cabq.gov/solidwaste/household-hazardous-waste/household-hazardous-waste, hazardous waste is currently dropped off at Advanced Chemical Transport (ACT, formerly Rinchem Company, Inc), located at 6137 Edith Blvd (just over a mile from the proposed WTS). ACT is open for drop-offs on Mondays, Wednesdays, and Fridays from 8:30 am to 4:30 pm and on Saturdays from 8 am to 3 pm. According to summary notes from the January 20, 2015 public meeting, this existing facility will remain open [11]. The proposed facility will accept hazardous waste from 8 am – 5 pm, seven days per week (as indicated in the Design Memorandum). Given the wider range of open hours, we expect that the share of hazardous waste drop-off trips that will be diverted to the proposed facility will be significant. However, without an estimate of how many hazardous waste drop-off trips are currently made, the overall impact of this finding is unknown.

[37] The City's website does not list any re-use centers. However, there are a number of charities and thrift stores (and similar) across the city that currently accept many types of items for re-use and re-sale. The rate of diversion from these facilities to the WTS re-use center is unknown.

[38] Traffic is characterized as from the nearby community in the City's FAQ website. This is consistent with the notion that the convenience center will serve the nearby community.

[39] We first assigned the population of each census tract to the closest existing or proposed (WTS) convenience center based on the fastest trip time from each census tract's population-weighted centroid to each convenience center, as described in footnote 30 above. Then for each census tract that was closer to the WTS (rather than one of the other three convenience centers), we noted the route used for the fastest trip to the WTS (we used the first route recommended by Google Maps directions unless there was a recommended route that took less time.) We then assigned the population of each census tract to its shortest route.

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revisit the estimates of routes assumed for convenience center traffic and include potentially impacted intersections along Montaño Road in the analysis.

Trip timing

The city has noted that convenience center trips will be greatest during mid-morning and mid-afternoon (but not during the area's peak traffic times).[40] The Design Memorandum [1] indicates that the facility will be sized to handle 70% of the tonnage unloading over four hours, or 207 vehicles during the peak unloading hour (although the time of this peak is not specified).

The only estimate of convenience center traffic during the peak hours comes from the Draft Traffic Study, which assumes that one third of the convenience center traffic is spread between the three peak hours as follows: 12 round trips during the morning peak hour, 20 trips during the mid-day peak hour, and 16 trips during the afternoon peak hour (for 24, 40, and 32 one-direction trips respectively). These estimates are not justified or explained. Peaking patterns on weekends would likely differ from weekdays. We recommend that this assumption be justified or that traffic count data be collected at the three convenience centers to determine the actual timing of convenience center trips on weekdays and weekends.

Table 2 summarizes the range of convenience center estimates presented by the City and the estimates arrived at in this study.

Transfer trucks

Waste will be transferred from the WTS to the landfill each day by 18-wheeler trucks. Most WTS documents estimate 65 round trips (or 130 one-way trips) per weekday for these transfer trucks in 2018.[41] The exception is the Design Memorandum [1], which estimates 68 transfer truck trips. The City Slide presents the only estimate of weekend activity, indicating that there will be four transfer truck trips per day on weekends [4].

The basis for the estimates of weekday transfer trucks presented by the City are not described in the Draft Traffic Study [2], the City FAQ website [6], the April 2015 and July 2015 community meeting presentations [8, 9], or the City Slide [4]. Two sources do provide details that underpin their estimates: the 2014 Feasibility Study [3] and the Design Memorandum [1]. The estimates are based on assumptions about the trucks' capacity and the amount of waste that is transported. However, these estimates appear to be based on current volumes of waste dropped off by collection

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[40] The City Slide indicates that peak convenience center usage will occur from 9 am to 11 am and 2 pm to 4 pm [4]. Similarly, the City FAQ indicates that most visits will occur in the mid-morning or early afternoon [6]. However these documents have not provided an indication of the share of trips that occur at each time of the day, and according to correspondence with the City, no traffic counts were conducted at the convenience centers (Personal communication from Jill Holbert to Kristine Suozzi, June 25, 2015) so we cannot verify the timing of convenience center trips.

[41] See the April 2015 and July 2015 community meeting presentations [8, 9], City FAQ website [6], 2014 Feasibility Study [3], Draft Traffic Study [2], and City Slide [4].

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Table 2: Convenience center trip estimates presented by the City and estimated in this report. Round trips per day are shown.

[illegible]	[illegible]	[illegible]	[illegible]	Note
[implies 600]	150			Draft Traffic Study "recycling drop-off center" trips assume 25% diversion from existing convenience centers. City FAQ clarifies that the Draft Traffic Study estimates refer to convenience center traffic and are based on 150 trips per day [6].
	225		350	City FAQ estimate of vehicles using the convenience center [6]. These values are consistent with the Edith presentation slide deck "public" trips (which seem to be shown as one-way trip counts, so are twice the value shown here) [9].
[implies 600]	150 - 180			March 30, 2015 letter to Kyle Silfer N Valley Coalition assumes 25-30% diversion from existing convenience centers [13].
[implies 598]	150 - 300			Design Memorandum [1] assumes 25-50% diversion from convenience centers yields 149 - 299 customers/day.
255 at Eagle Rock and Montessa		762 at Eagle Rock and Montessa		Emails Nov 5, 2014 and Nov 12, 2014 from Betty Green (CABQ) to Byron Gatwood, with total traffic counts for Montessa Park (March 17 to 21 2014 and April 12 to 13 2014) and Eagle Rock (April 7 to 11 2014 and March 22 to 23 2014)
297		885		Trip estimates from Betty Green email (above) scaled to all three convenience centers based on waste tonnage presented in the 2014 Feasibility Study.
[implies 900]		[implies 1200]		Design Memorandum [1] peak estimate for "self-haul" area (based on 2014 waste data), which was based on the worst case scenario of all existing convenience center drop-offs[42].
	158 - 478		**470 – 637**	**SSR 2018 estimate. Assumes 1.5% annual growth and 50% diversion from existing convenience centers.**

[42] Personal communication from Jill Holbert to Kristine Suozzi on June 25, 2015.

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trucks only.[43] We recommend that the traffic study estimates of transfer truck trips account for the growth in waste collected as well as the waste that will be dropped off at the convenience center.

In this report, we break down the capacity and typical waste quantity estimates to arrive at an estimate that accounts the growth in waste collected and the additional waste dropped off at the convenience center.

The truck capacities are reported at 22 tons per trailer in the Design Memorandum [1] and at 24 tons per trailer in the 2014 Feasibility Study [3]. We use an estimate of 22 to 24 tons per trailer. We note that truck capacities can vary depending on the truck used. We recommend that the traffic study either provide justification of the tons per trailer assumed or rely on a conservative assumption.

The number of transfer truck trips per weekday and weekend day depends on the volume of waste that is transported. The 2014 Feasibility Study indicates that 404,000 tons of waste per year is currently collected and 54,687 tons per year are dropped off at the three convenience centers. We estimate that approximately 1% to 3% of the City's collection vehicle waste is collected on Saturdays, while the remainder is collected on weekdays.[44] We estimate that 38% to 54% of convenience center waste is collected on Saturdays and Sundays.[45] Assuming a 1.5%

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[43] The 2014 Feasibility study estimates transfer trips based on the 2010 waste quantity of 404,000 tons (which are approximately equivalent to current waste volumes of 405,000 tons assumed for collection trucks in Appendix C of the 2014 Feasibility Study). It notes that "if SWD receives waste from the convenience centers and/or other private collection companies, additional trucks will be needed" (pg 3.) Overall the Feasibility Study estimates are rough. In distributing annual waste volumes, they assume five days per week of collection (although a small portion of collection will occur on Saturday).

The more recent Design Memorandum weekday transfer truck trip estimates are based on 2014 annual waste tonnage transported to the landfill (1,500 tons per day.) The Design Memorandum also presents convenience center waste estimates of 202 tons per day (which are not included in the 1,500 estimate) and peak daily tonnage estimates of 1,600 to 1,700 tons per day currently. The Design Memorandum does provide estimates of weekday collection and weekend self haul activities, although it does not evaluate transfer truck trips on the weekends. It is difficult to consistently split assumptions into weekdays and weekends using information in the Design Memorandum because it focuses on peak activities and presents annual estimates of waste.

[44] The April 2015 community meeting presentation estimates transfer trips of 65 per weekday on weekdays and 4 per day on weekends (we assume this applies to Saturday only, when collection vehicles are active) [9], yielding an estimated 1.2% of collection waste transported on weekends. Additionally, the City Data Table indicates that there are 268 landfill trips each weekday and 36 landfill trips on Saturdays [5], yielding an estimated 2.6% of collection waste transported on weekends.

[45] These two estimates (54%, 38%) determined as follows:

Convenience center transaction information for Eagle Rock (3/22/14 to 3/23/14 and 4/7/14 to 4/11/14) and Montessa (3/17/14 to 3/21/14 and 4/12/14 to 4/13/14) was provided in an email correspondence with the City of Albuquerque (to Byron Gatwood from Betty Green on November 9, 2014 and November 12, 2014). The data indicate that visitation is 255 trips per weekday and 762 trips per weekend day at two of the convenience centers, yielding an estimated 54% of convenience center drop-offs on the weekend.

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annual growth rate for waste and a 50% diversion of waste to the WTS from the three convenience centers yields weekday waste volumes of 1,651 to 1,702 tons per day and Saturday waste volumes of 189 to 398 tons per day.[46] [47]

Combining these waste estimates with the truck capacity of 22 to 24 tons, we estimate 69 to 77 transfer truck trips per day on weekdays and 8 to 18 transfer truck trips per day on Saturdays.

Trip routes

The Draft Traffic study states that the most direct route to the landfill is to take Comanche Road to I-25 Southbound. This route seems reasonable. Under Design Plan C, transfer trucks will enter and exit the WTS from Edith Blvd NE. Under Design Plan D, transfer trucks will enter and exit the WTS from Rankin Road (via Comanche Road.)

Trip timing

The City Slide indicates that the transfer truck trips will occur regularly from 8:30 am to 4 pm with one final trip at 5:30 pm [4] The Draft Traffic study assumes that all transfer trips occur during the mid-day or PM peak in order to evaluate the worst case scenario; trips are split evenly between the two peak hours. The latter estimate seems reasonable and the former is conservative; either would be appropriate for the traffic analysis.

Total Trips

Summing the trips estimated in the sections above yields total new trip estimates of 390 to 732 trips per weekday and 528 to 680 trips per weekend day (Table 3). Summing only the trips made by City trucks (which may have greater impacts than passenger vehicle trips) yields 232 to 254 truck trips per weekday and 33 to 43 trucks trips per weekend day. The ranges presented here exceed trip estimates arrived at by summing the City's trips estimates.

The City estimates 225 weekday and 350 weekend trips per day to the convenience center, yielding an estimated 38% of trips on weekends (assuming trips occur seven days per week).

[46] We focus on Saturdays as the worst case weekend day because 1) the City's baseline traffic counts for the weekend indicate that traffic volumes are higher on Saturday than on Sunday, 2) collection trucks travel on Saturdays but not Sundays, and 3) in the absence of convenience center traffic data we assume that weekend convenience center trips are divided equally between Saturday and Sunday.

[47] Weekday collection and convenience center volumes are estimated at 1,600 to 1,633 tons per day and 51 to 69 tons per day respectively. Saturday collection and convenience center volumes are 82 to 247 tons per day and 106 to 151 tons/day respectively. We assume that weekday collection occurs for five days per week and 52 weeks per year, weekend collection occurs for one day per week and 52 weeks per year, and convenience center drop-off occurs for seven days per week and 52 weeks per year. We also assume that convenience center drop-offs on Saturday and Sunday are equal in the absence of detailed data.

Table 3: Total new trips estimated based on City data and in this report (new round trips per day).

	Weekdays		Weekends		
	City	SSR	City	SSR	Comments
Collection	125 - 149	163 - 177	20 - 24	25	SSR estimate accounts for growth in waste in 2018. Weekend estimate is for Saturday.
Convenience, Recycling, Household Hazardous Waste, Re-Use	150 - 300	158 - 478	350	470 - 637	SSR estimate accounts for growth in waste drop-off trips in 2018 and assumes a 50% diversion rate from existing convenience centers. Range reflects uncertainty over trips to existing convenience centers. City estimate assumes 25-50% diversion rate on weekdays and an unspecified diversion rate on weekends. Neither estimate includes hazardous waste, re-use, or recycling drop-off.
Transfer	65 - 68	69 - 77	4	8 - 18	SSR estimate accounts for growth in waste in 2018 and transport of convenience center waste drop-off. Range reflects uncertainty in trailer capacity and waste estimates. Weekend estimate is for Saturday. City weekend estimate does not specify assumptions.
Total trips for all vehicles	**340 - 517**[48]	**390 - 732**	**374 - 378**	**528 - 680**	Includes collection trucks, transfer trucks, and residential and private self-haul waste drop-offs.
Trips for City trucks	*190 - 217*[49]	*232 - 254*	*24 - 28*	*33 - 43*	Includes collection and transfer trucks.

Traffic Impacts

In this section we conduct several back-of-the envelope calculations in order to demonstrate the magnitude of some of the potential traffic impacts of the project that might be shown in a traffic analysis that addresses some of the suggestions included in this report. We focus our estimates on the locations and times with available data that are expected to have the greatest impacts. We present our estimates as ranges due to the uncertainties in the estimated new trip rates and

[48] Trip estimates are arrived at by summing the estimates described in each section. Notes from a public meeting on January 20, 2015 [11] indicate that the site will add approximately 400 – 500 trips per day on Comanche Road, roughly consistent with the round trips estimated by summing the City's estimates (as presented in this table).

[49] Trip estimates are arrived at by summing the estimates described in each section. Note that in a March 30, 2015 letter to Kyle Silfer of the North Valley Coalition [13] the City indicated that there will be a total of 380 additional truck trips. If these are one-way trips they are equivalent to 190 round trips, as indicated in this table.

routes. Due to time and resource constraints, it is beyond the scope of this analysis to estimate intersection delays for each affected intersection and for each weekday peak period (similar to what was done in the City's Draft Traffic Study).

Weekday traffic volumes in the project area

The majority of project trips will travel along Comanche Road NE between Edith Blvd and the I-25 interchange. The City has indicated that Comanche Road will experience an increase in traffic of approximately 3% as a result of the project.[50]

In Table 4 we present estimated changes in weekday[51] traffic volumes that are expected to occur with the project using the trip and route estimates presented in this report. Our estimates indicate that the greatest changes in traffic volumes will occur along Comanche Road and at the I-25 interchange, and on Edith Blvd (under Design Plan C), where traffic is expected to increase by approximately up to 3% to 7% over 2018 traffic levels. There will also be smaller increases in traffic volumes along other routes in the project area. Figure 4 shows a map of the location of the maximum estimates of project trips.

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[50] According to the March 30, 2015 letter to Kyle Silfer of the North Valley Coalition [13], this increase in traffic is based on an estimated 380 truck trips, conservatively estimated as 400 trips out of 16,500, which results in a 2.5% increase in traffic. An email from the City (from John Soladay to Kitty Richards on May 14, 2015) also indicates that 380 truck trips per weekday added to 16,500 to 23,800 trips per weekday results in less than a 3% increase in traffic. The FAQ also indicates less than a 3% increase in traffic based on baseline traffic of 16,500 [6]. The 16,500 to 23,800 values are based on MR COG 2013 traffic flow data, and they refer to traffic in both directions. The 380 truck trips also seems to refer to traffic in both directions, or 190 round trips (the city has estimated 65 transfer trucks trips plus 125 collection truck trips, as described above).

[51] We focus our analysis on weekdays due to the data available and because baseline traffic levels appear to be substantially lower on weekends than on weekdays (based on weekend traffic counts provided in a personal communication from Jill Holbert to Kitty Richards on June 12, 2015 and weekday traffic counts in Appendix B of the Draft Traffic Study), and because the majority of truck trips will occur on weekdays, although we note that convenience center traffic will likely be greater on weekends than weekdays.

Table 4: Weekday traffic volumes in the project area with and without the proposed WTS. Changes that exceed 1% are highlighted in **bold.**

Griegos Road / Comanche Road	West of 4th Street	10,756	11,305	13	25	0.1	0.2
	4th Street to 2nd	13,056	13,722	17	42	0.1	0.3
	2nd Street to Edith Blvd	13,184	13,857	41	124	0.3	0.9
	Edith Blvd to Alexander	16,680	17,531	698	1,254	**4.0**	**7.2**
	Alexander - Pan American West	24,159	25,391	698	1,254	**2.7**	**4.9**
	Pan American Fwy W to I-25 overpass	24,484	25,733	217	1,057	0.8	**4.1**
	Pan American Fwy E to I-25 overpass	24,819	26,085	217	1,057	0.8	**4.1**
	East of I-25	20,343	21,381	56	172	0.3	0.8
Edith Blvd	Site Access to Comanche/Griegos Road (Design C)	11,629	12,222	335	391	**2.7**	**3.2**
	Candelaria Road to Comanche/Griegos Road (Design D)	11,629	12,222	6	19	0.1	0.2
	Comanche/Griegos Road to Montaño Road	15,011	15,777	47	103	0.3	0.7
	North of Montaño Road	14,379	15,112	11	28	0.1	0.2
2nd Street	Candelaria Road to Comanche/Griegos Road	18,989	19,958	9	23	0.0	0.1
	Comanche/Griegos Road to Montaño Road	17,820	18,729	27	78	0.1	0.4
	North of Montaño Road	22,044	23,168	40	90	0.2	0.4

[52] 2012 data are obtained from the Mid Region Council of Government via http://taqa.mrcog-nm.gov. Values represent the average weekday traffic volume.

[53] Estimated from the 2012 value using a 1% annual growth rate (consistent with the baseline traffic growth assumed in the Draft Traffic Study).

[54] New project trips are estimated based on the trip rates and routes presented in the previous section and are added to 2018 "no project" volumes. Note that the residential truck route shares vary by weekday; this analysis assumes the maximum share for any weekday along each route in order to evaluate the worst weekday impacts.

[55] Increases of over 1% are shown in **bold.**

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4th Street	Candelaria to Comanche/Griegos Road	22,635	23,790	11	23	0.0	0.1
	Comanche / Griegos Road to Montaño Road	23,420	24,615	6	6	0.0	0.0
	North of Montaño Road	15,859	16,668	-	-	0.0	0.0
Montaño Road	West of 4th Street	25,149	26,432	25	76	0.1	0.3
	4th Street to 2nd Street	26,737	28,101	34	85	0.1	0.3
	2nd Street to Edith Blvd	23,268	24,455	37	80	0.2	0.3
I-25 NB	North of Comanche Road on ramp	97,809	102,798	41	72	0.0	0.1
	South of Comanche Road off ramp	87,667	92,139	282	506	0.3	0.5
I-25 SB	N of Comanche Road off ramp	84,311	88,612	38	62	0.0	0.1
	South of Comanche Road on ramp	10,039	10,551	286	515	**2.7**	**4.9**
I-25 Pan American Fwy E (NB frontage)	North of Comanche Road to I-25 on ramp	18,786	19,744	41	72	0.2	0.4
	South of Comanche Road to I-25 off ramp	23,518	24,718	282	506	**1.1**	**2.0**
I-25 Pan American Fwy W (SB frontage)	North of Comanche Road to I-25 off ramp	13,286	13,964	38	62	0.3	0.4
	South of Comanche Road to I-25 on ramp	15,523	16,315	286	515	**1.8**	**3.2**
I-25 NB ramps to/from frontage	Comanche Road on ramp	12,347	12,977	41	72	0.3	0.6
	Comanche Road off ramp	6,769	7,114	282	506	**4.0**	**7.1**
I-25 SB ramps to/from frontage	Comanche Road on ramp	9,779	10,278	286	515	**2.8**	**5.0**
	Comanche Road off ramp	8,838	9,289	38	62	0.4	0.7

Daily truck volumes in the project area

Many of the air quality, noise, safety, and bike/pedestrian accommodation impacts of new trips (discussed in subsequent sections) are more severe where new trips consist of heavy truck trips. We therefore evaluate new truck trips (from new collection and transfer trucks) along the routes near the project, as shown in Table 5. Comanche Road, Edith Blvd (under Design Plan C only), and I-25 are the primary routes that will be used by collection and transfer trucks, although a number of other roads in the area will also likely carry new truck trips. Figure 4 shows a map of the location of the maximum estimates of project truck trips.

We estimate that the number of truck trips traveling on Comanche Road between Edith Blvd and the I-25 interchange will increase by approximately 47% to 151% on weekdays.[56]

Weekday afternoon peak traffic volumes along key roadways

The weekday afternoon peak period has higher traffic volumes than the other peak periods for the intersections examined in the Draft Traffic Study [2, Appendix B]. We evaluate the change in traffic volumes during the weekday afternoon peak for several potentially impacted roadway segments in the project area[57]. Table 6 shows changes in traffic volumes as well as changes in volume-to-capacity (V/C) ratios. Figure 5 shows the location of the estimated afternoon peak hour trips.

We find that the greatest traffic impacts are expected on Comanche Road, with estimated traffic volume increases of up to 6% during the afternoon peak period. Additionally, a number of other roadway segments in the project area that currently exhibit congestion will likely experience modest traffic increases during the afternoon peak period. Notably, the projected traffic at Montaño Road intersections is not accounted for in the five intersections examined in the Draft Traffic Study.

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[56] 2018 baseline truck traffic is estimated as follows: Based on Appendix B of the Draft Traffic Study, we estimate the share of traffic along Comanche Road between Edith Blvd and I-25 that is trucks during the three observed peak periods: 1.8% (258 / 13,980 on the Edith side) to 3.8% (550 / 14,599 on the I-25 side). In the absence of vehicle mix data for a full day and given that most traffic occurs during peak periods, we assume that these ratios hold for the entire day. Combining this information with the 16,680 to 24,159 2018 weekday traffic estimates from Table 4, we estimate 324 to 957 daily truck trips (one-way) on Comanche Road in 2018 without the project. Combining this with the estimated new truck trips along Comanche Road shown in Table 5 (for the segments between Edith Blvd and Pan American Freeway W) yields a 47% to 151% increase in truck trips.

[57] These road segments are identified based on meeting two criteria: 1) exhibiting congestion in the baseline case (with high baseline PM peak volume to capacity (V/C) ratios, equal to 1 or greater according to 2012 roadway V/C data provided by MR COG) and 2) carrying a number of project trips during the afternoon peak (routes with greater than 4% of convenience center, commercial collection, or transfer truck trips as shown in Appendix A, with no consideration of new residential collection trip routes because they are not expected to occur during the afternoon peak period according to the City Slide [4].)

Table 5: New weekday collection and transfer truck trips that are expected to result from the WTS.

Griegos Road / Comanche Road	West of 4th Street	6	6
	4th Street to 2nd	4	4
	2nd Street to Edith Blvd	0	0
	Edith Blvd to Alexander	445	489
	Alexander - Pan American West	445	489
	Pan American Fwy W to I-25 overpass	160	340
	Pan American Fwy E to I-25 overpass	160	340
	East of I-25	15	48
Edith Blvd	Site access to Comanche/Griegos Road (Design C)	329	372
	Candelaria Road to Comanche/Griegos Road (Design D)	0	0
	Comanche/Griegos Road to Montaño Road	28	46
	North of Montaño Road	4	9
2nd Street	Candelaria Road to Comanche/Griegos Road	4	8
	Comanche/Griegos Road to Montaño Road	4	8
	North of Montaño Road	24	42
4th Street	Candelaria to Comanche/Griegos Road	4	4
	Comanche Griegos Road to Montaño Road	6	6
	North of Montaño Road	0	0
Montaño Road	West of 4th Street	0	0
	4th Street to 2nd Street	8	8
	2nd Street to Edith Blvd	24	42
I-25 NB	North of Comanche Road on ramp	33	48
	South of Comanche Road off ramp	184	209
I-25 SB	N of Comanche Road off ramp	33	48
	South of Comanche Road on ramp	184	209
I-25 Pan American Fwy E (NB frontage)	North of Comanche Road to I-25 on ramp	33	48
	South of Comanche Road to I-25 off ramp	184	209
I-25 Pan American Fwy W (SB frontage)	North of Comanche Road to I-25 off ramp	33	48
	South of Comanche Road to I-25 on ramp	184	209
I-25 NB ramps to/from frontage	Comanche Road on ramp	33	48
	Comanche Road off ramp	184	209
I-25 SB ramps to/from frontage	Comanche Road on ramp	184	209
	Comanche Road off ramp	33	48

[58] Estimated as in Table 4 except excluding convenience center trips.

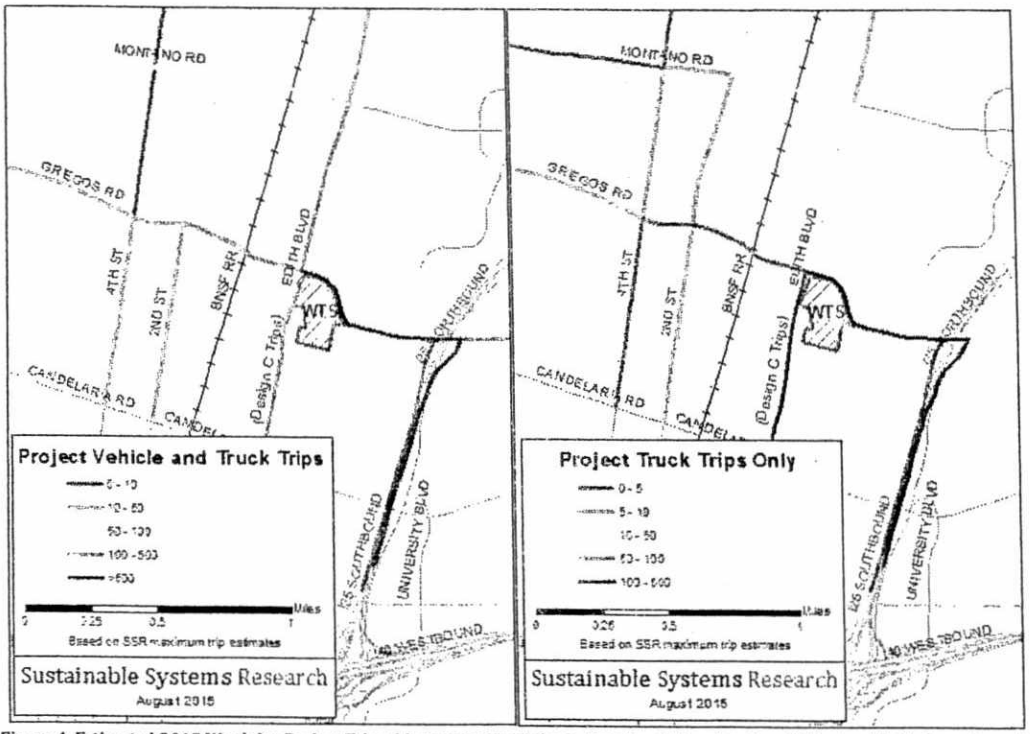

Figure 4: Estimated 2018 Weekday Project Trips. Maximum estimated one-directional trip values from Table 4 and Table 5 are shown. Values shown for each segment represent the greatest traffic levels that may occur on that segment and in some cases they will only occur on part of the road segment. For example, the values shown for Edith Blvd south of Comanche Road/Griegos Road are based on Design Plan C and will occur in the immediate project vicinity (extending from Comanche Road/Griegos Road to the site access point along Edith Blvd but not further south). Traffic levels will be lower than what is shown on Edith Blvd between the site access point and Candelaria Road.

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Table 6: Weekday Afternoon Peak Traffic Estimates for Select Locations in the Project Vicinity.

Comanche Road WB (I-25 SB frontage to Alexander Blvd)	1196	1270	22	80	2%	6%	1.00	1.06	1.08	1.12
Comanche Road WB (under I-25 overpass)	1438	1526	22	78	1%	5%	1.20	1.27	1.29	1.34
Griegos Road WB (Edith Blvd - 2nd St)	751	797	2	5	0.2%	0.7%	1.25	1.33	1.33	1.34
I-25 NB on ramp (north of Comanche)	1215	1290	1	3	0.1%	0.2%	1.52	1.61	1.61	1.62
Pan American Freeway East (I-25 NB frontage road, south of Comanche)	4406	4677	20	71	0%	2%	1.73	1.83	1.84	1.86
Montaño Road EB (2nd to 4th)	2553	2710	1	4	0.0%	0.2%	1.60	1.69	1.69	1.70
Montaño Road WB (2nd to 4th)	2348	2492	1	4	0.1%	0.2%	1.47	1.56	1.56	1.56
Montaño Road WB (Edith to 2nd)	1917	2035	1	4	0.1%	0.2%	1.20	1.27	1.27	1.27
Montaño Road WB (west of 4th St)	1624	1724	1	4	0.1%	0.2%	2.03	2.15	2.16	2.16
Edith Blvd NB (Griegos to Montaño)	1065	1131	2	5	0.1%	0.5%	1.78	1.88	1.89	1.89
Edith Blvd NB (Site Access to Griegos, Design C)	1631	1731	10	41	0.6%	2.3%	2.72	2.89	2.90	2.95
Edith Blvd NB (Candelaria to Griegos, Design D)	1631	1731	1	2	0.0%	0.1%	2.72	2.89	2.89	2.89

[59] 2018 V/C ratios assume that the 2012 capacity value applies in 2018 (no capacity improvements, etc.)
[60] 2018 baseline traffic volume estimates assume a 1% annual growth rate (based on the general traffic growth rate assumed in the Draft Traffic Study.)
[61] 2018 project trips are estimated as described in this report: 53 residential collection trips, 110 to 124 commercial collection trips, 158 to 478 convenience center trips, 69 to 77 transfer trips. Each trip follows the routes described in this report. Trips are allocated to the PM peak as noted below.
[62] Minimum estimates of the project's 2018 PM peak traffic volumes are based on the lowest hourly estimate of the peak share of project trips occurring during the 3:00 - 6:30 PM peak period. These minimum estimates are: 0% of collection trips (based on the City Slide and the Draft Traffic Study), 11% of convenience center trips (based on the 16/150 share of trips occurring in the PM peak in the Draft Traffic Study), and 13% of transfer truck trips (based on the City Slide assumption of evenly distributed trips from 8:30 am to 4 pm, with a final trip at 5:30 pm). Note that we assume that the afternoon peak share of new project trips occurs at the same time as afternoon peak traffic levels, although they may not precisely coincide. A more detailed estimate would determine the worst project traffic impacts using the count data for the full afternoon peak period (e.g. highest hourly project + baseline volume).
[63] Maximum estimates of the project's 2018 PM peak traffic volumes are based on the highest hourly estimate of the share of project trips occurring during the 3:00 - 6:30 PM peak period. These maximum estimates are: 0% of collection trips (based on the City Slide and the Draft Traffic Study), 11% of convenience center trips (based on the average trip rate shown in the City Slide and used in the absence of detailed timing data), and 50% of transfer truck trips (based on the assumption that half of transfer trips occur during the PM peak hour in the Draft Traffic Study).

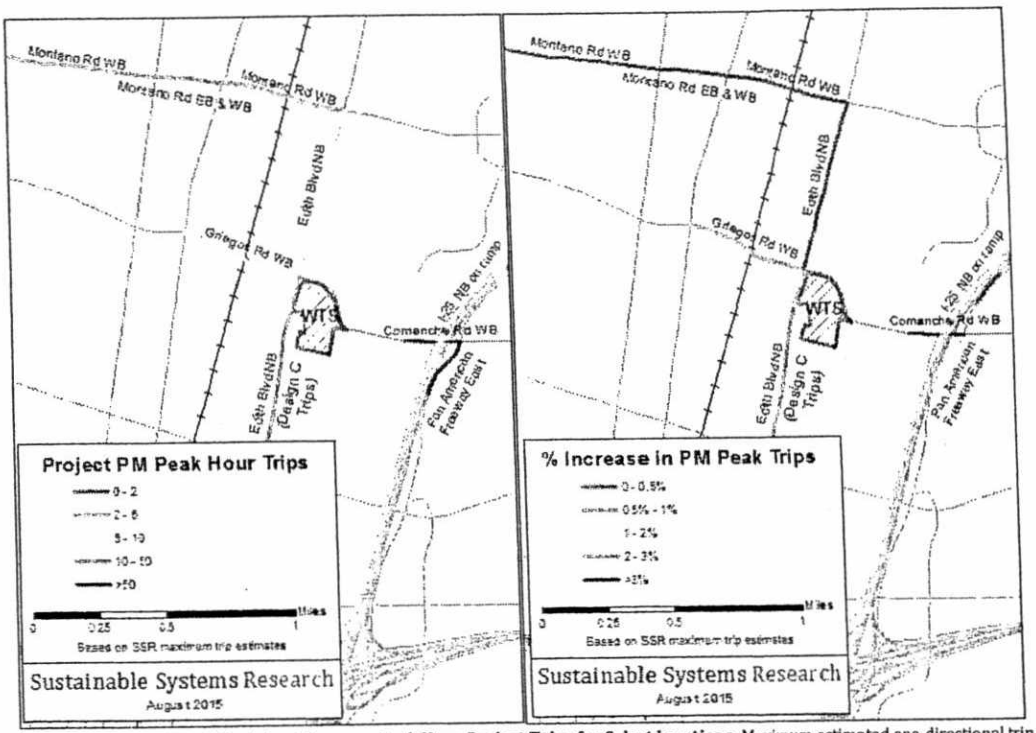

Figure 5: Estimated 2018 Weekday Afternoon Peak Hour Project Trips for Select Locations. Maximum estimated one-directional trip values from Table 6 are shown. Values shown for each segment represent the greatest traffic levels that may occur on that segment and in some cases they will only occur on part of the road segment. For example, the values shown for Edith Blvd south of Comanche Road/Griegos Road are based on Design Plan C and will occur in the immediate project vicinity (extending from Comanche Road/Griegos Road to the site access point along Edith Blvd but not further south). Traffic levels will be lower than what is shown on Edith Blvd between the site access point and Candelaria Road.

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Safety Impacts

Roadway safety is a function of the risk of an accident as well as the severity of the accidents that occur. A number of situation-specific factors drive accident risk and severity, including traffic characteristics (e.g. traffic volumes, vehicle speeds and speed differentials, vehicle mix, bicycle and pedestrian volumes), roadway design (e.g. number of lanes, median, road curvature, intersection design), weather conditions, and human factors (e.g. driver or bicyclist or pedestrian behavior, age, use of alcohol or drugs).

The proposed WTS has the potential to affect the traffic characteristics of the area. The relationship between safety and traffic characteristics is complex, with research pointing to mixed effects for many factors that contribute to crash risks and crash severity. However there are a few relationships that are generally supported. We review these relationships below, although we caution that the nature of these relationships may vary in different locations due to variation in conditions.

Traffic flows: Higher flows indicate that more people are on the road, so there is more potential for human error and greater exposure to accident risk. Although higher flows in and of themselves are not generally a safety concern, in general higher vehicle flows are associated with greater *numbers* of crashes for vehicles [14] and pedestrians [15], while the *risk* of an accident is higher for high and low traffic flow rates [14].

Traffic speed: The evidence tying speed to accident risk is mixed (with some studies pointing to greater risks at high speeds and others pointing to lower risks at high speeds) [14], although higher vehicle speeds are positively associated with the severity of a crash in general [16], for cyclists [17] and for pedestrians [18]. Speed differentials may also be important drivers of accidents and accident severity [14, 16].

Trucks: Trucks are larger and heavier than passenger vehicles and they generally have poorer performance characteristics (e.g. acceleration and deceleration.) Truck involvement can be positively related to the severity of a crash (e.g. whether fatalities occur), particularly for bikes [17], pedestrians, and other vehicle occupants [19].

To summarize, safety and exposure to traffic dangers may be worsened when traffic flows increase, speeds increase, and more trucks are on the road (although specific impacts depend on site-specific conditions). As discussed above, the project will likely affect traffic volumes and the share of trucks using the roadway, and it may affect vehicle speeds. The overall magnitude of the project's impacts on safety is unknown, however we highlight a number of locations where concern is elevated.

Traffic volumes (including truck volumes) will have the greatest increases along Comanche Road between Edith Blvd and I-25, on I-25, at the I-25 interchange, and at Edith Blvd adjacent to the project site (under Design Plan C only) (see Table 4 and Table 5.) These factors may contribute to safety impacts along these corridors. The potential for conflicts with bicycles in this area is of particular concern: as described below, Comanche Road has a bike lane and is one of few connections between the North Valley and the Channel Bike Trail in the heights. Unfortunately, the potential for fatal accidents involving waste collection trucks and cyclists was tragically demonstrated on this corridor in 2010[64] (see Figure 6). Edith Blvd has a bike route where cyclists share the road with vehicles; the additional project trucks that will travel on this corridor under Design Plan C are also of concern.

Locations with project trips overlaid on existing safety issues may also be of concern. The intersection of Montaño Road and 4th Street has been identified as one of the worst intersections in the region in terms of vehicle and bicycle crash rates[65], and is targeted for pedestrian-oriented improvements under the 4th Street Corridor Plan [23]. The project is expected to result in some additional traffic at Montaño Road and 4th Street (25 to 76 trips per day, see Table 4); some of these additional trips will be trucks (8 trips per day, see Table 5).

Similarly, the intersection of 4th Street and Griegos Road may be of concern, as the crash rate two to three times the average rate in the region [21]. The project is expected to result in some additional traffic at this location (17 to 42 trips per day, see Table 4); some of these additional trips will be made by trucks (6 additional trips per day, see Table 5).

Finally, we note that the design of the site may affect the risk of accidents and the accident severity for bicyclists, pedestrians, drivers, and passengers traveling along affected corridors if there are changes in the roadway design at access points (or elsewhere) or if there is site traffic queuing onto adjacent arterials.

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[64] Cyclist Timothy Vollmann was killed when he collided with a City waste collection truck at the Comanche / I-25 interchange in December 2010 [20].

[65] Montaño Road and 4th Street was identified as one of the top 20 intersections in the region in terms of crashes per traffic volume (See [21], based on 2007 – 2011 data) and one of the top 11 intersections in the City in terms of the number of bike crashes (See [22], based on 2008-2011 data.)

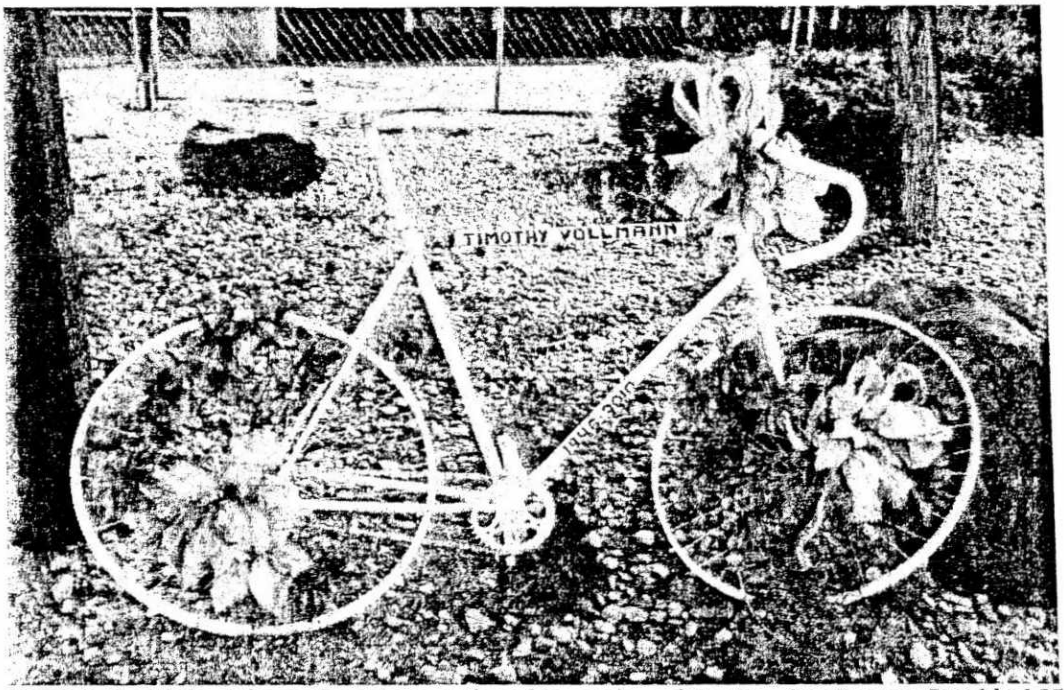

Figure 6: Ghost bike at the northeast intersection of Comanche and Pan American Freeway East (the I-25 NB frontage road). The ghost bike marks the approximate location of cyclist Timothy Vollman's fatal collusion with a City waste collection truck.

Bike/Pedestrian/Transit Accommodation Impacts

Travelers who bike, walk, or walk to transit benefit in terms of their health, due to increased physical activity levels. Additionally, if they use these modes instead of driving a car, traffic and air quality impacts are marginally reduced.

The new trips associated with the proposed WTS have the potential to adversely impact bicycle and pedestrian accommodation along corridors in the project area. In general, higher vehicle volumes and truck traffic can compromise bicyclists' comfort.[66] Similarly, higher vehicle volumes and speeds can compromise pedestrians' comfort.[67] These impacts may be non-trivial when the level of service is already poor and is marginally close to degrading (e.g. from D to E). Additionally, stakeholder interviews with residents of Albuquerque indicate that better perceptions of safety would make bicycling more desirable [22]; as described in the safety section above, the proposed WTS may raise safety concerns for bicyclists and pedestrians at a number of locations.

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[66] The 2010 Highway Capacity Manual (HCM) includes a measure of bicycle LOS, which is a function of the proportion of heavy vehicle traffic, as well as overall motorized vehicle volumes, in addition to other measures [24]. This is based on research on bicyclists' perceptions.

[67] According to the 2010 Highway Capacity Manual, pedestrian LOS is also a function of traffic volumes and speeds [24]. This is based on research about how pedestrians perceive walking on facilities with different characteristics.

A number of the roads in the area are critical routes for bicycles, pedestrians, and transit users. Several critical bicycle facilities are present on corridors where project trips are expected to occur (Figure 7), and several improvements are planned (Table 7). The major roads in the project area have also been classified by the Mid Region Council of Governments as moderate (or greater) priorities for pedestrian improvements (these include Griegos Road, Edith Blvd, 2nd Street, Montaño Road, and 4th Street, each spanning the project area.)[68] Additionally, there are a number of transit facilities on potentially affected routes (Figure 8); Route 13 (on Comanche Road east of 2nd Street and on 2nd Street south of Comanche Road), Route 10 (on 4th Street extending south of Candelaria Road and north of Montaño Road, with service along 2nd Street via Griegos Road and Montaño Road), Route 157 (on Montaño Road extending west of 4th Street and east of Edith Blvd), and the Montaño Transit Center (south of Montaño Road and west of the Rail Runner station.)

These bike, pedestrian, and transit facilities are critical routes for non-auto travel in the region, and many of the facilities are currently in need of improvement. Some of the potentially impacted facilities may already be undesirable for some non-auto users (e.g. see Figure 9). The gap in bike facilities (noted in Table 7) and the lack of pedestrian facilities, such as sidewalks (see Figure 10) in the vicinity of La Luz Elementary School are of particular concern, as children walk and bike to and from the school. Bike, pedestrian, and transit facilities are also crucial components of the 4th Street Corridor Plan [23], which plans for mixed use and transit-oriented development and improved accommodations for pedestrians on 4th Street (from just south of Montaño Road to the City limits to the north).

[68] See http://www.mrcog-nm.gov/images/stories/transportation/bicycles/pedestrian-composite-index-scores.jpg.

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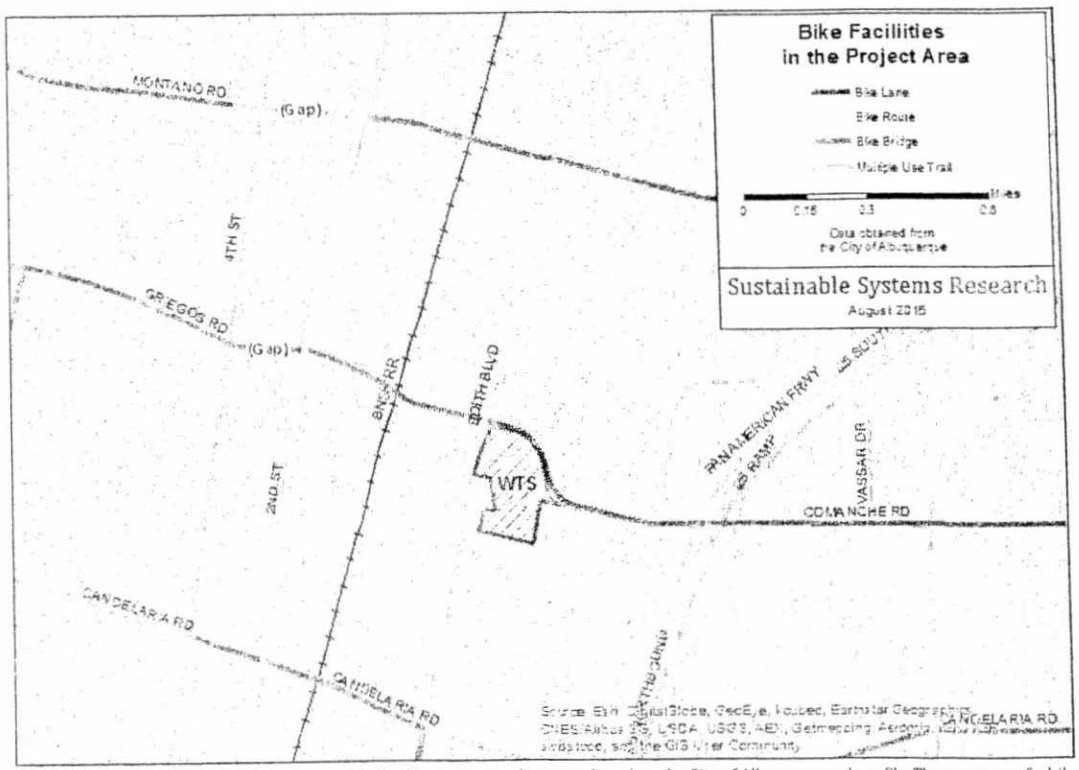

Figure 7: Bike Facilities in the Project Area. The facility segments shown are based on the City of Albuquerque shapefile. The presence of a bike lane shown on Griegos between 5th Street and 1 block east of 2nd Street does not agree with the data sources used in Table 7 and appears to be an error; we have labeled that location as having a gap.

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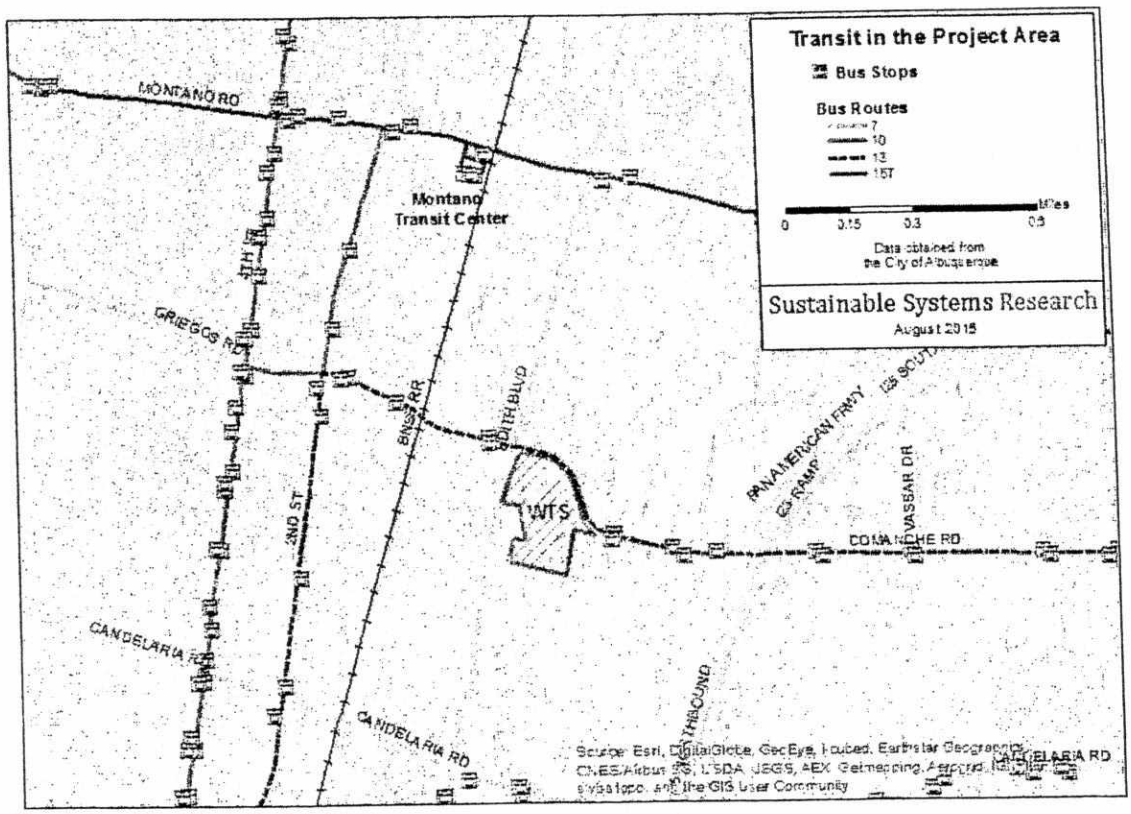

Figure 8: Transit Facilities in the Project Area.

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Table 7: Current and planned bicycle facilities in the project area.

Comanche / Griegos Road	W of 4th – E of I-25	Bike lane	Gap: 5th St - 1 block E of 2nd St: in front of La Luz Elementary	Fill gap.	This is a "critical link" improvement in BTFP. Provides a link from the North Valley to the Channel Trail.
Montaño Road	W of 4th – E of I-25	Bike lane	Gap: 5th St - 2nd St	Fill gap. Intersection improvement at 4th & Montaño.	These are "critical link" improvements in BTFP.
2nd Street	N of Montaño - S of Candelaria	Bike route	Bikes share road with cars.	Bike lane and bike trail.	These are "critical link" improvements in BTFP. There is currently no N-S bike lane in the area.
Edith Blvd	N of Montaño - S of Candelaria	Bike route	Bikes share road with cars. One of very few N-S bike facilities in the area.	--	--

[69] Current facilities are shown on the City of Albuquerque bike map: http://www.cabq.gov/parksandrecreation/recreation/bike/bike-map

[70] Planned facilities are indicated in the Mid Region Council of Governments Long Range Bikeway System 2040 map, and in the City of Albuquerque's Bikeways & Trails Facilities Plan (BTFP), completed in May 2015 (see Figures 11 and 16).

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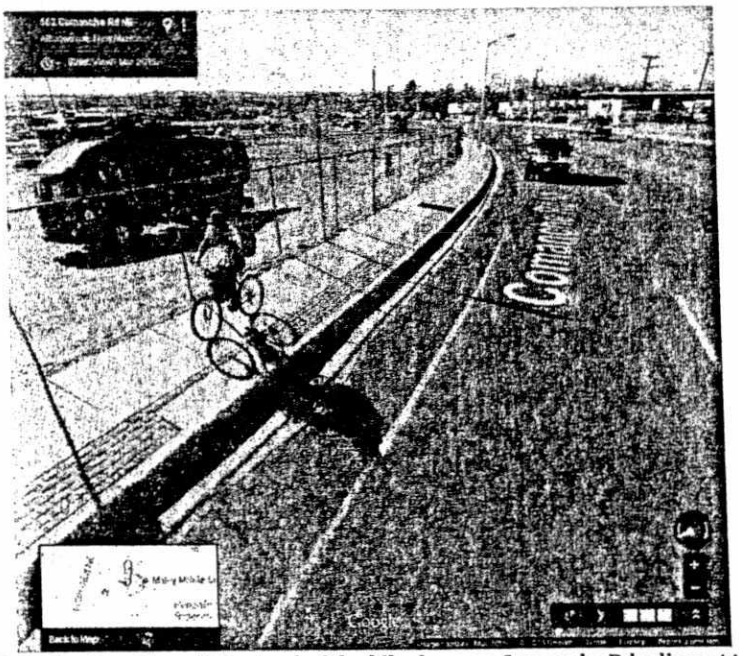

Figure 9: Bicyclist using the sidewalk instead of the bike lane on Comanche Rd adjacent to the site of the proposed WTS. Photograph from Google Maps' StreetView.

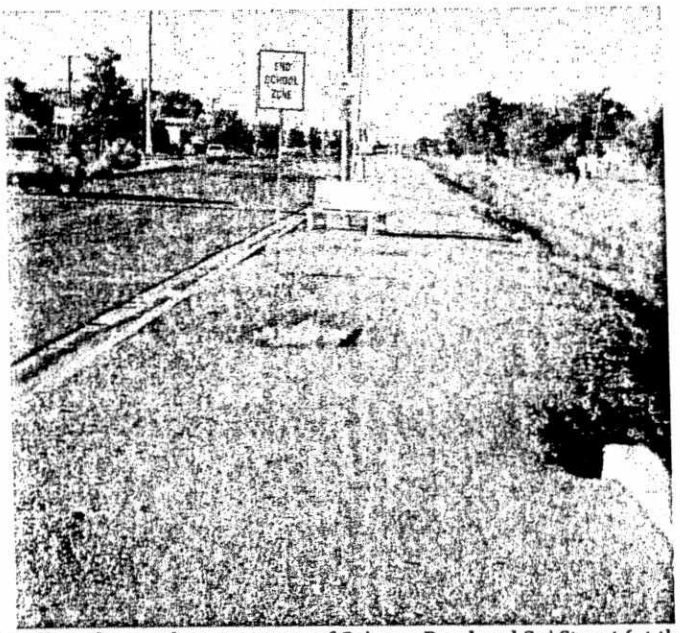

Figure 10: Dirt sidewalk at the southwest corner of Griegos Road and 2nd Street (at the edge of a school zone and at a bus stop).

New trips generated by the project have the potential to further impact these facilities, particularly where truck traffic will increase. Comanche Road, which has a bike lane, will carry the greatest number of new trips (including truck trips) of the

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arterials in the project area (see Table 4 and Table 5). Edith Blvd, which has a bike route, will also carry a majority of truck trips adjacent to the site (under Design Plan C). Griegos Road, 2nd Street, 4th Street, and Montaño Road will also carry new project trips (including truck trips). The bike routes on 2nd Street and Edith Blvd may be particularly vulnerable to impacts of additional trips because bicyclists are not separated from higher speed vehicle traffic on those routes. The gaps in bike infrastructure along Griegos Road and Montaño Road may also be vulnerable to additional project traffic. Comanche Road, 2nd Street, Griegos Road, 4th Street, and Montaño Road also carry bus lines.

The Draft Traffic Study mentions the current bike and transit facilities in the project area. In the projected traffic section, it indicates that the current level of bike and pedestrian activity is unknown. (Although the pedestrian counts shown in Appendix B shows 27 to 62 pedestrians at each of the five study intersections during the three peak periods.)[71] The projected traffic section also indicates that the project is not expected to add any new non-auto trips. However, the Draft Traffic Study does not discuss planned bicycle facilities in the area or evaluate non-auto impacts of the new vehicle trips.

In light of the potential impacts of increased traffic volumes (particularly the increase in trucks) along corridors with critical bicycle, pedestrian, and transit facilities that are already in need of improvement, we strongly recommend more serious consideration of the potential impacts on bicycle, pedestrian, and transit travel (and potential mitigations) in the project area.

Air Quality Impacts

Air pollution comes from a number of different types of emissions sources, including mobile (on- and off-road) and stationary sources (e.g. industrial combustion and fugitive emissions.) The proposed WTS is also located near the edge of an industrial area (see zoning in Figure 11) with a number of stationary pollution sources[72], as well as near a number of heavily traveled roads (including I-25, Montaño Road, and others: see Table 4).

Vehicles directly emit several pollutants that can result in health impacts: carbon monoxide (CO), nitrogen oxides (NO_x), and toxic air pollutants (some of which are volatile organic compounds, or VOCs); diesel exhaust also contains these pollutants and others, including particulate matter (PM). Vehicle emissions are a function of the vehicle characteristics (size, type, fuel type, state of repair, etc), weather (temperature, wind, etc), and the vehicle's travel characteristics (how far the vehicle

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[71] These data were collected in the winter, when pedestrian counts may be lower. Additionally we note that low usage rates may not indicate low need, but may instead be a reflection of the quality or perceived safety of the current facilities.

[72] See permitted air toxics map data available at http://www.arcgis.com/home/item.html?id=f4cc50cb1fd44e6cb8f3a6535c666e7c

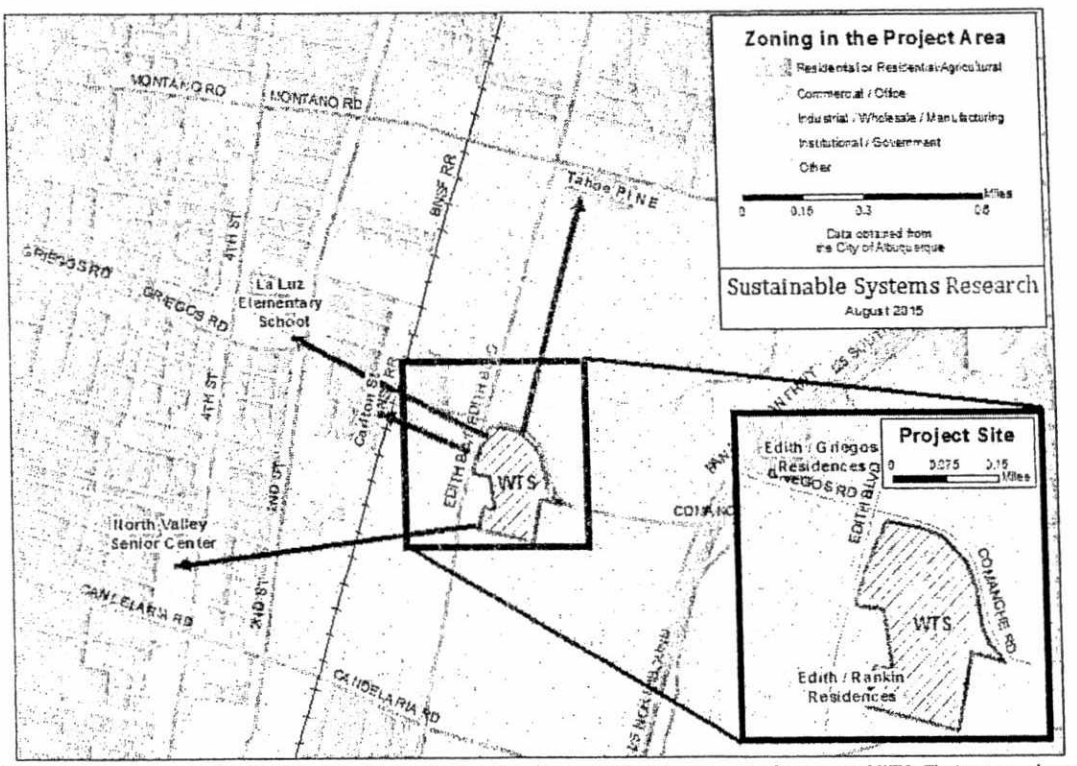

Figure 11: Area zoning and residences, elementary school, and senior center that are nearest to the proposed WTS. The inset map shows the approximate location of the Edith Blvd / Rankin Road residences (located in an industrial zone) and the Edith Blvd / Griegos Road residences (located in a commercial/office zone.)

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travels, the speed and acceleration of the vehicle, the road grade, etc.) Ground level ozone is not emitted directly, but is formed secondarily when VOCs and NOx combine in the presence of sunlight; ozone levels depend more heavily on regional (rather than very localized) emissions.

Exposure to these vehicle pollutants is associated with a number of adverse health outcomes:

- Nitrogen oxides (NOx): Causes respiratory inflammation, increased symptoms in asthmatics [25].
- Carbon monoxide (CO): Reduces oxygen carrying capacity of the blood, leading to chest pain and myocardial ischemia in those with heart disease and even death at very high levels [26].
- Mobile Source Air Toxics (MSATs): Of particular health concern are benzene, 1,3-butadiene, formaldehyde, acrolein, acetaldehyde, polycyclic organic matter, and naphthalene. Human health effects studies are limited but evidence suggests that exposure to MSATs can increase cancer risks, respiratory irritation, and potentially lead to other health effects [27].
- Particulate matter (PM): Can lead to nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, irritation of airways, coughing, difficulty breathing, and premature death in people with preexisting health issues [28].
- Diesel exhaust (including diesel PM): In the short term can lead to acute irritation, neurophysiological symptoms, respiratory symptoms; in the long term it is associated with noncancer respiratory effects and elevated cancer risks [29].
- Ozone: Is formed at ground level when NOx and VOCs combine in the presence of sunlight (is not emitted directly by vehicles). Ground level ozone causes respiratory inflammation and damage, aggravates existing respiratory conditions [30].

Bernalillo County is currently in attainment of all National Ambient Air Quality Standards (NAAQS). However, ground level ozone and coarse particulate matter (PM10[73]) levels in the area are very close to the standards. The PM10 monitor that is nearest to the project site indicates that PM10 values are just below current standards[74], while ground level ozone in Bernalillo County is just below current standards and exceeds proposed standards.[75]

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[73] PM10 refers to particles that are less than 10 micrometers in diameter.

[74] The requirement to meet 24-hour PM10 NAAQS is to exceed the standard of 150 μ/m^3 no more than an average of once per year over a three year period (http://www.epa.gov/airprogm/oar/criteria.html). The most recent design values for the Jefferson monitor (located about 1.9 miles away at 3700 Singer Blvd NE) show that it exceeded the PM10 standard twice in the three year period from 2011 - 2013 (see PM10 design values at http://www.epa.gov/airtrends/values.html.). The most recent annual Jefferson monitor data indicates that there was nearly an exceedance in 2014, with a maximum observed value of 147 μ/m^3 (see 2014 PM10 annual measurements at http://www.epa.gov/airdata/ad_maps.html).

[75] Bernalillo County's most recent design value for 8-hour ozone is 0.072 ppm (see ozone design values at http://www.epa.gov/airtrends/values.html.) The current standard for 8-hour ozone is

Even in areas that are in attainment of these Federal standards, there can be health risks associated with air pollution. The health risks of air pollutants in a given area depend on local conditions. The National-Scale Air Toxics Assessments (NATA) provide coarse indications of health risks by census tracts based on roughly estimated air pollution levels.[76] These data should be interpreted with caution because they are too coarse to provide a clear indication of risks at the local level, although they can be useful for identifying areas that merit additional analysis. According to the 2005 NATA, the area around the proposed WTS may have elevated cancer and respiratory risks, largely due to vehicle emissions.[77]

As detailed above, the proposed WTS is expected to increase vehicle travel in the project area. These activities have the potential to affect regional and local air pollution concentrations.

Regional Air Quality Impacts

There are several factors to consider when evaluating the project's impact on regional emissions. Emissions from collection truck trips will decrease as the distances that they travel decrease (collection trucks will travel shorter distances to the WTS rather than to the landfill). Emissions from vehicles dropping waste off at the convenience center will also likely decrease, as trips diverted to the convenience center will likely be those trips that are shorter when traveling to the WTS instead of the existing convenience centers. At the same time, emissions from transfer trucks will increase (where transfer truck trips will occur with the project but would not occur otherwise). Transfer trucks also emit more per mile than collection trucks[78]. However we expect that the reduction in mileage of collection trucks will be substantial enough to outweigh the additional mileage and emissions rates of transfer trucks.[79] In other words, we expect that at the regional level, the project is likely to reduce overall transportation emissions.

0.075 ppm (http://www.epa.gov/airprogm/oar/criteria.html). The proposed standard would be between 0.065 and 0.070 ppm (see http://www.epa.gov/airquality/ozonepollution/pdfs/20141125proposal.pdf)

[76] See http://www.epa.gov/ttn/atw/nata2005/05pdf/nata2005_factsheet.pdf.

[77] Census Tract 003400, in which the WTS is located, is bounded on the east by the railroad tracks (from Candelaria Road to Montaño Road) and I-25 (from Candelaria Road to I-40), on the north by Montaño/Montgomery, on the west by Carlisle Blvd, and on the south by I-40 (from Carlisle Blvd to I-25) and by Candelaria Road (from I-25 to the railroad tracks). It has an estimated average total respiratory health index (HI) of 2.5 and a total cancer risk of 50 in a million. An HI of less than 1 indicates that adverse effects are unlikely. An HI greater than 1 may or may not indicate that adverse effects could occur – the HI is case specific. The respiratory index in Census Tract 003400 is driven primarily by onroad mobile sources (51%). The cancer risk is driven by onroad mobile sources and secondary formations.

[78] Based on EPA emissions estimates for 2008 heavy diesel trucks traveling in typical summer conditions (available at http://www.epa.gov/otaq/consumer/420f08027.pdf), we estimate that transfer trucks will emit more per mile than garbage trucks: 39% more CO, less than 1% more VOCs, 23% more NO_x, and 22% more PM per mile.

[79] This conclusion is based on a conservative estimate of the project's potential mileage savings. We estimate that in 2018 69 to 77 transfer truck trips will travel 36 miles to/from the landfill, for a total

Local Air Quality Impacts

Even if regional emissions decrease, emissions in the project area will increase as local trips increase. In areas around emissions sources, it is possible for local "hotspots" to occur. In these hotspots local pollution concentrations are greater than background levels (which are generally measured by local monitors). A number of studies have measured elevated levels of vehicle pollutants in close proximity to busy roads;[80] concentrations of most pollutants drop off between 115 and 570 meters, or 377 to 1870 feet [33]. These distances would vary depending on local weather patterns, traffic volumes, etc.

The local impacts of the proposed WTS will depend on the magnitude, location, and timing of vehicle emissions, which drive the concentrations to which people are exposed. The emissions will be greatest along corridors with the greatest number of new trips (particularly truck trips) and for corridors that are already congested or that will become more congested with project trips. The potential health impacts of these emissions is driven by the concentrations to which people are exposed, which will be a function of local environmental conditions and the location of people relative to emissions.

The proposed WTS site is approximately 100 to 200 feet from the nearest residences (approximately six homes at the corner of Edith Blvd and Rankin Road). Under Design Plan C these residences are approximately 600 to 800 feet from the proposed Edith Blvd entrance (which will carry some collection trucks and all transfer trucks) and approximately 350 to 500 feet from the proposed western Rankin Road entrance (which will carry some driver/maintenance employee vehicles). Under Design Plan D these residences are approximately 150 to 250 feet from the proposed western Rankin Road entrance (which will carry all collection trucks and transfer trucks).

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of additional 2484 to 2772 miles each weekday if the project is built. There are currently 268 collection truck trips to the landfill each weekday (City Data Table); growing these by 1.5% yields an estimated 284 trips in 2018 (these are trips to the landfill that would occur if the project isn't built). Assuming that each collection truck saves 16 miles by traveling to/from the WTS rather than the landfill yields an estimated 4551 miles saved each weekday if the project is built. This mileage estimate is 64% to 83% greater than the transfer truck mileage estimate; the overall mileage difference of at least 64% to 83% likely outweighs the 0% to 39% greater emissions per mile from transfer trucks. The calculation is conservatively low for three reasons: 1) the collection truck mileage savings estimate is based on a collection truck entering I-40 at Coors Blvd NW although most trucks will enter the highway farther east, 2) the collection truck mileage estimate omits the mileage saved from the last trip of the day to park the collection truck at the WTS, and 3) the estimate does not account for regional project emissions savings from the change in mileage for convenience center drop-offs.

[80] A number of the studies reviewed did not specify the traffic levels on the busy roads evaluated. Dispersion modeling of Los Angeles indicates that PM2.5 is somewhat elevated near roads with 25,000 – 50,000 annual average daily traffic [31]. Health effects have been observed at traffic levels as low as 10,000 trips/day [32, Chapter 3, Appendix B]. For reference, daily traffic levels along affected arterials in the project area range from 10,756 to 26,737 (see Table 4).

There are also residences at a distance of 600 to 700 feet (northwest of the intersection of Griegos Road and Edith Blvd) and at 1,300 feet (or about 400 meters, along Carlton Street), a school at a distance of 2,700 feet (La Luz Elementary School), and a senior center at a distance of 4,200 feet (North Valley Senior Center). Figure 11 highlights these locations and zoning in the area (which indicates additional residential areas along potentially affected corridors.)

As described above, the majority of project traffic (including new truck trips) will occur along Comanche Road between Edith Blvd and I-25, on I-25, at the I-25 / Comanche interchange, and on Edith Blvd adjacent to the proposed site (under Design C); Comanche Road, Edith Blvd, and the I-25 interchange is also where project trips may contribute the most to congestion. Additionally, vehicles may idle at the site as they queue for drop-offs; vehicle idling would also result in emissions from the site itself. Air pollution levels in the project vicinity may increase modestly as a result of these trips and on-site idling; it is possible for pollution from the site and Comanche Road/Edith Blvd traffic to cause elevated concentrations as far as the nearest residences[81], although the magnitude of these impacts is unknown.

Other corridors of interest are those that carry new traffic and are adjacent to nearby homes and La Luz Elementary School: Rankin Road adjacent to the site (under Design Plan D), Griegos Road west of 2nd Street, Montaño Road west of 2nd Street, Montaño Road just east of Edith Blvd, and 2nd Street from Candelaria Road to north of Montaño Road (see zoning in Figure 11). Traffic increases along Griegos Road, Montaño Road, and 2nd Street are more modest than increases that will occur adjacent to the project site and along Comanche Road at I-25.

Pollution dispersion modeling that accounts for local conditions and the project's emissions generating activities would be necessary to determine the proposed WTS impact on pollution concentrations experienced by nearby residents.

Overall, we find that the change in vehicle travel associated with the project is likely to lead to reduced regional emissions levels and to increased emissions levels in the area around the project. This increase in local emissions may result in slight increases in pollution levels to which residents are exposed, although the magnitude of these impacts is unknown.

Note that this analysis does not include the potential for pollution due to the stationary equipment used on-site; these activities may result in additional

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[81] The nearest residences are located approximately 100 to 200 feet (30 to 61 meters) to the southwest of the proposed site northeast of the intersection of Edith Blvd and Rankin Road. These Edith Blvd & Rankin Road residences and those located northwest of Griegos Road & Edith Blvd and along Carlton Street are within range of near-road pollution for busy roads [33]. Wind direction in the region varies, although in the winter it often blows from the north (based on National Oceanic and Atmospheric Administration. Albuquerque International Airport Wind Rose Plots: 1985 -2005. From http://www.srh.noaa.gov/images/abq/WindRosePlots/ABQ8505ann.pdf)

emissions at the site. Additionally, if the proposed facility does not accommodate drop-offs on-site and queuing vehicles are backed up onto surface streets, the on-site idling and congestion impacts (and therefore the pollution impacts) would be greater.

Noise Impacts

Excessive noise can increase stress, blood pressure, contribute to hearing loss, and lead to sleep loss [34]. Noise occurs along roads, as a function of vehicle volume and speeds, vehicle characteristics, pavement characteristics, the characteristics of the area adjacent to roads (e.g. presence of trees or barriers).

Trucks generally cause more road noise than passenger vehicles [35]. Most of the new truck trips that will result from the proposed WTS will travel along Comanche Road from Edith Blvd to the I-25 interchange, on I-25 south of Comanche Road, on Edith Blvd adjacent to the project site (under Design Plan C), and on Rankin Road adjacent to the project site (under Design Plan D) although some new collection truck trips will travel along other road segments (including Griegos Road west of Edith Blvd, Comanche Road east of I-25, Montaño Road, 2nd Street, and 4th Street, see Table 5).

The worst noise impacts generally occur when truck volumes and speeds are greatest, generally when traffic is free flowing (with a Level of Service "C") [35]. New truck trips will occur between the hours of 7:30 am and 6 pm, with the greatest number of truck trips occurring in the morning[82]. The impacted corridors exhibit a range of congestion conditions during the afternoon peak period (see Figure 1.) We expect that the greatest noise impacts of the proposed WTS will occur at different times along each corridor. For example, corridors that exhibit congested conditions during peak periods and carry a number of collection trucks (which travel in the mid-morning) may exhibit the worst noise impacts between the morning and mid-day peak period when speeds are high. For corridors that do not exhibit congestion and that carry a number of transfer trucks (which travel from 8:30 am to 4pm) and collection trucks, the worst noise impacts may occur from morning to mid-day, when most trucks are traveling.

The impacts of the proposed WTS will depend on the additional noise experienced by nearby residents. While the noise impacts of a road depend on the specific conditions of the traffic, the road, and its surroundings, FHWA indicates that in general "...highway traffic noise is not usually a serious problem for people who live more than 500 feet from heavily traveled freeways or more than 100 to 200 feet from lightly traveled roads." [36].

For the proposed WTS, the corridors of greatest concern are those that carry new project truck traffic and are located near homes and La Luz Elementary School:

[82] See the timing shown in the City Slide [4].

Edith Blvd just north of the Griegos Road, Rankin Road adjacent to the site (under Design Plan D), Griegos Road just west of Edith Blvd and west of 2nd Street, Montaño Road between 2nd Street and 4th Street, Montaño Road and Edith Blvd, and 2nd Street from Candelaria Road to north of Montaño Road (see Figure 11). Note that several of these corridors are expected to carry collection trucks only (transfer trucks will travel to the Comanche Road entrance to I-25, via Edith Blvd under Design Plan C or Rankin Road under Design Plan D).

Of these locations, the homes southwest of the project site (at the northeast corner of Edith Blvd and Rankin Road) are in proximity to the greatest weekday volume of truck traffic that occurs near residences, particularly under Design Plan D. We estimate that 329 to 372 new one-way truck trips will occur on weekdays at the Edith Blvd access point (located approximately 600 to 800 feet away from these homes) under Design Plan C and 445 to 489 new one-way truck trips will occur on weekdays at the Rankin Road access point (located approximately 150 to 250 feet away from these homes) under Design Plan D. These new trips will be a mix of collection and transfer trucks. Assuming that these trips are evenly distributed during the hours of travel indicated in the City Slide, we estimate that the greatest rate of truck trips will occur from 9:30 am to 10:30 am, when there will be approximately one truck every 41 seconds under Design Plan C and one truck every 27 seconds under Design Plan D.

Additionally, one home northwest of Edith Blvd & Griegos Road (on Edith Blvd), the homes southeast of Edith Blvd and Montaño Road (on Tahoe Place NE), and the homes west of 2nd Street north of Montaño Road are also in proximity to modest levels of weekday truck traffic (see Table 5.) We estimate that 28 to 46, 24 to 46 and 24 to 42 new one-way truck trips will occur along these corridors on Fridays[83] respectively; these additional truck trips will be a mix of residential and commercial collection trucks that will travel from 7:45 am to 1 pm. Assuming that these trips are evenly distributed during the hours of travel indicated in the City Slide, we estimate that the greatest rate of truck trips will occur from 9:30 am to 10:30 am, when there will be approximately one truck every five to six minutes at these locations[84].

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[83] Residential trip route shares vary by weekday; our estimates are based on the maximum share of any weekday.

[84] This estimate is based on the trip rate and route assumptions outlined earlier, which indicate that new collection truck trips in 2014 are as follows: 70 to 83 new commercial roll-off round trips, 34 new commercial front- and rear-load round trips, and 50 new residential collection round trips. In 2018 this equates to 74 to 88, 36, and 53 round trips respectively (assuming a 1.5% annual growth rate, consistent with the Design Memorandum [1]). From 9:30 am to 10:30 am, we estimate that 19%, 50%, and 50% of these trips occur, respectively (assuming that these trips are evenly distributed from 7:45 am to 1 pm, 8:30 am to 10:30 am, and 9:30 am to 11:30 am, respectively based on the City Slide.) We estimate that 8 to 10%, 8 to 10%, and 11 to 21% of trips will occur along Edith Blvd & Montaño Road on weekdays and 6 to 8%, 6 to 8%, and 11 to 21% of trips will occur along 2nd Street north of Montaño Road (reflecting the residential collection truck trip rate on Fridays, which is the highest of the weekdays). Round trips are converted to one-way trips to yield the estimates shown in the text.

Conclusions:

Based on the information that is currently available, it does not seem possible to verify the full extent of the traffic impacts of the proposed Waste Transfer Station that have been reported by the City. Estimates of expected new project trips vary depending on the source of the information, and many of the estimates that are available are not transparent in the reasoning behind their assumptions or conflict with other reported findings.

It is difficult to draw conclusions about the project's impacts without clear, transparent and consistent information. In addition, residents' concerns about air quality, bike and pedestrian accommodation, noise, and safety were not addressed in the Draft Traffic Study.

The primary purpose of this analysis was to distill the available information into reasonable and transparent estimates of new project trips. With these estimates, the potential impacts of the project can be re-examined (in the case of vehicle traffic impacts) or investigated more closely (in the case of air quality, noise, safety, and bicycle and pedestrian accommodation impacts). Due to limited time and resources our analysis of impacts has drawn largely from available data and resources. We have also clearly laid out the rationale behind our assumptions where necessary.

Based on our analysis, we find that the transportation impacts of the WTS project are likely to be greater than represented in the Draft Traffic Study. We recommend that the differences and inconsistencies we have identified in this report be evaluated more thoroughly to determine whether impacts will be significant. Significant impacts may indicate the need for design changes or mitigation alternatives. We note that this analysis was limited in two respects: the transportation analysis was conducted using available data and information, and concerns about odors, pests, water quality, etc were not addressed here.

It is our hope that as the decision making process moves forward, residents' concerns will be adequately addressed (many may already be being addressed in the Final Traffic Study currently underway). We have provided a number of specific recommendations for improving the project's traffic analysis -in terms of the assumptions used, the transparency of the analysis, and of the impacts evaluated and addressed. Below we summarize our findings in more detail and we present recommendations for improving the traffic analysis of this project. We close with a discussion about the limitations of this analysis.

Findings:

Trip Estimates:

- Based on the available data, we estimate that the project will result in 390 to 732 new trips per weekday and 528 to 680 new trips per weekend day. Of these, 232 to 254 trips per weekday and 33 to 43 trips per weekend day will

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be truck trips. The ranges presented here exceed trip estimates calculated by summing the City's trips estimates.

- A number of additional new trips are expected to occur during peak traffic periods in the area, including collection truck trips (in contrast to what was indicated in the Draft Traffic Study).
- A number of collection truck and convenience center trips will likely access the site via intersections that have not been considered in the Draft Traffic Study.
- Recycling center trips, hazardous waste, and re-use drop-off trips have not been accounted for in the Draft Traffic Study or in this report.

Traffic Impacts:

The impact of the project on intersection delay was not quantified in this report. Based on the trip estimates above we highlight the areas with greater potential for traffic impacts:

- The greatest changes in traffic volumes will occur along Comanche Road, I-25, the I-25 interchange, and Edith Blvd adjacent to the site (under Design Plan C) although there will also be smaller increases in traffic volumes along other routes in the project area. The greatest percent change in traffic volumes will occur along Comanche Road (between Edith Blvd and I-25), at the I-25 interchange, and on Edith Blvd adjacent to the site (under Design C), where traffic will increase by up to 3 to 7% over 2018 traffic levels.
- Comanche Road and I-25 (and Edith Blvd adjacent to the project site under Design C) are the primary routes that will be used by collection and transfer trucks, although a number of other roads in the area will also carry new truck trips. We estimate that the number of trucks using Comanche Road between Edith Blvd and the I-25 interchange will increase by approximately 47% to 151% on weekdays.
- The greatest weekday afternoon peak traffic impacts are expected on Comanche Road, with estimated traffic volume increases of up to 6% during the afternoon peak period. Additionally, a number of other roadway segments in the project area that currently exhibit congestion will likely experience modest traffic increases during the afternoon peak period.

Safety Impacts:

The overall magnitude of the project's impacts on safety was not quantified in this report. Given that greater traffic volumes, speeds, and truck shares can adversely impact safety there is elevated concern about safety along the following corridors:

- Comanche Road between Edith Blvd and I-25, I-25, the I-25 interchange, and Edith Blvd adjacent to the site (under Design Plan C) will carry the majority of project traffic (including truck traffic). Truck traffic on Comanche Road and Edith Blvd is of particular concern in light of the bike facilities on Comanche Road and Edith Blvd.
- The addition of project trips at the intersections of Montaño Road & 4th Street and Montaño Road & Edith Blvd may be of concern in light of the safety risks that are already present.

Bike/Pedestrian/Transit Accommodation Impacts:

The overall magnitude of the project's impacts on non-auto traveler accommodation was not quantified in this report. A number of the roads in the area are critical routes for bicycles, pedestrians, and transit users, and many of the roads are currently in need of improvement and/or have planned improvements for better accommodating non-auto travelers. In light of the increased traffic volumes (particularly truck volumes), the project's new trips may adversely impact the accommodation of non-auto modes. Corridors that are of particular concern include:

- Comanche Road, which has a bike lane and a bus line, and which will carry the greatest number of new trips (including truck trips) of the arterials in the project area.
- 2nd Street, which has two bus lines and a bike route where cyclists share the road with vehicles.
- Edith Blvd, which has a bike route where cyclists share the road with vehicles, particularly under Design Plan C when it will carry a majority of new truck trips.
- Griegos Road, which has a bus line and a bike lane with a gap directly in front of a school.
- 4th Street, which has a bus line and which is planned for improved non-auto accommodation under the 4th Street Corridor Plan.
- Montaño Road, which has a bus line, a Transit Center, and a bike lane with a gap.

Air Quality Impacts:

We find that the change in vehicle travel associated with the project is likely to lead to reduced regional emissions levels and to increased emissions levels in the area around the project. This increase in local emissions may result in slight increases in pollution levels to which residents are exposed, although the magnitude of these impacts was not quantified in this report. Areas of elevated concern include:

- Residences at the northeast corner of Edith Blvd and Rankin Road, approximately 100 to 200 feet from the project site. These residences are the closest to the project site itself and to the most heavily impacted corridors, which are Comanche Road between Edith Blvd and I-25, Edith Blvd adjacent to the site (under Design Plan C), Rankin Road (under Design Plan D), and the I-25 interchange.
- Residences located northwest of Edith Blvd & Griegos Road, along Carlton Street, and near Carlton Street. These residences are also near the project site and the most heavily impacted corridors, although they are not as close as the homes at Edith Blvd and Rankin Road.
- Additional corridors of concern include Griegos Road west of 2nd Street, Montaño Road west of 2nd Street, Montaño Road just east of Edith Blvd, and 2nd Street from Candelaria Road to north of Montaño Road. Traffic increases along these corridors are more modest than along Edith Blvd, Rankin Road, Comanche Road and I-25, but potentially affected residents are located relatively close to these roads.

Noise Impacts:

The overall magnitude of the project's impacts on noise was not quantified in this report. Given that high vehicle speeds and high volumes of truck traffic can increase noise, the corridors of greatest concern are those that carry new project truck traffic and are close to nearby homes and La Luz Elementary School. These include:

- Edith Blvd just north of the Griegos Road, Rankin Road adjacent to the site (under Design Plan D), Griegos Road just west of Edith Blvd and west of 2nd Street, Montaño Road between 2nd Street and 4th Street, Montaño Road and Edith Blvd, and 2nd Street from Candelaria Road to north of Montaño Road.
- The homes at the northeast corner of Edith Blvd and Rankin Road are in proximity to the greatest weekday volume of truck traffic that will occur near residents. During the busiest hour at this location, nearby access points are expected to carry approximately one truck every 41 seconds (under Design Plan C, 600 to 800 feet from residences) and one truck every 26 seconds (under Design Plan D, 150 to 250 feet from residences).
- The homes on Edith Blvd just north of Griegos Road, near Montaño Road and Edith Blvd (on Tahoe Place NE), and on 2nd Street north of Montaño Road are also in proximity to weekday truck traffic. During the busiest hour at these locations, these corridors are expected to carry approximately one truck every five to six minutes.

Recommendations:

In light of the community's concerns about the traffic impacts of the project, we recommend a number of general principles for an improved evaluation of traffic impacts:

- The assumptions used in the traffic analysis should be more clearly explained and justified.
- Where data are unavailable, assumptions should be conservative (tending to estimate worst case traffic impacts) or better data should be collected to improve estimates and help justify explanations.
- Trip estimates should account for growth in waste collection and drop-off activities that are expected to occur between the present and 2018.

We also provide a number of specific recommendations for an improved traffic analysis:

Trip rates:

- The rate of diversion from the three convenience centers should be explained or evaluated in more detail. If there is a possibility that the convenience centers will be closed, the traffic evaluation should assume full diversion of convenience center drop-offs to the WTS.
- The visitation rates at the three convenience centers should be explained or evaluated in more detail. Similarly, the timing of convenience center trips should be determined using visitation data, or these visits should be conservatively assumed to coincide with peak traffic in the area.

- Visits to the recycling, hazardous waste, and re-use facilities should be quantified and included in the traffic assessment.
- Transfer truck trip estimates should account for convenience center waste in addition to collection truck waste.
- The transfer truck capacities should be explained or a conservative assumption should be used.

Trip timing:

- Collection truck trips should be evaluated, as a number of these trips are expected to occur during peak travel periods in the project area.

Trip routes:

- Assumptions about collection truck trip routes and convenience center trip routes should be explained or evaluated in more detail.

Traffic evaluation:

- Traffic should be evaluated for each hour in the peak period (6:30 – 9:30 am, 11 am – 1:30 pm, and 3:00 – 6:30pm) in order to determine the worst impacts expected from project.
- Traffic data collected at Comanche Road and I-25 Pan American Freeway Southbound does not include data from 11 am to 12:30 pm; this omission should be explained or rectified.
- Potentially impacted intersections along Montaño Rd should be evaluated.
- The impact of the change in entry/exit of existing truck trips that will occur with changing access under each design alternative should be evaluated.
- Weekend traffic impacts should be evaluated in light of the proportion of convenience center traffic that is expected to occur on the weekend.

Evaluation of impacts:

We strongly recommend revisiting the evaluation of the impact of additional project vehicle trips on non-auto modes. Additionally, there is potential for safety, air quality, and noise impacts from new project trips and site activities, particularly at the residences located very close to the project site (northeast of Edith Blvd and Rankin Road). A more detailed evaluation of those impacts may address residents' concerns by characterizing impacts and determining design alterations or mitigations as appropriate.

Limitations of this Study:

The primary limitation of this study was that it had a very limited scope. We relied on reasonably available data and information for our assessment of impacts. Additional analysis is required to fully evaluate the effects of potential additional trips at various locations, which would (in some cases) require collection of new data. We also did not consider non-transportation impacts of the project (e.g. odors, pests, water quality, etc.)

Additionally, we note the following specific limitations of this analysis:

- Because there is no "one-size fits all" answer to the question of the design of waste transfer facilities and its impacts, it is necessary to rely on the data provided to the public. Therefore, our estimates are presented as ranges because they rely on uncertain and varying assumptions gleaned from existing WTS documents.
- A number of assumptions adopted by this analysis are difficult to confirm and if they are incorrect the estimates in this report would need to be revised. For example:
    - if collection trucks make more trips to the landfill and/or if there are fewer trucks or routes than what was presented in the City Data Table
    - if some collection or transfer trucks will be stored off-site,
    - if transfer truck capacities are smaller or larger than assumed,
    - if any of the three existing convenience centers close,
    - if there is a change in the number of employees commuting to the site with the project (e.g. gatehouse personnel, etc)
    - etc.
- We have evaluated the number of trips expected in 2018; this time period is consistent with the evaluation in the Draft Traffic Study. We have not evaluated the trips expected for the project lifetime (e.g. through 2034) as was done in the Design Memorandum. Trips are assumed to increase at a rate of 1.5% per year in the Design Memorandum.
- We have evaluated expected typical trips (rather than peak trips). The Design Memorandum uses estimates of peak trips in order to determine the maximum capacity needed at the WTS.
- We have not evaluated the impacts of the proposed on-site activities, or the site design. Specifically, our analysis does not account for:
    - Safety impacts of any changes in the roadway at access points
    - Safety, air quality, noise, or bike/pedestrian accommodation impacts of any traffic that may spill onto adjacent arterials if the site cannot accommodate peak drop-off queues.
    - Safety, air quality, or noise impacts of on-site activities.

Acknowledgements:

This report was funded by Commissioner O'Malley on behalf of the North Valley Coalition. Kitty Richards, Kristine, Suozzi, and the Health Impact Assessment Team provided collaboration and guidance. The City of Albuquerque and MR COG provided much of the data used in this study. Dr. Kevan Shafizadeh, PhD, PE, PTP, PTOE provided technical comments and edits.

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Appendix A: Estimated Trip Routes

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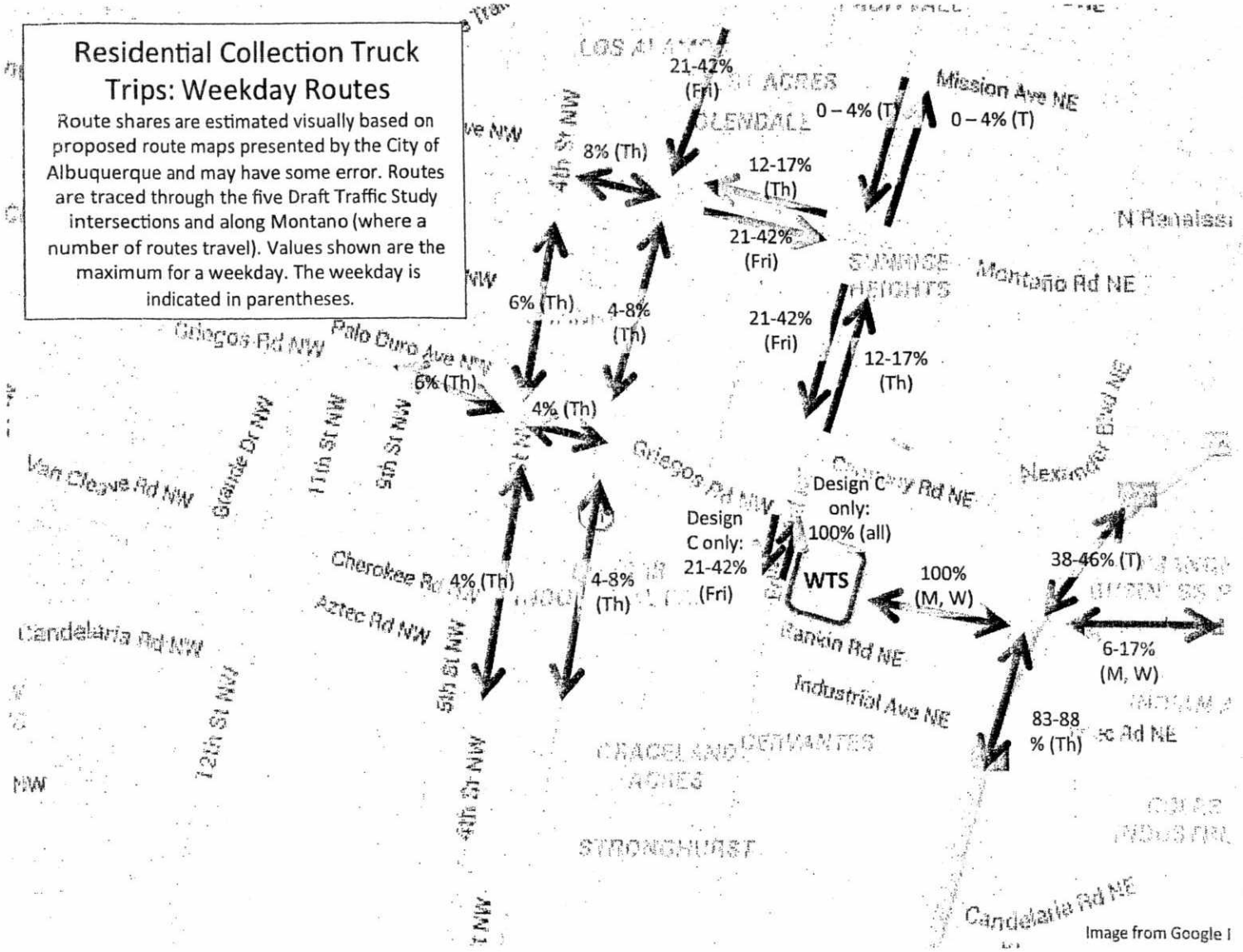
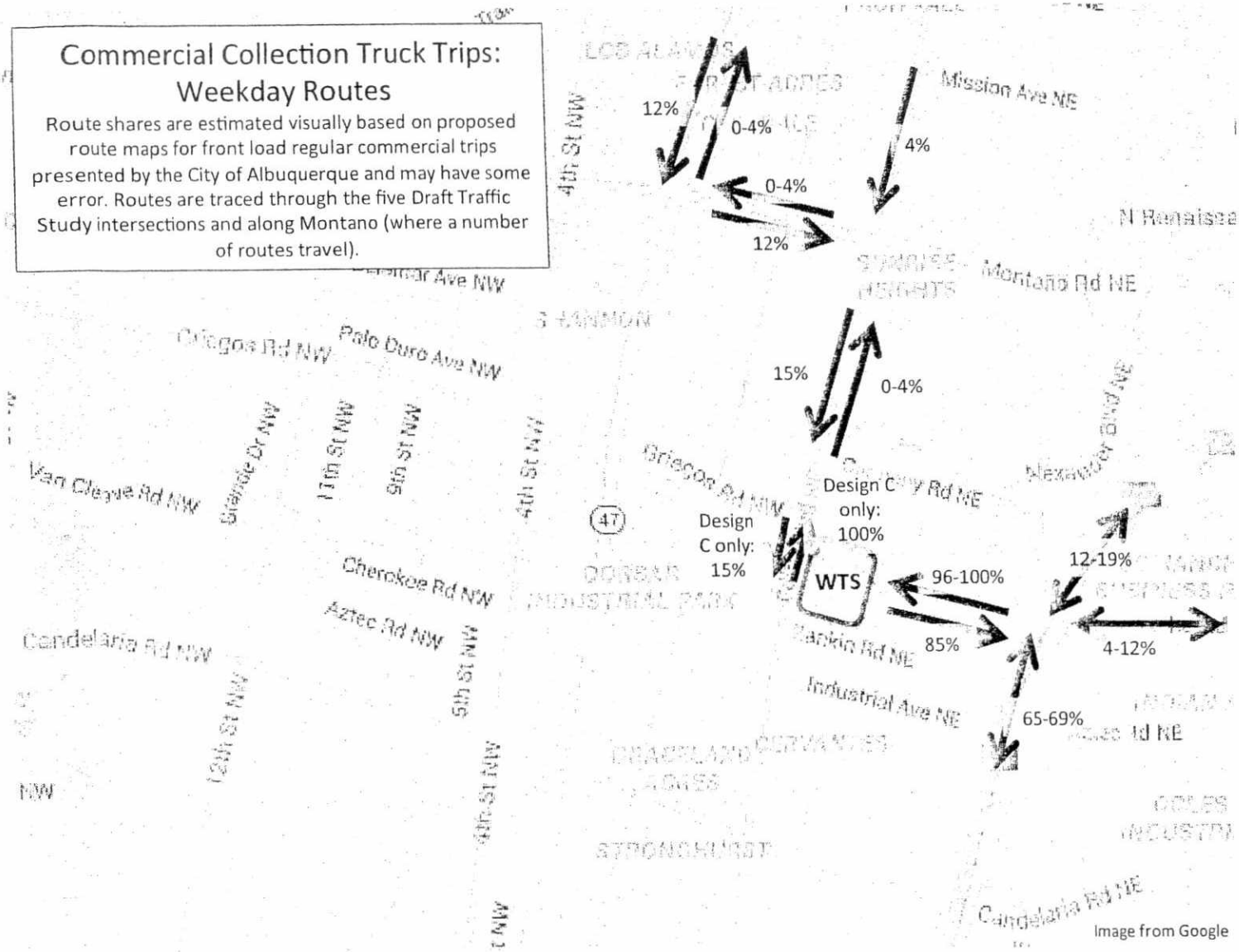
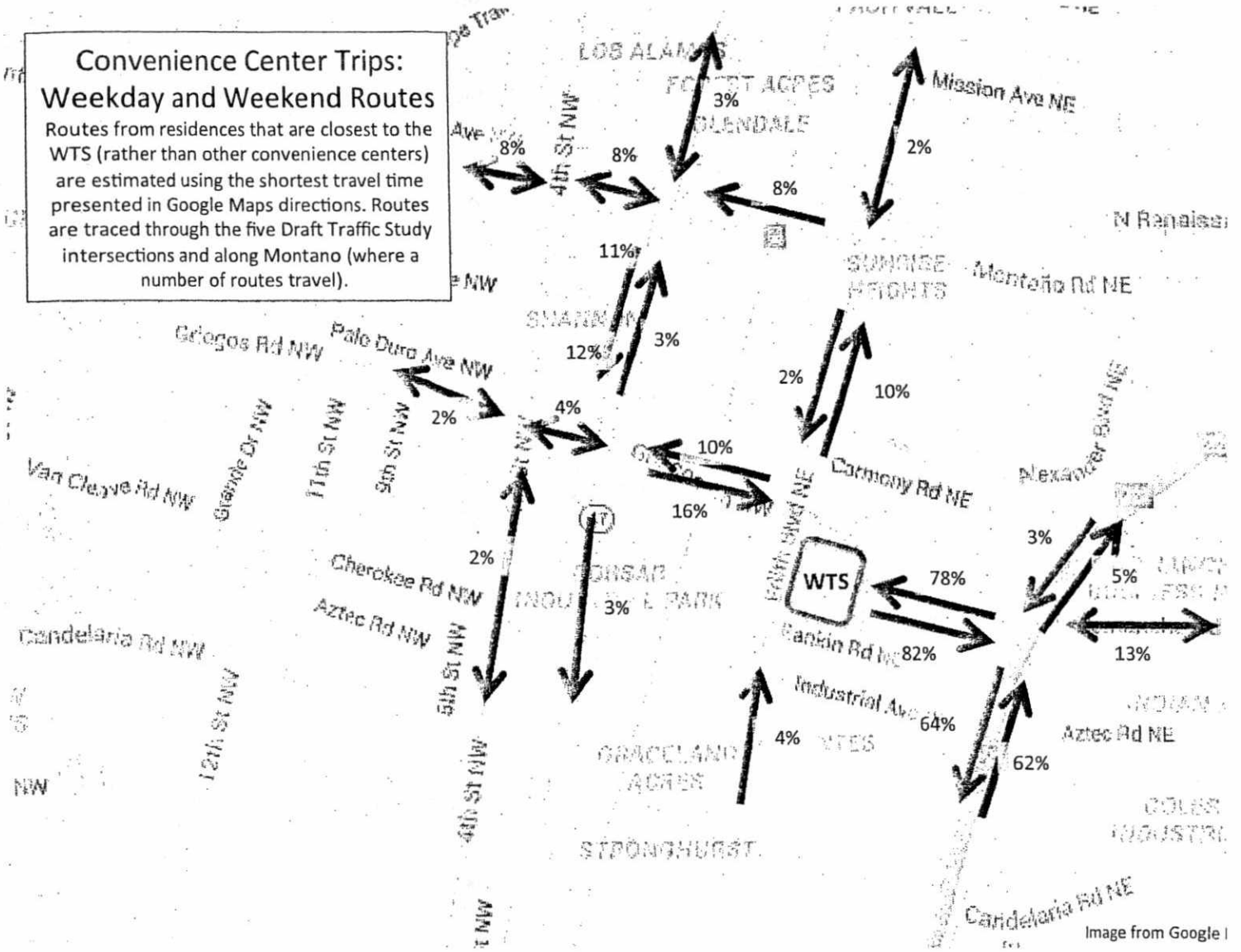

Residential Collection Truck Trips: Weekday Routes
Route shares are estimated visually based on proposed route maps presented by the City of Albuquerque and may have some error. Routes are traced through the five Draft Traffic Study intersections and along Montano (where a number of routes travel). Values shown are the maximum for a weekday. The weekday is indicated in parentheses.
21-42% (Fri)
0 – 4% (T)
Mission Ave NE
0 – 4% (T)
8% (Th)
12-17% (Th)
21-42% (Fri)
SUNRISE HEIGHTS
Montaño Rd NE
6% (Th)
4-8% (Th)
21-42% (Fri)
12-17% (Th)
Griegos Rd NW
Palo Duro Ave NW
6% (Th)
4% (Th)
Griegos Rd NW
Design C only: 100% (all)
Design C only: 21-42% (Fri)
WTS
100% (M, W)
38-46% (T)
6-17% (M, W)
Rankin Rd NE
Industrial Ave NE
83-88 % (Th)
Cherokee Rd NW
4% (Th)
4-8% (Th)
Aztec Rd NW
Candelaria Rd NW
Van Cleve Rd NW
Grande Dr NW
11th St NW
9th St NW
5th St NW
12th St NW
6th St NW
Alexander Blvd NE
Candelaria Rd NE
CRACELAND ACRES
CERVANTES
STRONGHURST
Image from Google I

Commercial Collection Truck Trips: Weekday Routes

Route shares are estimated visually based on proposed route maps for front load regular commercial trips presented by the City of Albuquerque and may have some error. Routes are traced through the five Draft Traffic Study intersections and along Montano (where a number of routes travel).




Convenience Center Trips: Weekday and Weekend Routes
Routes from residences that are closest to the WTS (rather than other convenience centers) are estimated using the shortest travel time presented in Google Maps directions. Routes are traced through the five Draft Traffic Study intersections and along Montano (where a number of routes travel).
WTS
8%
8%
3%
8%
2%
11%
12%
3%
2%
10%
4%
2%
10%
16%
2%
3%
78%
82%
3%
5%
13%
4%
64%
62%
Mission Ave NE
Montaño Rd NE
Carmony Rd NE
Cherokee Rd NW
Aztec Rd NW
Candelaria Rd NW
Gregos Rd NW
Palo Duro Ave NW
Van Cleave Rd NW
Aztec Rd NE
Candelaria Rd NE
Image from Google

September 22, 2015

TO: Peter Nicholls, Chairman of the Environment Protection Commission
FROM: North Valley Outreach Committee
Loren Kahn, Lori King and Camille Varoz
RE: Opposition to the Proposed COA Waste Transfer Station (WTS)

Dear Mr. Chairman:

The North Valley Outreach Committee ***strongly objects*** to the proposed WTS for the following reasons (Referencing from the Albuquerque/Bernalillo County Comprehensive Plan (A/BCCP) and from the Application for Zone Change COA and Wilson & Co.):

1. **II.C.1.i (A/BCCP)**
   Policy i
   Air Quality Considerations to prevent new air quality/land use conflicts.
2. **II.C.2. 4.-7.**
   Policy c
   Water Quality Contamination resulting from solid waste disposal shall be minimized.
3. **II.B.5.k**
   Policy k
   Land Adjacent to Arterial Streets shall be planned to minimize harmful effects of traffic.

Application for Zone Change: COA and Wilson & Company (Contracted Architecture and Engineering Firm:

They conclude that the application for zone change from M-1 to SU-1 will not compromise air quality, water quality and minimize harmful effects of traffic.

We ***strongly disagree*** with the proposed use from solid waste recycling to transporting multiple tons of garbage daily from throughout the Albuquerque metropolitan area. We outline the data below to prove our ***disapproval***:

- 1443 tons of garbage will be dropped off each day.
- 640 City garbage trucks will make 1014 runs per day transferring waste to the WTS.
- 18-wheeler trucks will make at least 65 trips daily to transfer trash.
- 90% of the garbage trucks use diesel fuel which will emit particles of matter polluting the air. (40 carcinogens)
- Increased surface water runoff from operations and increased ground water contamination.
- 173% increase of vehicle use on surface streets and highway exits.

We conclude that the health, air/water quality and traffic impact will have a devastating and harmful effect on over 18,000 residents, students from 9 schools and over 90 businesses in a 2-mile radius of the proposed WTS project. In reality, the entire Albuquerque metropolitan area will be affected as well.

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We ***urge*** you to reject the proposed WTS project for the above stated reasons.

Sincerely,

North Valley Outreach Committee,
Loren Kahn, Lori King and Camille Varoz

NOTE: For further questions or information you can contact,
Camille Varoz at camillev0610@gmail.com or at (505) 615-8381.

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Quevedo, Vicente M.

From: Laurie Blackwood <somethingsmoving@earthlink.net>
Sent: Monday, September 28, 2015 4:17 PM
To: Quevedo, Vicente M.
Subject: Edith Transfer Station - Project #1010582

Peter Nicholls, Chair
Environmental Planning Commission
% City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Dear Chairman Nicholls,

I am writing to express my opposition to the proposed site for the Edith Transfer Station.

First of all, why don't we reduce waste altogether? Policy IIC3b: "Encourage solid waste recycling systems which reduce the volume of waste while converting portions of the waste stream to useful products and/or energy".
The City was going to start using smaller trash collection cans, which makes so much sense to me and to many of my neighbors. Why did that not happen? It could still happen, if the City would step up to the plate and encourage the reduction of waste by charging more for picking up more trash. If we do things right, we won't be generating more trash each year and we will not need a new transfer station east of the river.

Policy IIC1k: The Goal is to improve air quality to safeguard public health and enhance quality of life.
Policy K states that citizens shall be protected from toxic air emissions.
Increased air pollution will certainly result from the increase in garbage trucks, recycling trucks, 18-wheelers, and private vehicles coming and going with trash and recycling. This will degrade the quality of life and the health of residents in the impacted neighborhood.

Thanks for considering my concerns.

Sincerely,

Kristine Roy
3827 San Isidro Street NW
Albuquerque, NM 87107

738

Quevedo, Vicente M.

From: Laura Blackwood <healthartists@icloud.com>
Sent: Monday, September 28, 2015 4:25 PM
To: Quevedo, Vicente M.
Subject: Proposed Edith Transfer Station

Peter Nicholls, Chair
Environmental Planning Commission
% City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Dear Chairman Nicholls,

I am writing to express my opposition to the proposed site for the Edith Transfer Station.

As a resident of the Los Griegos Neighborhood, I live two miles from the proposed site at Edith and Griegos. My concerns regard traffic congestion, noise pollution, air pollution, highway safety, bicycle/pedestrian safety, reduced property values, health impact, and environmental justice.

Traffic Congestion: I often enter and exit Interstate-25 at Comanche. Two weeks ago, Saturday September 12th, at about 1:57pm, my partner and I witnessed a very dangerous driving incident by a blue trash/recycling truck. We were second in line at a red light in the far-left-turn lane of Comanche (heading East), waiting to turn left to go North on the frontage road for I-25. The traffic moving East and West had green lights. The left turn arrow (to turn North) was red. It applied to both left-turn lanes. Suddenly, a trash/recycling truck zoomed (very fast, without any pause) by us in the other left-turn lane (to our right) and turned left (North) directly through the red arrow! It was really shocking! So dangerous! Luckily, there was a break in the West-bound Comanche traffic, so no accident occurred. When vehicles are heading downhill Westbound on Comanche, they temporarily become invisible (due to a large dip in the hill) to the Eastbound traffic. I am concerned that any increase in heavy truck traffic through this intersection will result in serious traffic accidents.

Highway Safety: The increased burden of heavy trucks entering and exiting I-25 at this already congested area seems like trouble to me. It is already a very congested area. Heavy trucks entering and exiting increase the likelihood of accidents in highway merging lanes.

Noise Pollution: II.C.4 The Goal is to protect the public health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts. Increased noise pollution from the increase in garbage trucks, recycling trucks, 18-wheelers, and private vehicles coming and going with trash and recycling.

Air Pollution: II.C.1.k The Goal is to improve air quality to safeguard public health and enhance quality of life.
Policy K states that citizens shall be protected from toxic air emissions.
Increased air pollution will certainly result from the increase in garbage trucks, recycling trucks, 18-wheelers, and private vehicles coming and going with trash and recycling. This will negatively impact the health of nearby residents, business owners, employees, students, and people in the nearby juvenile detention center.

739

Bicycle/pedestrian Safety: II.D.4.g Isn't Griegos a bike path? Where will bicyclists be diverted to? The greening of our city requires increased accessibility and increased safety for bicyclists and pedestrians.

Reduced Property Values: II.C.9, II.C.9.a Do waste transfer stations help to maintain or increase property values? Or do they cause nearby home values to drop? It seems to me that this neighborhood is a place where residents come to live in a quiet historic area close to downtown. I do not see how this facility will improve the character or home values of this neighborhood.

Environmental Justice: The most impacted neighborhood has a low income minority population that is already challenged in terms of health and quality of life by the industrial activity in the neighborhood. I am deeply concerned that the proposed Edith Transfer Station increase the cumulative burden of environmental pollutants and stress on the neighborhood residents.
One of the primary goals of the EPC is to improve quality of life within neighborhoods. Why not turn this area into a park with trees that would give life and fresh air back to the community?

Thank you for considering the health and wellbeing of the community.

Sincerely,

Laurie Blackwood
3827 San Isidro Street, NW
Albuquerque, NM 87107

740

9-24-15

Mr Nicholls, Chair E.P.C.
#1010582

We own the property and business closest to the proposed WTS at 4600 Edith. All of the trucks will come in and out beside and behind us. It could be 1000 or more a day. The noise and smell will be terrible for our business. As the city grows there will be more trucks needed.

The traffic is heavy now. Peak hours are 5 a.m. 4 p.m. Many times business owners can not get in or out. Edith design makes our customers who use trailors to bring cars and boats stop traffic to pull in.

We can only hope the city's new design for flood control is better than their present one. Someone failed to realize that water does not drain up.

We fear our property value will fall greatly. No one could run a business here without our protection.

The city people keep telling the area business and residents how beautiful the place will be and I'm sure it will. They want to be good neighbors but they have not been visited this early summer. We worry about the future.

People dump anything and will all over the area if the convenience center is closed. It garbage blows and is a fire hazard. The owners are to pick up their garbage on our property.

So we object strongly to a zone change.

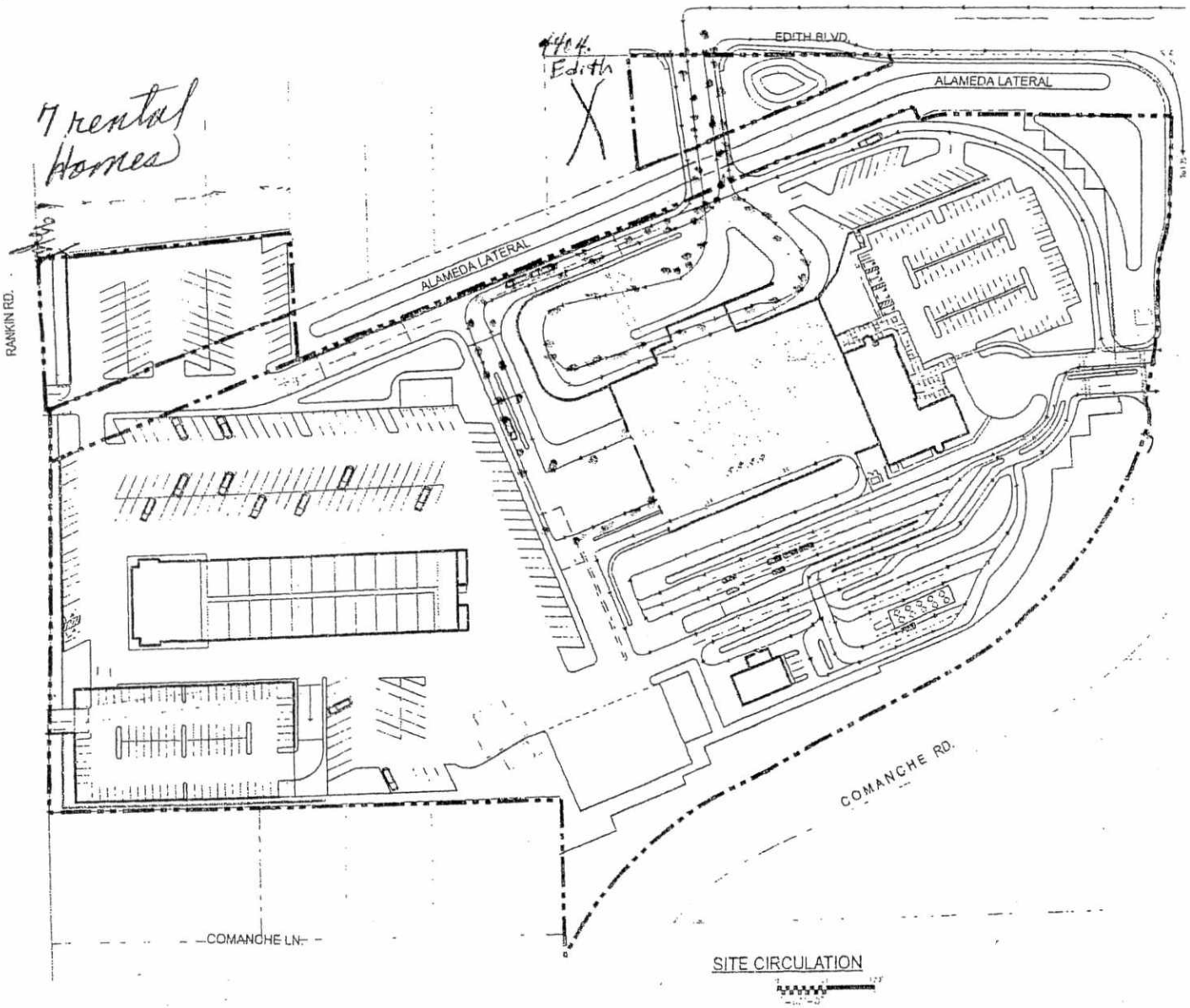
Marian Panioni
4404 Edith NE

741

- sem haulers
- garbage truck

7 rental Homes

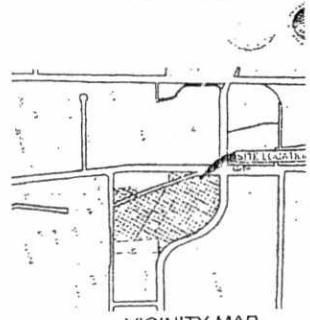
#404 Edith



SITE CIRCULATION

Edith Transfer Stati

City of Albuqu
Department of Municipal Develo
Solid Waste Management Depar



VICINITY MAP

ZONE ATLAS PAGE G-12-Z

LEGEND

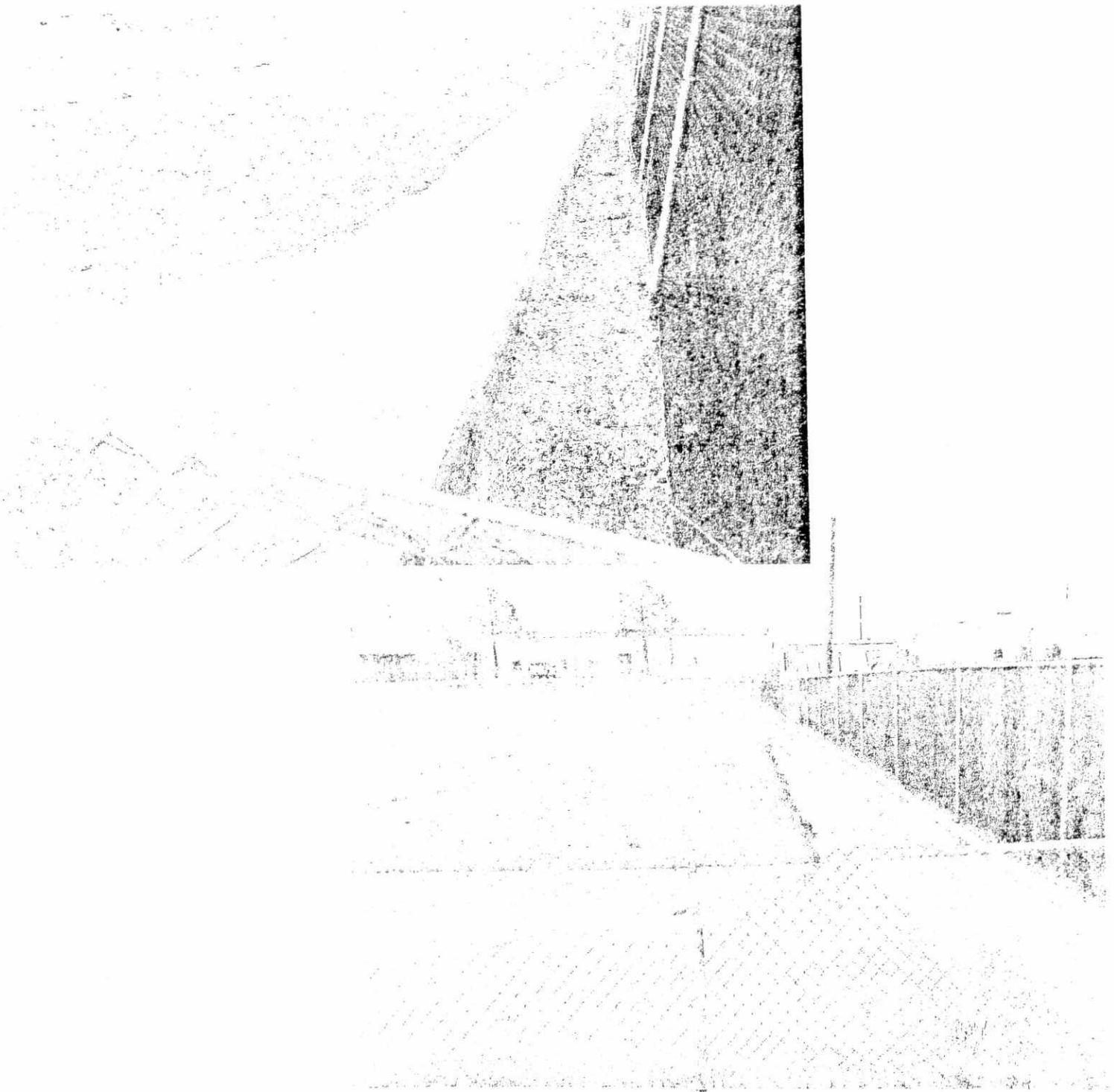
- Transfer Trucks
- Collection Trucks
- Employee / Visitors
- Public Self Haul
- Public Access / H.H.W. / Recycle Dr

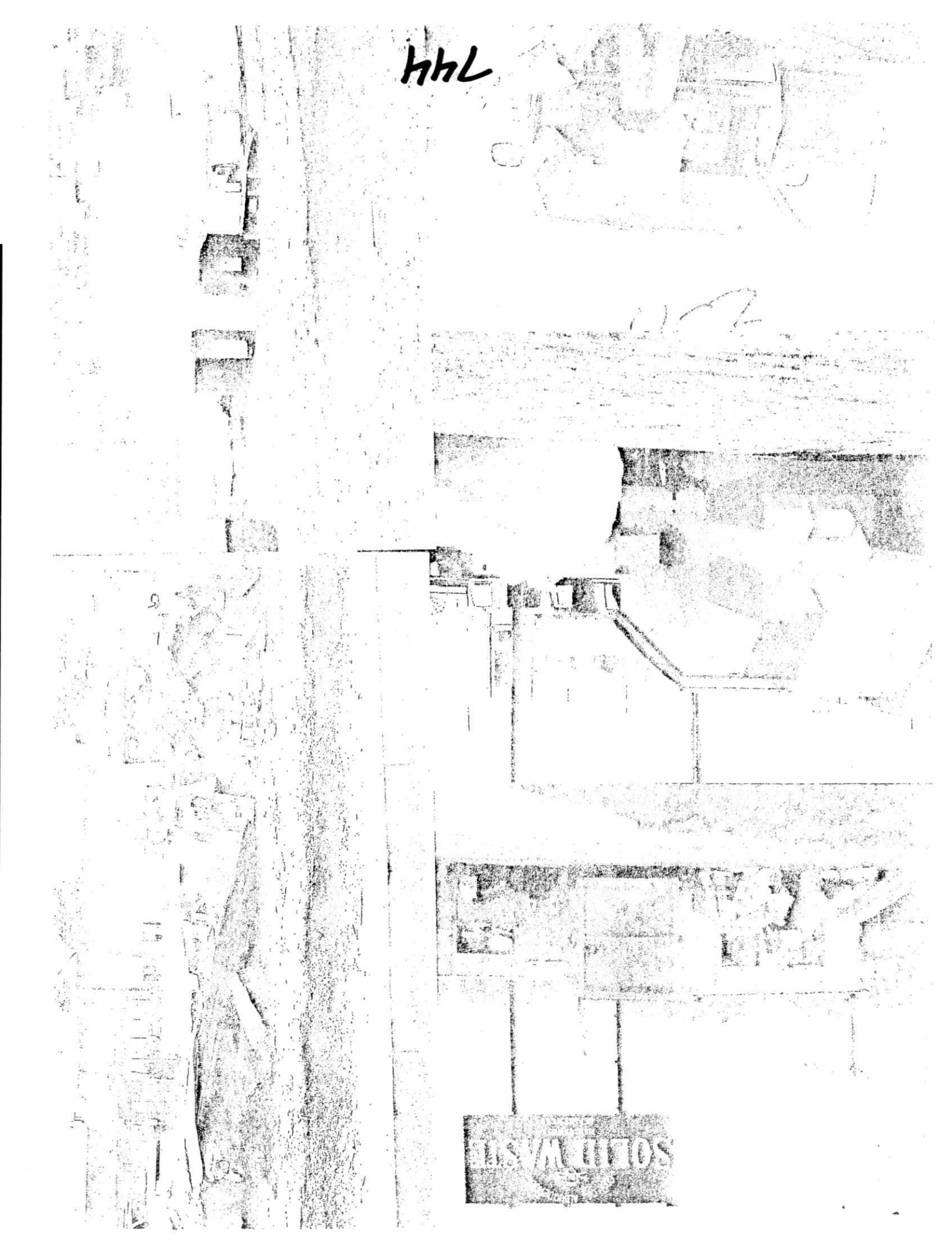
SITE CIRCULATION

August 27, 20

SHEET No.

COA PROJECT No. 7000.92 JRMA No. 4




hhL
ESTADOS

SHL

September 27, 2015

Peter Nicholls, Chairman
Environmental Planning Commission
c/o Planning Department
600 Second St. NW
Albuquerque, NM 87102

Dear Mr. Nicholls,

Please add my voice (once again) as strongly opposed to the construction of the Edith Transfer Station in my neighborhood here in Albuquerque.

I cited many reasons for my opposition in previous letters (sent in January and March) to City Councilors, and the "appropriate" City and Wilson company contacts provided at that time. Later I was informed that the process was over, that the City had voted to proceed. Now I understand that the waste transfer project violates Albuquerque's own Comprehensive Plan and the traffic analysis was based on invalid and "faulty" information.

Traffic has always been one of my primary concerns, as our local streets (like Griegos and Fourth) were never intended for the heavy trucks already ruining our infrastructure. This project involves bringing ALL the City's huge garbage trucks down our narrow, already congested streets. As I stated previously, I've lived in my home for 25 years and previous plans that were to keep commercial traffic on 2nd or Montano never work. Traffic has constantly increased on Fourth and Griegos to the point we can barely access our own homes!

I've also learned that a required zoning change (to proceed with this project) is still pending! This was not revealed previously. In fact we (area residents) were led to believe that that the process of hearings and zoning changes were done, so many of us had simply given up on voicing our continued opposition.

Many other residents, the North Valley Coalition and State Senator Bill O'Neill have provided in depth details about misleading and erroneous information used to proceed with the project. I ask that you take a serious look at all the information submitted and consider that we have been repeatedly duped with sketchy information and sometimes outright LIES about the status of this project that will essentially "finish off" our neighborhood and lifestyle.

Sincerely,

Jamelle Morgan

613 San Lorenzo Ave. NW, Albuquerque, NM 87107

746

LETTER TO MR. NICHOLLS, CHAIR EPC 9/21/2015

Mr. Nicholls, I object to a zone change from M1 to Special Use at 4600 Edith Blvd. NE for building a Waste Transfer Station. It would be a detriment to the North Valley. It would also be a huge waste of money for the City of Albuquerque. The WTS is old technology of "bury the waste". We cannot continue to make and bury our garbage at the rate we do now.

The city claims that this WTS will be "State of the Art", "Improved aesthetics to showcase their stewardship"," and will save the city $2.8 million a year". However, at their estimate of $38.8 million in 2015 it will take over 14 years to offset construction costs alone. The city has never built anything that came in under budget. The norm for city construction will be over budget by the time that extra costs for change orders etc. comes in. So it will take well over 14 years to recoup their investment. By 2029 this facility will be obsolete.

The City of Albuquerque should be researching and building a Waste to Energy Plant with the more than $38.8 million they have budgeted for this project. And the $2.8 million a year savings would grow exponentially.

As a North Valley resident these are the reasons I strongly oppose the Zone Change request.

Sincerely, Kasey M. Pavioni

6134 4th St. NW Apt. 26

Los Ranchos, Albuquerque, NM 87107

9/22/15

747

CONWAY

September 15, 2015

Mr. Peter D Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: ZONE MAPE AMENDMENT: Proposed Edith Transfer Station
EPC Project #1010582

Dear Chairman Nicholls:

My name is Guy Conway. My residence is at 3021 Casa Del Norte NE.

I own and operate Conway Electric, at 567C Comanche Ln NE.

My business is less than 100 ft. from the Solid Waste Department (SWD) located at 4600 Edith Blvd. NE.

I oppose the zone change from M-1 to Special Use.

The Written Project Summary, was submitted to the EPC on August 27th 2015, by Wilson & Company. I Would like to bring the Commission's attention to perhaps the biggest untruth that I have seen, since this project came to my attention.

Page 1 of the Written Project Summary, states: "the proposed use of the site would remain very similar to its current use...."

The proposed use of this facility will be to bring in daily, tons and tons of garbage into a new facility, as well as have private vehicles with their unsecured loads also bringing trash there.

The proposed use and primary use, are the only reason for the zone change. The other existing elements to not require zone change.

To represent to your Commission that its use is a similar to its current use, is disingenuous at best, and a deliberate attempt to mislead the Commission at worst.

After being in business at my location for many years, my experience with the Solid Waste Department is they are not in any way concerned about their business neighbors, or how the operations affect their neighbors. This zone change would have a destabilization effect on the M-1 and M-2 zones. I have seen no justification that the transfer station and convenience station would be desirable for the area and even the surrounding neighborhoods.

I would ask that the Commission deny this zone change request.

Thank You,
Guy Conway
Guy Conway

748

9/24/15

Chairman Peter Nicholls, Environmental Planning Commission,
c/o City of Albuquerque Planning Department, 600 2nd Street NW, 3rd Floor,
Albuquerque, NM, 87102

Chairman Nicholls,

Re: Proposed Edith Transfer Station (ETS), Project #1010582
I strongly object to a zoning change and to the proposed ETS, to be located in the middle of Albuquerque, at Comanche and Edith. My three main concerns (among many) are:

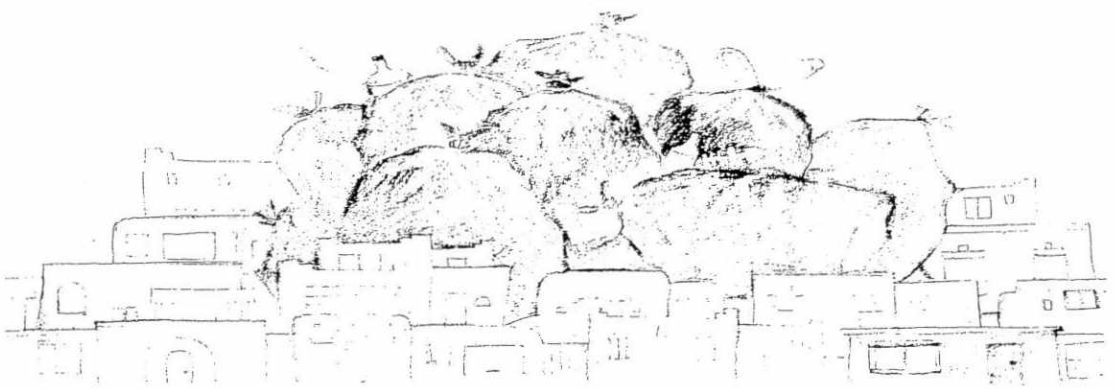
1. The traffic on I-25: The entrance from Comanche to go south on I-25 is already difficult at rush hour and during heavy traffic days. Two lanes (which diverge to I-40) have to be crossed in order to go south. This is already dangerous and difficult. There is no plan to remodel the Big I interchange, even with the projected traffic increase of 173%, predominately trucks.

2. The potential risk of having just one big transfer station for the entire city, in the event of a natural disaster, technological malfunction, labor strike, etc: Why not make several smaller transfer stations, which can back each other up in the event of the unexpected. WHY put one giant garbage transfer station in the **middle** of the city?

3. OUTDATED! There is no consideration of any new technology to manage and convert urban waste into energy. Albuquerque does not even have a compacter to reduce what's put into the landfill! We can and should do better than this, with taxpayer money.

Sincerely,

Isabelle Kessler
4913 Guadalupe Trail NW, Albuquerque, NM 87107-3369



City Hall's Proposal for Albuquerque's Quality of Life

749

Loren Kahn
4913 Guadalupe Trail NW
Albuquerque, NM 87107
505-344-2186

Peter Nicholls, Chairman
Environmental Planning Commission
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

September 24, 2015

Re: Edith Transfer Station, Case #1010582

Dear Chairman Nicholls,

I am a resident of the North Valley, vehemently opposed to the proposed map amendment necessary to construct the Edith Transfer Station (ETS). The concept of one sole Waste Transfer Station in the middle of our city is ill conceived, duplicitous and outdated.

According to COA Zoning Code, Appendix B: Enactment 270-1980, the proposed zone change "should be consistent with the health, safety, morals, and general welfare of the City."

Contrary to this Zoning Code Enactment, the proposed waste transfer station will negatively impact the quality of life of the entire city as well as the immediate neighborhood. Traffic will increase by 173% at the already congested Comanche/I-25 entrance and on the freeway. Air and noise pollution will impact an already overburdened neighborhood, with NINE schools and a Little League Facility within the breathing area.

There have been no forward thinking proposals about new environmental technologies to manage garbage, just mention of old methods that are wasteful and polluting.

The community was never consulted, just "informed," **after** a site decision had been made.

It is strikingly apparent that the ONLY consideration for this proposed project is cost savings. Does quality of life mean profit? NO! It means the well-being of citizens. Shame on the City of Albuquerque for ignoring the impact of this proposed fiasco and seeing only dollar signs.

I hope your Commission will vote to **deny** the zone map amendment request made by the City of Albuquerque and return some dignity to the process.

Sincerely,

Loren Kahn

Loren Kahn, Citizen
505-344-2186

750

4935 Guadalupe Trl. NW
Albuquerque, NM 87107
9/24/2015

Peter Nicholls, chairman
Environmental Planning Commission
% the Planning Department
600 Second St. NW
Albuquerque, NM 87102

Mr Nicholls,

I have been a citizen of New Mexico for 77 years. Many times I have been disappointed in local government, but the present proposed transfer station takes the cake.

Citizen participation would have been appropriate before granting a lucrative contract to a design firm to place a single massive transfer station in the center of a city, interrupting the regular neighborhoods, schools and businesses.

An intelligent approach would have be(en) (and still could be) to divide the city into perhaps four areas and handle the transfer stations on the outskirts of the population.

I cannot believe that anyone on the city planning department has taken the time to exit the north bound freeway onto the west comanche street during even moderate traffic (it is a dangerous nightmare).

I do so hope that your commission will show the good sense to respect the present zoning and encourage the city to devote the property to a positive addition to the neighborhood.

Hopefully yours,

Janet L. Jenkins

Janet L. Jenkins

751

September 22, 2015

Peter Nicholls, Chairman
Environmental Planning Commission
c/o Planning Department
600 Second St. NW
Albuquerque, NM 87102

Dear Mr. Nicholls,

I heartily agree: The City's proposed Waste Transfer Station at Edith and Griegos DOES NOT BELONG there or in any other neighborhood whether upscale, middle class or low income. Albuquerque has historic neighborhoods, the Griegos area being one of them.

According to the Albuquerque /Bernalillo County Comprehensive Plan,

II.C.9 The Goal is to preserve and enhance the natural and built characteristics, social, cultural and historical features that identify Albuquerque and Bernalillo County sub-areas as distinct communities and collections of neighborhoods,

this Transfer Station will not preserve nor enhance this historic community. I have taken classes about the history of this area that goes back to the 18th and 19th centuries showing its contribution to the integrity of the cultural character of Albuquerque. Ed Boles and Mo Palmer can attest to this.

Let alone blowing trash escaping from garbage trucks, this Waste Transfer Station will be a huge traffic burden on this community. It will also create a continuous loud racket from the hundreds of trucks roaring in and out of the narrow streets in this area. And then there's the loss of property values to the residents and businesses as well. Who would want to purchase a home in this area for their family?

A Waste Transfer Station, if in fact you even need one, must be in a location away from residential communities, perhaps in a big industrial area like South Broadway near Coronado Wrecking and Salvage Company. It might even be an improvement to this area.

THINK: Would you want this Transfer Station in your back yard?

Sincerely,

Sondra Diepen
Member North Edith Corridor Neighborhood Asso.
124 Marlowe Lane, NE
Albuquerque NM 87113

752

New Mexico State Senate
State Capitol
Santa Fe

COMMITTEES:
VICE CHAIR:
·Public Affairs
MEMBER:
·Education

SENATOR BILL B. O'NEILL
D-Bernalillo-13

343 Sarah Lane, NW - Apt. D
Albuquerque, NM 87114

Cell: (505) 450-9263
E-Mail: oneillsd13@billoneillfornm.com

September 23, 2015

Peter Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Zone Map Amendment: Proposed Edith Transfer Station

Dear Chairman Nicholls:

I would like to voice my strong opposition to the proposed map amendment necessary to construct the Edith Transfer Station.

As the State Senator representing this area of Edith and Comanche, I am very concerned about the impact on the surrounding residential neighborhoods of a 24-hour continuous onslaught of garbage trucks that this change would mean to the families in the immediate area (I would also point out that there is a newly constructed North Valley Little League facility just across the street).

I am also frankly offended at the "process" for community input that the city presented: instead of starting with the question of whether or not the Edith Transfer Station was a good idea, the city launched into this "choose between several options" approach, as if it had already been decided that this was going to happen.

In addition, the feasibility studies done in 2006, 2011 and 2014 centered exclusively on cost savings for the City of Albuquerque. It is clear that costs are the *only* consideration for this proposed project, and certainly not the impact on the lives of the residents of this part of Albuquerque.

I hope that your Commission will vote to *deny* the zone map amendment request made by the applicant, The City of Albuquerque.

Sincerely,

Bill O'Neill

Bill B. O'Neill
State Senator

cc: Karen Hudson
Moises Gonzalez
Victor Beserra
Derek Bohannon
Maia Mullen
James Peck
Bill McCoy III

753

Mr. Peter D. Nicholls
Chair Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, N.M. 87103

Re: Proposed Garbage Collection Center
at Edith and Comanche

Dear Mr. Nicholls:

I am writing today to express my concerns and opposition to the proposed Garbage Collection Center at Edith and Comanche. The primary reasons for my opposition to this facility at this location are:

1.) Increased toxic immissions from the additional 1,014 garbage truck runs coming to this location, versus the land fill, to dump 1,443 tons of garbage.

2.) Increased traffic and noise, seven days a week, at or around the site that is already a busy traffic area, parti-clearly on Comanche.

3.) The potential for pollution to the area ground water and to the water currently passing through the drainage ditch west of the property along Edith.

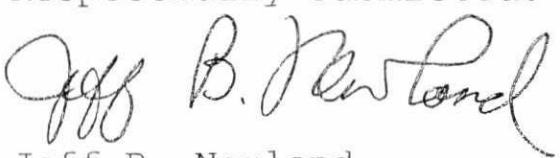
4.) The potential harm to air quality to local residents, employees and staff of local businesses, juveniles and staff

at the Detention Center south of the property and to players and their families at the new Little League baseball facility south and west of the property.

5.) All of the waste and contaminated material will be in a designated flood plain.

The primary motive that is driving this decision by The City is the fuel savings it will realize from their garbage trucks no longer taking their loads to the landfill west of town.

Respectfully submitted:



Jeff B. Newland
3515 Campbell Farm Lane
Albuquerque, NM 87104

4620 5th NW
Albuq. NM
87107
505-344-6376
c) 505 417-4882

Peter Nicholis, Chairman
Environmental Planning Commission
Planning Dept.
600 2nd St.
Albuq, NM
87102

Sir:

I oppose the proposed transfer station's location in a residential area — Griegos and 2nd

I am particularly concerned about the following:

This is my #1 Concern → 1) Any increase in traffic (inconvenience and air pollution) My daughter has asthma

2) Private vehicles headed to the dumping area (unsecured loads) I already deal w/ blowing trash from local stores)

3) Large truck traffic (causes cracks in the walls of my old adobe)

4) lower real estate value of my home.

Please consider neighborhood concerns!

756

Mr Nicholls, Chair EPA

This is a policy I do not believe the city is following.

10	II-94	II-D-5-C #1, #2	The displacement of low income households, shal be ameliorated & the objectives of historic preservation & conservation of affordable housing balanced. #1 Monitor the effects of home improvement & preservation programs on nearby land costs, property values & rents, & conversion to on-residential uses. #2 Establish strategies to minimize displacement of low income people from affordable housing by: 1) identifying funding to assist individuals & families whose homelessness has been caused by displacement; & 2) coordinating the work of local government agencies.

#1 When the city people attending the Meeting were asked about land values around a WTS. They stated values would go up.

However property owner do not agree. A commercial realtor came to the meeting and sited several cases where land values decreased close to garbage sites, convience center and transfer centers.

One city employee said to see a property when the WTS is built and let him know if the value went up or down.

#2 There is no evidence of a study of sister properties has been considered or done. There are at least three very close. Two are in the NW corner of Edith and Comanche.

Marian Parsons

757

12	II-98	II-D-6-D #3	Tourism shall be promoted. #3 Manage development & change to retain & enhance unique features which give this area its identity.

To Mr Nicholls, Chair EPA

The valley of Albuquerque is a valuable asset to the city. It is unique and draws many tourists to drive Route 66; come to Balloon Fiesta, to walk along the river, go to the Nature Center.

The tourists travel Comanche and Edith; so do the balloonists and Chase Crews. They will all be competing with the WTS trucks on this dangerous corridor.

The WTS will promote disaster not tourism. The unique features of the valley are being ignored. The valley will not be enhanced by a zone change. The valley has an identity which is being endangered.

Marian Pavoni
4013 Tulane Dr NE
Alb. NM 87107

758

13		#3,#4	The City & the County should remove obstacles to sound growth management & economic development throughout the community. #3 Target economic incentive programs to promote equitable economic development condition throughout the community. #4 Develop strategies to correct problems of disinvestment.

2o Mr Nicholls, Chair EPA

Increased traffic volume and size of collection and transfer trucks for garbage will make access to the roadways more difficult and dangerous. The present traffic from the businesses in the area (over 250 in a one mile radius) often ties up the intersections (longer when the train goes by.)

Many business owners are renters and will simply leave if the zone change is allow and the WTS is built. No one else will want to rent. This is a huge obstacle to the economy and property owners. There is no incentive for a business to come to an area of constant heavy traffic.

The present renters and owners have traf problems. This will be compounded with (130) semi + pups in and out; 200 garbage trucks making 5 trips a day (1200); the employees coming and going (600).

No strategies are in place or planned to correct these problems of disinvestment to the businesses or property owners.

M. Pamini 4013 Leland NE Alb. NM 87107

1010582

To Mr Peter Nicholls, Chair EPA

9	II-93 ???	II-D-5-A #3	The Goal is to increase the supply of affordable housing; conserve & improve the quality of housing; amellorate the problems of homelessness, overcrowding, & displacement of low income residents; & assure against discrimination in the provision of housing. #3 Institute strategies to minimize the displacement of low income people from affordable housing.

The noise and odor from the garbage trucks parked less than 100 feet (not 1300 as stated by the city) might displace the residents of seven low income houses at the corner of Rankin Road and Edith.

A wall as on the freeway might help but not a fence and a few trees.

The city has no concern for the residents at this location and has not contacted them. The city has failed on II.D.5.A #3.

Marian Pavioni
4404 Julane Dr NE.
Albuquerque, NM
87107

P.O. Box 6715
Albuquerque, N.M.
87197-6715

9-21-15

Dear Mr. Peter Nichols and the
Environmental Planning Commission,

I write to express my views against the proposed trash transfer station on Edith.

There will be harmful effects for those in the immediate area on Edith & Comanche due to increased traffic with "larger tractor-trailers" in an area that is a hazard to drive now.

Neighborhoods near the site will be compromised with increased traffic, larger trucks, exposure to toxic materials, and increased use and lines of people waiting to dump their extra trash. What will be the impact on nearby schools & students walking to school? What about air quality and the impact of noise on citizens nearby?

I am a home owner just off of 4th St. NW. I have lived in this area for 23 years. This modest area is not one where people speak up for their rights. I believe we need to follow the example of Sandoval county which

761

houses its trash transfer station out of the city limits where huge lines of trucks and cars wait for their turn to unload their trash. I have been there.

Thank you for considering my letter.

I am a retired, Bilingual APS Elementary school teacher. The issues of non-English speakers and undocumented people in neighborhoods near the proposed trash transfer station need to be addressed. A portion of Precinct neighborhoods have no background in the process of receiving city information or how to even begin to respond to the city.

Sincerely,
Judy Giblin

CBS CHIMNEY SWEEPERS
P.O Box 6982
Albuquerque, NM 87197-6982
505-884-8666

Mr. Peter D. Nicholls, Chair
Environmental Planning Commision
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Sepember 17, 2015

Re: Zone Map Amendment: Proposed Edith Transfer Station
EPC Project # 1010582

Dear Chairman Nicholls,

My name is Gilbert Gonzales and I own and operate CBS Quality Lawn Care at 600-C Comanche Ln NE. My location is near the Solid Waste Department located at 4600 Edith NE. I oppose the zoning change being requested from M-1 to special use for the Solid Waste Property. I see no benefit for the area to be inundated with tons and tons of garbage brought to an already overburdened area. There are already two polluters less than a ¼ mile from the Solid Waste yards that require oversight from the Air Quality division. The added pollution that this change will bring will endanger the health of myself and my neighboring businesses. I ask the commission to consider the comments and feedback from residents and businesses that are closest to this project and realize it will be detrimental to health, safety, and living conditions for this area.

I ask the Commission to not approve this zone change request

Thank You

Gilbert Gonzales

163

Fleet Maintenance
620 Rankin Rd NE
Albuquerque, NM 87107
505-344-3036

Mr. Peter D. Nicholls, Chair
Environmental Planning Commision
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

September 17, 2015

Re: Zone Map Amendment: Proposed Edith Transfer Station
EPC Project # 1010582

Dear Chairman Nicholls,

My name is Dennis Harp and I own and operate Fleet Maintenance at 620 Rankin Rd NE. My business is less than 100ft from the Solid Waste Department located at 4600 Edith NE. I am writing to inform you that I oppose the zoning change from M-1 to special use for the Solid Waste Location. The written project summary that was submitted to the EPC on August 27th by Wilson and Company is misrepresents to the commission that the new use is similar to the current use. The summary states, " The proposed use of the site would remain very similar to its current use..." However the proposed use will bring in daily, tons and tons of garbage into the new facility as well as private vehicles with their unsecured loads bringing trash in.

I feel that this zone change would be detrimental on all the surrounding properties including residences and businesses. I have seen no justification for this change and this project

I ask the Commission to deny this zone change request.

Thank You,

Dennis Harp

764

Peter Nicholls, Chairman EPC

I oppose the zone change from M-1 to Special Use by the city for a Waste Transfer Station at 4600 Edith N.E. I own the property and business next door. Site plan C was chosen by the city and now they have moved the driveway to be used by trucks 75 feet closer to my property, only 15-18 feet from my office and lot.

The noise from crashing glass into recycle containers north of the present drive location is at numerous times excessive and makes conducting business difficult . The constant noise from the trucks will make conducting business in or out of my office or on the phone virtually impossible.

Most of my customers use trailers to bring boats and cars to my business. Getting in or out due to the street redesign (construction in 2008-2010) and the heavy traffic is difficult . It will be extremely difficult if not impossible with the zone change and trucks the WTS will be using.

The off ramp from I 25 to Comanche is often at a standstill due to semi traffic trying to access the truck stop at Menaul and the many local business trucks in this area. West under the freeway on Comanche only a very few vehicles can sit for the light to change, three semis at most can sit between those two lights. When the trains go by traffic can back up east to the freeway.Semi trucks with a "pup" will back up traffic quicker and longer.

I have seen the traffic many times stopped in all directions. There is a minimum of 200 businesses within a one mile radius of the proposed WTS. The traffic consists of cars, but mostly, semi and work trucks. It is very congested throughout the day. Obviously, the impact with the zone change will create much worse and dangerous streets and intersections.

I oppose the zone change for my business and for the safety of the public and other businesses in my area.

Larry Stepp Owner of American Marine & Stepp's Custom

765

TOVA INDRITZ
524 GRIEGOS ROAD, N.W.
ALBUQUERQUE, NEW MEXICO 87107

September 21, 2015

Peter Nicholls, Chair
Environmental Planning Commission
c/o The Planning Department
600 Second Street, NW
Albuquerque, NM 87102

by fax only: 924-3339

RE: proposed garbage transfer station at Edith and Griegos Roads, NW

Dear Mr. Nicholls:

I write to oppose the location of a single garbage transfer station at Edith and Griegos Roads, NW for the entire City of Albuquerque's solid waste.

The idea of this garbage transfer station was presented to the neighborhood at a meeting as a "fait accompli" and the community was only asked for input regarding the design. But the more fundamental question is whether there should be a single such garbage transfer station for the whole city, or whether it would be better from both an efficiency point of view and an environmental point of view to have multiple smaller stations spread throughout the city, perhaps a half dozen or so, so each garbage collection truck would have a shorter distance to travel from its collection points to the transfer station. On this question, there has been no input from the community. For that reason alone, the plan should be denied at this point.

Second, we are a poorer and minority section of town in this part of the near North Valley. The idea of siting an environmental hazard in a poor, minority part of the City is repugnant, with its increase in traffic and noise, reduced air quality, reduced ground water quality, and numerous other negative impacts.

As you know, a group of concerned citizens have been working with health professionals Kristine Suozzi and Kitty Richards to prepare a Health Impact Assessment of the proposed Edith Transfer Station in the near North Valley. This report, which has been in preparation for nearly a full year, draws several alarming conclusions, including:

> ----the Waste Transfer Station (WTS) will contribute to existing health disparities among Hispanics and sensitive populations, and to poorer health among all population groups living in the impacted neighborhoods;

766

----the WTS does not provide for the health, safety and welfare of residents living in adjacent neighborhoods as required by (City of Albuquerque Zoning Code) Enactment 270-1980;

---the City of Albuquerque has failed to consider health impacts that might harm residents living in neighborhoods close to the site;

---the City of Albuquerque has failed to provide a cost-benefit analysis comparing the proposed site with alternative sites;

---the proposed site for the WTS follows a disturbing historical trend that many of today's municipalities are attempting to reverse—the siting of WTSs in low-income and minority communities.

For these and other reasons specified in the report, the Health Impact Assessment Committee "recommends denial of the City of Albuquerque's request for a zone change to Special Use and recommends that the City of Albuquerque evaluate alternative sites that are more protective of human health."

I support the findings of that Health Impact Assessment, and ask that the project be denied for reasons set forth in their full report which the North Valley Coalition is furnishing to the EPC.

Sincerely,

Tova Indritz

Tova Indritz

767

Collins Engine-Generator Service, Inc.

P.O. Box 6264
Albuquerque, NM 87197
Phone 505 720-9815
Fax 505 883-2785

Date: 9-15-15
Reference: M-1 Special Use
Address: 4310 Edith NE Alb, NM 871097

To Whom It May Concern,

The purpose of this letter is object to a zone change from M-1 to special use at 4600 Edith NE for building a waste transfer station. It would be harmful to the adjacent business, properties, the neighborhood and the valley community.

Thank you,

Steve Collins
President/Owner
505-269-1968

768

Quevedo, Vicente M.

From: THERESAHANRETTA3392 <theresahanretta3392@comcast.net>
Sent: Monday, September 28, 2015 2:37 PM
To: Quevedo, Vicente M.
Subject: Re: Proposed Edith Transfer Station Project #1010582

September 28, 2015

Peter Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87107

Re: Proposed Edith Transfer Station Project #1010582

Dear Commissioner Nicholls:

I own a home approximately one mile west of the proposed transfer station. I am a retired senior citizen with grave concerns about the proposed zoning change that would allow the City of Albuquerque to proceed building a Waste Transfer Station and Hazardous Waste Convenience Center in my immediate neighborhood that also includes two elementary schools, a softball park, and bike trails. This community has already accommodated a Recycling Center, cement processing plant, and Holly Asphalt -- all of which have impacted to various degrees on the well being and health of our community. The addition of the Transfer Station would only bring substantially more traffic, noise, air pollution, potential waste water contamination, vermin, health and safety issues, to an already overburdened residential community. The certain possibility of decreased property values would be devastating to me since my home is my only insurance against a financial catastrophe. I have many neighbors who share that same anxiety. Who would want to purchase a home one mile from a Waste Transfer Station and Hazardous Waste facility?

It is absolutely shameful that the City would want to proceed with this project in spite of the enormous opposition from neighborhood citizens who were never even consulted until after the site had been selected. It would be a grave injustice if the City was allowed to proceed with a project that is clearly not in the best interests of the citizens who will be most directly affected.

Respectfully,
Theresa Hanretta
4449 Jupiter Street NW

769

Quevedo, Vicente M.

From: Daniel P Waldman <DPWaldman@salud.unm.edu>
Sent: Friday, September 18, 2015 11:06 AM
To: Quevedo, Vicente M.
Subject: Edith Transfer Station special use permit and zone change

Importance: High

Dear Mr. Nichols and the Environmental Planning Commission, I am writing about the potential special use and zone change being requested for the development of the Edith Transfer Station.

As a physician I spend a lot of time thinking about the existing and potential harms that our communities face. After all, despite all the impressive bells and whistles of modern medicine, medical care only accounts for about 20% of the health of a population. The rest is outside physician control. The single largest contributors to our health are our social and physical environments.

What's it worth for a fellow citizen to avoid a chronic illness? How should a community weigh the health impact of a sizable increase in diesel exhaust fumes in comparison with a city's tax savings? These are the questions we need to be grappling with as the city moves forward with plans to locate a major Transfer Station in an area with 18,000 residents and 9 public schools. This is a process that requires rezoning, which by definition should not be granted in situations with potential to harm local populations.

As you know, moving significant quantities of trash around will require a large increase in large truck traffic- with a resultant increase in diesel exhaust. Taking just one potential harm: what do we know about the potential health effects of exhaust fumes? The science is developing and we're learning more all the time. Many studies for example have shown a significant association between diesel exhaust and lung cancer rates. The World Health Organization recently classified diesel emissions as a known carcinogen. The harms of poor air quality aren't limited to lung cancer: a study found that a population of women had increased heart attacks, strokes, and deaths directly related to their exposure to pollution. Other studies show that living close to major roads is associated with wheezing and asthma in children. Air pollution levels have been correlated with days lost from work. Exposure to air pollution was even found to be linked to gestational diabetes, a disease with worsening prevalence in New Mexico. The more we look, the more we find.

Precautionary measures should be taken when an activity raises threats of harm to human health. According to the "precautionary principle," the proponent of the activity, rather than the public, should bear the burden of proof. In other words it shouldn't be up to citizens to make the definitive case that there will be harm from the Edith Transfer Station, it should be up to those interested in development to definitively prove it will be safe.
While not surprising, it is absolutely shameful that the community who would bear the health burden is 64.6% Hispanic, with 35.6% of the families living below the federal poverty line. The area is more Hispanic and poorer than Bernalillo County as a whole. Minorities and the poor are already understood to have worse health outcomes in New Mexico. Simply put: *the proposed development would not have gotten this far if the affected community was wealthier and had more time and disposable income to devote to fighting* it.

Would the transfer station save money? That's more complicated than tax dollars saved on fuel and vehicle maintenance: we'd need better statistical and healthcare cost-modeling than currently exists. Likely the transfer station wouldn't be so much a cost savings for taxpayers as it would be a cost shift: some people would get sicker- chronic illness is extremely expensive.

770

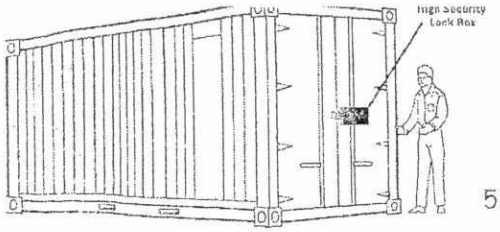
A truism of medicine is that preventing disease is more cost effective than paying for treatment: an ounce of prevention is worth a pound of cure. We should resist the creation of an in-city transfer station, and thus not move forward with the rezoning process.

If I can provide any references about the health effects of diesel exhaust, please don't hesitate to contact me.

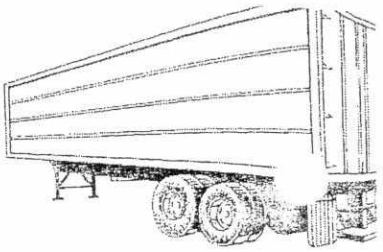
Thanks for your time,
-Dan Waldman, MD

Family Medicine Residency Program Director
Department of Family and Community Medicine
UNM Health Sciences Center

771



MALOY
MOBILE STORAGE
535 Comanche Rd., NE, Albuquerque, NM 87107
Phone 505.344.6123 Fax 505.344.3351
www.maloystorage.com



September 28, 2015

Mr. Peter Nicholls
Chairman
Environmental Planning Commission
City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque NM, 87102

via email: dhenry@cabq.gov & vquevedo@cabq.gov

Re: Edith Solid Waste Transfer Station Proposal
Project# 1010582

Dear Mr. Nicholls:

We are the owners of Maloy Mobile Storage, Inc., located at 535 Comanche Road NE. We strongly oppose and have serious concerns about the proposed Edith Solid Waste Transfer Station being designed for the 22-acre City property at the southeast corner of Edith and Griegos/Comanche.

A competent traffic flow and pattern study would readily demonstrate that Comanche Road cannot handle the substantially increased traffic that will occur if the proposed solid waste transfer station is located at the proposed site. The north and south Highway I-25 access and exit ramps that feed from and onto Comanche Road will not be able to handle the substantially increased traffic from the city garbage trucks, let alone the ancillary traffic visiting the transfer station. The City representatives have stated the garbage trucks would not be on those roads during peak traffic hours, which is frankly an irrelevant argument. The Highway I-25 access and exit ramps and Comanche Road cannot adequately and safely handle *the current* traffic at any time of day. The increased traffic due to the general public using the transfer station throughout the day will be a major safety and ingress/egress problem for the businesses in the surrounding area, including ours.

The traffic pattern in front of our business on Comanche Road is currently so heavy that the drivers of our trucks and semi trailers and our employees can hardly pull out onto Comanche in a safe manner and the traffic sometimes backs up to Comanche and I-25. There is a substantial curve on Comanche between I-25 and Edith which has been part of the dangerous situation we already face with heavy traffic. It is literally a dangerous race to squeeze into the fast traffic pattern going both ways. Additional traffic due to the waste transfer station will substantially and adversely impact our business and livelihood. Cars and trucks travel at a high speed westbound on Comanche, and accidents happen frequently and have become ever more severe as time has gone on.

The increased traffic from a waste transfer station will cause potential deadly collisions.

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Our business, Maloy Mobile Storage, has dealt with trash blowing over from the current city garbage yard for the last fifteen years that we have been located at 535 Comanche. We have frequently and

repeatedly called to complain, but have consistently been given the run around and put on hold for 20 minutes at a time. Despite numerous left messages, no manager or City employee ever calls back. The City representatives have stated they had no idea we had any trouble. The truth is they have stuck their heads in the sand and have not dealt with it. We have been forced to clean up the mess ourselves for years. If a solid waste transfer station is built in this location the trash mess will be much worse than it is now.

Although indoors, the waste transfer station will stink up the neighborhood and make it a bad place to do business. Our property value will decline with a solid waste transfer station located across the street from our property. It is a known fact that the land we own will be worth much less once the solid waste transfer station is built, which has been confirmed by several commercial real estate brokers.

A Mega solid waste transfer station should not be built in the middle of an already congested area within the city. It will devalue the neighborhood and businesses in the area.

The proposed solid waste transfer station at Edith and Griegos/Comanche will bring increased traffic, litter, smell, and devalued property values to the businesses and neighbors in the area. Do not build a solid waste transfer station in this location. There may be a need for an additional waste transfer station, but not in the middle of the city at Edith and Griegos/Comanche.

Regards,

Pat and Mary Beth Maloy

Cc: North Valley Coalition via email: nvcabq@gmail.com

State of New Mexico
House of Representatives
Santa Fé

DEBORAH A. ARMSTRONG
D - Bernalillo
District 17

2015 Dietz Place NW
Albuquerque, NM 87107
Home Phone: (505) 795-5164
E-mail: deborah.armstrong@nmlegis.gov

COMMITTEES:
Enrolling & Engrossing - A
Health
Regulatory & Public Affairs

September 25, 2015

Mr. Peter D. Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: ZONE MAP AMENDMENT: Proposed Edith Transfer Station
EPC Project # 1010582

Dear Chairman Nicholls:

I write to oppose the proposed zone map amendment necessary to construct the Edith Transfer Station. I request that my letter be entered into the official record.

As a member of the NM Legislative Health & Human Services Committee, as well being involved with public health issues for years, I have deep concerns about the health outcomes, and increased health risks to this already overburdened area of my District.

I have seen no justification from the City of Albuquerque that the health and safety of the workers and public have in any way been studied. The City has failed to show why this change should be made. It appears that costs benefits are the only factor driving this zone change request.

The *"Health Impact Assessment"* that was submitted to your Commission, was requested by the **community**, written by health professionals, reviewed by health professionals, demonstrate that should this zone request move forward, there will be long lasting health ramifications to the businesses and neighborhoods, extending out from the immediate area.

A Special Use designation, which carries a high standard for change, will in my estimation have a destabilization effect on the surrounding zoning, of M-1 and M-2 businesses, which is in conflict with B, in Resolution 270-1980.

The applicant correctly stated in their application that the closest *neighborhood* was 1,300 feet from the site. I would like to point out there are apartments, and houses within 100 feet of the Solid Waste Departments current boundaries.

774

A vote to *deny* this zone change modification is in my view the only appropriate vote. I respectively ask that your Commission *not approve* the zone change request for EPC Project # 1010582.

Thank you.

Deborah Armstrong

Representative Deborah A. Armstrong
District 17
New Mexico State Legislature

From: **Laura Blackwood** healthartists@icloud.com
Subject: Proposed Edith Transfer Station
Date: September 28, 2015 at 4:25 PM
To: vquevedo@cabq.gov

Peter Nicholls, Chair
Environmental Planning Commission
% City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Dear Chairman Nicholls,

I am writing to express my opposition to the proposed site for the Edith Transfer Station.

As a resident of the Los Griegos Neighborhood, I live two miles from the proposed site at Edith and Griegos.
My concerns regard traffic congestion, noise pollution, air pollution, highway safety, bicycle/pedestrian safety, reduced property values, health impact, and environmental justice.

Traffic Congestion: I often enter and exit Interstate-25 at Comanche. Two weeks ago, Saturday September 12th, at about 1:57pm, my partner and I witnessed a very dangerous driving incident by a blue trash/recycling truck. We were second in line at a red light in the far-left-turn lane of Comanche (heading East), waiting to turn left to go North on the frontage road for I-25. The traffic moving East and West had green lights. The left turn arrow (to turn North) was red. It applied to both left-turn lanes. Suddenly, a trash/recycling truck zoomed (very fast, without any pause) by us in the other left-turn lane (to our right) and turned left (North) directly through the red arrow! It was really shocking! So dangerous! Luckily, there was a break in the West-bound Comanche traffic, so no accident occurred. When vehicles are heading downhill Westbound on Comanche, they temporarily become invisible (due to a large dip in the hill) to the Eastbound traffic. I am concerned that any increase in heavy truck traffic through this intersection will result in serious traffic accidents.

Highway Safety: The increased burden of heavy trucks entering and exiting I-25 at this already congested area seems like trouble to me. It is already a very congested area. Heavy trucks entering and exiting increase the likelihood of accidents in highway merging lanes.

Noise Pollution: II.C.4 The Goal is to protect the public health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts. Increased noise pollution from the increase in garbage trucks, recycling trucks, 18-wheelers, and private vehicles coming and going with trash and recycling.

Air Pollution: II.C.1.k The Goal is to improve air quality to safeguard public health and enhance quality of life.
Policy K states that citizens shall be protected from toxic air emissions.
Increased air pollution will certainly result from the increase in garbage trucks, recycling trucks, 18-wheelers, and private vehicles coming and going with trash and recycling. This will negatively impact the health of nearby residents, business owners, employees, students, and people in the nearby juvenile detention center.

Bicycle/pedestrian Safety: II.D.4.g Isn't Griegos a bike path? Where will bicyclists be diverted to? The greening of our city requires increased accessibility and increased safety for bicyclists and pedestrians.

Reduced Property Values: II.C.9, II.C.9.a Do waste transfer stations help to maintain or increase property values? Or do they cause nearby home values to drop? It seems to me that this neighborhood is a place where residents come to live in a quiet historic area close to downtown. I do not see how this facility will improve the character or home values of this neighborhood.

Environmental Justice: The most impacted neighborhood has a low income minority population that is already challenged in terms of health and quality of life by the industrial activity in the neighborhood. I am deeply concerned that the proposed Edith Transfer Station increase the cumulative burden of environmental pollutants and stress on the neighborhood residents.
One of the primary goals of the EPC is to improve quality of life within neighborhoods. Why not turn this area into a park with trees that would give life and fresh air back to the community?

Thank you for considering the health and wellbeing of the community.

Sincerely,

Laurie Blackwood
3827 San Isidro Street, NW
Albuquerque, NM 87107

Received
9/28/15
4:46pm
7-7

776

From: **Laurie Blackwood** somethingsmoving@earthlink.net
Subject: Edith Transfer Station - Project #1010582
Date: September 28, 2015 at 4:16 PM
To: vquevedo@cabq.gov

Peter Nicholls, Chair
Environmental Planning Commission
% City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Dear Chairman Nicholls,

I am writing to express my opposition to the proposed site for the Edith Transfer Station.

First of all, why don't we reduce waste altogether? Policy IIC3b: "Encourage solid waste recycling systems which reduce the volume of waste while converting portions of the waste stream to useful products and/or energy".
The City was going to start using smaller trash collection cans, which makes so much sense to me and to many of my neighbors. Why did that not happen? It could still happen, if the City would step up to the plate and encourage the reduction of waste by charging more for picking up more trash. If we do things right, we won't be generating more trash each year and we will not need a new transfer station east of the river.

Policy IIC1k: The Goal is to improve air quality to safeguard public health and enhance quality of life.
Policy K states that citizens shall be protected from toxic air emissions.
Increased air pollution will certainly result from the increase in garbage trucks, recycling trucks, 18-wheelers, and private vehicles coming and going with trash and recycling. This will degrade the quality of life and the health of residents in the impacted neighborhood.

Thanks for considering my concerns.

Sincerely,

Kristine Roy
3827 San Isidro Street NW
Albuquerque, NM 87107

778

Received
9/28/15
4:46 PM

New Mexico State Senate
State Capitol
Santa Fe

COMMITTEES:

VICE CHAIR:
·Public Affairs

MEMBER:
·Education

SENATOR BILL B. O'NEILL
D-Bernalillo-13

343 Sarah Lane, NW - Apt. D
Albuquerque, NM 87114

Cell: (505) 450-9263
E-Mail: oneillsd13@billoneillfornm.com

September 23, 2015

Karen Hudson, Vice Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Zone Map Amendment: Proposed Edith Transfer Station

Dear Chairman Nicholls:

I would like to voice my strong opposition to the proposed map amendment necessary to construct the Edith Transfer Station.

As the State Senator representing this area of Edith and Comanche, I am very concerned about the impact on the surrounding residential neighborhoods of a 24-hour continuous onslaught of garbage trucks that this change would mean to the families in the immediate area (I would also point out that there is a newly constructed North Valley Little League facility just across the street).

I am also frankly offended at the "process" for community input that the city presented: instead of starting with the question of whether or not the Edith Transfer Station was a good idea, the city launched into this "choose between several options" approach, as if it had already been decided that this was going to happen.

In addition, the feasibility studies done in 2006, 2011 and 2014 centered exclusively on cost savings for the City of Albuquerque. It is clear that costs are the *only* consideration for this proposed project, and certainly not the impact on the lives of the residents of this part of Albuquerque.

I hope that your Commission will vote to *deny* the zone map amendment request made by the applicant, The City of Albuquerque.

Sincerely,

Bill O'Neill

Bill B. O'Neill
State Senator

cc: Peter Nicholls
Moises Gonzalez
Victor Beserra
Derek Bohannon
Maia Mullen
James Peck
Bill McCoy III

779

New Mexico State Senate

State Capitol
Santa Fe

COMMITTEES:

VICE CHAIR:
·Public Affairs

MEMBER:
·Education

SENATOR BILL B. O'NEILL
D-Bernalillo-13

343 Sarah Lane, NW - Apt. D
Albuquerque, NM 87114

Cell: (505) 450-9263
E-Mail: oneillsd13@billoneillfornm.com

September 23, 2015

Bill McCoy III, Commissioner
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

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Sincerely,

Bill O'Neill

Bill B. O'Neill
State Senator

cc: Peter Nicholls
Karen Hudson
Moises Gonzalez
Victor Beserra
Derek Bohannon
Maia Mullen
James Peck

780

New Mexico State Senate

State Capitol
Santa Fe

COMMITTEES:

VICE CHAIR:
- Public Affairs

MEMBER:
- Education

SENATOR BILL B. O'NEILL
D-Bernalillo-13

343 Sarah Lane, NW - Apt. D
Albuquerque, NM 87114

Cell: (505) 450-9263
E-Mail: oneillsd13@billoneillfornm.com

September 23, 2015

James Peck, Commissioner
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

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Sincerely,

Bill O'Neill

Bill B. O'Neill
State Senator

cc: Peter Nicholls
Karen Hudson
Moises Gonzalez
Victor Beserra
Derek Bohannon
Maia Mullen
Bill McCoy III

781

New Mexico State Senate

State Capitol
Santa Fe

COMMITTEES:

VICE CHAIR:
·Public Affairs

MEMBER:
·Education

SENATOR BILL B. O'NEILL
D-Bernalillo-13

343 Sarah Lane, NW - Apt. D
Albuquerque, NM 87114

Cell: (505) 450-9263
E-Mail: oneillsd13@billoneillfornm.com

September 23, 2015

Derek Bohannon, Commissioner
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

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Bill O'Neill

Bill B. O'Neill
State Senator

cc: Peter Nicholls
Karen Hudson
Moises Gonzalez
Victor Beserra
Maia Mullen
James Peck
Bill McCoy III

782

New Mexico State Senate

State Capitol
Santa Fe

COMMITTEES:

VICE CHAIR:
·Public Affairs

MEMBER:
·Education

SENATOR BILL B. O'NEILL
D-Bernalillo-13

343 Sarah Lane, NW - Apt. D
Albuquerque, NM 87114

Cell: (505) 450-9263
E-Mail: oneillsd13@billoneillfornm.com

September 23, 2015

Maia Mullen, Commissioner
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Zone Map Amendment: Proposed Edith Transfer Station

Dear Chairman Nicholls:

I would like to voice my strong opposition to the proposed map amendment necessary to construct the Edith Transfer Station.

As the State Senator representing this area of Edith and Comanche, I am very concerned about the impact on the surrounding residential neighborhoods of a 24-hour continuous onslaught of garbage trucks that this change would mean to the families in the immediate area (I would also point out that there is a newly constructed North Valley Little League facility just across the street).

I am also frankly offended at the "process" for community input that the city presented: instead of starting with the question of whether or not the Edith Transfer Station was a good idea, the city launched into this "choose between several options" approach, as if it had already been decided that this was going to happen.

In addition, the feasibility studies done in 2006, 2011 and 2014 centered exclusively on cost savings for the City of Albuquerque. It is clear that costs are the *only* consideration for this proposed project, and certainly not the impact on the lives of the residents of this part of Albuquerque.

I hope that your Commission will vote to *deny* the zone map amendment request made by the applicant, The City of Albuquerque.

Sincerely,

Bill O'Neill

Bill B. O'Neill
State Senator

cc: Peter Nicholls
Karen Hudson
Moises Gonzalez
Victor Beserra
Derek Bohannon
James Peck
Bill McCoy III

783

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September 23, 2015

Victor Beserra, Commissioner
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September 23, 2015

Moises Gonzalez, Commissioner
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

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State Senator

cc: Peter Nicholls
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Victor Beserra
Derek Bohannon
Maia Mullen
James Peck
Bill McCoy III

785

September 28, 2015

To: Environmental Planning Commission
c/o: Peter Nicholas, Chairman and Vicente Quevedo, Staff Planner
RE: Project#1010582

To Whom It May Concern:

On behalf of the Stronghurst Neighborhood Improvement Association, who has participated in the multiple public meetings discussing the Transfer Station Improvement Plan located on 4600 Edith NE ; we a strong community of neighbors incorporated in 1929, who work, live, and thrive in the downtown area, 1.1 miles from the proposed transfer site, oppose the zoning changes requested by Wilson & Company agent for the CABQ Municipal Department. There have been numerous objections from the Private Residents and Business alike on how developing this location for the consolidated city's waste transfer would negatively impact our immediate location in quality of life and business commerce, which include and are not limited to:

- Lack of planning to mitigate the increase in traffic and increase in public safety both large trucks and private use
- Lack of planning and remediation with the inevitable dumped and blowing trash from private use
- Lack of planning and mitigation of the public safety & health impacts of the close neighbors and commerce alike that choose to employ and live in proximity

Its been resoundingly clear through the numerous public hearings, the city intends to use this location regardless, on the premise it will "save millions of dollars" in the dumpster truck's wear and tear. Stronghurst recognizes and agrees with the immediate negative impacts of this project listed above. As a long-standing neighborhood and residents of the city of Albuquerque, we are committed to the long-term vision of our great city. We strongly believe the proposed location of the Transfer Station is also not in the best interest in the community overall from an economic development standpoint.

This Transfer Station Infrastructure Project is a short-term savings measure that Mayor Berry and the City of Albuquerque Municipal Dept are after without considering the long-term impacts of the "Dream Big Again Albuquerque" statement Berry is asking each one of us to embrace. Quoting Mayor Berry in his op'ed in the Albuquerque Journal dated Sept 26th he states emphatically that "Successful cities invest in themselves and, as important and tax and infrastructure may be, businesses follow the talent and talent searches for the highest quality of life." This includes improvement in quality of life of all its residents and the major economic development investments the CABQ is making by way of its quest to become the newest Center of Excellence in Technology and Business.

Additional points we respectfully ask you to consider:

The city is embarking on a 70 Million dollar infrastructure plan to bring the city a rapid transient train system (ART) with major depots located along Central Ave including near the corner of Broadway and Central at the public/private venture headquarters of Innovate Albuquerque. This is a walk able 2.5 miles northbound on Broadway Ave, ripe with partially demolished warehousing space, adequate parking, a budding craft beer district, and re-gentrified neighborhoods towards the Proposed Transfer Site. The exit on Comanche and I-25, which is the only egress from I 25 southbound and serves as the only route proposed for the Transfer Site. It would also serve as the primary southbound entry into our Technology Business Hub towards Innovate Albuquerque. Would we really require recruiting talent, economic development investors, residents and businesses alike to fight traffic with the dumpster trucks, view the inevitable blowing trash and smell, to get to their

place of work and residence?

Public Research shows that major technology centers (Atlanta, Chicago, Silicon Valley California, and upcoming tech centers such as Austin, TX have their Transfer locations 10-20 miles from its Economic Development Tech Centers. This isn't a short-sided decision by these economically advanced communities. Attracting Millennial Talent to their vibrant and growing cities, a city must offer more than a rapid transient system "ART" or one building complex to develop a business. Millennial Talent expects to work, live, and play all within a close proximity. Deidre Firth, CABQ's Deputy Director of Economic Development stated in the Journal dated Sept 26th, that NM can become a global leader in Optics and "We need to emphasize that New Mexico is recognized as a leader nationally and that companies look to us as a preferred location". Really? The city is creating private/public partnerships located in the downtown area for development, yet have no planning or mitigation of the health impacts of the close neighbors and commerce alike who choose to employ and live in 2.5 miles to this Proposed Transfer Site. Our neighborhood has committed to this location because of its high quality of life, intimate residential partnerships and favorable location/proximity. We're happy and proud for the high-power laser startup Tri-Lumina who is touted with being a future global leader in light-based technologies, but we're curious if they would consider moving to this "Technical Center of Excellence" surrounding Innovate Albuquerque headquarters knowing the City Transfer Dump is going to be located 2 miles away?

Stronghurst Neighborhood is the oldest incorporated neighborhood in the city and over its eighty-six years has embraced change, disputed change, and frankly put up with it. In the last decade, we've seen the CABQ strategically place a Cement Plant, Asphalt Plant, City Recycling Center, Food Pantry's and Homeless Shelters to mention a few within our pedestrian heavy neighborhood and surrounding area. We ask the EPC to consider the full spectrum of this 3-5 mile radius from the city's proposed economic development area where the city is also touting an interest and putting major city funds in recruiting talent to live, work, and play. Is there not a breaking point where our neighborhood and the surrounding area; which includes the ART depot, the economic development area including Innovate Albuquerque which is proposed a "Technical Center of Excellence", will take on a heavier burden of wide-spectrum of Public Safety Issues, and overall desirability of the neighborhoods?

Included is a table from the Health Impact Assessment for the City of Albuquerque and was part of the information presented by NVC:

Table 1. Collision rates at intersections within the impacted community.

Collision Rates	Overall Collision Rates	Fatal and Injury Collision Rates	Pedestrian Collision Rates	Bicycle Collision Rates
Up to 3 times above the average collision rate	4th Street and Griegos intersection	4th Street and Griegos intersection	N/A	N/A
Up to 2 times above the average collision rates	Edith and Comanche intersection	Edith and Comanche intersection	4th Street and Montano	4th Street and Montano
	I-25 and Comanche intersection	I-25 and Comanche intersection		2nd Street and Montano

As you see, the potential for increased collisions and fatalities for pedestrians and bicyclists will increase significantly. New York City is going through a similar debate about a new Waste Transfer Center on the Upper East Side. Following is a quote from that debate; *the study, conducted by Sam Schwartz Engineering, found that trucks caused 87 traffic deaths in the city during the last five years, and that 26 of those were caused by garbage trucks.* (New York, 2014) Garbage trucks cause 30% of all truck-related deaths in New York City. Thus, we can deduce increased truck traffic near the proposed transfer site will likely increases traffic deaths here in ABQ as well. Increased truck traffic in the city's economic development zone will likely deter not encourage new potential employees & residents who we know want to work, play, and live nearby.

We are told the future growth of our cities development doesn't currently live here. We need to attract them. If we are pursuing them, we need to pursue the quality of life they seek.

Putting this Transfer Station is a short-sided reduction of operational expenses, without looking at the long-term developmental impact of what we want Albuquerque to be. The Environmental Planning Commission is charted with reviewing developmental plans and through zoning control; determine if the location and use is in the best interest of the community. This Commission has the opportunity, right now, to stop the CABQ; who has talked out of both sides of its mouth - wanting to save operational expenses and create infrastructure to recruit companies as a "preferred location". We respectfully ask you to consider all the immediate concerns of this zoning request but also urge you look beyond the corner of Comanche and Edith and the dumpster truck's wear and tear. "Dreaming Big Again" means in action, we must look at each infrastructure project as it relates to the overall common community goal. If we want Albuquerque to be a preferred location to create business and jobs, don't stink it up with the City's Trash being collected in the middle of our Community's Future Technology Center of Excellence.

Respectfully,

Hope McIntosh – Board President
With support of all Board Members and Residents
Stronghurst Improvement Association
m.hopemcintosh@gmail.com

OFFICERS

David Wood, President wood_cpa@msn.com
Jill Gatwood, Vice President jillgat@gmail.com
Marca Finical, Treasurer marcia_finical@yahoo.com
Antoinette Vigil Secretary, antovigil@gmail.com

Greater Gardner Mailing List
ggnaabq@gmail.com

Greater Gardner Neighborhood Association

A North Valley Association of Concerned Albuquerque Residents

September 28, 2015

=Transmitted Electronically=

Mr. Peter D. Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: ZONE MAP AMENDMENT: Proposed Edith Transfer Station
EPC Project # 1010582

Commissioner Nicholls:

Please accept this document as part of our neighborhood association's *written* testimony for the record.

This document uses the original Project Narrative as submitted by Wilson & Company. We then inserted our annotated comments on the page whenever we believed a comment was necessary or appropriate.

Our goal in this submission is to highlight the community's experience with this proposed project. This included 3 City public meetings and 2 neighborhood association, and the understanding that the independent Health Impact Assessment Committee gained of the possible health impacts from the proposed facility. We also participated by invitation of the City, on their Citizen Advisory team for *design input* for this project.

Our *annotated comments* speak for themselves on the pages. A summary of our major findings include:

- **Narrative appears to be repetitive throughout much of the document in justification.**
- **The overriding theme is that "cost savings" is the driving force for this proposed zone change.**
- **Another consistent theme is the applicant' justification attempts to marginalize our neighborhood, by *repeating*, "*the closest neighborhood is over 1300 feet from the site*".**
- **In many cases when Policy is stated, the justification for that policy is either weak or not relevant at all.**
- **There is an addendum at the end, which are public comments left at the City's web site for the project.**

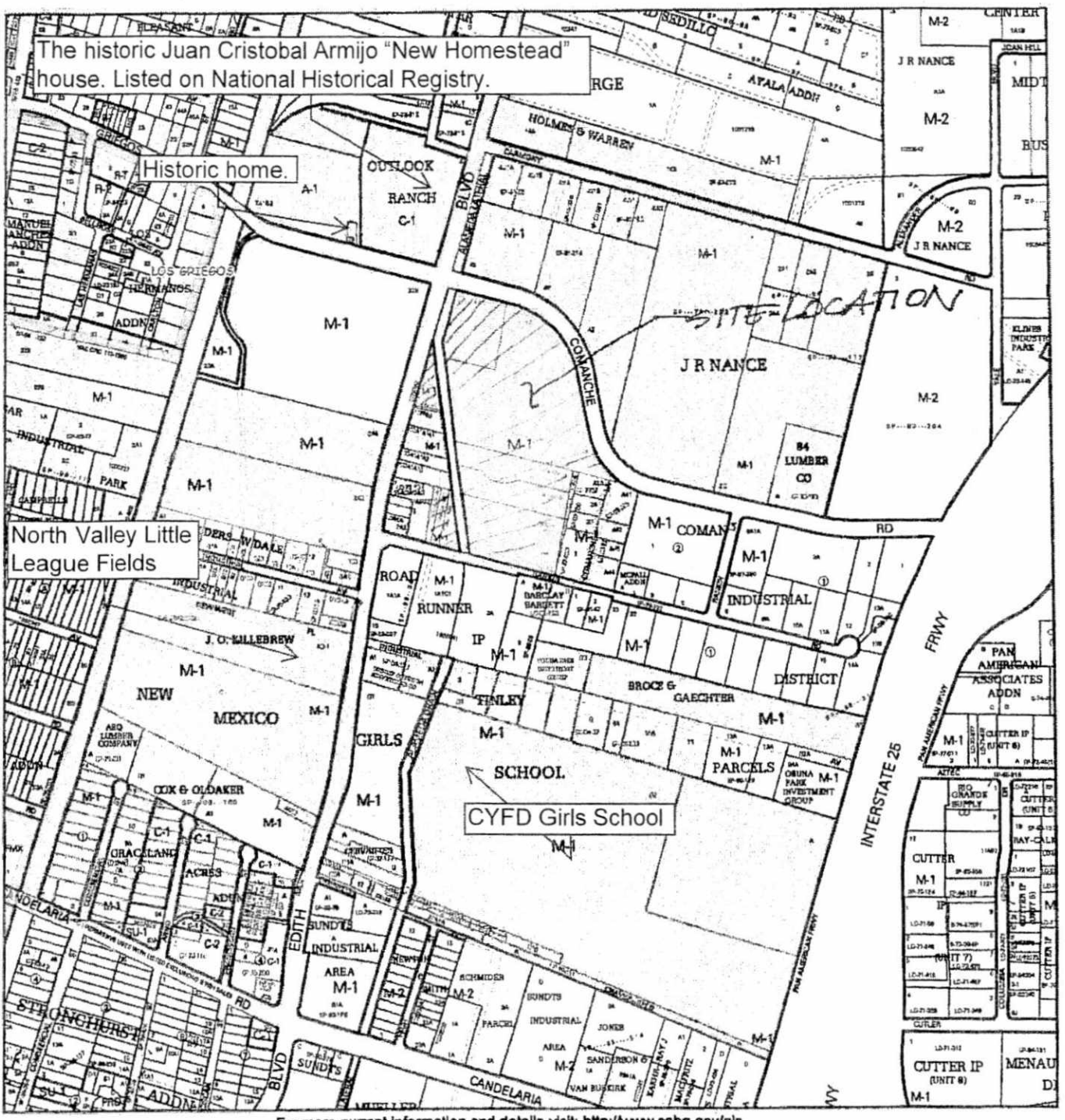
Unfortunately, a lot of our comments are repetitive, like the applicants justifications. We made a good faith effort to look at the policy referenced, and then look at the applicant's justification for that policy.

Our comments were made based on our experience and knowledge of this project. They are not casual comments; rather they are fact-based.

Respectively submitted to the Commission by,

Greater Gardner Neighborhood Association

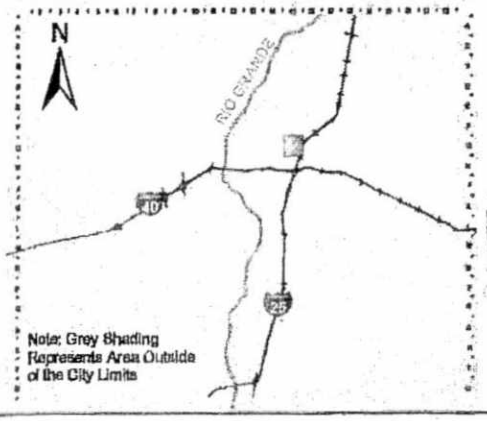
David Wood President



For more current information and details visit: http://www.cabq.gov/gis

AGIS
Albuquerque Geographic Information System

Map amended through: 6/7/2013



Zone Atlas Page:

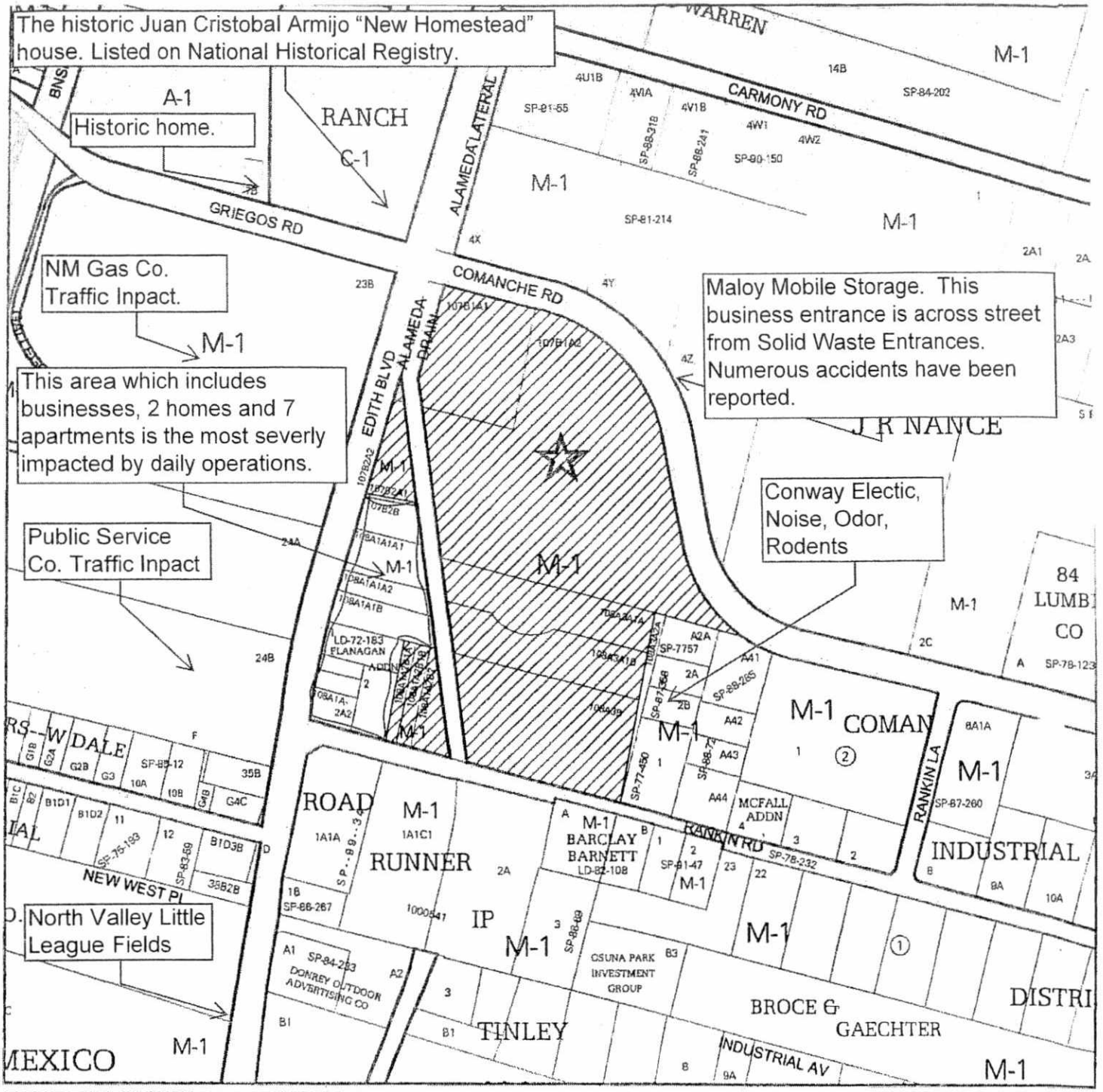
G-15-Z

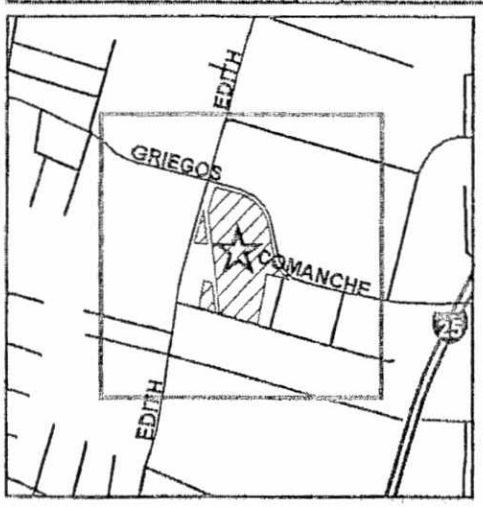
Selected Symbols

SECTOR PLANS
Design Overlay Zones
City Historic Zones
H-1 Buffer Zone
Petroglyph Mon.
Escarpment
2 Mile Airport Zone
Airport Noise Contours
Wall Overlay Zone

0 750 1,500 Feet

192





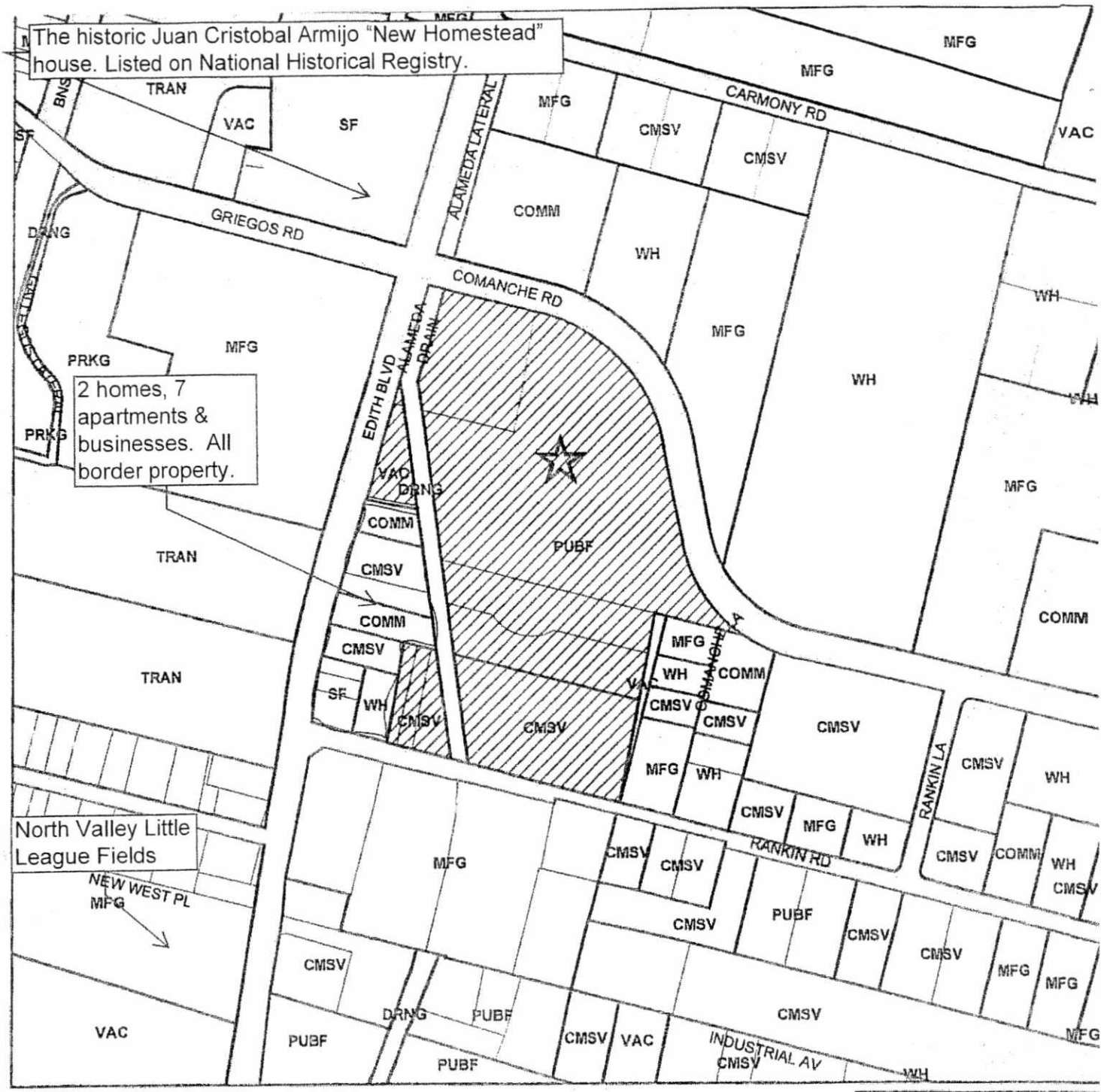
ZONING MAP

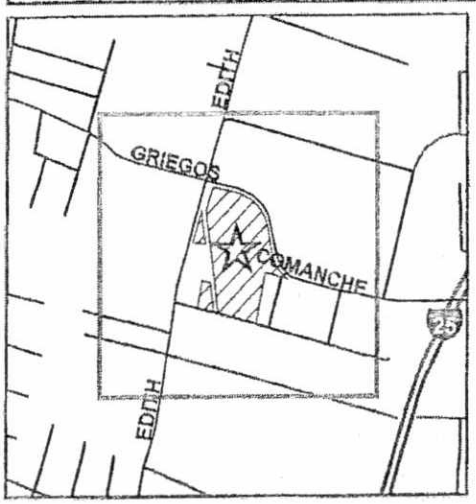
Note: Grey shading indicates County.

1 inch = 400 feet

Project Number: 1010582
Hearing Date: 10-8-2015
Zone Map Page: G-15
Additional Case Numbers: 15EPC40051 &40052

793





LAND USE MAP

Note: Grey shading indicates County.

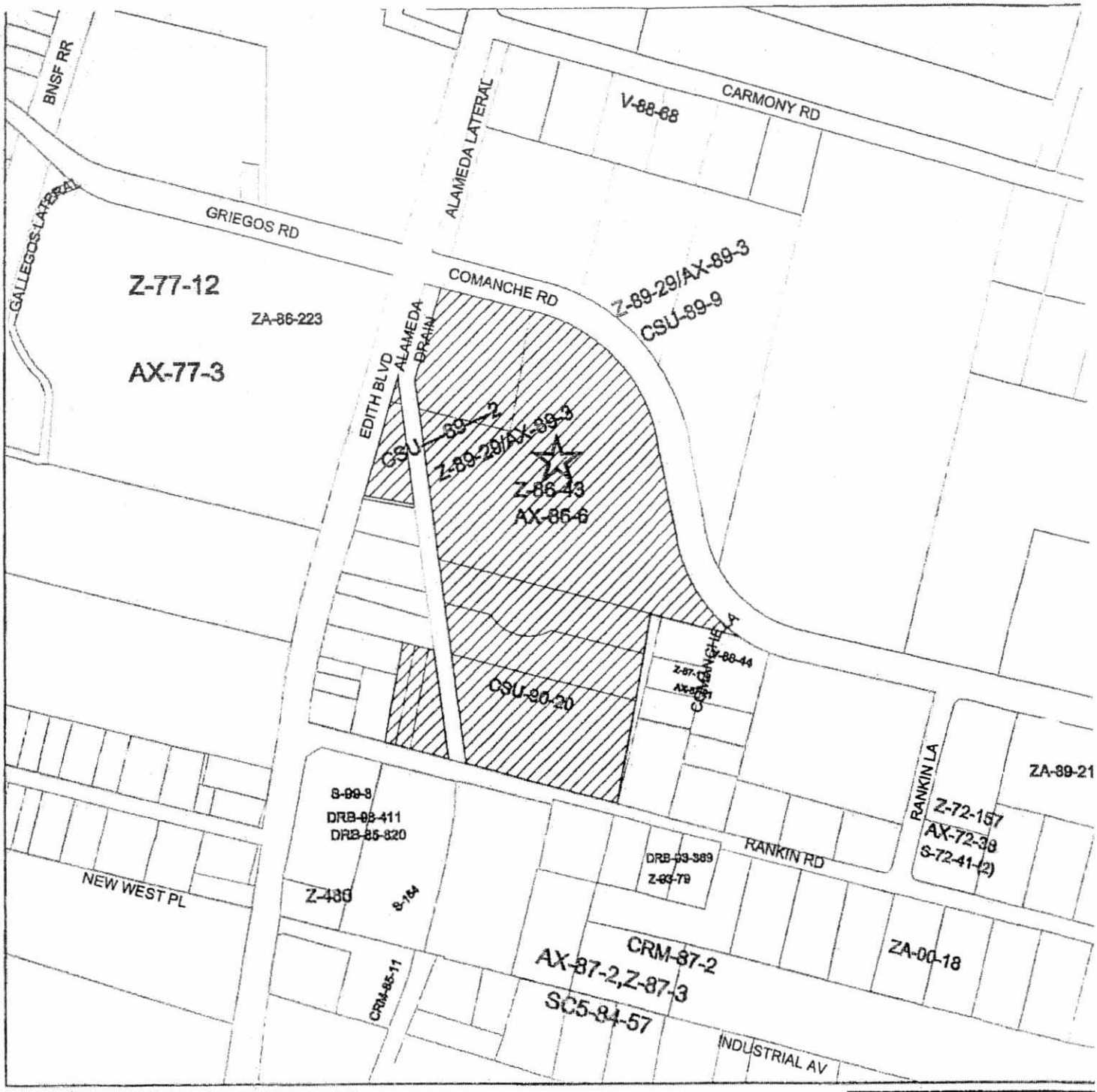
KEY to Land Use Abbreviations

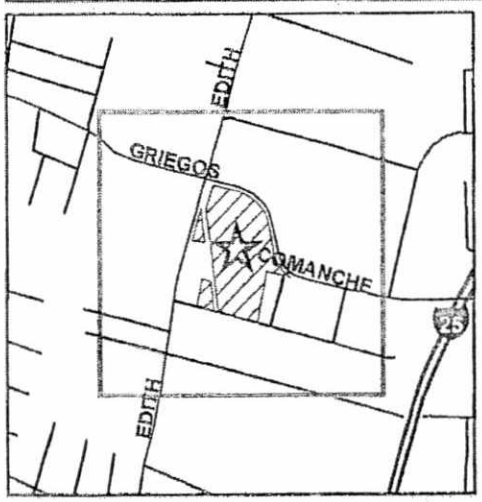
AGRI Agriculture
COMM Commercial - Retail
CMSV Commercial - Service
DRNG Drainage
MFG Manufacturing
MULT Multi-Family or Group Home
PARK Park, Recreation, or Open Space
PRKG Parking
PUBF Public Facility
SF Single Family
TRAN Transportation Facility
VAC Vacant Land or Abandoned Buildings
WH Warehousing & Storage

1 inch = 400 feet

Project Number: 1010582
Hearing Date: 10-8-2015
Zone Map Page: G-15
Additional Case Numbers: 15EPC40051 &40052

794





HISTORY MAP

Note: Grey shading indicates County.

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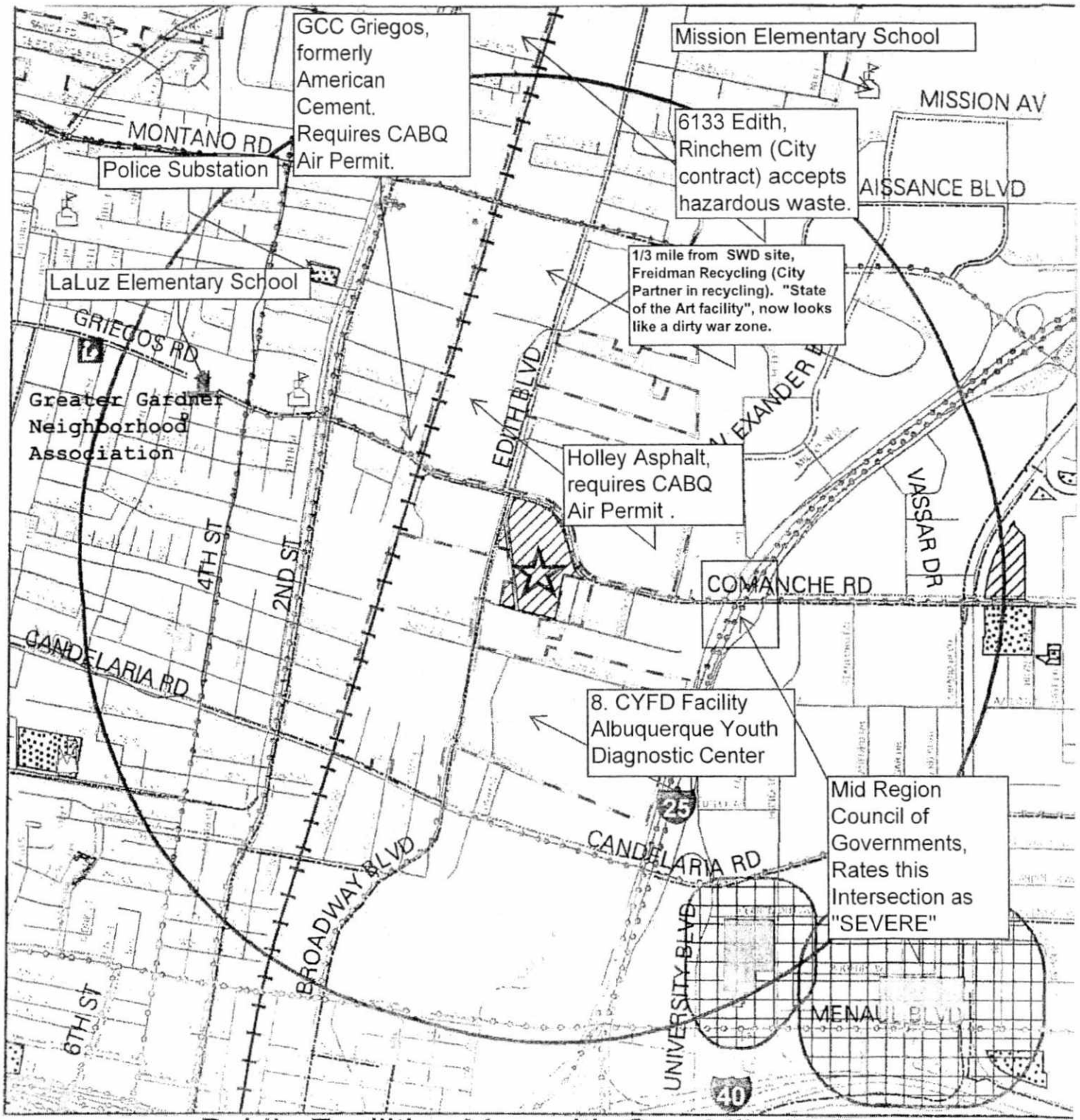
Project Number: 1010582
Hearing Date: 10-8-2015
Zone Map Page: G-15
Additional Case Numbers: 15EPC40051 &40052

195



Public Facilities Map with One-Mile Buffer

COMMUNITY CENTER
MULTI-SERVICE CENTER
SENIOR CENTER
LIBRARY
MUSEUM
FIRE
POLICE
SHERIFF
SOLID WASTE
APS Schools
ABQ Ride Routes
ABQ Bike Facilities
Proposed Bike Facilities
Albuquerque City Limits
Landfill Buffer (1000 feet)
Landfills designated by EHD
Developed County Park
Undeveloped County Park
Developed City Park
Undeveloped City Park

Project Number: 1010582

0 0.5 1 Miles

196

ADDENDUM 1

Public Comments Received at web site: www.abqets.com for Edith Transfer Station

Comments through 9/25/2015

Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

problem to site managers drew the response that they had no responsibility to clean up the trash and that cleanup was his problem. With this kind of attitude, what assurance does the neighborhood have that transfer station management would work with neighbors to resolve problems that may occur?
—John Karon

Should not be done at this location but relocated to the SB frontage road along I25 This site is too busy and will be having conflicts with local traffic and bike use on a critical e-w bike connection.
—Stephen Verchinski

I went to the Edith Transfer Station meeting thinking bicyclists really didn't have much at stake in this one. After a couple weeks talking to people and digesting/contemplating what I heard, I have a feeling that this is a much bigger deal for bicycle travel in inner North Valley and between NE and NE ABQ than I thought.

Before I get into my specific concerns I should say that I fully support some sort of transfer/recycling facility (perhaps multiple) and think we should have made something happen a long time ago. That said, I am not so sure that this is the best location or that enough care was taken to assess ancillary impacts during the site selection process. In that vein, I would like much more specific site selection information with regard to site selection goals and specific criteria used in researching and evaluating sites. Ideally this would include the rationale for the two sites considered but not selected. Further, because of the significant impact this project will have on surrounding neighborhoods and Griego/Comanche to wherever trucks will get back on to head to landfill (I-40?), I think it is very important that CABQ be completely transparent in why other logical sites were not considered. Specifically, sites south of Big I on i-25 and 12th and i40 at either the Indian School or Prager Station/Ponderosa Products areas (seems logical as much easier and practical off/on Interstate, less street travel required and even more conveniently located central locations). Also, 12th is not designated bicycle facility and Griegos is, with two ghost bikes including one from Garbage Truck.

To understand my major concerns (it's a very big one because of the huge impact this project will have on area roads with increased heavy truck volume) you/someone will need to drag out 2000 on-street bike plan, MRCOG AMPA Long Range Bicycle Facility Map, Draft of Bike and Trails Plan Update (specifically maps, programmed and critical links project tables) currently being considered at LUPZ, and the 2014 Albuquerque Bicycle Map and the project list you submitted to GABAC last August. All of these Plans treat bicycles facilities in this part of North Valley differently and often contradict. That's a

real problem that needs to be remedied. I had hoped that the Bike and Trails Plan would do that. Sadly, it actually confuses me when I try to grasp community intent and balance it with opportunity and quality multi-modal infrastructure (both existing and proposed/planned)

If you go up to a 2500' bird's eye view of bicycling facilities in North Valley, I think this project will have immediate and significant negative impact on E-W bicycle travel and connectivity. But I wonder if an even bigger issue is the N-S bicycle impact this project will have on Edith. Right now, the Valley is served N-S by Bosque Trail, Rio Grande and North Diversion trail (gap between over 3 miles). Most cyclists (probably 95%) consider riding 4th or 2nd for any distance at all prohibitively dangerous. That's the key—we will and do ride these streets, but only for very short distances so we can fit into traffic gaps. 4th Street has always been a problem with ROW/4 lane configuration and 2nd has always been a problem because of the very high posted roadway speeds and also average travel often 15mph over that. It's just not a roadway environment vulnerable users are ever going to feel comfortable using (unless speeds are literally cut in half). Edith is a different story and has been a roadway that has been subject of significant discussion for bicycle facilities over last 20 years. And it makes sense. It's lower speed and it would not take much to make a few minor modifications to make it a great N-S bicycle facility. From downtown, I often use it when I have to get North and don't have time to get up to NDC or over to Rio Grande. It's not great now, but I just rode it a few days before the meeting to get to Honeywell from Downtown and it was fine as long as I controlled MV traffic in my lane at intersections and RR Tracks. I think the entrance for the Transfer Facility on Edith would ruin any future opportunity for the intermediate N-S distance connectivity we do need in inner North Valley.

Another significant concern is access to the Montano RR station. Right now it's just a big parking lot. That's a lost community opportunity because it could and needs to be much, much more.

At meeting I happened to mention N-S concern to Councilor Benton and he said that we were okay due to Alameda Drain Project. After thinking about it and talking more to Bernalillo County, I'm not so sure I agree. Yet. I think Alameda Drain Trail will be great for local bicycle and pedestrian connectivity (I see folks struggling in the area all the time) but I think the distance connectivity opportunities would be limited from Montano to the South due to expense of providing safe and efficient bike/ped/Equestrian crossings (and yeah, there are people that would want Equestrian access from far NV) at Montano, Candelabra and Manual. Nolan thinks that he could get safe crossings at signals/crosswalks but the reality is we see very few communities doing that any more as the balance of risk and ROI just don't pencil. Also, whether we are

ready or not, that ebike thing is going to hit within the next few years and that's probably going to be game changer in places like the North and South Valleys (don't ask me how but I heard a lot of smart people in other communities like ours worrying about ebike impacts this summer)

My last concern that I am just going to throw out there is I still get the sense that you, the Administration, high-level management and the Council see cyclists as a class that can be boxed and grouped. I think the reality is much, much different as there are a few hundred flavors and almost as many needs. I also think this distinction is very important as we plan our multi-modal network (and yes, I think constantly revising old decisions instead of a very hard reset and fresh analysis is a disaster for us as we know have plans with concepts and decisions that are rapidly going extinct, yet require significant investment). For me, daily, I probably am six or seven types of cyclists with many diverse needs: connectivity; safety; transit; shopping, medical; commerce; health (exercise); professional/commuter; social; recreational/mountain biker; thirst quencher and dog exerciser. Just as my needs and expectations are diverse and change throughout the day, the facilities need to and can be as well. Want to take a run up to MSP, Seattle or Spokane? I can show you and that's an important point. A lot of communities are already doing it and it is working very, very well.

I've had a hard time sitting down to write this as I know it's opening another can of worms for cycling community/CABQ relationship and I am pretty worn down by that. I was especially disappointed to see that there was no mention of this project and roadway impacts/needs in this area in any part of BTFP and most important, to me, the list you provided and discussed with GABAC this summer. It just doesn't feel right and seems yet another example of a fairly large disconnect within CABQ/BernCo/NMDOT concerning people traveling on bicycles. As a community we want to talk the talk, but boy, it sure seems like when it comes to put rubber to the road, agencies and politicos are often pretty much tone deaf as to what the user communities think our needs are—quite often what should be very important community relationships feel gratuitous or simply dismissive.

Anyway, now I've put it out there. Do with it what you will. I do want to be a part of any Advisory Committee that serves this effort going forward as I think my knowledge of bicycling in NV and previous discussions and plans is important and bicycle/pedestrian interests deserve representation and consideration.

Thanks for your time and consideration.
—Scott Hale

ADDENDUM 1

Public Comments Received at web site: www.abqets.com for Edith Transfer Station

Comments through 9/25/2015

Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

Written comment to Mayor Richard J. Berry expressing concern about waste transfer station and requesting that a meeting be scheduled between the City and surrounding businesses to discuss the project and how its impacts can be mitigated.

—Wes Bigney, Sysco Foods of New Mexico

I am a nearby property owner and would like to look at the proposed new construction plans for the Edith transfer station. Do you have them available in a pdf file that you can send me or can I come to your office and view them before the Jan. 20, 2015 meeting to be able to make knowledgeable comments. Let me know please.

— Jeff Henry

I have several serious concerns along with some small ones concerning this transfer station. I own property abutting the city yards now. Over the years we have had to make several changes in our operation because of the city yard. One of the biggest ones is the diesel soot that came into my building when we use a swamp cooler. All are ceiling tiles have black lines all the way around them as air pushes out around them from the cooler. We changed to refrigerated air to correct the problem, but adding all that diesel soot by the unloading and the tractor-trailers loading up and leaving, will make this air very polluted and affect the health of our employees. The other problem will be with the garbage laying around. We will have an increase of pigeons. The pigeons have been so bad that we had to remove all our landscaping in front of our offices because the pigeons use it to roost and went to the bathroom all over the place causing a possible health problem. The other thing is the increased truck traffic on Comanche will make that exit very hard to use. There is a lot of truck traffic from businesses along Comanche including I-25. Sometimes the line to get on I-25 backs up for 4 or 5 light changes. Business traffic and personal traffic from South of Menual use this access to get onto the interstate system for both I-25 and I-40. Also the southbound ramp of I-25 to get to I-40 is a fairly steep grade which makes it very slow for tractor-trailers. They will reach the top of the grade and may be going 30 plus miles per hour and then the lighter traffic will try to cut around them which will create a dangerous situation on the 65 mile per hour road. This is already happening to some extent. What makes this bad is when the Big I interchange was redone, a lot of exits were closed so there is not one for the Candelaria and Menaul area anymore. All that traffic has moved over to Comanche. I believe moving the transfer

station somewhere else would be better for our health and keep a safe entrance to the interstate system.
—Guy Conway

My concerns:

1. Additional traffic from return visits of garbage trucks during each day.

2. Additional traffic from citizens bringing their own trash – it doesn't seem that our streets can handle the extra traffic.

3. For trash that falls out along the streets as citizens drop off their trash; how will that be managed so that we don't have loose trash over the neighborhoods.

4. How will Griegos going on to I-25 handle this traffic? At 8:00 am there is already a huge line. I have to wait 3 or 4 lights to get onto I-25 now. What will happen when all the extra traffic is added?
—Shirley Arrellano

Concerned about condition and maintenance of roads, traffic backup at interstate, increased fumes with traffic idling at on ramps, especially during ?? times. Is savings from fuel and maintenance going toward purchasing natural gas trucks? In budget decision, is road up-keep being considered? Concerned about air quality which is already compromised at asphalt plant and cement plant.
—Susan Garriott

How many of the other transfer stations are built in established residential neighborhoods such as this? How are you going to control the traffic going in and out of the transfer station? It can be pretty heavy as it is. How will the noise and odors be controlled?
—Yolanda Gradi

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Anybody who don't live within a 1 mile radius really don't care about this issue! As a resident of the area for 50 years, I have seen several changes to our neighborhood involving commercial business expanding not caring about the health and well-being of residents. Within ½ mile area, asphalt plant, cement plan, odors, traffic, graffiti, property damage, etc. Anybody who wants this in their neighborhood should ask the City to place stations in their area and live with noise, odor, traffic, rodents, etc. Paseo del Norte completion won't help ease traffic and noise issues. "Bad Idea" A Fight and or petition will be done to keep the City's Solid Waste garbage away! Look out!
—Dan Martinez

I wonder about trucking routes for the transfer station trucks.
—Karen McSorley

1. Why here? Economics aside.

2. What are you going to do about trash being brought in pickup trucks (with or without tarps)?

3. What about noise?

4. Traffic?

5. Take out convenience center.
—Diana Rebelledo

I attended the 20 Jan meeting at the NV Sr Citizen Cntr. Items the design team should take into account:

1. Consider peak loads for employee vehicles, garbage trucks, transfer trucks and convenience drop-off user vehicles.

2. Pollution in irrigation lateral.

3. Site lights for vehicle exiting the site for oncoming autos and bicycles.

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4. Effective but low impact signage for facility.

5. Consider solid low fencing with open fencing above so that trash trapped against fence is not visible but site lines are not completely obscured.

6. Site exist[s] as far from traffic lights as possible.

7. Effective left turn control mechanisms or no left turns at all.

8. Effective traffic flows that separate different types of visitors, i.e., those going to the admin offices, recycle drop off, hazardous waste drop-off, public garage drop-off, garbage trucks, transfer trucks, employees, service traffic (fuel trucks, contractors, mechanics, other support and suppliers.

9. Solar and wind power generation.

10. Waste water usage for landscaping and other appropriate uses if possible.

11. Partnership with PNM for possible natural gas usage.
—Leroy Romero

The amount of truck traffic going onto and off I-25 at Comanche could make that busy intersection a real bottleneck and safety hazard for regular traffic. I suggest that you include in your budget re-vamping of the I-25/Comanche intersection to avoid serious problems.
—Doug Spence

I am a North Valley resident protesting the Project. I have a lot of concerns.
—Richard Trujillo

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Why not have multiple, smaller stations placed around the city rather than dump all the garbage in our middle-class part of town

—Anonymous

Cement plant can go 24/7 with railroad – 3 blocks from possible transfer station.

—Anonymous

Owner – Royal Plumbing and Heating

1. What is going to happen at the back side of the property along Rankin Road. Is the chain linked fence going to stay up, or will a block or metal wall take its place?

2. Will there be enough room on the site to openly accommodate the Saturday and Sunday traffic, or will the traffic line spill out into the surrounding area (major streets) Candelaria and Edith?

3. What will happen with the rain water that flows towards Rankin Road?

—Mark Hosington, owner, Royal Plumbing & Heating

ya' know, I think that area stinks enough just with the garbage trucks being housed there empty.

—Vincent *Amendolagine*

I have 3 comments: I am fine with the transfer station if it is used only by the garbage trucks and they only use Griegos/Comanche entrance. I am not fine for the general public's use because that means loads of traffic into that area. I also am concerned about environmental quality. We already have the cement plant and recycling center close.

—Beth Brownell

I am writing in regards to the proposed waste transfer station at 4600 Edith NE. I am a north valley resident and stakeholder. First and foremost it's a terrible location and it doesn't pass the age old 'smell test', figuratively or literally. But more importantly it will negatively affect traffic, transportation, quality of life, noise and air quality in the north valley. The following points will be expanded upon during the appropriate forums in the near future but it's safe to say that city and

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your firm will face an uphill battle trying to sell this project without adequately addressing some very legitimate points as follows:

• Traffic egress from the north valley to Interstate 40 – Currently there are two (2) optimal routes to get to I-40 from the intersection of Griegos and Rio Grande. One is to go south on Rio Grande or east on Griegos. Rio Grande will soon be inhibited by a single lane round-about which will decrease easy access, and by all previous engineering studies will be ineffective due to its single lane construction. A two lane round-about would work but is not possible due to the private properties on all four corners but the County Commission is moving ahead anyway. And now Griegos/Comanche is going to be backed up with refuse trucks and 18 wheeled trash haulers all day long. And Mr. Riordan at the city calls this his selling point? That the traffic will only be between Edith and the freeway ramp on Comanche? That's our only way out of the valley! If this is a 'transfer station' for residents it will also be accepting residential trash and debris which will cause an uptick in residual neighborhood traffic, pollution, litter, and homemade trash trailers. That has not been addressed yet.

• We have an inversion problem in the valley during the winter months where smog gets trapped. The daily use of front end loaders, 18 wheeled semi-trucks hauling trash to the landfill, the private vehicles and the refuse trucks are going to add to the pollution problem.

• Pedestrian and Bicycle traffic – There is a bicycle lane each side of Comanche which is going to be seriously affected by the aforementioned activity. There have already been two deaths and another major accident on Comanche involving cyclists and vehicles; once including a refuse truck. As a community we need to enhance and improve our bicycle paths and safety, not propose development that will make it worse. This is just another example of this development being proposed in the wrong geographic area of our city.

• Developmentally, geographically and environmentally it's just a bad idea. These sort of developments are typically situated in an area of dense industrial developments, not at the crossroads of residential neighborhoods and non-industrial sites. If your purpose is to change the neighborhood demographics to an industrial site, you should transparently state as much. There are historic properties adjacent to the site, there are flood control arroyos, some pedestrian pathways, bicycle lanes, and residential areas that require respect and preservation; not wanton disregard to quality of life issues to the area's residents.
—Chet Karnas

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1. There are already two large recycling plants close-by. Why do we need another one?

2. If private dumping will be allowed here, there will be a huge increase in traffic to our area. How will this reduce air pollution? Will public dumping be allowed on weekends?

3. The current bike lane on Griegos is very dangerous for bicyclists. Several have been killed along that route, including one run over by a garbage truck. There is no question that there will be a huge increase in traffic to and from the transfer station by large trucks and private dumpers. What will be done to protect bicyclists on this route?

4. Comanche/Griegos is an important east/west route for residents living near and west of 4th St. During rush hour (am and pm) there is often traffic congestion/gridlock between the Fwy and 4th St. because of the train crossing and the slow school zone. How can additional traffic to the transfer station not make this worse? Thank you.
—Jill Gatwood

Certainly the city has, or can acquire, the land for a transfer station southwest of the city. The corner of Edith and Griegos is NOT where it should go. Please put it where it has the least impact on residential neighborhoods. Thank you.
—Kristina Anderson

Hello, I attended last week's meeting about the Waste Transfer Station project. I agree with those who are opposed to this project and also want answers to the questions that were raised. My own questions and concerns are as follows:

• One of the reasons given for using this plot of land is that the city already owns it. So what? It could be SOLD for a more suitable development project and the proceeds used to purchase a more appropriate site.

• Many people are concerned about the increase of traffic. Has the city forgotten they've already increased traffic in this neighborhood with the North Fourth Development projects? Enough is enough!

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• I have heard no mention of the expense of wear and tear on the road itself. Griegos/Comanche is a main thoroughfare already. These huge trucks will impact the road surface negatively, resulting in more ongoing road maintenance. Is this included in cost estimates? Road maintenance routinely causes traffic jams.

• Saving city money at the expense of individual property owners is no real savings. Our property values will plummet with the realization of this project.
—Carol Chamberland

I live in the area and feel that this is something that should not be built in the city. I'm sure you could find an acceptable site in a non-residential area. The North Valley could use that site for so many more things. Parks, Pools, Health Center, Community Center, Head Start Centers. There is surely someplace else much less residential for garbage.
—Mary Tuttle

I am opposed to the proposed transfer station at Edith and Griegos.

1. It will increase the already high pollution in the area with the added exhaust from truck, dump trucks and other vehicles.

2. It will increase traffic on an already congested road, Griegos by both City trucks and personal vehicles.

3. It will bring hazardous waste dumping to a fragile environment. There is already a site for hazardous waste drop off. Extend the times people can bring things there.

4 The head of waste management stated at the Jan. meeting that the green waste and recyclables will be separated at the site and that that already happens at the other sites such as Eagle Rock. I have witnessed more than six times that the waste that people bring in is all combined and put into trucks. A big front loader pushes it all together to the end of the building loading it all into trucks. It is not separated and I believe the same will hold true at the proposed site.

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5. What is needed is to reduce the amount of all overall trash. A simple and economically feasible alternative it for the city to collect green waste in separate containers.

6. It was stated a number of times that the city wants to clean up the current site and having the transfer station there would cause that to happen. It needs to be cleaned up regardless of what does or does not happen. It needs to be cleaned up now. The City should have done this before and you have the opportunity to do it now.

7. It is an unnecessary expense for the taxpayers, what is desired can be achieved in easier, neighborhood friendly, and environmentally friendly ways.

—Denise Wheeler

1. As property values in the North Valley decline how will the City help reduce property taxes. Don't forget the North Valley pays the highest mill rate in NM.

2. The Greater Gardner neighborhood already exceeds EPA particulate standards by 50%. How will the additional particulate load be managed?

3. At what times/location/day of week will particulates be measured and published.

4. The Comanche bike lane has become unsafe. A cyclist has already been squashed by a garbage truck. What effects will more & larger garbage trucks have on cyclists? The bike lane under I25 is gone. What alternatives are going to be put in place for cyclists, our cleanest commuters?

5. How will rodents, mosquitos, flies, & unwanted birds be addressed?

6. Is there a plan to prevent toxic chemicals & medical waste from transport through our neighborhoods?

7. What improvements, at what taxpayer cost, will be required at Comanche/I25?

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8. What additional cost will be incurred by taxpayers for damage to I25/I40 & Comanche with the heavy loads transported?
—Name not available

I have lived in the Greater Gardner Addition for over 29 years, a mile away from the Edith Solid Waste Facility. I have some strong objections to the proposed transfer station. The main one being the impact on the roadways – Comanche between Edith and I25 and the Big I. You could put a building to rival the Taj Mahal, but that will in no way compensate for the additional traffic and having semis on city streets. I frequently travel these routes and am very troubled by the prospect of the future scenario. Also, I believe the traffic situation will deter people from coming into our neighborhood negatively impacting the local businesses, among them valley treasures like Bookworks and the Flying Star on Rio Grande Blvd. I am also disturbed by the fact that trash will be transported from the west side across the river on I40 and then back across the bridge. The corner of Edith and Comanche where the solid waste station is located has always been an eye-sore and an embarrassment to me when having visitors from other parts of the city or from out of town. It has been an indication to me of how little regard the city has for this part of town. This proposed plan is just another example. Are the costs of infrastructure improvements including in total cost? I would really like to see the project be scaled down. Thank you for hearing my voice.
—Irene Walkiw

Concerning the proposed waste transfer station: It is clear that the project is likely to be a great aesthetic improvement over the current condition of the site, and that it is likely to be beneficial for the city as a whole. It seems much less certain that it would be beneficial for the neighborhood surrounding the project. After watching the video of the first 90 minutes of the public meeting about 2 weeks ago, I have two questions.

1. The presentations by city staff and the design team seem to assume that the project will be built. Are there any plausible conditions under which the project would not be built? What are the most serious impediments to approval of the project?

2. The man who owns a home and business on the east side of Edith adjacent to the site made a brief statement that he opposes the project. I have participated in meetings discussing potential objections to the project. He has showed photos of serious trash problems on his property, stated that the trash blew in from the current site, and stated that reporting this

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problem to site managers drew the response that they had no responsibility to clean up the trash and that cleanup was his problem. With this kind of attitude, what assurance does the neighborhood have that transfer station management would work with neighbors to resolve problems that may occur?
—John Karon

Should not be done at this location but relocated to the SB frontage road along I25 This site is too busy and will be having conflicts with local traffic and bike use on a critical e-w bike connection.
—Stephen Verchinski

I went to the Edith Transfer Station meeting thinking bicyclists really didn't have much at stake in this one. After a couple weeks talking to people and digesting/contemplating what I heard, I have a feeling that this is a much bigger deal for bicycle travel in inner North Valley and between NE and NE ABQ than I thought.

Before I get into my specific concerns I should say that I fully support some sort of transfer/recycling facility (perhaps multiple) and think we should have made something happen a long time ago. That said, I am not so sure that this is the best location or that enough care was taken to assess ancillary impacts during the site selection process. In that vein, I would like much more specific site selection information with regard to site selection goals and specific criteria used in researching and evaluating sites. Ideally this would include the rationale for the two sites considered but not selected. Further, because of the significant impact this project will have on surrounding neighborhoods and Griego/Comanche to wherever trucks will get back on to head to landfill (I-40?), I think it is very important that CABQ be completely transparent in why other logical sites were not considered. Specifically, sites south of Big I on i-25 and 12th and i40 at either the Indian School or Prager Station/Ponderosa Products areas (seems logical as much easier and practical off/on Interstate, less street travel required and even more conveniently located central locations). Also, 12th is not designated bicycle facility and Griegos is, with two ghost bikes including one from Garbage Truck.

To understand my major concerns (it's a very big one because of the huge impact this project will have on area roads with increased heavy truck volume) you/someone will need to drag out 2000 on-street bike plan, MRCOG AMPA Long Range Bicycle Facility Map, Draft of Bike and Trails Plan Update (specifically maps, programmed and critical links project tables) currently being considered at LUPZ, and the 2014 Albuquerque Bicycle Map and the project list you submitted to GABAC last August. All of these Plans treat bicycles facilities in this part of North Valley differently and often contradict. That's a

real problem that needs to be remedied. I had hoped that the Bike and Trails Plan would do that. Sadly, it actually confuses me when I try to grasp community intent and balance it with opportunity and quality multi-modal infrastructure (both existing and proposed/planned)

If you go up to a 2500' bird's eye view of bicycling facilities in North Valley, I think this project will have immediate and significant negative impact on E-W bicycle travel and connectivity. But I wonder if an even bigger issue is the N-S bicycle impact this project will have on Edith. Right now, the Valley is served N-S by Bosque Trail, Rio Grande and North Diversion trail (gap between over 3 miles). Most cyclists (probably 95%) consider riding 4th or 2nd for any distance at all prohibitively dangerous. That's the key—we will and do ride these streets, but only for very short distances so we can fit into traffic gaps. 4th Street has always been a problem with ROW/4 lane configuration and 2nd has always been a problem because of the very high posted roadway speeds and also average travel often 15mph over that. It's just not a roadway environment vulnerable users are ever going to feel comfortable using (unless speeds are literally cut in half). Edith is a different story and has been a roadway that has been subject of significant discussion for bicycle facilities over last 20 years. And it makes sense. It's lower speed and it would not take much to make a few minor modifications to make it a great N-S bicycle facility. From downtown, I often use it when I have to get North and don't have time to get up to NDC or over to Rio Grande. It's not great now, but I just rode it a few days before the meeting to get to Honeywell from Downtown and it was fine as long as I controlled MV traffic in my lane at intersections and RR Tracks. I think the entrance for the Transfer Facility on Edith would ruin any future opportunity for the intermediate N-S distance connectivity we do need in inner North Valley.

Another significant concern is access to the Montano RR station. Right now it's just a big parking lot. That's a lost community opportunity because it could and needs to be much, much more.

At meeting I happened to mention N-S concern to Councilor Benton and he said that we were okay due to Alameda Drain Project. After thinking about it and talking more to Bernalillo County, I'm not so sure I agree. Yet. I think Alameda Drain Trail will be great for local bicycle and pedestrian connectivity (I see folks struggling in the area all the time) but I think the distance connectivity opportunities would be limited from Montano to the South due to expense of providing safe and efficient bike/ped/Equestrian crossings (and yeah, there are people that would want Equestrian access from far NV) at Montano, Candelabra and Manual. Nolan thinks that he could get safe crossings at signals/crosswalks but the reality is we see very few communities doing that any more as the balance of risk and ROI just don't pencil. Also, whether we are

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ready or not, that ebike thing is going to hit within the next few years and that's probably going to be game changer in places like the North and South Valleys (don't ask me how but I heard a lot of smart people in other communities like ours worrying about ebike impacts this summer)

My last concern that I am just going to throw out there is I still get the sense that you, the Administration, high-level management and the Council see cyclists as a class that can be boxed and grouped. I think the reality is much, much different as there are a few hundred flavors and almost as many needs. I also think this distinction is very important as we plan our multi-modal network (and yes, I think constantly revising old decisions instead of a very hard reset and fresh analysis is a disaster for us as we know have plans with concepts and decisions that are rapidly going extinct, yet require significant investment). For me, daily, I probably am six or seven types of cyclists with many diverse needs: connectivity; safety; transit; shopping, medical; commerce; health (exercise); professional/commuter; social; recreational/mountain biker; thirst quencher and dog exerciser. Just as my needs and expectations are diverse and change throughout the day, the facilities need to and can be as well. Want to take a run up to MSP, Seattle or Spokane? I can show you and that's an important point. A lot of communities are already doing it and it is working very, very well.

I've had a hard time sitting down to write this as I know it's opening another can of worms for cycling community/CABQ relationship and I am pretty worn down by that. I was especially disappointed to see that there was no mention of this project and roadway impacts/needs in this area in any part of BTFP and most important, to me, the list you provided and discussed with GABAC this summer. It just doesn't feel right and seems yet another example of a fairly large disconnect within CABQ/BernCo/NMDOT concerning people traveling on bicycles. As a community we want to talk the talk, but boy, it sure seems like when it comes to put rubber to the road, agencies and politicos are often pretty much tone deaf as to what the user communities think our needs are—quite often what should be very important community relationships feel gratuitous or simply dismissive.

Anyway, now I've put it out there. Do with it what you will. I do want to be a part of any Advisory Committee that serves this effort going forward as I think my knowledge of bicycling in NV and previous discussions and plans is important and bicycle/pedestrian interests deserve representation and consideration.

Thanks for your time and consideration.
—Scott Hale

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I believe that this would be a terrible thing to do to this area due to the noise from traffic, the added traffic congestion, more litter on the streets from loss of trash from vehicles going to and from the site and the smell from all the garbage. The existing operation there is already problematic from the previous issues I have cited. Please do not expand this use. Thank you.
—Douglas Coots

I have lived in the Stronghurst neighborhood for 33 years. What was a very quiet neighborhood in 1982 has gotten noisier and noisier. (Too bad sound barriers were not put up during the I 25 freeway project.) So because the proposed transfer station would undoubtedly contribute more noise to this beautiful area, I am 100% against it. Please choose another site away from residential neighborhoods. Yes, I understand that the proposed site at Edith and Griegos would save the city a lot of money, MONEY should not always be the deciding factor. Any city, THIS city, is about people.
—PK Kozel

I am extremely concerned about the impact this transfer station will have on the North Valley community. The traffic increase alone will make travel to I-25 almost impossible for valley residents. It will be easy for the garbage transport vehicles to enter the interstate, but having to dodge a thousand extra vehicles a day, will be an insurmountable obstacle for residents. The literature and dialog indicate that air and noise pollution will be cut, but I see this as ludicrous with the increase in garbage and traffic. Property values are surely going to be affected by this facility and not in a good way which is a tremendous concern to all property owners in this area. I question the city's motives in placing a facility such as this, in an area that is located within a residential community. Certainly the city owns property in a more isolated area that would facilitate this operation without affecting such a large population and without causing such traffic congestion.
—Jane Foster

As I noted in a drawing on your poster board at the January 20th public meeting, the "3% increase" in traffic in the area due to several hundred garbage truck and trailer trips to and from the transfer station will have a serious impact on an already congested and poorly-designed freeway off-ramp and frontage road on the east side of Interstate 25. Traffic going north from Candelaria on University Blvd. already has to contend with a merge and lane loss from the east frontage road, and soon thereafter another lane loss and merge with vehicles using the Griegos/Comanche I-25 exit. This is followed by vehicles crossing several lanes in a short distance to get into lanes that will allow them to turn either east or west on Comanche. When you add several hundred garbage trucks daily proceeding off I-25 northbound to turn left to the transfer

station, it makes the congestion and lane crossing all the more dangerous. I know that this situation is not part of the scope of the project, but I believe that DMD should make the redesign of University Blvd. from Candelaria to Comanche a major priority, in advance of the construction of the transfer station.
—Joe Sabatini

I am very concerned about the deteriorating impact heavy and loud garbage trucks converging from all over the city, five days a week and perhaps all day long, will have on this low income neighborhood. Although your materials say a mere 3% increase in traffic on the interstate is expected, when a driver is heading north after passing through the big I, there is a very short lead distance for merging or entering the freeway before coming to the Comanche/Griegos on and off ramps, and to be contending with big garbage trucks in that space will create a dangerous driving situation. Also, your figures indicate anywhere from 10 to 15 years before the investment in creating and renovating the facility will be paid off in savings on wear and tear on the trucks. I find that an unconvincing trade off; after 10 to 15 years, more expenditures will be needed to upgrade what will by then be a hard-used facility. Finally, I see no environmental impact studies in the materials you have made available. At this point, without more information, I would have to weigh in as opposed to the facility. Thank you.
—Teresa Storch

A transfer station of this kind does not belong in a city. No One would want this in their neighborhood!! Is there a correlation of a poorer community for this vs Tanoan area? Just wondering.
–Sondra Diepen

I am concerned about traffic and the resulting air quality problems. The intersection at I-25 is very congested as it is now. I think it will require some major adjustment to accommodate at least 4 times more traffic from the trash trucks and transfer 18 wheelers throughout the day. Has that probability included in the cost saving formula. That intersection is mentioned in most traffic updates every weekday. In the past meetings there has been used as a selling point that with fewer landfill trips there will be a decrease in exhaust fumes in citywide air quality. I am concerned that those fumes are being moved just north to Comanche-Edith neighborhood. With the increase in trash trucks through that intersection by three to four times plus the 65 trips of the 18 transfer trucks, it seems that there will marked concentration pollution that cannot be glossed over. It would be especially problematic on temperature inversion days for people with compromised respiratory status. I can certainly see why this station meets many of the city goals, but I haven't seen that probable revision of roadways and all health have been thoroughly examined. I have other concerns about traffic increase along the roads. The routes shown for Monday and Tuesday pick-ups were along Comanche. That road is only two lanes

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from west of San Pedro to Carlisle and goes by a park with bike and walking paths and a middle school in those blocks. I think there needs to be much more consideration with many aspects of the planning. Thank you for taking time to listen to my concerns. There are many problems that will definitely have a negative impact on this neighborhood.
– Susan Garriott

Please link to the video taken of the North Valley Coalition meeting on February 19, 2015. The link contains the full video transcript of the 2/19 meeting in 2 parts. Also, will you commit to posting all past, current, and future contracts regarding this proposed Waste Transfer Station on the public contracts website, with a link to a PDF of each full contract. It would be helpful if all these contracts shared WTS as a keyword in their names so they could be easily found (Cognos is a terrible database).
– J. Zimmerman

Why is the City's budget more important than the health (increased air pollution by way of increased city and convenience center vehicles, insects and rodents, blowing trash, hazardous waste holding) of my community and neighborhood? Why should my health, my property value and my safety be the last in the decision to put this transfer station in my neighborhood? The citizens of Bernalillo county are already paying for this transfer station, so how is it saving money? Why do I have to be burdened with yet another industry in my neighborhood, that will layer upon the already high burdened area that is Edith and Comanche area
—Antoinette Vigil

Similar transfer stations given as examples, Phoenix and Washington, show transfer stations separated from homes by much larger distances. The Phoenix transfer station is very far north of the city and the closest neighborhood is new- meaning that people CHOSE to move there with a transfer station as a next door neighbor. This is not the case in the North Valley. I do not need more odors and pollution settling into the North Valley. There is a cement factory, asphalt business, a recycling business... etc. etc. There used to be a dairy and a historic building with peacocks. Now we get bugs, flies and rodents and I wonder how long the historic houses on Comanche will last with the number of large vehicles passing by up to three times more often, not even counting the number of "off peak" vehicles. Why does the City want to put this smack into the middle of the city? Is it because it is predominately populated by Hispanic citizens?
—Antoinette Vigil

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Public Comments Received at web site: www.abqets.com for Edith Transfer Station

Comments through 9/25/2015

Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

I am opposed to locating a new transfer station at Griegos and Edith. This has not been an open and transparent process so far – adjacent neighborhoods first heard about this in the Albuquerque Journal. There was no public input for the site selection. The first public meeting was held in January of this year at the urging of the North Valley Coalition. At that meeting and in the subsequent meeting in February, we (concerned neighbors) were told how fortunate we are to have been chosen to have this located in our neighborhood. I don't think many of the people in the nearby neighborhoods would agree with that. I also don't think many of the people who are going to be affected by the traffic increase are even aware of this plan. The City has decided to build the station in the close-in north valley which is somewhat of a rural area, although the immediate vicinity is industrial, to accommodate all the trash produced by the east side (east of Carlisle) and the west side (west of Coors) which greatly outnumbers the amount of trash produced in the north valley. It would make much more sense to put a site on the west side and one on the east side – all the new development is going up on the west side. Why not sell this site and buy some land out there?

Traffic has not been assessed accurately. It would be great to have one meeting on only traffic – traffic flow, calculations, routes, etc. The city is being disingenuous to say there is a slight increase of 3% and therefore traffic is not an issue. Everyone is fully aware that this is going to be the biggest issue. While the city may be able to control garbage truck routes, it will not be able to control convenience center routes. Griegos is a two lane road west of Edith and a two lane road east of Carlisle; it is also a bike lane, albeit not up to code. When I try to take a right hand turn from a business on the east frontage road just south of Griegos and move over several lanes to make a left on Griegos, I can't do it, there is that much steady traffic there now on a slow Saturday afternoon. High density housing is being planned/built on San Clemente east of 4th Street – this creates more additional traffic trying to access the freeway. There are no plans to address problems with traffic and road maintenance.

Air quality is also a big issue. Several times recently I have driven in the area and smelled fumes, I assume from the asphalt plant. There are already many trucks from the nearby businesses and fumes from the cement plant. Any additional pollution should be considered as compounding what is already a problem. This is not an issue to be swept under a rug – it is a very valid concern and needs to be fully addressed. I would hope that applying for an air quality permit would address these concerns and yet the city is avoiding doing that. Why? What issues might surface that people should know about?

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These issues should be fully addressed before any forward movement in design occurs – this is owed to the nearby neighborhoods. Hopefully, this will result in a transfer station(s) being relocated to more appropriate locations.
–Peggy Norton

Can you please explain how the public outreach to the Hispanic community was performed? Keep in mind, ***while Hispanics comprise 48 of Bernalillo County's (including the City of Albuquerque) population, 70 of the population in the proposed Transfer Station area of the North Valley are Hispanic.***

In addition could you please explain the justification on why you are bring more polluting industries to an undeserved community that is overburdened with industrial companies?

What is being done to ensure that the voices of minorities will be heard? Especially for minorities that do not have the money to purchase the newspaper, have access to the internet and particularly community members who only speak and read in Spanish.

What I want you to do is to go back to the community and properly complete the outreach to those that are Hispanic; because you the City of Albuquerque and the design team that were hired did a poor job the first time around.

To ensure that minorities and Spanish speaking community members are given an equal opportunity to have their voices heard and participate in the decisions of the types of industries that will affect their health, safety, environment and general welfare. You need to send a notice in the mail to all the residents in Spanish and English. Provide Spanish Translators and material in Spanish.

Do you feel the minorities and Hispanic community members have no rights to live in a safe and clean environment? The neighborhood needs to be protected from harmful exposures imposed on them against their will by corporate polluters and government agencies that are callous of the impacts affecting the health of the people living in the neighborhood.
–Esther Abeyta

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Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

Thank you for allowing comments on this project. While I understand the purposes for a project of this kind (save fuel, save wear and tear on the trash trucks), I am apposed to this location for the project. I am concerned about the amount of traffic in the area especially the I25 interchange. This is a difficult and overused interchange already. I think this number of additional trucks will make getting into the North Valley much more difficult. Number 2, I am concerned about the amount of air pollution these trucks will emit into this area. The California Air Quality Board proved that the particulate matter emitted from trucks in and out of The Ports area of Los Angeles directly contributed to lost school and job time as well as increased hospitalizations of children with respiratory illnesses. The solution there was to mandate all heavy trucks change fuel sources to something cleaner. At the North Valley meeting I was told that no such plan is in the works for these trucks. Thirdly, I am concerned that this area of the city is not valued. UNM found that the Near North Valley is populated by predominantly older adults. The proposed city homeless centers will decrease property values and potentially safety. This project will not increase the quality of life in these older neighborhoods.
Thank you for your consideration in this matter.
–Lorraine Olson

We live somewhat removed from the immediate area near Griegos and Guadalupe Trail. I am not in favor of this station at your proposed location.

My first concern is road safety:

1. I feel like the Griegos exit from the freeway and roads leading to and from the proposed station are narrow, curvy and unsafe for lots of trucks to be going in and out of.

2. I have watched trucks exit northbound I-25 and making the left onto Griegos is tricky, and I think unsafe.

3. Turning into the station from Griegos is dangerous because the road curves near there, making visibility a problem.

4. There is a railroad track with more curves nearby.

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5. While I think that Edith and 2nd Street are decent roads for trucks to travel, many roads such as Griegos from I-25 to Rio Grande are not.

6. I think that more trucks in this area will not be a safe thing.

My second concern is neighborhood air quality.

1. There are several homes near the proposed facility. It seems unfair to these homeowners to have increased vehicle exhaust etc.

2.We have frequented the Eagle Rock facility innumerable times. The location is removed from residential areas and therefore seems more reasonable.
–Jen Parker

I own a home approximately one mile west of the proposed transfer station. I am a retired senior citizen. Because I do not own a car, I walk to the local shops and also use public transportation ***on a daily basis***. I am very concerned about deteriorating air quality from the increased air pollution from 140 garbage trucks traveling through the neighborhood as well as the pollution the 18 wheelers will generate. In addition to increased pollution, I am very concerned for my personal safety as I have already had several close calls while trying to cross 4th and 2nd streets even at non rush hour times (always in the crosswalk with the walk sign) because of impatient drivers in already heavy traffic. There are two elementary schools about a mile from this proposed facility and many parents walk their kids to and from school. The increase in traffic would be not more cars, but huge garbage trucks. I can't even visualize trying to outrun a garbage truck if the driver doesn't see me. Imagine this situation with a small child going home from an after school activity when there's no crossing guard!!

Another concern is my property values decreasing. My home is my only insurance against a personal health catastrophe. I don't regard a humongous garbage transfer station a mile from my home to be a positive selling point. If it was, more neighborhoods would be *begging* that you build this facility in theirs. I have already seen large rats running in and out of pipes in the drainage ditch on 2nd street and I can only imagine that vermin would increase. Although the city states that

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this will be an enclosed facility, garbage still spills and blows around. Garbage pickup on my street almost always leave bits of trash in its wake.

I was especially taken aback by the city's admission that they have not done a very good job maintaining the current waste facility on Edith and Griegos. I don't care how old and outdated that facility is, it is still not an excuse for it to be constantly littered with trash and broken glass. This situation only got better in the past month after it became an embarrassing issue. If there was no interest in keeping the existing property clean, why would I feel confident that the city is going to keep the new facility grounds clean as well as the surrounding properties?

To recap, my concerns include: pedestrian safety, increased air pollution, environmental pollution, litter, and the potential health hazards generated by 140 garbage trucks traveling through my neighborhood in order to dump tons and tons and tons of filthy garbage one mile from my house.

And, to add insult to injury, I get to help to help pay for it!

Thank you and I look forward to your response.
–Theresa Hanretta

I would hope that **if** the Waste Transfer Station is built, that the City of Albuquerque take into consideration modification of the traffic routes and serious study of the real impacts of the traffic on the adjacent areas, including and far beyond the immediate neighborhood of the project. **ALSO.... I suggest the creation on the site of a small park and small building to accommodate a PUBLIC ART element that would include only and specifically RECYCLED MATERIALS IN ART/SCULPTURE. These would be changing works sponsored by a local or state funding source. We could also include classes for the community that include art work from recycled materials. I believe that the City Public Art Program would be amenable to maintaining the project. This would be a significant PUBLIC ART project for this part of the City, with visibility from the Interstate as well. A park of this nature would also be a useful good will gesture to the neighborhood. Other cities around the country have provided this at recycle facilities.**
–Carolyn Robbins

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As a longtime Valley resident and 4th Street, NW business owner I favor the transfer station because of the projected efficiency improvement over the existing system. My concerns are twofold:

1-The facility must be state of the art and address citizen's concerns....

2-Once the facility is completed, meetings are held to address unanticipated issues...
–Dan Kutvirt

The City says the building will be contained. I went up to Eagle Rock and observed the process. The building is not contained at all. The doors were all opened. The odors and pollution was all going out into the community thru the open doors. The City neglected to mention that the trucks have to go in and out all day along with the noise – odors – dust!
–Perry Key

Was agreement with the city and property owners looked at from the 90's?
–Guy Conway

Who's going to clean up the wind driven trash that will cover the neighborhood – we haven't solved this problem at the 2 recycling plans further north on Edith. Is there any plan to check incoming haulers for contaminants & radioactive debris? What are the expected hours of operation?
–Ken Andrews

1. By what route are the garbage trucks & 18 wheelers taking to transfer 1,443 tons of garbage a day? And what route to I-25?

2. How about safety of kids, parents, etc., who make up several school populations in areas affected by trucks, ex., woman on bike who months ago who was hit by garbage truck who lost a leg and would have died if not saved by passerby. Children are hard to see & don't always make wise choices.

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What the City refers to as Edith transfer station is in fact a daily garbage dump – garbage by any other name is still garbage. I think what the City refers to this garbage dump as convenient for the adjacent neighborhoods to use is a travesty. Are individuals' trucks, vehicles containing dump material even able to drive up & use this site?
–Joan Verplank

Not only was there no public participation in the site location selection, but there appears to be no thought to whether the City should have one single transfer station or multiple smaller transfer stations located throughout the city. We should take a step back and consider a multiple location/smaller station option. Riordan says traffic will increase 3%. Soladay told me that today garbage trucks leave in the morning and return at the end of the day, that under this transfer station plan, trucks will leave in AM, return mid-day, go out again, and return end of the day. This means each truck goes from 2 entries per day to 4 per day – that is doubling that traffic PLUS the large loaded semi-trucks leaving many times per day for the landfill.
–Anonymous

Put it some place (undesignated mesa area). North Valley has already absorbed big recycle center, asphalt hot batch plant. What else do we get blessed with?
–Patrick Garrison

Why is the NMDOT STIP (State Transportation Improvement Project) list upgrading the Comanche/I25 Entrances and Exits as not to be addressed until 2025? This (ETS) plan is obviously (and documented by the 2014 Feasibility Study) adding tremendous numbers of entrances, exits, and sharp turns by high-profile vehicles onto an already short angle and busy freeway approach. NMDOT plans, designs, and funding must be addressed as part of this proposal and part of the EPC report before any going forward.
–Colwyn Gullick

I have personally nearly been run down by a garbage truck at that site already while riding my bicycle to work up Griegos at 0630 am. I wound up on the ground, with the driver driving away without even seeing me! I have had numerous close calls in that area with trucks turning. Adding semis into the mix will only make a bad traffic situation worse. The smell is

also bad now. That can only get worse as well.
–Vincent Amendolaginer

1. What are the negative impacts at our other exits and entrances of Eagle Rock Facility?

2. Eagle Rock gets very busy and vehicles are stacked 15-20 deep on Eagle Rock St. What is the stacking capacity for this site?

3. Do you have elevations of any of your proposed site plans?
–Anonymous

I pass through the intersection of Edith and Comanche no less than 8 times a day. The traffic heading west on Comanche always bottle necks at Edith because it goes down to one lane over the railroad tracks and then widens again. I cannot support a project that is going to add a lot more traffic to this area until the road narrowing is addressed. I have owned property in the area since 1998 and am very concerned about reduced property values also.
–Colleen Grathwol

Prefer [Rankin] Road Access
–Anonymous

1. [Rankin] Road plan is costly. The right of way is not adequate and site distance of the hill crest if inadequate.

2. What guarantee is there that other existing convenience centers will remain open?

3. Please address resolution 270-1980 as to how this will benefit the neighborhood and community.

4. Site Plan A or Site Plan B are preferred by me.
–Franklin E. Wilson

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I am concerned that all questions, concerns and fears are being smoothed over by the architects with glib and unrealistic statements about how beneficial this will be for us here in the valley. If this project comes to fruition, where will they be 10 or more years down the road when their unrealistic projections about garbage, traffic, noise pollution, air quality etc. are proven wrong? They will have completed their project and we will be stuck with the mess of their slick campaign.
–Jane Foster

As I read about the Transfer Station, I have concerns about the amount and type of traffic increases that will occur not only on Comanche and Edith, but on I-25 entrances and exits for Comanche and the frontage roads on either side. There is a significant amount of traffic existing on these roads already, as this is a dense neighborhood of commuters. Will there be a safety study done? I also have safety concerns for the amount and size of trucks in and out of the station traveling on this road, impeding the existing traffic. Thank you.
–Josi Ortiz

I would like to see this happen I think it is GREAT!!!
–Rita Raley

I am against having a transfer station at Edith and Griegos, ABQ, NM. It will cause pollution in the north valley from all the dump trucks going to this location and it is near schools and the area has too much traffic already. You need to put the transfer station outside of the main part of ABQ. Why do you want to put it in the northwest valley of ABQ? It will not enhance our neighborhood at all and it will lower our property values. We have traffic problems already with Montano and 4th NW and 2 nd St NW. We do not need more traffic problems which this transfer station will cause us. Please move it somewhere else and put it on the outskirts of Albuquerque.
–Ann Marie Sekula

Are all the trucks which are currently picking up garbage near the land fill going to drive all the way to Edith and Comanche to dump the garbage so it will be re-carried to the landfill? That doesn't make sense. Nor do all the trucks coming east over bridges from the west side, so garbage can be re-carried to the west side. Based on the experience of other transfer stations, what are the health effects and traffic consequences of putting a garbage transfer station servicing the entire city, in the middle of the city? What happens if something goes wrong? There is no alternate transfer station.

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When can I expect your answer? Thank you.
–Loren Kahn

I understand the City is 'committed 'to the Edith site. Though it may not be the 'best'site, I acknowledge the City's direction in further developing the waste transfer station on the Edith site. In that regard, the City and their design team have a responsibility to address the community's concerns and to mitigate and minimize any and all deleterious effects of the new development on the surrounding neighborhoods. Such requirements can be more fully explored in the future Environmental Planning Commission review of the project, as well as the NM environment department review for licensing/regulatory compliance.

1.Based on neighborhood concerns, and environmental issues of health, life and safety it appears the Rankin Road option is most preferred while it meets the programmatic needs of the project.
2. All of the design options including the current Rankin road option have a commonality of keeping the fueling station in its current location. I believe starting the design process with the premise that the fueling station needs to remain is a bad idea. By having the option to relocate the fueling station elsewhere on the site creates a multitude of more desirable design features that can be incorporated into the site plan. The cost to relocate the fueling station appears to be negligible as compared to the size of the $30 million project. Furthermore, the design options gained by relocating the fueling station will exponentially increase the favorable acceptance of the project. In reviewing the Rankin Road option, by relocating the fueling station, the transfer building can be located further south, closer to Rankin Rd., and the vehicle maintenance facility could be located north of the transfer building thus creating a buffer between the publicly accessible drop off area and the large refuse vehicles. I believe it is imperative that there be a clear separation of circulation paths between all of the refuse trucks and the public/vehicles.
3. It was stated that this project is to be an example of "environmental stewardship". If that is true, the project should be a LEED Silver or higher level rated project. In addition, in addressing many neighborhood concerns of air quality and air pollution, this project should have enhanced commissioning and enhanced environmental monitoring built into it on a yearly basis after the project is completed to show the neighborhoods that the city is serious about its "environmental stewardship".
–Lee Gamelsky

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There is talk of extending Rankin to the I-25 Access Road to provide a way for the trucks to access the Edith transfer station without using Comanche. Will this route still use Edith to enter the transfer station? Have you analyzed the impact to traffic exiting I-25 at Comanche? It is my experience that the north bound exit gets backed up as it is. How do you know that there will not be bad odors exiting the facility? What happens if after it is built order is a problem?
–Eleanor Walther

This use is so exceptional that the arbitrary restriction on traffic volumes needed to justify a signal should be suspended. Also, the Comanche curve down the slope of the hill creates additional traffic hazards.
–Joe Sabatini

My comments were sent via email to Patti Watson. I oppose Site Plan D – Rankin Road transfer truck access. I support Site Plan C – utilize existing Comanche/Edith. Tonight's meeting was well conducted.
–Anonymous

As a member of the cycling community, I make regular use of the bike lanes on Griegos & Comanche boulevards. Even though it is the least dangerous east-west corridor for ABQ cyclists, there are still four "ghost bikes" commemorating cyclists who died in collisions with motor vehicles over the past 10 years. Aside from all the other reasons I wouldn't want a transfer station in my back yard, the resultant increase in heavy truck traffic would be contrary to ABQ's intentions of becoming more bike commuter friendly. For cyclists, Comanche/Griegos is a valuable connector to bike paths that follow the diversion channels and the Rio Grande. If there is no other option to the WTS than the Edith location, then the city owes it to the cycling community to build a dedicated East-West bike lane that physically separates bikes from vehicular traffic.
–Tom Teegarden

We prefer Plan D, Rankin Rd.. It alleviates traffic on Comanche west of Rankin and also on Edith Blvd. providing a more direct route to I-25. We understand the reservations of the business owners on Rankin but feel that the Plan D will not be devastating, as they perceive, and that they can adjust. Furthermore, they will benefit from an improved and better

maintained roadway on Rankin.
–Stuart and Julie McIntosh

I am opposed to the 22 acre trash station intended for the Griegos/Comanche dump center. I believe it will harm the already impoverished neighborhood and create another major problem for traffic flow in the area to the I-25 entry point.
–Cliff Sarrel

I already sent an email but I was in a hurry to get on I-40. In order to get on I-40 I must travel up a 1 lane rd. (Griego) to get to I-25. Also, there is a bike lane going up Griego to the freeway. These bicyclists already face dangerous conditions. I also bike and will be in more danger with the slowdown that will occur on that 2 way rd. It will become worse than Montaño at rush hour, and you know how horrible that is. I see multiple problems with this plan and its disregard for the effects on the surrounding area and traffic flow. People already have difficulty merging onto I-40 from the Griegos entrance and also switching to I-25 right there. There will be an increase in highway accidents with all those slow moving trucks entering the freeway there at Griegos! If you have ever tried crisscrossing from the I-40 lanes to the I-25 lanes, now add the 364 trash trucks plus the environmental implications. There must be a better location. UNLESS THIS IS ALL ABOUT CONTRACTS AND MONEY AND NOT THE PUBLIC'S CONCERNS. VERY POOR PLANNING.
–Phil Chynoweth

Just Sayin'. What ever happened to the quiet, green North Valley? Oh, that's right–we now have Albuquerque's Solid Waste Department on 22 acres of land at Edith and Griegos. We have adjusted (somewhat) to the dust and noise from all of the garbage trucks in the City of Albuquerque parking at the end of the day and then leaving in the morning from that site. Now we are informed that the city proposes to build a large indoor transfer station at this site. It would hold tons of trash dumped in the trailer of a big rig where it would wait to be hauled to existing landfills. Dust, noise and odors would not be problems because all activity would take place inside. A "possible lengthening of nearby Rankin Road to the I-25 Frontage Rd." The entire project would save taxpayers over a predicted $4 million a year. It's hard to argue with these figures! Soon the quiet, green North Valley will be a fading memory.
–Agnes H. Baxter

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Air quality, smell, safety and traffic are all concerns to me. I have contacted you before to tell you I am a bike commuter who had more than one near miss in front of the facility and Griegos leading to the freeway. As to the smell, just go by there. The truck exhaust is concerning as well. I understand the ecological reasoning, but not at the cost of my life and limb. What are alternatives to this? I have not been to the meetings so I do not know what mitigation to traffic have been proposed. I know the NVC is asking for the entry to be NOT on Griegos. Will there be a light/with NO RIGHT TURN ON RED on to Griegos?

–Vincent Amendolagine

I manage a rental property near the site of the proposed transfer station (address is 4444 3rd St. NW). I'm really concerned that the city has decided to put yet another industrial installation in an area of the city that has been primarily residential or agricultural for one hundred and fifty years. The proposed Edith transfer station will bring even more heavy truck traffic to a corner that already accommodates cement trucks and asphalt trucks. It will also bring even more odiferous cargo to the neighborhood that already receives plumes of tar cooking from Holly Asphalt and dust from the cement plant whenever their filter system fails. Those industrial uses appeared here after the two nearest neighborhoods (the Gardner Addition! and the neighborhood bordering the Griegos Adobe which is literally a block and a half from Edith and Griegos) were built. The full court adobe on the corner of Edith and Griegos, now the Albuquerque Museum Foundation headquarters, dates back to the 1870s! It is thoughtless and self-serving of the city to put a clearly industrial and obtrusive garbage transfer station in the midst of residences and across the street from the last full court adobe remaining in the city, a beautifully restored historical landmark. Garbage transfer stations do not belong in residential neighborhoods, no matter how much money the city will save in gasoline, the ostensible reason for developing the Edith site. To save that gas money, you are imposing an unequal burden on a neighborhood that is historic, but lower middle class and therefore lacking the funds to fight back as effectively as, say, the folks one mile away on the edge of Los Ranchos.

–Sharon Karpinski

I oppose the location of a waste transfer station at this site. I support development of an alternative location not within the city.

–Susan Selbin

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Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

I am opposed to the proposed Edith Transfer Station. I have lived in the north valley since 1991 and have seen incredible growth in population and traffic. This proposed transfer station will decrease the quality of life for the north valley and significantly increase the traffic, bringing with dangerous traffic situations, noise and pollution that is detrimental to the health and wellbeing of all living, working and being in the north valley. Traffic on Griegos/Comanche is already difficult especially near the freeway entrance, exit and Edith. I have watched the trash trucks take at least two lanes to turn left onto Edith with an increase in over 300 trash trucks at least twice a day and the larger transfer trucks traffic problems with be increased to the point of causing dangerous situations. Getting off the freeway will be impeded five days a week all day long. This will cause problems for everyone using the freeway around Comanche. This increase in traffic will bring with it an increase in noise that cannot be mitigated by parking lots. I live more than two miles from the freeway and hear it day and night. The exhaust from the over 620 truck trip each day of the workweek will further negatively impact the health of the more than 18,000 people living in the area, all those working in the area and those passing through the area. The exhaust will impose a health hazard to all those exposed to it and the natural surroundings.
–Denise Wheeler

I live in a nearby neighborhood. I am concerned primarily about the health impact of substantially increased diesel traffic in an area close to schools and neighborhoods that are already overburdened. Driving on Griegos daily, I think the traffic assessment that was done fails to capture the real impact of the proposed project — the Griegos and Edith intersection area (extending to I-25) is already the most hectic part of my commute. The fast drivers and steep curves will not accommodate this traffic well. Secondarily, it seems that the Rankin Road proposal was never expected to be viable and I am disappointed that it was proposed as an "alternative".
–Heather Brislan

The City Waste Transfer Station, contrary to Albuquerque Journal opinion, demonstrates little care for the environment or the neighborhoods and families that live in the area. The Albuquerque Journal editorial, "Transfer station debate isn't simply trash talk" is an unqualified endorsement of the project that accepts the City perspective without question or independent research. For example, the Journal states, "The City has listened to the public and made adjustment to the plan". In reality, the City made the decision to create a new all waste transfer station and decided where to put it long before the neighborhood ever heard about the project. The public input is all about the "design of the building," the least consequential aspect of the project. This is, at best, shoddy governmental manipulation in order to gain credibility for on a deal already decided. Does the Solid Waste Department plan really help the environment as they claim? Yes, they cut

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miles driven by using bigger trucks and getting garbage to the landfill more efficiently. However, a City concerned about the environmental impacts of its solid waste stream would be putting more effort into diverting recyclable and compostable material away from the landfill and into productive uses. It wasn't that long ago (2009) that Albuquerque announced a Zero Waste goal. More recently the Solid Waste Department website makes no mention of Zero Waste. Less waste means less garbage into the landfill and less danger of contamination of the aquifer. It also means less justification for the transfer station as there is less waste to bury. The Journal says "Money Matters" and that is the big reason for building a transfer station. However, we can't lightly ignore the costs to the health, safety and property of the people who live and work nearby. Health professionals were contracted to conduct a Health Impact Analysis that demonstrates disparate impacts on the 18,000 closest neighbors in terms of air pollution, traffic, noise and loss of property values. Reading the HIA report, developed over a period of eight months with active participation of the affected community, I was left asking a big question. Does the City's waste transfer station really save money or does it just shift the burden of costs to its closest neighbors? To sum up: the City has not listened to the community. A waste transfer station at that location was decided without public knowledge. The project does not respect the environment as a zero waste agenda would do much more to reuse and recycle the waste and reduce the amount being buried at the landfill. And, it is questionable whether it saves money given the uncompensated cost burden for the neighbors and the forgotten alternative of reducing waste rather than hauling it to the landfill. The transfer station is a questionable project that should not be built. Solid Waste could best use our tax dollars to help us all to produce less garbage and divert more waste to beneficial uses.
–Ken Balizer

Despite GABAC members attending the various public meetings and the presentation given to GABAC last winter, it still seems pretty much impossible to select a preferred alternative and sort out the impacts on bicycling and multi-modal travel along two important bicycle corridors. Further exacerbating the problem is that current facility conditions are considered deficient by the local bicycle community and do not meet most national guidelines or even our own DPM. It seems like it would be logical to expect an analysis of impact on current bicycle facilities for all scenarios if CABQ has no plans for modification. Conversely, it seems appropriate that if there are upgrade (or moving facility designation to other corridors...) opportunities, now is the time they should be discussed with and processed by impacted communities. If I recall correctly, GABAC was told that the traffic impact study would be updated with bicycle network impacts but the process as I understood it does not make sense in current scenario scheduled for EPC. At what point will further vulnerable roadways user impacts be presented and discussed with impacted (bicycle/pedestrian/Transit dependent) communities? And what will be the process/schedule? Just so we are all on same page, the schedule reference below is

ADDENDUM 1

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Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

from communication sent to North Valley residents by the North Valley Coalition earlier this evening (taken from ETS project website): "The City said it plans to select a site plan by August 3 and submit the plan to the Environmental Planning Commission by August 27 for a zone change request. The hearing is currently scheduled October 8. The New Mexico Environmental Department is expected to begin the permitting process in February 2016." GABAC and bicycle community in general do not know enough about planning and zoning processes or institutional machinations to know if we are being excluded until after important decisions are made or not. I would appreciate some guidance and insight into how and where our concerns can best be presented and processed by both design team and important decision makers. Thanks for your time and consideration.
–Scott Hale

Please consider these my comments with respect to the City's July 15, 2015 public meeting about the two site plans remaining under consideration for the proposed waste transfer station at Edith and Griegos/Comanche. Neither "Site Plan C" nor "Site Plan D" is acceptable. Neither plan routes traffic in a manner that best moves trucks and other vehicles quickly and safely from the interstate into the site. Both plans use ingress and egress points that lengthen rather than shorten the distance that trucks must travel. Site Plan C, by using the existing Edith entrance/exit, requires the large transfer trucks to travel the longest distance possible between the interstate and the site. Site Plan D, by using Rankin Road, also lengthens the travel distance as well as causing substantial disruption to the adjacent businesses. Both site plans, by using the existing entrance/exit on Comanche, bring traffic conflicts too close to the Comanche/Edith intersection, and do nothing to minimize or reduce conflicts with existing truck traffic from the businesses on the north side of Comanche. As a consequence, these site plans do not make economic sense. Neither site plan appears to use landscaping and building location to mitigate noise, trash, visual clutter, and other predictable impacts. Neither site plan demonstrates "planning outside of the box." I urge the City's design team to reconsider its approach. Thank you for your consideration. Marit Tully, Member, North Valley Coalition Board Member. Near North Valley and Executive Committee
–Marit Tully

I am a person who has been active in learning about the plans for the Edith Transfer Station and in understanding its effects on communities nearby by participating on the Health Impact Assessment Committee. I am a member of the North Valley Coalition Executive Committee, recently elected President. I have attended every city meeting and helped host a North Valley Coalition Meeting. The comments I express in this letter are my own personal views. After hearing the site plans discussed at the July 15, 2016 public meeting, I cannot at this time endorse either site plan; neither one alleviates

the issues and concerns of residents and businesses. Too many questions were either unanswered or answered ambiguously, and problems which have been previously mentioned were not alleviated. Negative effects to businesses on Rankin Road, which were newly introduced in this public meeting, have not been considered. Did the city communicate with these businesses concerning the plans? It wasn't apparent at the meeting that they had. Many of the previously mentioned problems concerning traffic at already congested intersections have not been addressed. Intersections near the proposed site already have a D rating. High density housing near Fourth Street and Griegos and unleased buildings and undeveloped land north of Comanche are going to create more traffic than the 1% increase being considered. Dense and unsafe traffic flow between the big I and the Comanche exit/entrance north and south is not being addressed and the city does not consider that their problem. Left turns and queuing created by left turns are a problem with either plan and no traffic signals or road adaptations are being considered. How many vehicles can queue on the site? No answer was given, but they are still idling vehicles providing air pollution. Vehicle numbers have been vague which makes it difficult to assess the impact on roads, and specifically Rankin Road. 312 vehicles on Rankin Road was presented but without a complete explanation. Information was provided that there are only two routes planned per truck per day (which is the current number) and no drivers will be laid off (confirmed by discussions with the union). The majority of the money saved in the feasibility study is from labor; how and when is that savings going to be accomplished? Bicyclists mentioned problems with the design for cyclists and it would seem that nobody involved in the project has talked with cyclists. So, the city has not communicated with bicyclists or local businesses, and are only communicating with nearby neighborhoods because someone read about this in the newspaper. At this point, no baseline noise data has been collected. Without that, how can you consider the effect of noise on businesses on Rankin? No air quality permit will be requested. Timing of traffic studies has been called into question. Concerns were expressed about water contamination and it was stated that a Storm Water Pollution Prevention Plan (SWPPP) is in place now to prevent this problem. Generally, a SWPPP plan is for construction only so is there really a SWPPP plan in place? This is the same administration that attempted to circumvent EPA regulations regarding SWPPP's when building the Bosque trail north of Central. As one person suggested, it would have been helpful to have a representative from the Environmental Protection Agency at the meeting to address concerns of water contamination if that is the organization that would address the issue and permit the plan. The question asked about the number of transfer stations in the state and the experience of NMED with permitting this type of facility was not correctly asked and the person answering (who was never introduced) took advantage of that. The question should have included transfer stations "similar to this", which will be handling 28% of the state of New Mexico's garbage and will include garbage, garbage trucks, 18-wheelers, private vehicles, recyclables, household hazardous waste, fueling station, maintenance facility, administration. Instead, the answer included all convenience centers in New Mexico. Is there any

facility in New Mexico that provides all these planned functions? I'm sure the city knows that answer and could have been more informative and truthful. Many people spent many hours attending meetings and learning about this project — all unpaid hours. I think the city should be more respectful of that. The convenience center will operate 7 days a week. The additional traffic, air pollution from idling vehicles, and litter for this center is being downplayed and is the same for both site plans. There has been no guarantee offered to ensure that Eagle Rock will not be closed, a scenario included in the feasibility study calculations. If this occurs, there will only be more negative effects than are currently being considered. I came away from this meeting with many more questions than answers. Each site plan created problems and maybe the real problem is the site.
–Peggy Norton

Please accept my comments to be included in the record for the Edith Transfer Station. The transfer station is not in the best interests of residents living in the Greater Gardner Neighborhood. This transfer station will be an extreme burden bringing increased traffic and pollution. The increased traffic poses a danger to the general public with too many trucks in one location. The solution is to limit the amount of truck traffic to 75 loads per day. We strongly feel increasing the amount of traffic will result in unsafe road conditions. The Transfer Station will also result in similar companies locating in the area. We implore you not to build the waste transfer station in the Greater Gardner neighborhood and locate the facility in an area with less industry.
–Steven & Esther Abeyta

To my knowledge the proposed site will be a refuse transfer station open to the public and for city use. I feel that this site will create a large amount of unforeseen issues in the area. I already have a couple concerns which are listed below:
1. A much higher amount of traffic
2. Cleanliness of the area
3. Debris all over the streets
4. Odor
5. Vermin

This is just to name a few!
I am already on the fence whether I should keep our warehouses in this area due to overall look, traffic, cleanliness, etc... I am very much now considering searching elsewhere for my warehousing needs. Our customers and their opinion are very important to us! I want in every aspect to have my customers feel that they made a great purchase with our

company. To me, the above concerns will alter our customers opinions and overall experience. It is my opinion that this proposed site would just bring down the value, overall look, and integrity of the area. Not to mention hurt the local surrounding economy. I for one, will definitely be searching elsewhere if this site is built. I feel sorry for the surrounding area businesses that this will affect as well. This area is already FULL of vacant warehouses that have been on the market for quite some time. I find it hard to imagine that new prospects will be excited and motivated to purchase/lease if there is a "dump" nearby. I feel the domino effect of businesses moving out will continue. Although I feel the city has made great strides in the last couple years to improve all processes, I still think that the upkeep of a "dump" site will not be kept up, clean, and/or organized as it should. I can just see my parking lot a pit stop for all of the refuse users to put on their required tarp on, not the mention the trash that will be left behind due to negligence. I would feel a little better if this site was for city use only, but still feel that the surrounding area will not be kept as it should. I personally think you are shooting yourself in the foot by creating this site. I think this site will do nothing more but hurt our local economy!
Question: Do I get reimbursed for every tire that has a nail in it?
–Jake Schlessinger

Both C and D designs will not work at this proposed site. C affects the local traffic, including the bicycling community, which is already overburdened with huge trucks coming from the commercial zones all over that place. Are you aware that there were 4 bike deaths along Comanche, the only east/west commute for the biking community? Design D is even worse. Rankin Road cannot possibly take any traffic; it is a tiny street not built for trucks and those poor people that live on the corner of Edith and Rankin will never survive traffic! Please find another place for this "proposed" transfer!
–Nancy Bourne

Maloy mobile storage is a business across the street from the city solid waste facility. we already have a bad traffic problem on Comanche due to the amount of traffic going in and out of the city yard. the curved road on Comanche does not allow the normal amount of traffic for a road this size, their are constant accidents on this stretch of road , which damages our property, the city property , our Neighbor's property and the lives of the people getting in these accidents . we have had constant problems with trash all over our yard due to the trash blowing from the city yard and from the trucks

ADDENDUM 1

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Submitted to Environmental Planning Commission, Peter Nicholls, Chairman

that pass by our facility's. we see trash blowing all around the entire neighborhood every time the wind blows. We also have constant odor proble! ms due to the smell of the garbage trucks and all the dumpsters, opening a transfer station would only greatly increase the problems in this area which will be a detriment to the neighborhood , employee's, and the businesses in this area. I think the city needs to look at alternative sites that will not impact our community in such a negative way. this site is also way to small, as it exists right now it is extremely congested , utilizing very bit of space available with no room for expansion, that makes no sense. This is the way the city of Albuquerque has always operated why not look to the future 10 to 15 years instead of 10 years behind

–Pat Maloy

abq edith transfer station who does space btw edith and alameda belong to and what is proposed utilization or is it to be landscapes other side space btw parking and street same question also plenty industrial property for recycling facility and collection area and trucks maintenance recycled materials used in any number of commercial products also hazardous waste handling facility needed should be separate locations

–M.W.

Quevedo, Vicente M.

From: Jen Parker <jen.bookworm@gmail.com>
Sent: Wednesday, September 30, 2015 1:14 PM
To: Quevedo, Vicente M.
Subject: N. Valley Waste Transfer

Peter Nicholls, Chairman
Environmental Planning Commission
c/o City of Albuquerque Planning Department
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Chairman Nicholls,

I commend the City's Waste Management department for aggressively seeking to save taxpayer's money. That is a laudable goal. However, I am writing to state my vehement opposition to the proposed waste transfer station complex at Edith and Comanche.

I am an at home mom, who has lived 5 miles from the proposed site for 17 years (for 5 yrs we were 3 miles east and for 12 yrs we have lived 2 miles west). During these years, Comanche/Griegos has been a route that my family and I have regularly travelled. Many of those years I was either driving a carpool or riding with one of my teens, who was learning to drive. I also had many friends and neighbors who drove through the intersection, coming from Dietz Farms, Rio Grande and the Northeast Heights.

I have two main concerns:

1. Traffic. I believe that by rezoning the property and allowing WM to build their complex, you will be endangering the lives of automobile drivers, bicyclists and pedestrians in the North Valley--not to mention commercial truck drivers, garbage truck drivers and semi drivers immediately.

This is an already unsafe driving area because of the awkward mix of residential and commercial traffic, including large trucks. Further, the curvy nature of the road and lack of signals to stop or slow traffic make it in my mind preposterous to even contemplate the WM scenario.

2. I think it is an affront to the residents who live, go to school, and work in that area: the Greater Gardner Neighborhood, La Luz Elementary School, The North Valley Little League and New Mexico's Camino Nuevo Youth Center (CYFD) to name a few. What are you telling them if you approve WM's zoning request? The safety of their homes, schools and businesses, their health will be violated by increasingly dangerous traffic, increased noise and odors and decreased air quality. I hope you agree with me that they deserve better.

Sincerely,
Jen Parker
1613 Bayita Lane NW
ABQ, NM 87107

505/362-6046

860

Sent from my iPhone

rec'
9/3

Dumping On Ourselves: The Mess of the Proposed Edith Transfer Station

By Dan Waldman, MD

What's it worth to us for a fellow citizen to avoid a chronic illness? What's it worth to prevent a child's asthma exacerbation? How much per year is saved by preventing one more person living in poverty from exposure to poor air quality? How about a few thousand people? How should a community weigh the health impact of something like a sizable increase in diesel exhaust in comparison with a city's tax savings?

These are the questions that we need to be grappling with as the city moves forward with plans to locate a major "Transfer Station" in an area where 18,000 people live, and 9 public schools are located, which serve 4,833 students.

As a physician and the director of the UNM Family Medicine Residency, the largest supplier of primary care doctors to our state, I spend a lot of time thinking about the existing and potential harms that our communities face. Our training program is known for its curriculum addressing health factors that impact us on a population level. These are skills future front-line physicians need so they can advocate for the health of the communities they serve. After all, despite all the impressive bells and whistles of modern medicine, medical care only accounts for about 20% of the health of a population: the rest is outside physician control. The single largest contributors to our health are our social environments (i.e. discrimination, income) and physical environments (i.e. air quality, overcrowding).[1]

So, what's a transfer station? It's a dump more or less. A dump where the trash moves in, gets processed, and then goes to a landfill. The proposed Edith transfer station would process all of Albuquerque's trash. It requires a lot of large vehicle traffic to bring the trash to a transfer station and later haul it out, and large vehicles use diesel fuel.

Roads have to be reinforced, and the area needs to be rezoned. Incidentally, the rezoning process is supposed to be possible only when "the rezoning does not cause harm to the community." There is no debating that harm will be caused, the only debate is how much harm. Since one of the UNM Family Medicine clinics is located just about a mile from the proposed transfer station, this has gotten our attention- it's a potential threat to the community's health that we are working to improve.

Taking one potential harm: what do we know about the potential health effects of exhaust fumes, such as diesel exhaust? A growing amount it turns out, and the more we find out the worse it gets. A large study in Europe found a significant association between "particulate matter air pollution" (like diesel exhaust) and lung cancer rates.[2] Actually, multiple studies have demonstrated an increased risk of lung

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[1] http://www.cdc.gov/socialdeterminants/FAQ.html

[2] Air pollution and lung cancer incidence in 17 European cohorts: prospective analyses from the European Study of Cohorts for Air Pollution Effects (ESCAPE). Lancet Oncol. 2013 Aug;14(9):813-22. Epub 2013 Jul 10.

cancer with diesel exhaust exposure.[3,4] The World Health Organization even recently classified diesel emissions as a known carcinogen. What's a safe amount? No one knows, but probably no amount is perfectly safe. According to the Environmental Protection Agency: *"The exposure response data in human studies are considered too uncertain to develop a carcinogenic unit risk for EPA's use.*[5]"

Supporters of the transfer station may feel the traffic increase isn't significant- but it's around a 170% increase in large truck traffic. Though the area looks industrial, looks are deceiving: there are over 7,500 housing units nearby. Part of the reason the area looks industrial is that over the past few years more and more waste management vehicles have been housed in the area (otherwise the 170% number would be even higher). It's time to draw a line in the sand and say "no more."

More bad news: a study in the New England Journal of Medicine found that a population of women had increased heart attacks, strokes, and deaths related to their exposure to pollution[6]. Consistently, studies show that living close to major roads is associated with wheezing and asthma in children[7]. Exposure to air pollution was found to be linked to gestational diabetes,[8] a disease that already affects many New Mexicans and worsens birth outcomes. Air pollution levels have even been associated with days lost from work.[9] The more we look, the more we find.

When an activity raises threats of harm to human health, precautionary measures should be taken even if some of the cause and effect relationships are not fully established. This is called the "precautionary principle." The proponent of the activity, rather than the public, should bear the burden of proof. In other words it shouldn't be up to citizens to make the definitive case that there will be harm, it should be up to those interested in the development of the transfer station to definitively prove it will be safe. Based on the existing evidence, you don't have to be an expert to realize the transfer station couldn't be proven to be safe, even if they used the newest trucks and building materials.

Will the transfer station save money? That's a question no one can truly answer, and the more certain someone is in their forecasting, the less you should trust them. It's much more complicated than tax dollars saved on fuel and vehicle maintenance; we'd need more advanced knowledge and modeling of exhaust harms than currently exists. This economic model, incidentally, ignores quality of life- a

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[3] Exposure to diesel motor exhaust and lung cancer risk in a pooled analysis from case-control studies in Europe and Canada. Olsson AC. Am J Respir Crit Care Med. 2011 Apr;183(7):941-8. Epub 2010 Oct 29

[4] The Diesel Exhaust in Miners study: a nested case-control study of lung cancer and diesel exhaust. Silverman DT, J Natl Cancer Inst. 2012;104(11):855.

[5] http://www.epa.gov/region1/eco/airtox/diesel.html

[6] Long-term exposure to air pollution and incidence of cardiovascular events in women. Miller KA. N Engl J Med. 2007 Feb 1;356(5):447-58.

[7] Assessing the health benefits of air pollution reduction for children. Wong EY Environ Health Perspect 2004;112(2):226–32

[8] Preconception and early pregnancy air pollution exposures and risk of gestational diabetes mellitus. Robledo CA. Environ Res. 2015 Feb;137:316-22. doi: 10.1016/j.envres.2014.12.020. Epub 2015 Jan 17.

[9] Samet JM, Zeger SL, Dominici F, Curriero F, Coursac I, Dockery DW, et al. 2000b. The National Morbidity, Mortality, and Air Pollution Study. Part II: Morbidity and Mortality from Air Pollution in the United States. Research Report 94 Part II. Boston, MA:Health Effects Institute.

mistake. It also ignores the value of nearby homes (likely to fall) and the psychological effects on children of growing up somewhere the city brings its trash.

Future patients and insurers (including the state) will have to pay the hefty ER costs for an asthma flare, but as anyone who has dealt with even the smallest amount of ill health can attest, the true impact of illness goes beyond a dollar amount. I personally suspect this transfer station won't be as much as a cost savings for our city as it will be a cost shift.

Social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. In this case, the relevant determinants of health for citizens in this North Valley neighborhood are be about to change drastically- unless this project is halted.

While not surprising, it is absolutely shameful that the community who would bear this burden is 64.6% Hispanic, with 35.6% of the families living below the federal poverty line, per recent data obtained by Public Health professionals investigating the health impact. The area is more Hispanic and less wealthy than Bernalillo County as a whole. Minorities and the poor are already understood to have worse health outcomes in the United States and New Mexico. Simply put: the proposed development would not have gotten this far if the affected community was wealthier and had more time and disposable income to devote to fighting the process.

A truism of medicine is that preventing health problems is significantly more cost effective than paying for treatment: an ounce of prevention truly is worth a pound of cure. For this reason, it would be a costly mistake for our city to locate a transfer station this close to where so many people live and attend school.

Received
9-29-15

Rancho Guadalupe Homeowner's Association

PO Box 6126

Albuquerque NM 87197-6126

Mr. Peter Nicholls

600 2nd Street NW

Albuquerque NM 87107

September 28, 2015

Dear Mr. Nicholls

After reading the information available on the proposed transfer station, we feel it would be detrimental to the surrounding neighborhoods including our own. After touring a Waste Management land fill and watching the arrival and dumping of large trucks coming from transfer stations in Oregon, it became obvious to me that the traffic created and the unpleasant odors certainly outweighed any possible benefit to local neighborhoods.

I urge your committee to find a location that is not located in or near a residential neighborhood. That should not be difficult considering the open land in western Albuquerque.

Thank you for the opportunity to express our views and concerns.

Sincerely

James E Chittick

James E Chittick

President, Rancho Guadalupe HOA

865

September 28, 2015

Dear Mr Nicholls

Thank you for your consideration of my thoughts on the proposal to construct a Waste Transfer Station (WTS) at 4600 Edith Blvd, NE.

I am a family physician who has had the privilege of providing primary care for the Albuquerque community for the past 32 years. I am currently caring for patients at the UNM Center for Family & Community Health at 3401 4th St NW. Perhaps the most striking lesson I have learned in my time in practice is how incredibly important it is for people to live, work, learn and play in a healthy environment if they are to achieve the best possible health. As we all know, health is an essential element of being a productive member of society.

In addition to being a practicing physician addressing the health and illness of individual patients and families, I take seriously my responsibility as a citizen to support the accountability of local government to assure opportunities for healthy living. At a minimum, I expect our elected and appointed officials to avoid the creation of unhealthy and dangerous environmental conditions.

Given this background, I would like to share with you my specific concerns about the proposed Edith Transfer Station.

1. The increase in heavy truck and self-haul vehicle traffic will have a significant **negative impact on motor vehicle, bicycle and pedestrian safety**. This area already suffers from some of the highest rates of collision and injury; increased traffic will only increase the risk to those traveling in the area.
2. Diesel emissions, general traffic emissions and basic operation of the WTS will have a **negative effect on air quality** and will result in increased risks for lung diseases such as asthma and emphysema. I am particularly concerned because of the proximity to the new baseball fields which will expose children participating in Little League to harmful particulate matter and other pollutants.
3. Traffic and general operations will **increase noise exposure** which is well documented to contribute to sleep disturbance, increased stress and irritability in general and, most concerning, diminished learning capacity in children.
4. **Litter, odor, rodents and insects** are more prevalent in areas in proximity to Waste Transfer Stations and decrease the quality of life and sense of well-being of the local residents. In addition, this contributes to a vicious cycle of deteriorating property values which in turn further impacts quality of life negatively.
5. **Deterioration of roadways and buildings due to vibrations** from heavy truck traffic will have a harmful impact on the physical infrastructure of the community. The decrease in property values and loss of desirability for businesses to locate in the community resulting from this degradation of the built environment will have deep and long lasting impacts on the local economy.

In addition to these specific concerns, I am struck by the plan to locate this facility in an area of town which already struggles with a disproportionate burden of poor health, excess injuries, low income and limited education. For the reasons I have listed above, building the Edith WTS will most certainly **not** provide these families with the opportunity to achieve the best possible health.

This proposed WTS causes too many concerns, creates too many risks and jeopardizes the health of too many members of this area. As a health professional and a member of the Albuquerque community, I urge you not to approve this proposal.

Sincerely,

Sally Bachofer, MD, MS

866

To: Peter Nichols, Chairman City of Albuquerque Environmental Planning Commission

From: Kelly O'Donnell, PhD

Date: September 28, 2015

Re: Economic analysis of solid waste facility at 4600 Edith NE

Dear Mr. Chairman,

Thank you for the opportunity to share the results of my preliminary analysis of the 2014 update to the Albuquerque Transfer Station Feasibility Analysis.

Full build out of the proposed transfer station and solid waste facilities at 4600 Edith NE will impose a $3.2 million net cost on the City of Albuquerque unless all city convenience centers are closed, a prospect opposed by Albuquerque residents. The finding of on-going net cost was arrived by city consultants even though their model greatly under-estimated project costs by failing to include costs imposed on the surrounding communities, meaning that the costs of the proposal exceed the benefits to an even greater extent than is acknowledged on page 10 of the consultants' 2014 Feasibility Study .

Waste facilities such as the waste transfer station (WTS) contemplated at 4600 Edith NE generate numerous negative externalities including significant health and safety risks. It is therefore essential that the benefits and costs of any siting decision be weighed extremely carefully. Potential costs unaccounted for in the 2014 update of the transfer station feasibility study commissioned by the City of Albuquerque Solid Waste Department include $21 million in lost home values, job and productivity losses due to traffic congestion and environmental degradation, and a several hundred thousand dollar reduction in annual property tax revenue and lower gross receipts taxes. WOW! And how did you arrive at this figure – for us non-economists!

The 2014 feasibility study weighs the costs of constructing the proposed facility against the operational cost savings that will result from reducing the number of trips city vehicles take to the landfill. By these metrics, the transfer station appears to be a good investment for the city. But these results are skewed in favor of the project because the cost side of the equation fails to include the significant negative impact of a high volume waste facility on the businesses and residents of the surrounding community.

Homeowners will see a significant decline in property values. The over 500 area businesses may experience declining property values, diminished productivity due to traffic congestion and more adverse working conditions and reduced retail sales as streets become less walkable and the neighborhood environment is degraded. In addition, by damaging the public perception of the surrounding neighborhoods, the WTS is likely to diminish the community's future prospects for economic development and revitalization.

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There are approximately 7,500 housing units with a combined value of over $300 million in the area surrounding the proposed transfer station. These homes house over 18,000 residents and generate over $4 million in annual property tax revenue. Proximity to the noise, congestion, odors and toxicities of a waste transfer station will likely reduce residential property values and thus property tax revenue.

Numerous studies in the US and abroad have demonstrated a negative correlation between proximity to high volume waste sites and property values. This research suggests that the transfer station will depress property values within a two mile radius of the site, with properties closest to the station experiencing the greatest impact. A 2005 meta-analysis concluded that the value of residential property immediately adjacent to solid waste sites was depressed by an average of 12.9 percent while property values one mile from the site were depressed by an average of 7 percent.

If homes in the area most likely to be impacted by the transfer station experience an average 7 percent decrease in value, residential property tax revenue will decrease by almost $300,000 annually and area homeowners will experience a $21 million decrease in their most valuable asset.

The tax revenue impact to local governments should be reflected in the feasibility analysis, but the impact on household assets is likely to be far more significant. Home equity is the largest asset held by most American households. For the low-and moderate-income homeowners in the area of the proposed transfer station their residence is often their *only* asset. Assets provide financial stability to families living paycheck-to-paycheck, enabling them to weather a temporary lay-off or health crisis without triggering the downward financial spiral that can easily culminate in homelessness. With real estate values still somewhat depressed, a 5 or 10 percent reduction in home value could diminish or even eliminate net worth for many neighborhood families.

The impacted area is home to a variety of retail and service sector businesses as well as food manufacturers, warehousing, and distribution. Business operations and profitability may be negatively impacted by increased traffic congestion and pollution. Businesses in the impacted area employ over 8,000, have annual payrolls in excess of $272 million, and generate over $20 million in gross receipts tax revenue for state and local government. A five percent reduction in revenue for these businesses could cost the economy hundreds jobs and tens-of-millions in economic activity.

The Health Impact Assessment of the transfer station provided an inventory of possible health consequences, all of which impose costs in the form of lost productivity, increased utilization of the healthcare and emergency response systems, and greater dependence on the social safety net. These costs are large but also difficult to forecast. The more readily estimated tax revenue and employment impacts presented in this memo should be regarded as lower bound estimates of total cost, both because they exclude the aforementioned health impacts and because the utilize conservative assumptions.

Reducing the cost of solid waste disposal through development of a new transfer station is a laudable objective that warrants further study. However, any study should consider multiple sites and must accurately reflect all costs of the proposed project, including those absorbed by the surrounding community.

Sincerely,

Kelly O'Donnell, PhD

869

Quevedo, Vicente M.

From: Brito, Russell D.
Sent: Tuesday, September 29, 2015 9:04 AM
To: Quevedo, Vicente M.
Subject: Fwd: Solid Waste Transfer and Convenience Center proposed for Edith and Commanche

V,

Another comment.

Thank you,

- Russell

Begin forwarded message:

From: "Lubar, Suzanne G." <slubar@cabq.gov>
Date: September 29, 2015 at 8:55:20 AM MDT
To: 'Roger Hartman' <nmpops@gmail.com>, "Williams, Brennon" <bnwilliams@cabq.gov>
Cc: 'Roger Mickelson' <FHVHARoger@aol.com>, 'Geneiva Meeker' <genmeek100@centurylink.net>, 'Rose Sena HOA Singing Arrow' <roserealtor89@yahoo.com>, "'JOEVALLES@aol.com'" <joevalles@aol.com>, "'wood_cpa@msn.cl'" <wood_cpa@msn.cl>, "Brito, Russell D." <RBrito@cabq.gov>
Subject: RE: Solid Waste Transfer and Convenience Center proposed for Edith and Commanche

I will make sure that your e-mail is provided to the EPC. Thank you for your comments.
Best regards,
Suzanne

Suzanne Lubar
Planning Director
City of Albuquerque
600 2nd Street NW
Albuquerque, New Mexico 87102
(505) 924-3352 Direct
(505) 924-3339 Facsimile

From: Roger Hartman [mailto:nmpops@gmail.com]
Sent: Tuesday, September 29, 2015 8:46 AM
To: Lubar, Suzanne G.; Williams, Brennon
Cc: Roger Mickelson; Geneiva Meeker; Rose Sena HOA Singing Arrow; JOEVALLES@aol.com; wood_cpa@msn.cl
Subject: Solid Waste Transfer and Convenience Center proposed for Edith and Commanche

Please pass to Mr Peter Nicholls, EPC Chair.

Mr. Peter Nicholls
Environmental Planning Commision Chair

Mr Nicholls

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The East Gateway Coalition of Associations opposes project 1010582, construction of a Solid Waste Transfer and Convenience Center proposed to be built on approximately 22 acres at Edith and Comanche. The traffic and noise associated with such a center would be seriously detrimental to the quality of life and property values in surrounding neighborhoods. Additionally, the increas- ' traffic would be a safety issue. No neighborhood, unless the residents desire it, should be subjected to such after-the-fact chang use for any parcel of land. In this case, clearly they do not.

The East Gateway Coalition understands the City's desire to place such a facility close to the interstate highway, but urges the EPC to deny this request and to suggest the City find a place well away from developed neighborhoods for this facility.

Respectfully,

Roger Hartman
President, East Gateway Coalition of Associations

copy to: Inter-coalition

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Chair: Peter Nicholls
Environmental Planning Commission
c/o Vicente Quevedo, Case Planner

Re: Statement in Opposition
North Valley Waste Transfer Station—Project 1010582

Greetings,

In the Matter of Project 1010582, *the Inter-Coalition Panel stands in opposition to the proposed construction of a Solid Waste Transfer Station a associated Convenience Center* on roughly 22 acres at Edith-Comanche. We base our opposition on potential adverse impacts to t surrounding neighborhoods and community.

The Legal Standards Set Out in City Resolution 270-1980 Are Not Met: A Request for a Zoning Map Amendment is a request for exception to the carefully determined zone map; a document that reflects significant planning efforts on the part of the City and residents. This is recognized in City Resolution 270-1980 which sets out only three circumstances where amendments are appropria (1) There was an error when the existing zoning map pattern was created; (2) Changed neighborhood or community conditions justi the change; or (3) A different use category is more advantageous to the community, as articulated in the Comprehensive Plan or oth City master plan, even though (1) or (2) do not apply. In this proposal none of these circumstances exist to warrant the zone chan request for the proposed project.

There are no circumstances supporting the first ground for approving an amendment to the zoning map. 1) There was no error whe the existing zoning map pattern was created. 2) There are no circumstances supporting the second ground for approving a amendment to the Zoning Map, 'changed neighborhood and or community conditions.' 3) There are no circumstances supporting th 'more advantageous to the community' test.

The surrounding neighborhoods have spoken loudly and clearly that the adverse impacts of noise, traffic congestion and safety property devaluations, etc. associated with the proposed project would detrimentally impact their health safety and general welfare. W believe the standards set in R-270-1980 were appropriately instituted to provide the surrounding community that protection.

With alternative city owned properties and existing facilities available, we believe the City should explore other locations remote from established neighborhoods.

For these and other reasons, the Inter-Coalition Panel strongly urges the EPC to deny this request.

Respectfully submitted for the Inter-Coalition Panel,

Dr. Joe L. Valles

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COMMUNITY CONCERNS AND CONSIDERATIONS

Inter Coalition Panel

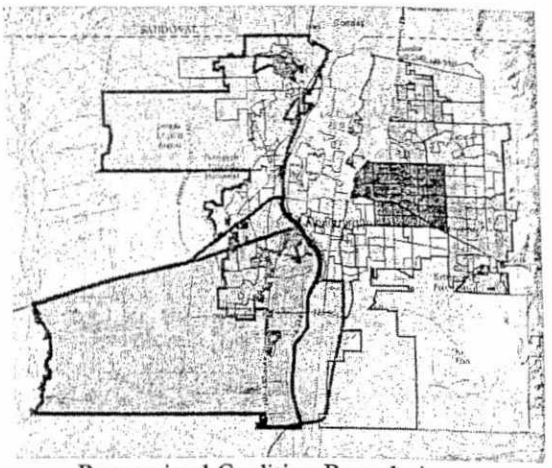
A common intelligence and wisdom exists out here with the public that is too often ignored by decision-makers encumbered with enormous logistical responsibilities and constant emerging problems—and politics. We also are forced to recognize that our Fourth Estate—the media—too frequently offers a superficial perspective on pertinent issues impacting the general public; issues that can't be captured in a sound bite or cursory flash news reporting.

We recognized that most organized neighborhood associations typically have common concerns and pressing issues that are mostly parochial in nature. We also understood that at the Coalition of Neighborhood Associations level, the focus was more on district-wide or regionally significant ('big picture') issues. However, we also accepted that not all Coalitions may be seeing the same big picture or at least; may not be viewing it the same way. That was the basis for inviting known Coalitions to coalesce toward a common cause.

This informal, collaborative organization, comprised of Coalitions of Neighborhood Associations from throughout the City of Albuquerque and Bernalillo County, has been meeting since May 2014 to reach consensus on broad, common concerns. Over a series of meetings, representatives identified several community-wide issues, each of which includes short—and long-range concerns and overlaps with other broadly labeled concerns.

Our Mission: The Coalitions of Albuquerque and Berna County Neighborhood Associations will be proacr important issues that affect all citizens by:

- Providing a means for neighborhoods and homeowne associations, through their respective Coalitions, to achiev and maintain communications on civic and neighborhoo matters,
- Providing broader channels for effective interaction an communication with local, state, and federal government to voice our concerns and recommendations,
- Providing for a means to preserve, protect, and enhanc the quality of life for the citizens of Albuquerque an Bernalillo County, and Providing a collective voice c significant issues that affect us all—now and into tl future.



Recognized Coalition Boundaries

THE OVERALL PRIORITY CONCERNS ARE:

- Albuquerque Police Department Reforms and a Diminishing Number of Available Police Officers
- Transparency in Government: Unresponsive-Obstructive Government
- Water: Inextricably Related to Overall Economic Development and the Region's Viability into the Future (Including Kirtland Jet Fuel Spill, Prolonged Drought Conditions, Infrastructure Deficiencies, Increased Demands for New Developments, etc).
- Office of Neighborhood Coordination: No longer the true Neighborhood Liaison as Originally Intended
- Education: Inextricably Related to Sound Economic Development and Future Viability—Real Concern is the Quality of Education.
- Economic Development: New Mexico and the Region are Falling Behind
- Mental Health Services: New Mexico and the Region have an Increasingly Severe Shortfall in Providing Mental Health Services.
- Land Use Policies, Affordable Housing, Code Enforcement: Inequitable Application of Policies—Residents Viewed as Obstructionists.
- Open Space: As the Region's Population Grows—Diminished Opportunities for Available Open Space
- Unused City Property: Albuquerque and Bernalillo County 'Acquire' Excess-Unnecessary Real Estate throug' Number of Programs without Purpose.
- Transportation and Infrastructure: Projected Future Growth Estimates may be Highly Optimistic—Reality Dictates that Transportation and Infrastructure Planning Carefully Allocate Costs for Potential Needs Across Government Entities, Private Commercial and Residential Developers, and Future Occupants.

Scott Hale, Chair
Greater Albuquerque Bicycle Advisory Committee
October 5, 2015

Edith Transfer Station

Site Visit October 4, 2015

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Scott Hale, Chair
Greater Albuquerque Bicycle Advisory Committee
October 5, 2015

ETS Bicycle Network Impacts

Edith—Important N-S Bicycle "Route"

Comanche—Connects Westside/River Mountains —Only Complete E-W Bicycle Facility

Edith

Edith Boulevard offers significant bicycle connectivity as it is one of the longest N-S bicycle routes in the Greater Albuquerque area (Gibson to the South; Osuna Road to the North (but often used to communities further to the North including Sandia Pueblo and Bernaillilo). In addition to it's significant role as a long distance connecting bicycle facility, it also provides an ideal, low stress "local" route to and from many inner city destinations. Currently, there are no solid waste vehicles entering facility via Edith and very limited (30 parking spots) employee traffic. There is a Solid Waste recycle facility that is accessed via Edith but sees very little use[1]

Street dimensions that impact bicyclists but have not been addressed as part of ETS project activities on Edith are Outer lane– ~13.7', inner lane ~ 10.5' and striped median ~13.5'. Typically, outer lanes in this configuration if designated bicycle facility dimension should be minimum of 14' (AASHTO/NACTO)

Of particular interest to bicyclists, especially in the context of safety impacts of Edith Transfer Station that have yet to be addressed are:

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- Currently only MV activity to and from Solid Waste Facility is small (30 space?) parking lot to administrative building and Recycle Facility. Review of Circulation Site Plan show right in, right out, left in and left out access via Rankin Road; left in, right out via Edith for both Transfer Trucks as well as collection trucks. Both of these are new uses on Edith and will have significant impact on bicycle safety and comfort in this corridor and need to be addressed.

- North to East connection from Edith to Comanche is a free right intersection movement which is extremely hazardous for bicyclists navigating West to East on Comanche as is significantly more local heavy truck use that currently proposed ETS Facility will introduce. This concern was presented to SW/Wilson Company at GABAC meeting early 2015. The response was that free right was older street design schema and would be updated as part of ETS Project.

- We see no evidence of any consideration outside the perimeter of the facility and feel that when bicyclists are in roadway, street design and zoning decisions are inextricably linked and should be paramount in EPC analysis and decision making.

Comanche

Comanche is the only continuous bicycle corridor that serves cyclists needing to get from the Bosque/Rio Grande area up to Tramway Boulevard and the Western Sandia Mountains. Additionally, due to close proximity to Montano River Crossing, it is the only NW/Westside bicycle connection to NE/SE Heights including Uptown, Sandia Labs/Kirtland AFB, UNM, as well as the Tijeras Canyon Gateway to the East side of Sandia and Manzano Mountains and recreational facilities.

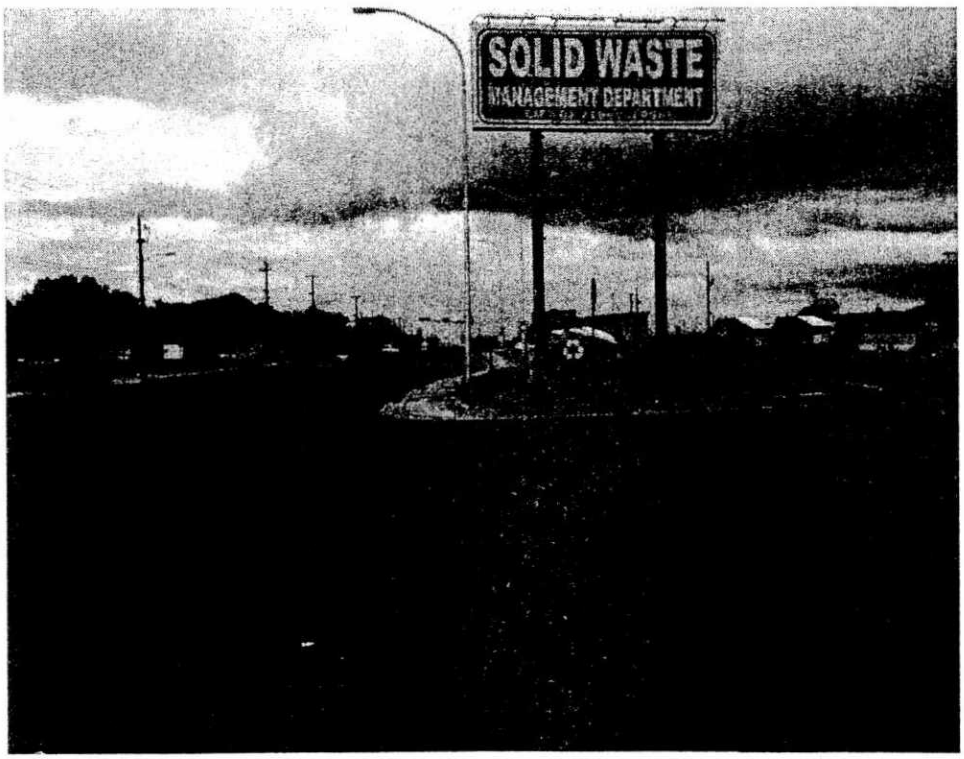
Currently, bike facilities east and west bound through project impact area (for bicyclists 2nd street to North Diversion Channel including under i-25 and both frontage intersections are deficient by both AASHTO (Development of Bicycle Facilities, 4th Edition, 4.6.4) and NACTO (Urban Bicycle Design Guide, Page 6) guidelines and also CABQ DPM. As the following photographs taken October 4, 2015 show, the roadway the trucks will be traveling in to access Transfer Station and then return to I-25 have width issues (we assume ROW driven but not clear from TIA, Application or Staff Report), signage issues, and lane marking/ maintenance issues. Further, east bound under i-25, there is no bicycle lane though there is strange/confusing 3' concrete gutter pan striped to look like bike facility (actual dimension ~2.5')?

It is also important to point out that ghost bike at NE corner of Comanche/i25 was a fatality that was result of cyclist being run over by CABQ Waste Collection Truck. While witnesses unclear on what caused cyclist to fall onto roadway, result was certainly tragic and exhibitive of concern cyclist have for facilities being impacted by an increase in heavy truck traffic. Heavy truck turning movements accessing SB freeway onramp off Comanche with cyclists in deficient dimensioned bike lane (also in blind spot) certainly increases hazard and vulnerability to cyclists using this facility. While we appreciate the CABQ SWD commitment to install guards on all SW vehicles, we do think that falls more in the realm of equipment protective device and would like ETS effort to focus on and commit hazard and conflict elimination. Finally, West bound bicycle facility underneath i-25 leaves cyclists extremely vulnerable as bike lane is less than half recommended lane width for bike lane facility and necks down to less than a foot (with off camber sewer grate at SB frontage road signal where cyclists queue.

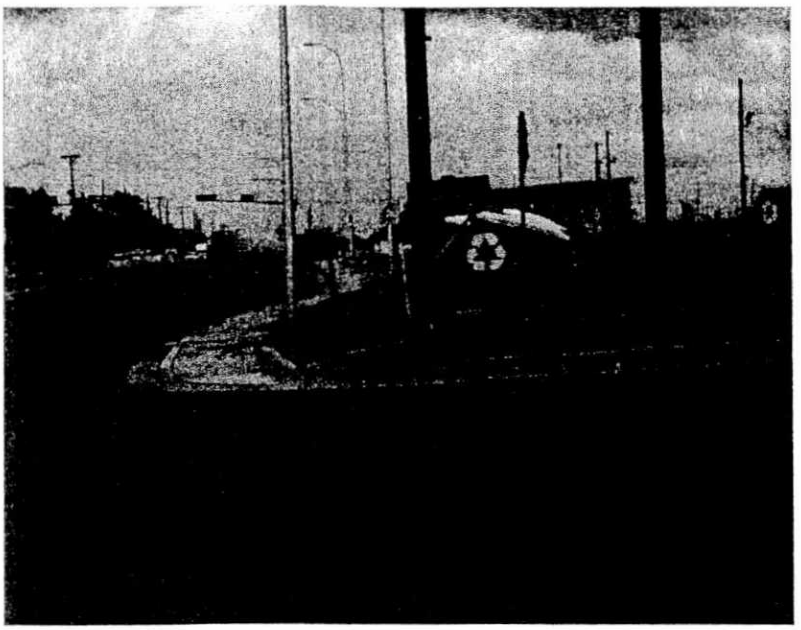
Important Consideration for both Edith and Comanche

Edith and Comanche as bicycle facilities and the need for safety/ hazard consideration as part of EPC review of ETS zoning application needs to be considered in two contexts: 1) mobility and 2) access (particularly discouraging use) in relation to E-270-1980 (particularly a&c), Comprehensive Plan (all bike and multimodal references), CABQ Bikeways and Trails Plan (impacts much broader than just Goal 1 and objective 3; specifically negative/unaddressed impacts ETS may have on Goals 2 & 4), CABQ Comprehensive On-Street Bicycle Plan, and recently adopted CABQ "Complete Streets Ordinance" (E-0-2015-003), especially items A-G in 6-5-6-6–General Policy.

Photos of Edith and Comanche Bicycle Impacts



Current Community Recycling Facility and low use entrance to admin offices off Edith



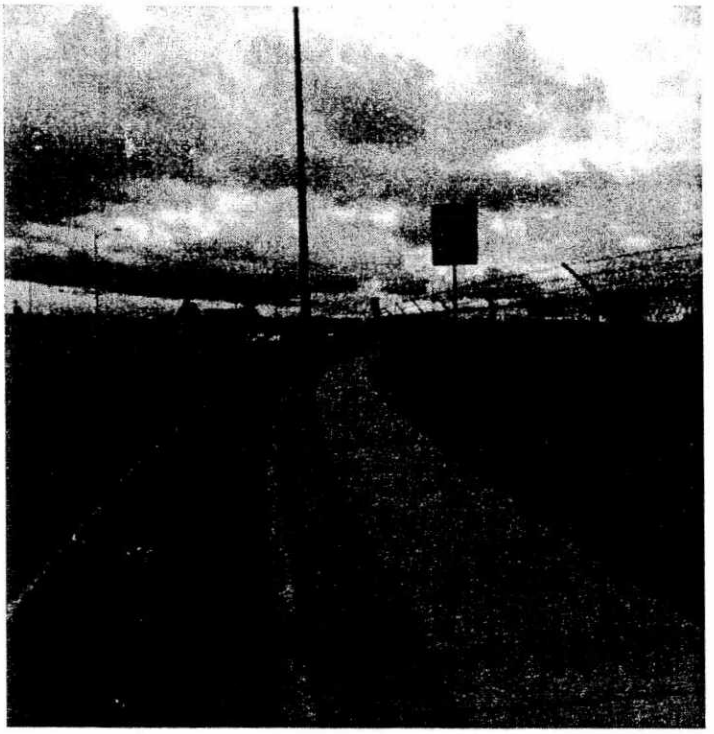
Unsignalized free right turn onto Comanche. Note Yield sign AFTER Pedestrian crossing to porkchop refuge

Measurement where bike lane recurs after signalized intersection (Comanche EB)

Widest Section of EB Comanche. AASHTO recommendation 5'. Application stipulation that bicycle facility impacts meet AASHTO "guidelines" inaccurate.

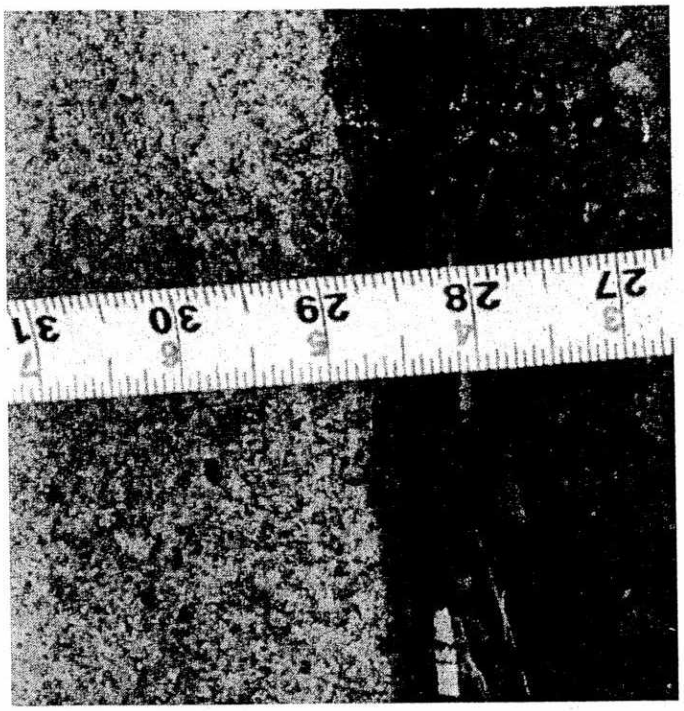
Offcamber sewer grate. Note: barely visible bike facility lane markings

885

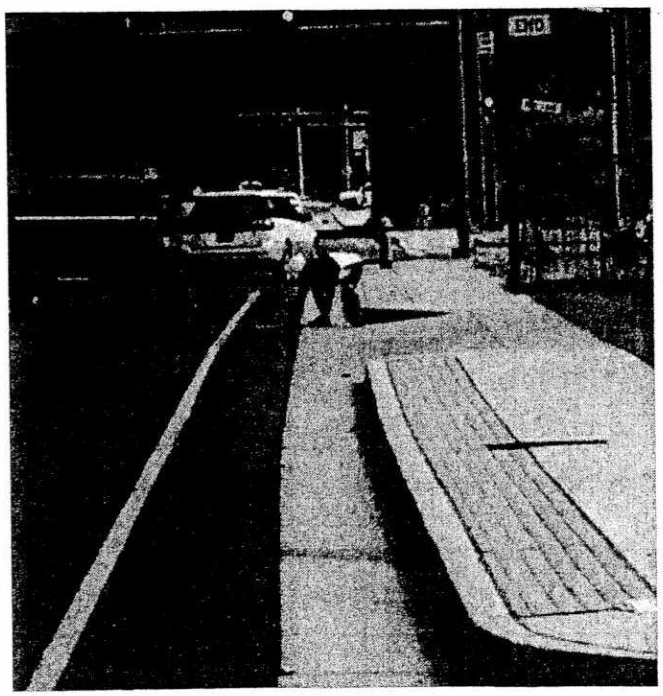


Posted speed limit (actuals significantly higher but no supporting data)

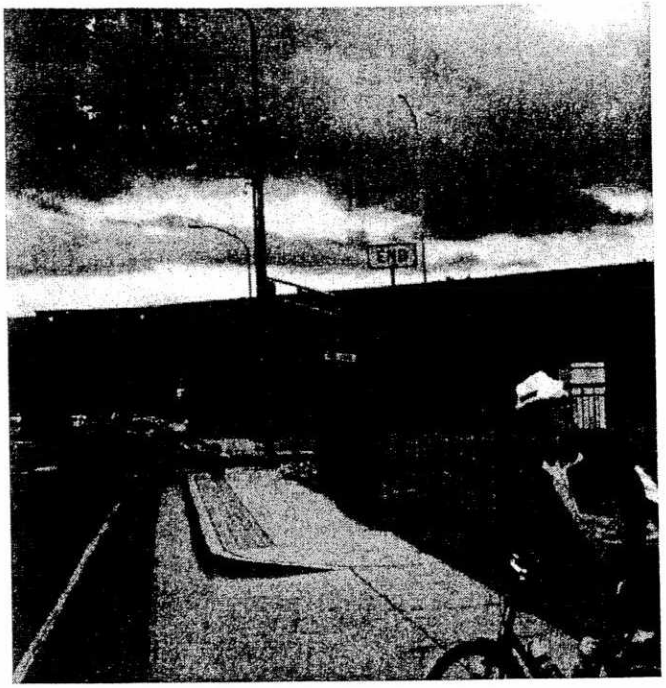
EB approaching right turn onto frontage road



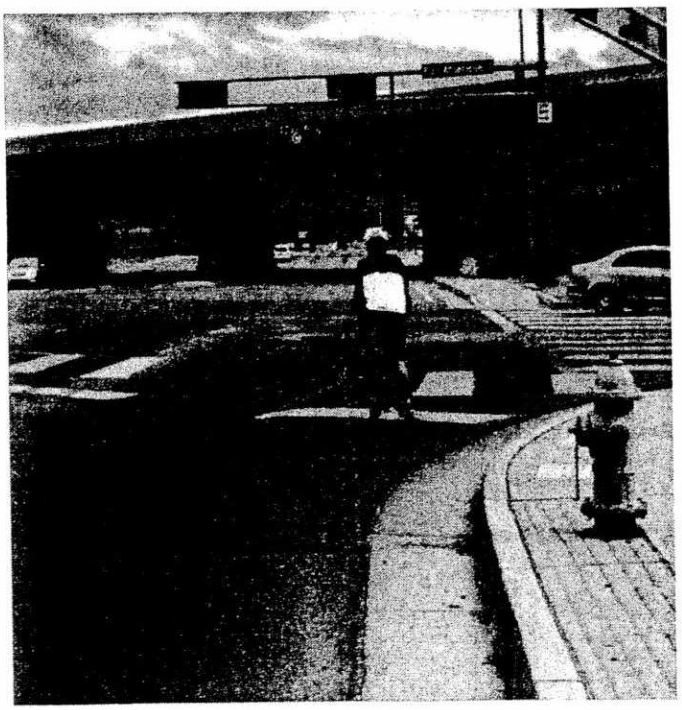
Bike Lane less than 2.5' ~250' from turn onto frontage road (previous photo)



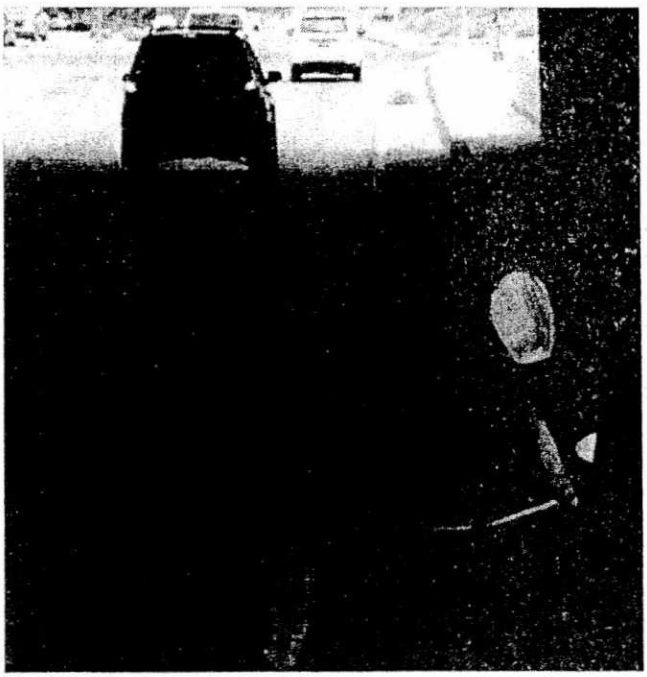
Note position of left turning vehicle right where cyclists need to queue if stopped at signal



What ends and where?

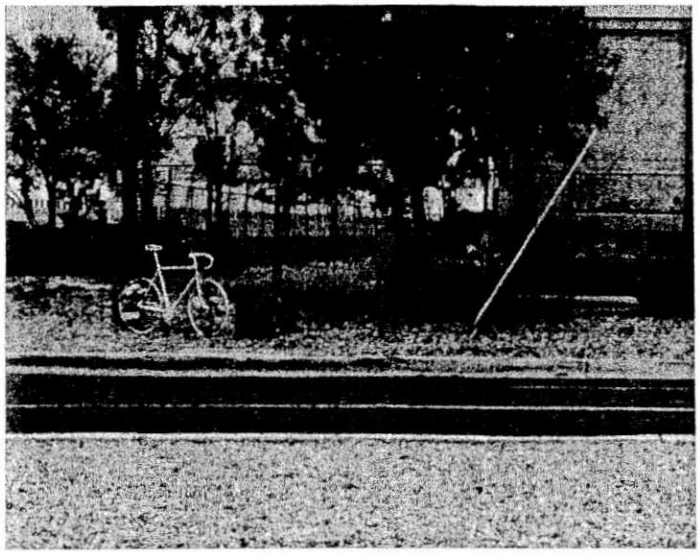


Cyclists need protection/space here. DO NOT want trucks turning on red or around cyclists...



Concrete gutter pan striped @ <30". Bike Facility? Note sidewalk deficiency as well.

Not a pleasant place on bicycle. Short yellow and no all red phase make intersection risky if light changes when cyclist beyond stopping point



Ghost Bike NE corner of I-25/Comanche. cyclist Timothy Vollman run over by SW Collection Vehicle

Speed Limit increases. Bike lane dimension increases to 4' still well below recommendations and bicyclist safety best practice guidelines

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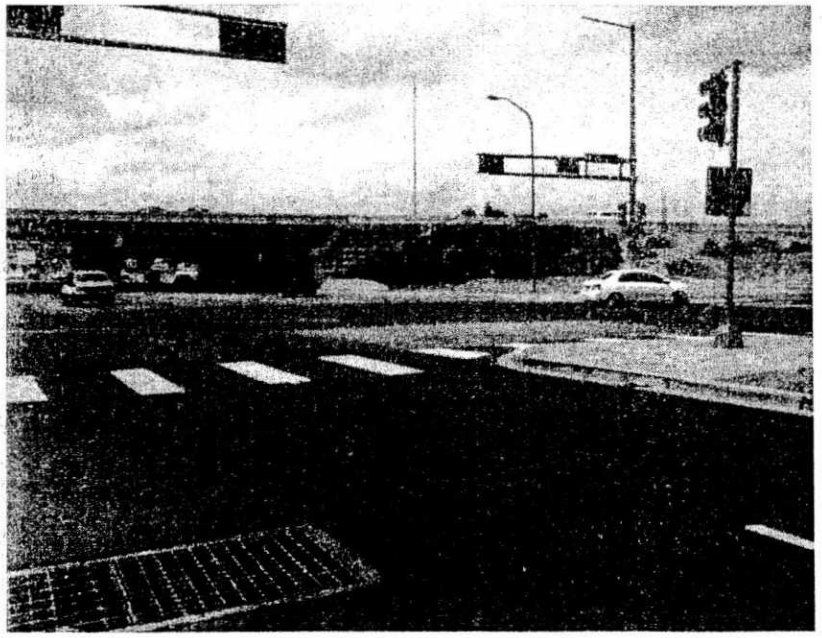
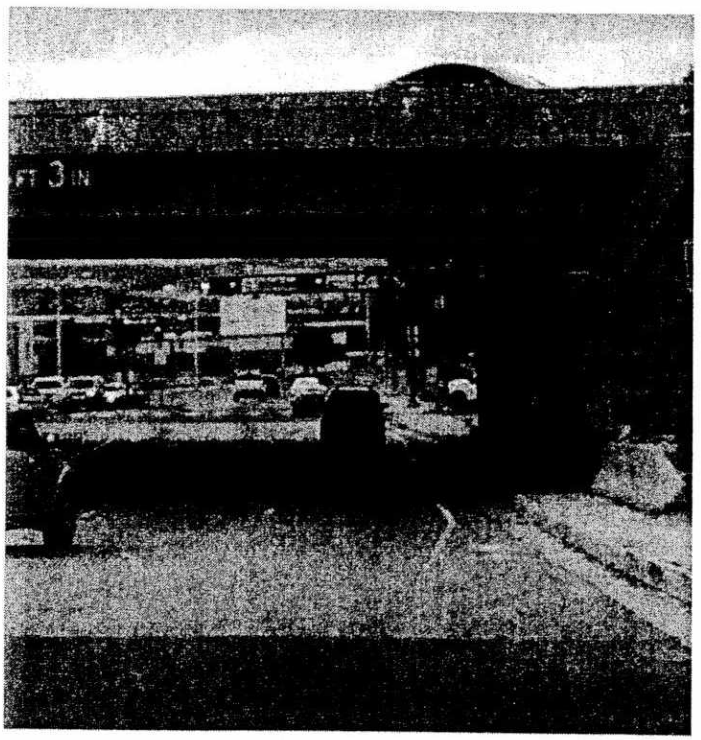
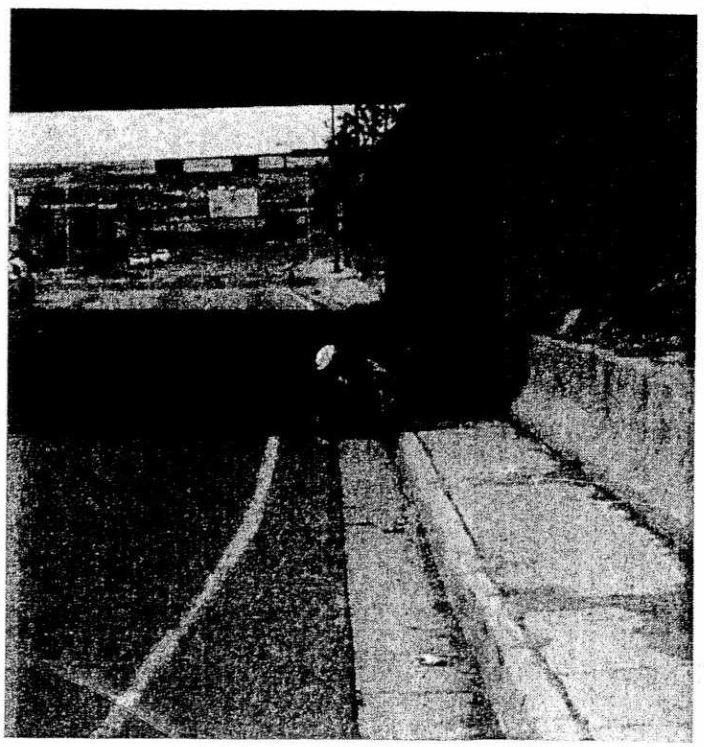


Perspective: very wide intersection (with insufficient signal phases for bicycles)

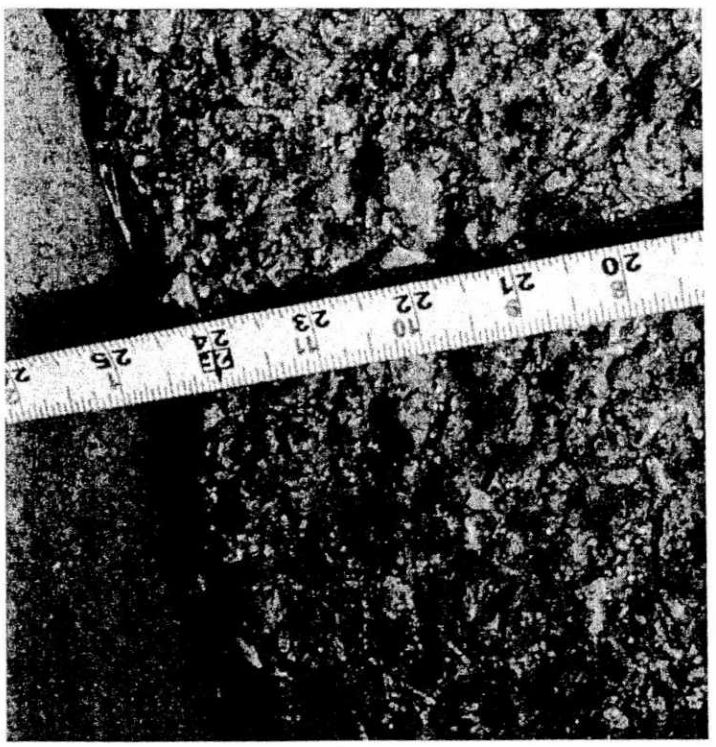
WB Comanche. Area in front of cyclist where transfer trucks would cross all lanes to enter Comanche off NB Frontage.



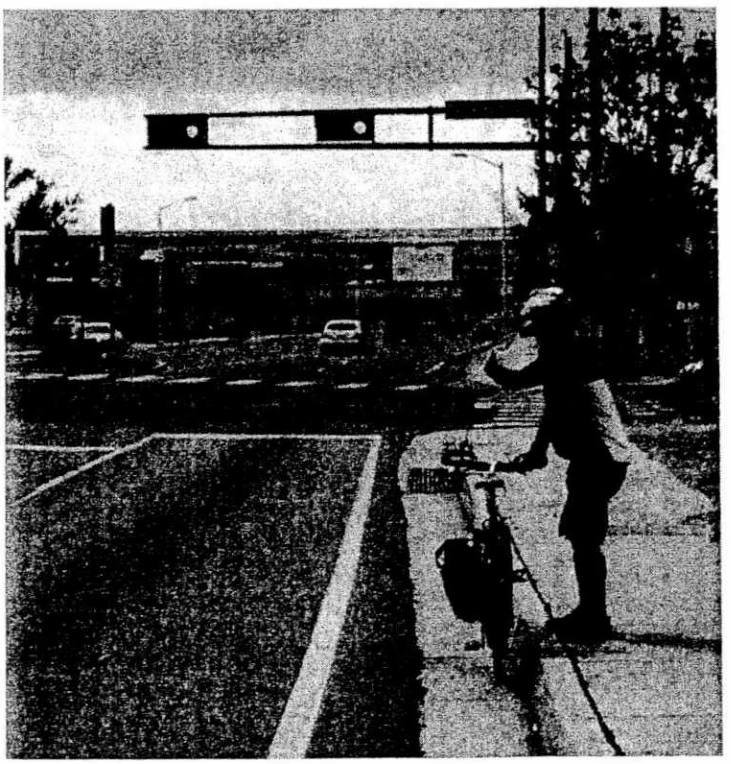
Bike facility marking then lane necks down



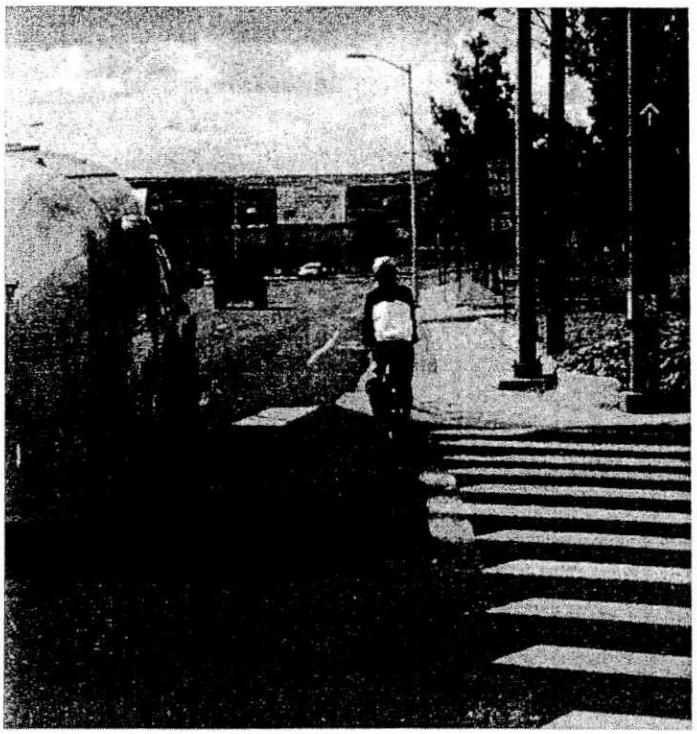
Scary Place to take measurement. Note sidewalk width



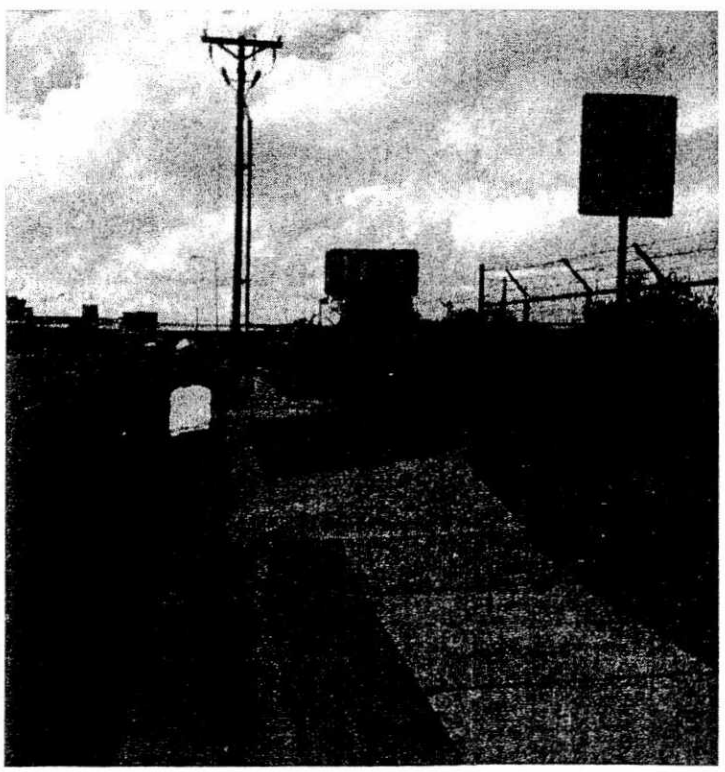
Width of bike lane where measurement in photo above taking place



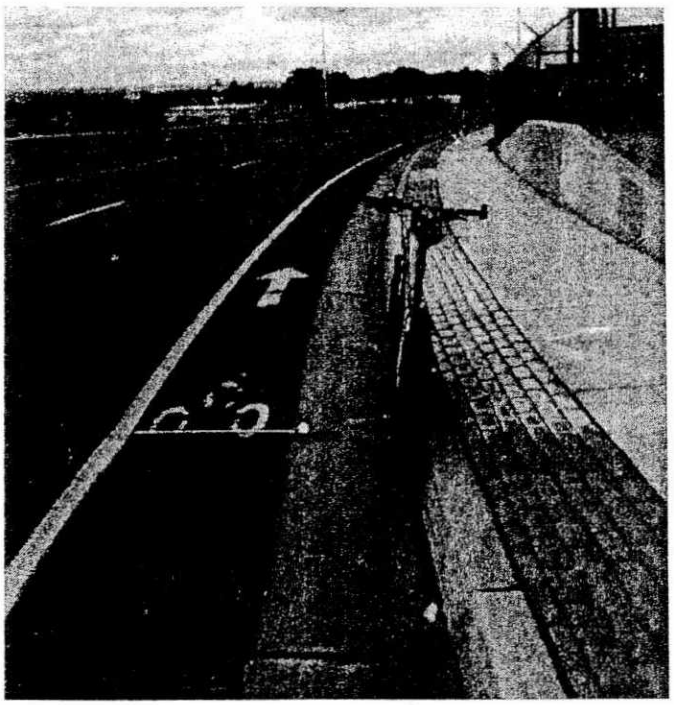
Note lane width in bicycle facility queue area



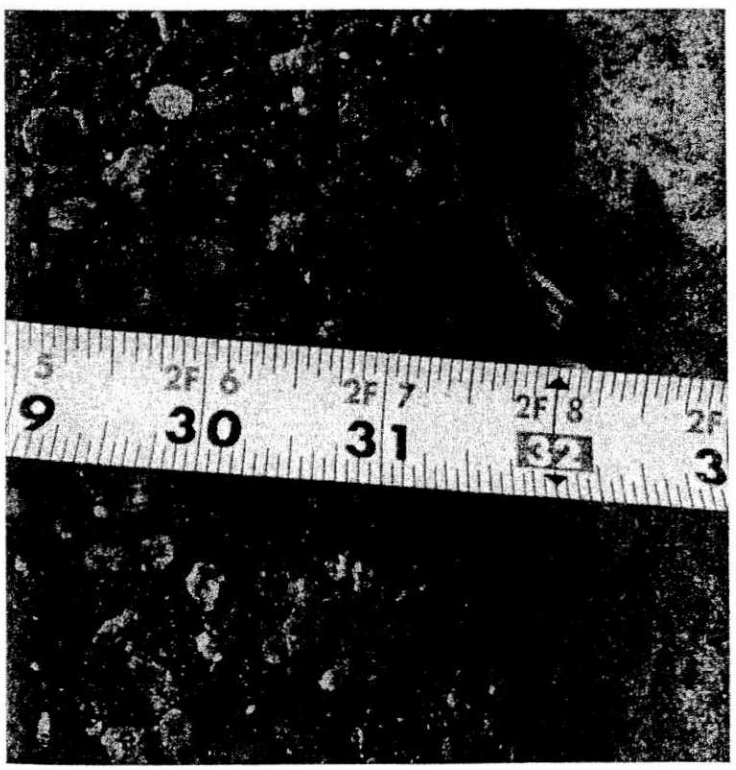
No fun. At least cyclist had wide tires and could negotiate uneven surface seams between gutterpan, curb cut and asphalt



Speed limit on Comanche West side of i-25 WB approaching Sysco. Note instinct to hug curb and ride in gutterpan



Entering WB curve. SW Facility on left. Note marking degradation and limited sight lines for approaching Malloy entrance/exit



Bike facility ~2.5'. Cyclists turning SB onto Edith need to start positioning for access to left turn bay and will be looking over shoulder to gauge oncoming traffic. Narrow lane may be significant safety problem for inexperienced as they may swerve as they gauge opportunities behind them.

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[1] Traffic counts specifically into and out of existing SW facility at Edith not available. Significant problem with bike/ped traffic count data as one time count in December, not enough data to accurately assess existing facility usage or any improvement/deficiency if ETS is approved and constructed. User community would like to see better and more accurate pre and post construction data including conditional for more applicable study of current bicycle facility dimension and usage in this part of the Griegos/Comanche Bicycle Corridor. As mentioned above– we need to require better data on existing speeds on both corridors.

Bernalillo County
PLACE MATTERS

October 7, 2015

Peter Nicholls
Chairman, Environmental Planning Commission
c/o City of Albuquerque Planning Department
600 2nd St NW, 3rd Floor,
Albuquerque, NM 87102

Re: Proposed Edith Waste Transfer Station Project # 1010582

Members of the Environmental Planning Commission:

Greetings! My name is James Aranda. I am the Director of Bernalillo County PLACE MATTERS, a community-based organization that advocates for sound land-use, environmental, and social policies that provide equal opportunities for safe, clean and healthy neighborhoods and resolve the disproportionate environmental burdens on people of color, working poor, low-income and vulnerable communities of Bernalillo County.

We at PLACE MATTERS stand in support of our friends and neighbors in the North Valley who have serious concerns with the City of Albuquerque's proposed Waste Transfer Station (WTS) at its current Edith and Comanche Solid Waste facility. The proposed facility will receive all of Albuquerque's daily collected garbage and transfer it to the Cerro Colorado landfill via 18-wheel truck, and would also include a solid waste convenience center, drop-off locations for recyclables and household hazardous waste, a fueling station, refuse vehicle and cart storage, vehicle maintenance shops, administrative offices, and parking. 229 additional round trips into and out of the proposed waste transfer station—a 173% increase—are expected to occur each weekday in and out of the facility each weekday. This does not include privately owned vehicles that will be self-hauling trash to the proposed WTS's convenience center.

The City of Albuquerque claims the proposed WTS will improve the surrounding neighborhood by providing benefits such as reductions in air pollution, however, COA has not provided any air quality data to substantiate this claim. Furthermore, the application—with the exception of a preliminary Traffic Impact Study—primarily focuses on site details and fails to consider anything outside of the site boundaries, including the potential health impacts that might harm residents living in neighborhoods close to the site, should the proposed WTS be approved.

In August 2015, a Health Impact Assessment (HIA) was conducted on the proposed Edith transfer station to assess the impacts of the proposed waste transfer station on the health of residents and others who live, work, attend school, or play in neighborhoods that are located near the site. The HIA Committee concluded that the proposed transfer station may pose a threat to the health, safety and welfare of community members living in adjacent neighborhoods. The Committee also found that the request is in conflict with City of Albuquerque Zoning Code Enactment 270-1980, and that it should not be built at the proposed site. Environmental and health data assessed for the HIA indicate that area residents bear a

disproportionate environmental and health burden. This burden in conjunction with the community's socio-economic and demographic composition make the impacted community meet the U.S. Environmental Protection Agency's (EPA) criteria for an environmental justice neighborhood.

In spite of the many potential impacts of the proposed waste transfer station, what is perhaps of graver concern to neighborhood residents is the way in which the City failed to involve those who will be most impacted by this project, and made an internal decision to locate the proposed waste transfer station at the site of their current facility. The fact that residents of adjacent neighborhoods learned about the proposed waste transfer station through an Op Ed in the Albuquerque Journal—and not the City of Albuquerque—is not only an affront, but further evidence of the lack of regard our local government agencies have for EPA guidelines to involve impacted residents in the development of WTS site criteria and the site selection processes. The City of Albuquerque's actions throughout this process have only lent credence to the community's perception that that COA is imposing an ill-conceived project on their neighborhoods without the community's consent or input—all in the name of convenience.

Community members can and should be engaged in the decisions that impact their neighborhoods. Only through open dialogue and a sincere willingness to work together can a relationship based on mutual trust and respect be built. Because the City is an applicant in this case, community members and those most impacted by the City's decision believe it is only right that that the City address their concerns and answer questions in an honest, transparent, and timely manner. As Bernalillo County PLACE MATTERS joins our friends and neighbors in the North Valley to once again demand a seat at the table, I urge you to side with those who are most impacted by the proposal and make the right decision regarding the proposed Edith Waste Transfer Station.

Respectfully,

James M. Aranda
Director,
Bernalillo County PLACE MATTERS

October 26, 2015

TO: Peter Nicholls, Chair, and members of the Environmental Planning Commission

RE: Edith Waste Transfer Station Case #1010582

Dear EPC Commissioners:

I appreciate that you are confronted with a difficult case in this matter. The City staff is advising that there are no other siting options. But from what I've read, this conclusion has been reached based on a desire to cut costs and not increase garbage rates.

In my opinion, this siting decision disproportionately affects nearby neighborhoods and a broad segment of the North Valley (and even areas beyond), in order to avoid increasing fees charged to solid waste customers' City-wide. However, the trash is being generated by customers City-wide. In my opinion, it is more important to do this project in the right manner, even if more costly, then to cut costs and implement a poor project. Increased costs can be shouldered broadly to minimize impacts on households.

The traffic at the intersection of I-25, the frontage road, and Comanche is a mess, and not only at peak hours. Peak hour traffic-like conditions at that intersection continue throughout most of the day and into the evening. Congestion here affects many people, including those beyond the North Valley. Much of the downtown traffic and UNM traffic trying to enter I-25 northbound is funneled to this intersection. Adding a volume of new garbage trucks at this intersection, as would occur if this site is used for the transfer station, seems incredulous. I find it hard to believe there is not a better site.

If in fact this is the decided-upon location, then circulation patterns to alleviate the impacts on the nearby neighborhoods and streets (especially the Edith/Griegos intersection) and on bicyclists and pedestrians needs to be carefully designed. I don't have confidence that this has occurred since the traffic study has not been completed. And I wonder whether there is a good design available.

Please give serious consideration to the health, safety and design issues raised in the HIA. This is an important decision and if the City moves in the wrong direction, it could be a harmful and costly mistake.

Thank you for your consideration of these comments.

Very truly yours,

Susan Kelly

Susan Kelly

713 Camino Español NW

Albuquerque, NM 87107

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Henry, Dora L.

From: Jan Zimmerman <jzimmerman34@comcast.net>
Sent: Monday, October 26, 2015 4:44 PM
To: Quevedo, Vicente M.; Henry, Dora L.
Subject: Project #1010582, Waste Transfer Station for EPC hearing on 11/5/15
Attachments: 102615 EPC comments re WTS for 110515.pdf

Importance: High

Attached please find my comments re Project 1010581, Waste Transfer Station for the EPC hearing on 11/5/15. Please let me know if you have any problems opening the file. Thank you. Jan Zimmerman

Jan Zimmerman
4614 Sixth St. NW
Albuquerque, NM 87107
t: 505.344.4230
f: 877.836.1923
c: 505.259.2528
e: jzimmerman34@comcast.net
w: http://www.watermelonweb.com

Jan Zimmerman
4614 Sixth Street NW
Albuquerque, NM 87107

October 26, 2015

Mr. Peter Nicholls
Chairman, Environmental Planning Commission
City of Albuquerque Planning Department — via email vquevedo@cabq.gov
RE: Project #1010582, Waste Transfer Station — via email dhenry@cabq.gov

Dear Mr. Nicholls:

As a member of the Greater Gardner Neighborhood Association and an affected resident, I have been following very closely the news of the Waste Transfer Station (WTS) proposed for the current Solid Waste Facility at Comanche & Griegos NW. I am deeply opposed to this proposal for all the reasons that many of my neighbors have already addressed. While I prefer that you deny the requested zoning change and completely deny this proposal, I would like to suggest additional conditions that should be imposed on the City of Albuquerque should the project be remanded to the CoA for further study, and that the project be put on immediate hold until these conditions have been met.

1. The CoA claims that this project would cost $37 million. This does not appear to include costs for eminent domain to acquire property to the south of the proposed site, reconstruction of the I25 Comanche on/off ramps, or any other mitigation or road construction that might be required for sites immediately adjacent to the site or that will be affected by changes in traffic volume. I respectfully suggest that the CoA be required to provide a full and true accounting not only of immediate construction estimates, but also of any other associated costs over the next 25 years so the EPC can appropriately assess the cost/benefits of this proposal.

2. Whether deliberately or not, the $37 million cost is supposedly going to be borne only by the CoA without any federal funding. Conveniently, this allows the CoA to forego the need for an Environmental Impact Statement. I propose that the CoA be required to submit the equivalent of an EIS prepared by an independent third-party, regardless of whether federal funding is involved. (I find it difficult to believe that the CoA would self-fund a reconstruction of the I25 Comanche on/off ramps.)

3. The CoA remains in denial of the issue of environmental justice regarding the disproportionate impact of this proposal on a minority, low income community. I propose that the CoA be required to provide a written defense of this proposal in accordance with the New Mexico Environmental Justice Executive Order 2205-056 and the Report on Environmental Justice in New Mexico.

4. I find it depressing, but not surprising, that the CoA is willing to invest $37M on trash, but not on its real treasure -- people. Therefore, I propose that this project, should it go forward, be required to spend at least an equal amount of funding on improving the infrastructure and social services available to the affected community. Such spending might include not only affordable housing, roads, landscaping, lighting, library hours, parks, and walking trails, but also funds to "make whole" affected residents and businesses for loss of property values. It might also encompass after-school programs and tutoring services, job training, high-speed, low-cost Internet services, small business assistance, and whatever other services the community associations should suggest. The community must be actively involved in selecting and determining the improvements it wants. This is not an unusual request. There are a number of other success stories; perhaps the most famous one is Dudley Street in Boston, whose *"Don't Dump On Us"* campaign closed down a trash transfer station while reinvigorating an economically-disadvantaged community at the same time.
http://www.cpn.org/topics/community/dudly.html
http://www.dsni.org/dsni-historic-timeline
http://thrdplace.com/blog/building-projects/inner-city-boston-residents-reinvent-their-community/

5. The CoA has a contract for community outreach and PR with Cooney Watson specifically to "prove" that it has obtained community input (not that it has listened to what the community as said). I request that the CoA be required to provide an equal amount of funding to the affected neighborhood associations to cover their own costs of outreach to affected residents, as well as their incurred costs for hiring legal experts, traffic engineers, health impact analysts, and environmental consultants to assist the community in providing an alternative point of view. The funding for the community should equal or exceed all funds provided for outreach to Cooney Watson or any other provider to date and in the future.

6. Finally, the affected neighborhoods have been asked to "take a bullet" for the rest of the CoA. In fact, a member of city government had the patronizing effrontery to say at a public meeting that "this [project] is for our own good." Should this project go forward, I proposed that all properties in the affected area be relieved of the need to pay any solid waste fees in perpetuity. The fees on other properties in the CoA can be raised to make up for any losses, as they are the direct beneficiaries of the negative impacts of this project being visited solely on this area.

Respectfully submitted,

Jan Zimmerman

Resident

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Quevedo, Vicente M.

From:	Kelly O'Donnell <kelly@odonnelleconomics.com>
Sent:	Tuesday, October 27, 2015 12:49 PM
To:	Quevedo, Vicente M.
Cc:	Kristine Suozzi; peggynorton@yahoo.com; Kitty Richards
Subject:	Transfer Station Analysis
Attachments:	WTS-EconomicAnalysis-04Oct2015.pdf

Dear Mr Quevedo,
I submitted an economic analysis of the proposed Edith transfer station prior to the most recent, cancelled meeting of the EPC, but it is not included in the materials on the website and I fear that it got lost in the shuffle. I have attached it to this email and I hope you will include it in the packet of materials provided to the EPC members for the meeting next week. Thank you for your consideration.

All the best,
Kelly O'Donnell

To: Peter Nicholls, Chairman, City of Albuquerque Environmental Planning Commission

From: Kelly O'Donnell, PhD

Date: October 4, 2015

Re: Economic analysis of solid waste facility at 4600 Edith NE

Dear Mr. Chairman,

Thank you for the opportunity to share my analysis of the proposed transfer station at 4600 Edith with you and the members of the Commission. As an economist, I read through the 2014 update of the Albuquerque Transfer Station Feasibility Analysis and the recently submitted Project Narrative with great interest. Both documents contain a great deal of useful information. I would like to highlight the following:

1. The project does not produce cost savings for the city unless the three existing convenience centers are closed. City officials have repeatedly stated that the convenience centers will remain open.
2. Full build-out of the proposed transfer station and solid waste facilities will cost the City of Albuquerque and its residents $1.6 million in the first year of operations and $3.2 million over the project's life cycle.
3. In light of these facts, the assertions in the Feasibility Analysis and the Project Narrative that the project will save the city money and prevent future trash collection rate increases are inaccurate, and the reverse – that costs arising from the project may expedite increases in trash disposal rates and convenience center user fees – is more likely to be true.

In addition, it is important to note that:

1. Using the Edith site rather than purchasing a more suitable one does not save the city $5 million as is stated in the Feasibility Analysis. The cost of using an asset is the revenue foregone in not employing it elsewhere. The city's land at 4600 Edith is worth $3.2 million according to Bernalillo county assessor records.
2. Research on other, similar projects indicates that the transfer station may depress property values within a 1.5 mile radius, reducing property tax revenue by $232,000 and depleting home owner assets by $17.5 million.
3. The presence of a transfer station will undermine prospects for future revitalization, commercial development and job growth in the neighborhood.
4. The negative health outcomes likely to result from the transfer station all impose large costs on government and the community.

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Full build-out will cost city residents $3.2 million

Full build-out of the proposed transfer station and solid waste facilities at 4600 Edith NE will impose a $3.2 million net cost on the City of Albuquerque unless all other city convenience centers are closed (updated Feasibility Analysis, p.10). City officials have stated that all convenience centers will remain open.

The city's cover memo to the 2014 Feasibility Analysis, states that "The primary goal of building a waste transfer station is to reduce the cost of transporting waste to the landfill." If the WTS increases, rather than decreases, the city's waste disposal costs, the primary justification for developing the transfer station is eliminated. Further, in responding to several of the policies and criteria from Resolution 270-1980, the Albuquerque-Bernalillo Comprehensive Plan, and the North Valley Area Plan necessary for a zone map amendment, the Project Narrative asserts that the project will "save the city $75 million over 20 years," and "forestall rate increases" for consumers. If, as the feasibility analysis suggests, the project will impose a net cost on the city, these statements are inaccurate and should be disregarded. In fact, by the logic of the Project Narrative, costs arising from the project may expedite future increases in trash collection rates and user fees.

Using the Edith site does not save the city $5 million

Contrary to the Feasibility Analysis, using the Edith site rather than purchasing more suitable property will not save the city $5 million. The Feasibility Analysis recommends that the site's existing Solid Waste Department facilities be razed and rebuilt from the ground up. Thus the Edith site has no inherent advantage over other sites and, although it is already owned by the city, its use is not without cost. The cost to the city of using the Edith site is the value of the site's alternative uses. According to the county assessor, the city property at 4600 Edith is worth $3.2 million. Presumably, the city could re-purpose, sell or swap the Edith parcel. The net value of such transactions must be subtracted to calculate the true value of using the site.

A transfer station may depress property values within a 1.5 mile radius, reducing property tax revenue and depleting homeowner assets

Proximity to the noise, congestion, odors and toxicities of a facility processing 3 million pounds of waste daily will likely reduce residential property values and thus property tax revenue. Numerous studies in the US and abroad have demonstrated a negative correlation between proximity to high volume waste sites and property values. This research suggests that the transfer station will depress property values within a 1.5 mile radius of the site, with properties closest to the station experiencing the greatest impact. A 2005 meta-analysis concluded that the value of residential property immediately adjacent to solid waste sites was depressed by an average of 12.9 percent while property values one mile from the site were depressed by an average of 7 percent.[i] However, the

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most definitive study of how waste transfer stations impact property values, published in the journal Waste Management in 2007, found that transfer stations impacted the value of residential property within a 1.8 mile radius. The impact on property values decreased as distance from the facility increased, declining from roughly 9 percent within one-quarter mile of the facility to two percent at 1.4 miles from the facility.[ii]

The impact on residential property values from Edith WTS was estimated by applying the coefficients from the Waste Management study to geo-coded 2015 appraisal data from the Bernalillo County assessor. The results are provided in Table 1.

The areas surrounding the site in which property values may be impacted are depicted in Exhibit 1. The five concentric rings radiating outward from the site each correspond to a percentage change in property value. The inner ring represents those properties within one-quarter of a mile of the site. The value of these properties is expected to decline by 9 percent as a result of the WTS. The outermost ring represents those properties within 1 mile and 1.5 miles of the site. Property values in this zone are expected to decline by 2 percent. Percentage declines in property value as a function of proximity to the site are presented in Table 1.

There are 4,653 homes within 1.5 miles of the proposed transfer station with a combined property value of approximately $594 million. If residential property values surrounding the site decline at the rates documented in earlier research and listed in Table 1, residents of the impacted area will lose $17.5 million in home value and local governments will lose approximately $223,232 in annual property tax revenue.

Table 1: Edith Waste Transfer Station, Estimated Impacts on Residential Property Values and Tax Revenue

Distance from WTS	Property Value Reduction	Homes	Residential Property Values	Property Value Reduction	Property Tax Reduction
1/4 mile	9%	3	$299,020	$26,912	$343
1/2 mile	8%	69	$6,913,941	$553,115	$7,058
3/4 mile	7%	392	$44,362,132	$3,105,349	$39,624
1 mile	5%	905	$98,466,774	$4,923,339	$62,822
1 1/2 mile	2%	3,284	$444,300,000	$8,886,000	$113,385
Total		4,653	$594,341,867	$17,494,715	$223,232

Source: Author calculations using geo-coded 2015 Bernalillo County Assessor data compiled by William Hudspeth.

It is very important to note that the analysis presented here considers only residential property values, which constitute just 21 percent of property value in the vicinity of the site. It is reasonable to expect the WTS to depress the value of some neighboring commercial property, however, because research to-date has focused on residential

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property values, there is no basis upon which to quantify the potential magnitude of impacts on non-residential values.

Impact on household assets and homeowner net worth

Home equity is the largest single asset held by most American households. Home value may constitute the *sole* asset of many low-and moderate-income homeowners in the area of the proposed transfer station. Assets provide financial stability to families living paycheck-to-paycheck, enabling them to weather a temporary lay-off or health crisis without triggering the downward financial spiral that can easily culminate in homelessness. A several percent reduction in home value could significantly deplete or even eliminate net worth for many neighborhood families. If the presence of the transfer station forecloses future opportunities for neighborhood revitalization, the impact on property values and home equity may be compounded over time.

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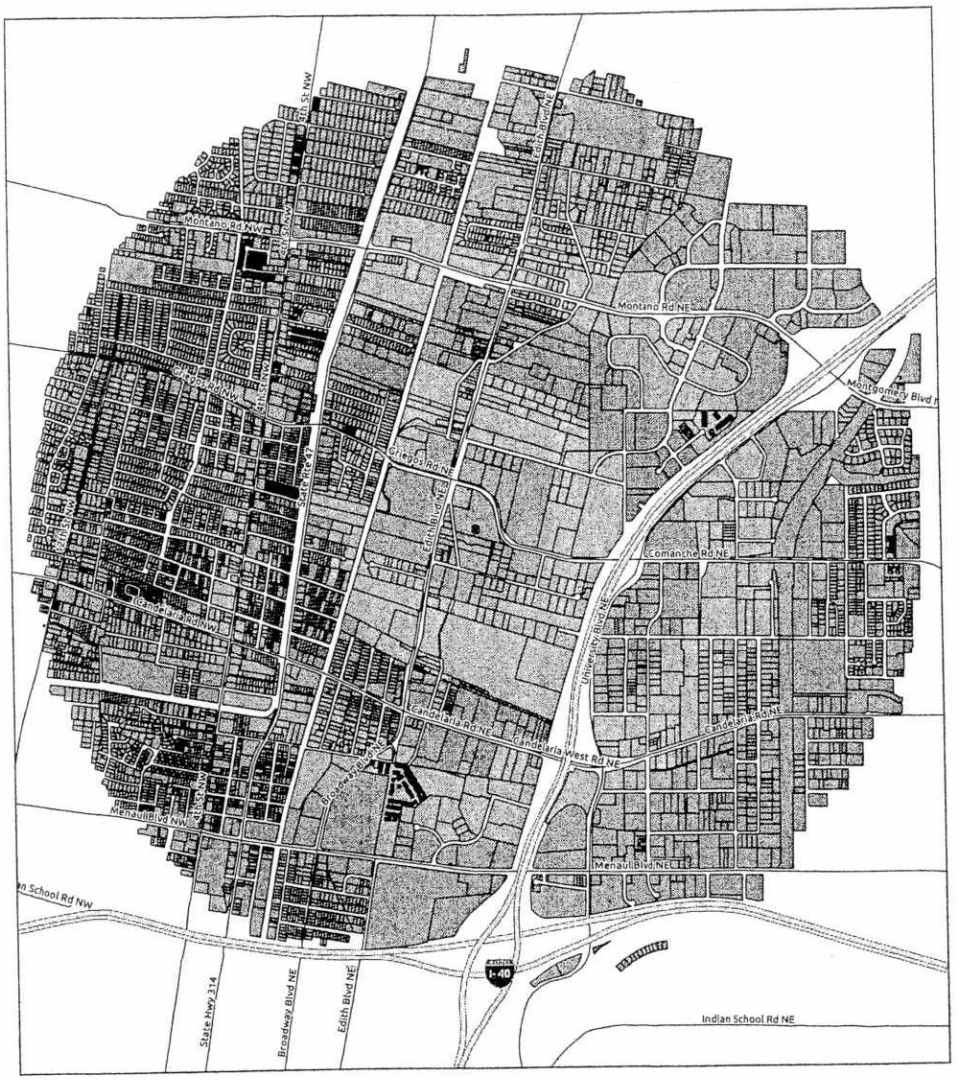

Location of Parcels within Zones based on Distance from Proposed Site of the North Valley Waste Transfer Station (1/4 Mile Increments)

A transfer station may undermine future revitalization and job growth

The area likely to be impacted by the transfer station is home to over 500 private businesses including retailers, professional services, food manufacturers, warehousing, distribution, and government services with over 16,000 proprietors and employees and payrolls in excess of $272 million.[iii]

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These businesses may experience declining property values, diminished productivity due to traffic congestion and reduced retail sales as the neighborhood environment is degraded. In addition, by damaging the public perception of the surrounding neighborhoods, the transfer station is likely to diminish the community's future prospects for economic development and revitalization.

Health impacts impose high costs on government and the community.

The Health Impact Assessment of the transfer station provides an inventory of possible health consequences, all of which impose costs in the form of lost productivity, increased utilization of the healthcare and emergency response systems, and greater dependence on the social safety net. These costs are potentially quite large, but also difficult to forecast.

The more readily estimated tax revenue and employment impacts presented in this memo should be regarded as lower bound estimates of total cost, both because they exclude the aforementioned health impacts and because they do not account for reduced commercial property values or other business impacts.

In conclusion, reducing the cost of solid waste disposal through development of a new transfer station is a laudable objective that warrants further study. However, waste facilities such as the waste transfer station contemplated at 4600 Edith NE generate numerous negative externalities. It is therefore essential that the benefits and costs of any siting decision be weighed extremely carefully. Potential costs unaccounted for in the 2014 update of the transfer station feasibility study commissioned by the City of Albuquerque Solid Waste Department include $17.5 million in lost home values, job and productivity losses due to traffic congestion and environmental degradation, and a $232,232 reduction in annual property tax revenue.

Sincerely,

Kelly O'Donnell, PhD

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[i] Braden, J., Feng, X., Won, D. (2011). Waste sites and property values: A meta-analysis. Environmental and

[ii] Eschet, T., Baron, M., Schecter, M., Ayalon, O. (2007). Measuring externalities of waste-transfer station using hedonoic prices: Case study: Israel. Waste Management. 27 (5).

[iii] U.S. Department of Commerce, County Business Patterns, 2013 by Zip Code, portions of 87107, 87102, 87104, and 87197 corresponding to census tracts 30.01, 30.02, 3100, and 2900

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Quevedo, Vicente M.

From: Victoria Padilla <victoria@juntos-newmexico.org>
Sent: Tuesday, October 27, 2015 11:52 AM
To: Quevedo, Vicente M.
Subject: project #1010582

Regarding the proposed Waste Transfer Station in the North Valley of Albuquerque I would like to go on the record for strongly oppose this project.

I am a resident of the North Valley, a mother of preschooler, and a life long New Mexican. I have stood by and seen my community deal with a variety of pollutants. Our water, air and soil are contaminated from industries similar this waste station.
My community has suffered long enough and now I am standing up to fight for my daughters environment. The North Valley is filled with low income people of color who will be dealing with the smell and mess of the proposed waste station. The people of this community have been here far longer than industry, and we demand environmental justice for our land. We deserve to have clean and safe places to live and play.
Please consider finding a new location, the money saved in convenience costs for this proposed location will ultimately be paid in health expenses for this community.

Thank You
Victoria Padilla

1333 Arcadian Trl NW
Albuquerque NM, 87107
505-319-3492

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Quevedo, Vicente M.

From: Joan Brown,osf <joankansas@swcp.com>
Sent: Tuesday, October 06, 2015 7:42 AM
To: Henry, Dora L.; Quevedo, Vicente M.; joan m brown
Subject: Project #1010582

Regarding the Waste Transfer Station proposed for the North Valley of Albuquerque, I go on record opposing this project for many reasons
including:

*The health concerns caused by air pollution, especially in light of increased climate change and weather events.
*Concerns for water quality that can be impaired in a neighborhood from run off and extreme weather events *Noise pollution to the residents and businesses living in the area *Protocol for vetting the project has not been followed *Cumulative environmental and health concerns have not been followed *The citing of the facility is an environmental justice concern *No other locations were considered *The city does not have an overall waste management plant, which should include reducing the waste stream and protecting the health and welfare of the community and the earth.

Peace and good,
Sr. Joan Brown,osf

Joan Brown,osf
Executive Director
New Mexico Interfaith Power and Light (NMIPL)

New Mexico Interfaith Power and Light
PO Box 27162
Albuquerque, NM 87125
505-266-6966 www.nm-ipl.org info@nm-ipl.org

1004 Major Ave. NW.
Albuquerque, NM 87107
joanbrown@nm-ipl.org

"There is no inner world without the outer world." Thomas Berry, Author of The Great Work

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To: Vicente M. Quevedo, EPC Staff Planner, COA Planning Department
From: Bill Hudspeth, Ph.D., Kelly O'Donnell, Ph.D., Kitty Richards, MS, MPH, and Kristine Suozzi, MS, Ph.D.
Subject: COA, Environmental Health Department's (EHD) rebuttal of the North Valley Health Impact Assessment of the Proposed Edith Transfer Station (HIA)

We strongly disagree with EHD's rebuttal to our HIA and address EHD's rebuttal, dated September 23, 2015, in the order in which they appear in their document.

SUMMARY

1. The HIA was conducted to research the potential health impacts of the ETS to residents living in adjacent neighborhoods. While the EHD's rebuttal of the HIA leads one to believe the ETS will benefit the health of residents living in neighborhoods adjacent to the ETS or that there is an absence of residents living nearby because the site is zoned industrial, HIA findings suggest otherwise. HIA findings: 1) demonstrate negative impacts to residents living adjacent to the proposed ETS site; and 2) provide evidence of residents living less than 100 feet from the perimeter of the ETS site. Therefore, the proposed zone change to special use will be harmful to residents of the adjacent neighborhoods and requirement E of Enactment 270-1980 is unmet. According to Enactment 270-1980 it is up to the applicant, in this case the COA, to demonstrate that the zone change would not be harmful to adjacent property, the neighborhood, or the community. While the applicant (the COA) claims that methods used to develop HIA findings are not scientific and suggests the ETS will not adversely affect the health of residents or property owners living or operating in neighborhoods adjacent to the ETS site, the applicant has failed to provide evidence to back up this faulty assertion as required by Enactment 270-1980.
2. In spite of a suggestion made by EHD to the contrary, no where does the HIA state a causal effect between a risk factor and a health outcome, instead the HIA appropriately provides evidence of strong associations between one, or several risk factors, and a health outcome based on peer-reviewed literature. In fact, section headings describing the associations between a subject risk factor and health outcome are labeled, *Association*.
3. While EHD's rebuttal states that there are no health disparities among minorities of the impacted community, analysis of health data obtained from the New Mexico Department of Health's Indicator-Based Surveillance System at New Mexico Department of Health Small Area geography supports our HIA findings.
4. While we are pleased that there will be **extensive design and operational elements** to address some environmental issues, these **are only within the site's boundaries in general and the enclosed facility in particular. Further, at the time of HIA submission, design and operational elements had not been drafted, much less finalized.** As public health practitioners, we are the most concerned about the effects of the ETS on the health of

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adjacent neighborhoods, **outside of the boundaries of the proposed ETS** and how these effects might exacerbate the existing health disparities.

5. While the COA, and their contractors, anticipate design and operational elements developed for the ETS will meet the capacity needs in terms of garbage quantities, mistakes can and do happen resulting in catastrophic health consequences. Such was the case for another waste transfer station (WTS) named Rainbow, which was designed by the COA's contractor JR Miller, and located in Huntington Beach, CA. Hailed by the COA as a state-of-the-art facility during a COA sponsored public meeting, sheer quantities of garbage quickly outpaced the design capacity of Rainbow resulting in the processing of garbage outside of an enclosure (which was not supposed to happen) and numerous violations. Complaints of illness resulting from odors, dust, noise, traffic, and bird feces followed. The Santa Ana Superior Court recently ruled in favor of the Ocean View School District's lawsuit against the company.

GENERAL

1. While the EHD's rebuttal insinuates there was no opportunity for COA's input to the HIA, the COA, and their contractors, were fully aware of the conduct of the HIA and could have requested to participate at any time. The EHD's rebuttal further insinuates the HIA Committee was comprised of special interests. HIA meetings were open meetings and advertised widely through several announcements sent out via list-serves and at COA and North Valley Coalition sponsored meetings regarding the ETS. It is ironic the EHD suggests the HIA Committee was comprised of special interests when members of the EHD are COA employees whose role as both staff reviewers and employees of the applicant presents a conflict of interest.
2. While the EHD's rebuttal suggests HIA authors abandoned HIA guidelines and introduced bias into their research. HIA methods, including definition of the geographic boundaries of impacted neighborhoods, questions posed, risk factor and health outcome pathways, data selection, and data limitations were clearly delineated in the Screening and Scoping Sections of the HIA. Additionally, as stated in a letter to the EPC dated October 5, 2015 from Dr. Rajiv Bhatia, a pioneer in the HIA field, HIA authors followed HIA guidelines. In the spirit of HIA guidelines, community representation and collaboration were encouraged, as was the consideration of health inequities. Researchers working in the health assessment field have long recognized the importance peer reviewed literature as well as the inclusion of residents' knowledge of the community in which they live. The HIA Committee completed a scoping grid and decided which questions and concerns they wanted to address. These questions and concerns drove the data selection process. Several HIA Committee meetings were held to decide on the geographic boundaries of the impacted community. Because health data are aggregated into New Mexico Department of Health Small Areas, residents decided on four census tracts that were comprised of residents whose neighborhood were located nearby or adjacent to the ETS site. These census tracts comprise New Mexico

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Department of Health's Small Area 19. As with any dataset there are always limitations, these limitations are described throughout the HIA as data are presented.

3. We take incredible insult to EHD's assertions that we have intentionally manipulated data sources, that data provided does not pertain to the geographic area of interest or locality, or that we have in some way mislead our audience. We are professionals who are highly esteemed by other professionals in our field, have dedicated our lives to the health of our population, have worked in the public health field for most of our careers, and who have asked other equally esteemed health professionals to review and critique our work. As evidenced through a sign-off of four prominent health professionals as reviewers to the HIA, the HIA is scientifically valid and credible. As professionals who abide by HIA guidelines, we have not exaggerated health risks. We followed epidemiologic principles and refer to **associations, not causality.** Associations between risk factors and health outcomes are based on peer-reviewed literature and are clearly labeled in the HIA as such. Further, the HIA clearly labels Existing Conditions, based on data sources that pertain to the geographic area of interest, as well as Predicted Health Outcomes based on peer reviewed literature, community knowledge, data sources, and our own professional expertise in public health.
4. Although the EHD's rebuttal suggests the activities of the ETS will be similar to activities occurring at the site of the current Solid Waste Department (SWD), evidence presented in Fact Sheets disseminated by the COA suggests a different scenario. At present, activities at the site consist of fleet fueling, fleet maintenance, fleet parking, and administrative activities. Activities associated with the ETS are far more significant in terms of environmental and health impacts as well as land use intensity. Activities will include garbage dumping by collection vehicles, garbage transport by semi-trucks, a convenience center and related self-haul private vehicle traffic, a household hazardous waste facility, and the processing and tipping of up to 5 million pounds of garbage per day. This more intensive land use is likely the reason that the current M-1 heavy industrial zone prohibits waste transfer stations and requires a zone change to special use.
5. EHD's rebuttal suggests that we are attempting to coerce our audience into opposing the COAs request for a zone change by saying that the health disparities among minorities of the impacted community are attributed to environmental exposures. Throughout the HIA, we clearly state that health disparities exhibited among minorities of the impacted community are attributed to existing environmental and non-environmental risk factors. The EHD seems to have missed our point that: a) regardless of the environmental and non-environmental risk factors (such as poverty, lack of education or other social determinants of health), minorities of the impacted community experience a disproportionately high health burden, b) the ETS will contribute to these risk factors (from traffic, air pollution, noise, etc.) and exacerbate already unacceptable health disparities, and c) based on an

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abundance of peer-reviewed literature, the stress resulting from cumulative impacts will further compromise the human body leading to poorer health.

SPECIFIC FINDINGS - Mark Di Menna

Traffic

As we still have not received COA's Final Traffic Impact Study, an independent traffic study was conducted. This study corroborated our initial findings that there will be increases in traffic on major roadways in the area (and on routes that were not considered in the COA Preliminary Traffic Impact Study) and that there are potential impacts to the health and safety of residents, students, pedestrians, bicyclist and workers in the project area.

Air Quality

The independent traffic study conducted by Sustainable Systems Research, LLC concluded that, while overall air quality in the city might improve with the transfer station, the air quality in the vicinity of the transfer station would worsen. Furthermore, the COA has offered no timeframe for conversion of trucks from diesel to natural gas, so the concerns about particulate matter are indeed accurate.

Climate Change, Water Quality and Flooding

Community knowledge suggests that storm water issues will and do have a direct impact on the health of the community. Past flooding has resulted in storm-water runoff, and along with it the collection of debris from the current site, in the very recent past. Contamination of surface and ground water as well as flooding adversely impact the health and wellbeing of our community.

Noise

While again, we appreciate that the ETS will be enclosed and noise inside the facility will be mitigated, our major concerns are with increased traffic, the surrounding roadways that will be impacted, and egress and ingress to the facility. Indeed the surrounding community and the schools in the area will be impacted by increases in noise.

Odor, Litter, rodents and Insects

Evidence is lacking for EHD's statement that, "there is no increased health risk from vector borne diseases to the community from the ETS facility". Further, although data is collected from EHD, the data source commonly acknowledged as the best by health professionals is the New Mexico Department of Health, Integrated Based Surveillance System. Additionally, reports from community residents living next to waste transfer stations, suggests even with mitigation measures such as sprays to cover odors, nuisances do contribute to poorer health and wellbeing.

Occupational Health

This paragraph seems to miss the point made by the HIA that depending, "on COA's policies regarding employment of impacted residents, the impacted community's

existing health burden could increase" as a consequence of occupational injuries (HIA, page 10).

Cumulative Impacts and Environmental Justice

The City's Solid Waste Department did not follow EPA's guidelines regarding siting of a waste transfer facility. These guidelines clearly call for **public involvement before** there is a siting decision. **The first city-sponsored public meeting was January 15, 2014, after a site had already been chosen.** Furthermore, these guidelines warn against siting such facilities in low-income communities of color that are already over-burdened with environmental threats.

We would like to emphasize that operational and design plans are designed to mitigate issues **within the boundary of the facility and the enclosed building.** As public health professionals, we are the most concerned with the potential health impacts to residents of the impacted community.

GENERAL FINDINGS

The charged language (significant flaws, exaggerations, incorrect and erroneous information – with no substantiation) makes this section difficult to read and to address the allegations. The HIA **has no significant flaws** and in addition to being authored by three individuals with a wealth of expertise and leadership in the HIA field, the HIA was vetted through five well-credentialed individuals with doctorates in public health, health impact assessment training and experience, and medical degrees, four of whom work for the University of New Mexico, a well-respected educational institution committed to the application of non-biased scientific inquiry and research.

Health Impact Assessment Process

a. The names of individuals on the HIA Committee are available if needed. An open invitation to participate in the HIA Committee was sent via neighborhood association list serves and at COA and North Valley Coalition sponsored public meetings. COA staff and their contractors were aware of HIA Committee meetings from their inception and could have shown an interest in the health of the community by participating. Nobody, including decision makers, was excluded from participation. There **was no involvement of special interest groups and the HIA was conducted in an unbiased manner without prejudgment or bias.** It is ironic the COA is suggesting special interest involvement in HIA Committee meetings when their own EHD staff could be considered "special interest" because their role as both reviewer of the application and employees of the applicant.
b. See response in (a) above. EHD's rebuttal does not state what "important factual data are not included that may have influenced the outcome"; therefore, a response to this statement is not possible.
c. EHD's rebuttal regarding HIA limitations and constraints is broad and non-specific, so EHD's statements are difficult to address. Inclusions are based on scientific inquiry with all citations presented. A discussion of HIA methods is

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provided in the Screening and Scoping Sections of the HIA. Health outcome data are sourced and apply to the impacted community, specifically, New Mexico Department of Health Small Area 19. While the EHD suggests using the seventeen census tracts, portions of which are included within a 2-mile radius of the ETS site, this is impractical because seventeen census tracts would cover a vast geography of Albuquerque that, for practical purposes, would not be as affected by the ETS and impossible because health data are not available at this sub-county geography.

d. The selection of the impacted community boundaries is explained on pages 14-15 of the HIA. While the EHD suggests using seventeen census tracts, portions of which are included within a 2-mile radius of the ETS site; this is impractical because seventeen census tracts would cover a vast geography of Albuquerque that, for practical purposes, would not be as affected by the ETS and impossible because health data are not available at this sub-county geography. The data sources, geography, applicable sub-population, and years of data represented are presented with the tables and cited in the reference section.

e. EHD's statements constitute an affront to the ethical and professional obligations of the authors and reviewers who, together, have committed their entire professional careers to the service of others and to health care of our population. There were no preordained recommendations and no bias has been demonstrated. Recommendations are based on HIA findings that were obtained through community knowledge, peer reviewed literature, and data sources. Based on findings showing health disparities among the most vulnerable in the impacted community, the HIA Committee voted on May 21st, after eight months of meeting twice monthly, that the ETS was not in the best interest of the community. Sixteen NV Neighborhood Associations and other recognized entities voted unanimously on October 1st to oppose the ETS in its current form at the current proposed site.

Misrepresentation of the Project

a. Although the EHD's rebuttal suggests the activities of the ETS will be similar to activities occurring at the site of the current Solid Waste Department (SWD), evidence presented in Fact Sheets disseminated by the COA suggests a different scenario. At present, activities at the site consist of fleet fueling, fleet maintenance, fleet parking, and administrative activities. Activities associated with the ETS are far more significant in terms of environmental and health impacts as well as land use intensity. Activities will include garbage dumping by collection vehicles, garbage transport by semi-trucks, a convenience center and related self-haul private vehicle traffic, a household hazardous waste facility, and the processing and tipping of up to 5 million pounds of garbage per day, among others. This more intensive land use is likely the reason that the current M-1 heavy industrial zone prohibits waste transfer stations and requires a zone change to special use. EHD's suggestion that the ETS will consist of the same activities as presently occur on the site

is extremely misleading. The HIA concludes that current unacceptable health disparities may be exacerbated by ETS operations at this site.

b. The US Environmental Protection Agency (USEPA) (2000) in "A Regulatory Strategy for Siting and Operating Waste Transfer Stations: A Response to a Recurring Environmental Circumstance: The Siting of Waste Transfer Stations in Low Income Communities of Color" states that public involvement should take place **before a site is selected.** This is further highlighted in the USEPA's document entitled, "Transfer Stations: A Manual for Decision-Making" (2002). **The first public meeting that the COA held was on January 15, 2015, after the site had been selected.** Therefore, there was **no public involvement** in site selection for the proposed Edith Transfer Station **before the site was selected.**
c. The current zone for the ETS site is M-1, which does not permit a waste transfer station. A waste transfer station is NOT considered a light industrial operation.
d. At the time of the HIA submittal, design plans were in draft form and operation plans were non-existent. Additionally, to rely on design plans, operation plans, and annual inspections to mitigate negative health outcomes is misguided at best. As evidenced by Rainbow, designed by the COA's consultant JR Miller, design plans do fail and with their failure comes a host of catastrophic health issues. The primary reason for conducting a HIA is to consider the potential health impacts of a proposed project **prior to** decision making in order to prevent negative health impacts. HIAs are preventative and proactive, while enforcement could be considered reactive.
e. The HIA acknowledges NMED's permitting requirement on page 18 of the HIA under, "Approval Process". However, the focus of the HIA is not on NMED's permitting process, rather it is on the potential health effects of the ETS to residents living in the impacted community.

Conclusions Based in Incorrect Interpretations

EHD's rebuttal claims that there was erroneous logic and interpretation, but their comments are vague and misleading and they fail to demonstrate where or how. The HIA is based on sound logical methodology and scientific literature.

a. There are no "stark" perspectives on dangers included; they are scientific and based on literature and data sources.
b. The data is neither mischaracterized nor misinterpreted. Health data used in the HIA is referenced by source and, where available, represent health outcomes at the geographic level of the impacted community.
c. Scientific inquiry is based on using substantiated data and facts and drawing conclusions based on those facts. There are no non-sequitur conclusions. Further, health data provided are from a source considered the most reliable by health professionals, the New Mexico Department of Health, Indicator-Based Surveillance System.
d. There is simply no logic to this statement. Factual data has been presented throughout the HIA.

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As detailed above, the two-mile radius was not arbitrary, but chosen by the HIA Committee after much discussion, review of maps, and exploration of what kind of health, demographic and behavioral data were available through the US Census and the New Mexico Department of Health. This is fully addressed and justified in the HIA under the Scoping Section.

The authors of the HIA and professional reviewers are very familiar with the difference between association and causation. Associations were found to be very strong. This spurious argument is reminiscent of the tobacco companies' arguments as to whether or not smoking caused or was associated with cancer. As the tobacco companies pointed out, some smokers lived to 100 and never got cancer. The Tobacco Settlement (New Mexico receives $4-8 million annually) speaks to this issue. As mentioned above, it is impossible to disentangle the many social determinants of health to demonstrate which is more strongly associated with an outcome. However, it is clear that Hispanics of the impacted community have poorer health outcomes. It is likely the ETS would exasperate existing health disparities.

SPECIFIC FINDINGS - EHD

Traffic

The EHD critique of traffic findings emphasizes that the project will only cause additional traffic "on arterial roads surrounded by industrial-zoned properties" and that the magnitude of traffic increases are not significant. It also argues that the impacts to bicyclists and pedestrians have not been detailed in a way that is specific to this project.

While we have not yet seen the COA's Final Traffic Study, an independent Traffic Study conducted by Sustainable Systems Research, LLC (SSR) indicates that the COA's Preliminary Traffic Study relied on a number of flawed assumptions. In contrast to the COA's Preliminary Traffic Study and the assertions in EHD's rebuttal, the SSR's Traffic Study finds that the project will lead to an increase in vehicle (and truck) travel on a number of routes that are adjacent to residents and a school. Additionally, the magnitude of the traffic impacts may be greater than what was assumed in the COA's Preliminary Traffic Study, and a number of critical bike and pedestrian routes will carry additional truck traffic due to the project.

Air Quality

While the EHD critique of the air pollution discussion begins with an acknowledgement that air pollution has a "significant impact on human health" and that "areas with greater air pollution have more pronounced effects", EHD's rebuttal appears to assert that the HIA's *focus* on the disproportionate impact of reduced air quality on the health of children is somehow unsettling. As was discussed in the HIA, what is unsettling is that children are at particularly high risk, owing to the fact that they breathe proportionally more air than do adults, breathe more air closer to the ground, which may be contaminated, and are more susceptible to physical and

chemical assaults to their growing and developing airways. Because children are the most impacted by air pollution, a focus on their situation should come as no surprise.

The EHD attempts to discredit the HIA's findings on air quality by presenting a misleading argument concerning the scale at which exposure to air pollution occurs. Their response correctly emphasizes the regional focus of air quality monitoring, and identifies the methodology by which the EPA measures and assesses COA's compliance with the National Ambient Air Quality Standards (NAAQS). That Albuquerque has made considerable progress in this area is commendable, but is not directly relevant to the particular communities discussed in the HIA, in this particular case. The HIA's concerns are solely with the communities that will most directly be affected, and not with regional air quality. The correct interpretation with regards to the impacts of the ETS on the communities in question, the explicit focus of the HIA, are decidedly not a function of its regional impact, but rather precisely on the local impact on this excessively burdened community. The EHD's acknowledgement of the EPA's finding that higher exposures to air pollution are experienced by those within 500-600 feet of a major roadway is a tacit acceptance of this fact, and minimizes the need to appeal to pollutant dispersion as a means of explaining away the community impact.

The EHD's response to the HIA air quality section is fundamentally flawed in that, while disparities of the impacted community are often acknowledged, impacts of the ETS are dismissed, minimized, or deemed to be entirely irrelevant. In fact, a barrage of data is presented to discredit the findings of the HIA's authors, and to suggest that occasional air quality exceedances, air inversions of rare occurrence, pollutant dispersion, and the attribution of but small percentages of measured air pollution to components generated by vehicle exhaust somehow obviate the role of transfer station impacts to this community. Some basic facts remain. The community is one that **already** experiences a proportionally higher health burden than other parts of the city. The introduction of greater numbers of collection vehicles along major arteries **will** bring more air pollution to **this** neighborhood, meaning that the residents of the communities along these arteries **will** be exposed to a greater concentration of air pollutants than is currently the case, or is the case with other districts of the city. While the nature of the impacts of the ETS on the impacted community cannot be modeled with precision, as the EHD's response seems to require, the associations between air pollution and human health, and the adverse effects of such facilities on adjacent populations is amply demonstrated in the scientific literature. The information presented by the EHD cannot be interpreted to imply that these processes are somehow avoided in this situation.

Climate Change, Water Quality and Flooding

The HIA addresses climate change at a regional level; however, it does not state the ETS will cause climate change as EHD's rebuttal suggests. Rather the HIA discusses the impact of the ETS to local heat islands, down-stream water quality, and storm-water runoff. EHD's rebuttal states the drainage plan will take care of storm-water runoff; however, drainage plans have not been finalized at the time of the HIA

submittal. Further, EHD's rebuttal suggests that efforts to address storm-water runoff will improve under EPA's scrutiny. As mentioned I the HIA, the COA has violated their water discharge permit.

Noise

While EHD's rebuttal asserts that the impacted community is largely industrial zoning, they are omitting three important facts: 1) there are over 18,000 people who live within the impacted community; these residents are important and they and their quality of life do count; 2) while the area is zoned M-1, this zoning does not allow for a waste transfer station; and 3) the substantial increases in traffic with the ETS would have negative health effects related to increased noise on the residents, students, pedestrians, bicyclists and workers in the area.

While noise levels in the Noise Ordinance exclude truck traffic, the ears of the aforementioned groups, particularly the students, do not differentiate noise from stationary sources or noise from mobile sources. Noise readings at the La Luz Elementary, the school closest to the ETS site were taken at the entrance of the school, located at the intersection of Griegos and 2nd Street, an intersection that SSR's Traffic Study indicates will be used as a route to the ETS. Students at La Luz Elementary School already experience disproportionate learning problems; with the siting of the ETS, these learning problems will likely become exasperated.

Odor, Litter, Rodents and Insects

The HIA states the ETS will result in nuisances, such as odors, litter, insects and animals, and with these, **possible** vector-borne diseases (HIA, page 10). EHD's rebuttal suggests that COAs measures will mitigate these nuisances and that residences are located so far from the site they will not be affected. The closest residence is less than 100 feet from the perimeter of the ETS site and a row of apartments are located at the corner of Rankin Road and Edith Blvd. Further, several businesses, and their employees, are located adjacent to the ETS site on Rankin Road. As the HIA states, based on reports from others living adjacent to waste transfer stations, nuisances are highly likely. In fact, video footage from another waste transfer station designed by JR Miller, and heralded by the COA as a state-of-the-art waste transfer station, poignantly illustrates the effects of these nuisances on the health of those, in this case students, nearby.

Occupational Health

EHD's rebuttal goes to extremes to say the COA will hire only qualified employees who will not necessarily live in the impacted community; however, it seems to miss the point made by the HIA that, "based on COA's policies regarding employment of impacted residents, the impacted community's existing health burden could increase" as a consequence of occupational injuries (HIA, page 10).

Cumulative Impacts and Environmental Justice

The COA's Solid Waste Department did not follow EPA's guidelines regarding siting of a waste transfer station. These guidelines clearly call for **public involvement**

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before there is a siting decision. **The first city-sponsored public meeting was January 15, 2014, after a site had already been chosen.** Furthermore, these guidelines warn against siting such facilities in low-income communities of color that are already over-burdened with environmental threats.

In EPA's Plan EJ 2014, the term "overburdened communities" is used to describe the minority, low-income, tribal and indigenous populations or communities in the United States that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards. This increased vulnerability may be attributable to an accumulation of negative and lack of positive environmental, health, economic, or social conditions within these populations or communities.

The addition of the ETS to the low-income (35.6% of the families are below the federal poverty guidelines), minority (64.6% are minority) and already over-burdened community has a strong potential to negatively impact the community's health and well-being. As pointed out, the decision for the site selection was made prior to any public participation

The report "Place Matters for Health in Bernalillo County: Ensuring Good Health for All by the Joint Centers for Political and Economic Studies (2012) demonstrated that this community has the highest density of environmental hazards per square mile, lower life expectancies, and multi-generational poverty of over five decades compared to other areas in Bernalillo County. It is clearly an environmental justice area.

As mentioned above, the US Environmental Justice Agency (2000, 2002, 2015) has clearly delineated guidelines for involving community and for avoiding the siting of a waste transfer facility in a low-income community of color. The USEPA defines environmental justice as "the fair and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies" (2015, p.20).

EHD's rebuttal incorrectly states, "the HIA has not demonstrated any evidence that support the idea that the transfer station will affect he impacted community's health". In fact, the HIA provides abundant data showing a disproportionate health burden for minorities of the impacted community, as well as predicted health outcomes associated with the ETS.

Individual and Business Economic Wellbeing

Hedonic pricing is a validated and widely used methodology for estimating the economic consequences of proximity to specific features of the built environment. Eshet, et al (2007) conducted the most definitive study of how proximity to a waste transfer station impacts property values, but theirs is hardly the only study to identify and measure property value gradients surrounding specific amenities or

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dis-amenities. While the literature specific to transfer stations is limited, many studies document strong negative correlations between property values – both residential and commercial – and proximity to other types of waste facilities, including those that process far less waste than would be processed by the ETS[i] and those that are no longer operational.[ii] The HIA provides a brief overview of the literature specific to North American waste facilities including a meta-analysis of the 46 studies issued between 1971 and 2008 measuring the economic impact of waste sites on real estate values.[iii]

It is also important to note that the impact of waste facilities on property values is largely a function of perceived rather than scientifically assessed risk.[iv] This is relevant because the distinction between a "transfer station" and a landfill may be unclear or irrelevant to many prospective homebuyers, given that both types of facility are commonly referred to as "the dump."

While it is true that the area immediately adjacent to the proposed facility is zoned industrial, this does not mean that a facility handling three million pounds of waste daily will not further degrade the neighborhood or depress property values. The logic that justifies siting the ETS because the neighborhood already contains polluting industries is the same logic that concentrates noxious facilities and waste sites in low income and minority neighborhoods.

There are over 1,400 residences with a combined value of $151 million within one mile of 4600 Edith.[v] If the value of these properties is impacted in a manner similar to that documented in hedonic pricing studies, they will lose $5.8 million in value, or over $4,100 per home. Low and moderate income Americans hold the vast majority of their generally limited assets in the value of their home. Most area households are of modest income and thus ill-prepared to absorb a several thousand dollar loss in the value of their most significant or sole asset.

Finally, adding three million pounds of solid waste and a significant increase in truck traffic to a neighborhood already stressed by poverty, excessive noise, and pollution effectively forecloses the potential for economic and social revitalization in the foreseeable future.

Conclusion

While we are assured that the staff of the EHD is comprised of highly qualified scientists and engineers, their primary role is one of regulation. We are primarily concerned with prevention of poor health outcomes that may result from placing the ETS at this proposed site. As demonstrated (see above cumulative impacts and environmental justice), this low-income, minority community is already stressed with more than its fair share of environmental threats and exhibits a disproportionate health burden.

We ask you to deny the zone change application and encourage the applicants to find a more suitable site outside of the impacted community.

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[i] Ready, R. (2010). Do Landfills Always Depress Nearby Property Values?
Journal of Real Estate Research Vol. 32 N.3

[ii] Farber, S. (1998). "Undesirable facilities and property values: a summary of empirical studies." Ecological Economics, 10.1016/S0921-8009(97)00038-4, 1-14. Online publication date: 1-Jan-1998.

[iii] Braden, J., Feng, X., Won, D. (2011). Waste sites and property values: A meta-analysis. Environmental and Resource Economics.

[iv] McCluskey,J. and Rausser, G. (2000), Estimation of perceived risk and its effect on property values, Department of Agricultural & Resource Economics, UC Berkeley, Working Paper Series, Department of Agricultural & Resource Economics, UC Berkeley

[v] Bernalillo County Assessor 2015 Real Property Spreadsheet plus Cadastral Parcel data in a GIS Shapefile format. Available for purchase at: http://www.bernco.gov/assessor/data-for-sale.aspx

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COA Zone Change Hearing
October 6, 2015
Patricia G. Martinez

In Collaboration with the North Valley Coalition/Guadalupe Village Association

Referencing: ENACTMENT 270-1980
Section 1.E. A change of zone shall not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood or the community.

Dear Chairman Nicholls and other Environmental Planning Commission Members:

I am Patricia G. Martinez and I am here to strongly oppose the proposed COA Edith Transfer Station. The change of zoning from M1 to SU1 will allow an operation that will negatively impact adjacent property, the neighborhood and the community within a two mile radius. Many of the adjacent properties are deemed historical.

My family has a vested interest in this area as well as the North Valley proper since the 1600's. Overtime, with the continual of use of 18 wheeler trucks, as well as other heavy equipment, will compromise the buildings structure, i.e., settling of foundations, cracking of walls and other obstructions to these sites. Also, having a garbage dump in this area will lessen the value of these properties.

How is this zone change going to be harmful to the neighborhoods and the surrounding communities?

The facts are that these neighborhoods and the communities are predominately of Hispanic origin and are of low income status. These neighborhoods and communities will be excluded from experiencing a life free of pollutants, carcinogenic particles of matter, noise, heavy traffic impacts.

Why and how, can the COA, Environmental Planning Commission and their constituents, cannot for see, this devastating and harmful situations that you would be putting this metropolitan area and City at large through. Not just in the near future but over an extended period of time. It is beyond me to think that you will be saving money but in fact trying to clean up this garbage site, will far exceed your budget for this project.

Sincerely,

Patricia G. Martinez

Patricia G. Martinez
menudochuy@q.com

Henry, Dora L.

From: =David Wood CPA= <wood_cpa@msn.com>
Sent: Tuesday, October 06, 2015 6:44 AM
To: Henry, Dora L.
Subject: Resubmission
Attachments: GGNA Concerns R270_1980 _Comp_Plan.pdf

Good morning Mrs. Henry,

Attached is a *resubmission* of a letter from September 28th, made by Greater Gardner vice president Jill Gatwood.

Her original letter was not appropriately dated "[Insert date]", so she has resubmitted it, and ask you enter this as her letter for the record with some additions as to content.

For Jill Gatwood.

David Wood

David Wood, C.P.A.

(505) 221-2626
Email: Wood_CPA@msn.com

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OFFICERS

David Wood, President wood_cpa@msn.com
Jill Gatwood, Vice President jillgat@gmail.com
Marca Finical, Treasurer marcia_finical@yahoo.com
Antoinette Vigil Secretary, antovigil@gmail.com

Greater Gardner Mailing List
ggnaabq@gmail.com

Greater Gardner Neighborhood Association

A North Valley Association of Concerned Albuquerque Residents

5 October, 2015

Mr. Peter D. Nicholls, Chair
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: ZONE MAP AMENDMENT: Proposed Edith Transfer Station
COA Project No. 7006.92 EPC Project # 1010582

Dear Chairman Nicholls:

The Greater Gardner Neighborhood Association has the following concerns about this zone amendment change request, based on R270-1980, and the City Comprehensive Plan.

A. A proposed zone change must be found to be consistent with the health, safety, morals, and general welfare of the City.

II.B.5

Policy k

Land adjacent to arterial streets shall be planned to minimize harmful effects of traffic; livability and safety of established residential neighborhoods shall be protected in transportation planning and operation.

II.C.1

Policy k

Citizens shall be protected from toxic air emissions.

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II.C.1

Policy i

Air quality considerations shall be integrated into zoning and land use decisions t new air quality/land use conflicts.

II.C.2

Policy c

Water quality contamination resulting from solid waste disposal shall be minimized.

The proposed project risks air quality. Changes that will be irreversible. Water seepage into ground water causing permanent contamination is a real risk as well. Harmful effects of traffic are inevitable on Griegos /Comanche, Eith and the Interstate as well.

B. **Stability of land use and zoning is desirable; therefore, the applicant must provide a sound justification for the change. The burden is on the applicant to show why the change should be made, not on the City to show why the change should not be made.**

A requested zone change that may not be necessary does not provide stability of land use zoning, The request makes a mockery of R270-1980.

C. **A proposed change shall not be in significant conflict with adopted elements of the Comprehensive Plan or other City master plans and amendments thereto, including privately developed area plans which have been adopted by the City.**

II.B.5.k
Policy k

Land adjacent to arterial streets shall be planned to minimize harmful effects of traffic; livability and safety of established residential neighborhoods shall be protected in transportation planning and operation.

II.C.3.d
Policy d

The potential for water and air pollution from regional landfills shall be minimized.

The Comprehensive Plan expects a "long view" of the Master Planning of solid waste handling. It also expects quiet, or harmless insertion of potentially noxious uses like this. Since there is no specific policy for transfer stations, Policy d, is also applicable to a transfer station and convenience station

D. **The applicant must demonstrate that the existing zoning is inappropriate because (1) there was an error when the existing zone map pattern was created or (2) changed neighborhood or community conditions justify the change, or (3) a different use category is more advantageous to the community, as articulated in the Comprehensive Plan or other City Master Plan, even though (1) or (2) above do not apply.**

Application says, no change is needed. It that is true, then there is no basis for a zone change under R270-1980. Applicant admits they do not have a facility plan. If the use is permitted then the existing zoning is not inappropriate. The applicant should provide a facility plan.

As for more advantageous to the Community:

1. If they can do the functions they propose under IP zoning, than a zone change to IP is not more advantageous.
2. Removal of the requirement for consistency with a facilities plan is not more advantageous to the community.
3. This project is not more advantageous to the community. You will hear much testimony and many comments were entered at the public hearings which demonstrate that this project is not wanted in the community and is potentially harmful.

E. ***A change of zone will not be approved where some of the permissive uses in the zone would be harmful to adjacent property, the neighborhood, or the community.***

II.C.1.i

II.C.1.i

Policy i

Air quality considerations shall be integrated into zoning and land use decisions to prevent new air quality/land use conflicts.

You have seen, many policy based letters from Valley residents. Traffic, Water, and Air Pollution are the key areas. Please refer to these letters on specific policies of concern. Groundwater, traffic, noise, air pollution from vehicles, and noxious emissions in and outside of SWD boundaries ae all of serious concerns to adjacent property owners, the neighborhood and the community. Note too, children are incarcerated between the project site and Candelaria, just south on Edith (CYDDC). We believe this project flunks the test of R270-1980, E.

Submitted for the record, October 5th 2015

Greater Gardner Neighborhood Association.

Jill Gatwood, Vice President

NNV

NNVNA
PO Box 6953
Albuquerque, NM
87197

Richard A. Sandoval
President, 345-4371

Joe Sabatini
Secretary, 344-9212

mail@nnvna.org
www.nnvna.org

Near North Valley Neighborhood Association

Volunteers working inclusively to protect, preserve, and enhance the community

October 6, 2015

Peter D. Nicholls, Chair
Environmental Planning Commission
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Sent via e-mail to Dora Henry and Vicente Quevedo

Re: Project #1010582; zone map amendment and site plan for building permit for the Edith Transfer Station

Dear Chairman Nicholls,

Our association asks that the EPC deny the zone change and site plan requested by the City's Solid Waste Department in order to build and operate the proposed Edith Transfer Station.

Members of our association have actively participated in several meetings about this issue, including the City's three public meetings and North Valley Coalition meetings. The topic has been regularly discussed at our monthly board meetings.

Many participants were frustrated that, at its meetings, the City refused to allow any discussion of whether the station should be built at all. The Rank 2 North Valley Area Plan states that "Transfer Stations shall be allowed...only if impacts on adjacent residential land can be mitigated through proper site design." This has not been done.

At its September 8 meeting, the board decided, on behalf of the association, to oppose the Edith Transfer Station as currently planned. We voted unanimously to adopt the following motion:

> *That NNV oppose the Waste Transfer Station until and unless the City revises its site plan, modifies its operations and develops off-site improvements, to:*
> *handle and mitigate the increase in traffic;*
> *mitigate sound;*
> *deal with dumped and blowing trash;*
> *improve aesthetics; and,*
> *most important, mitigate the health impacts.*

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The chosen site plan is not much more than a rearrangement of buildings on the site, and does little to mitigate impacts. It uses existing ingress and egress points, failing to move City truck traffic in and out of the site in the safest, quickest, and least expensive manner. The landscaping appears to do little to buffer the site.

In addition to shortcomings with the site plan, we want to draw your attention in to the following:

- The City's public meetings were not designed for a genuine dialogue with the affected community. The half-hearted physical set-up, including the lack of a sufficient number of functioning microphones, was intimidating and discouraging. The facilitation was either nonexistent or hostile.

- The City's public meetings were run in such a way as to try to force participating residents and businesses to choose the "least unacceptable" site plan option, thus giving implicit agreement to *some* plan.

- No other sites were seriously considered.

- The City has been less than candid and inconsistent in its communications about this project. We note in particular statements that: (1) the purpose of the Edith Transfer Station is to save money, (2) the various existing convenience centers will not be closed so displaced customer traffic need not be considered in traffic studies, and (3) the economics don't work unless the existing convenience stations are closed.

- The traffic study omitted the impact of increased traffic at the already-dysfunctional intersection of Comanche and Interstate 25.

There is widespread and reasonable opposition to the Edith Transfer Station in our community. Given the existing less-than-desirable facilities in the immediate area (the asphalt plant, the cement plant, and the recycling plant), this facility will put too much of a burden on the area, especially as currently designed. We ask that you do not enable the Edith Transfer Station and deny the zone change and site plan.

Respectfully submitted,

Richard D. Sandoval

Richard Sandoval, President

CC: City Councilor Isaac Benton

October 5, 2015

HAND DELIVERD

Peter Nicholls, Chairman
Environmental Planning Commission
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Re: Edith Transfer Station, Case No 1010582

Dear Mr. Nicholls,

I write today in opposition to the Waste Transfer Station proposed zone amendment at Edith and Griegos NW.

In particular, I want to state that the proposed Convenience Center, put forth as an amenity to the community, will do extra harm on top of the Transfer Station as a whole. While I am opposed to the Transfer Station at this site in general, my particular concern is that the Convenience Center with its citizen drop-off is wholly inappropriate to the project and will cause great harm to the neighborhood. The increased traffic to-and-from the site will add chaos to an already overburdened area. The typical citizen dropping items off risks losing parts of the load - leading to increased litter on adjacent roads leading to the site. This kind of use of the site is simply not suited to the close-in site which is proposed, surrounded as it is by historic properties, neighborhoods and congested streets.

In reference to the R-270 1980 document, the Convenience Center alone fails sub-parts D(3) "*more advantageous to the community*" and E "*some of the permissive uses in the zone would be harmful to adjacent property*". If nothing else, I think that this element should be stripped out of the project.

Thank you for your consideration.

Lucille Neely

Lucille Neely
1319 Van Cleave Rd. NW
Albuquerque, New Mexico

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To: Peter Nicholls, Chairman, City of Albuquerque Environmental Planning Commission

From: Kelly O'Donnell, PhD

Date: October 4, 2015

Re: Economic analysis of solid waste facility at 4600 Edith NE

Dear Mr. Chairman,

Thank you for the opportunity to share my analysis of the proposed transfer station at 4600 Edith with you and the members of the Commission. As an economist, I read through the 2014 update of the Albuquerque Transfer Station Feasibility Analysis and the recently submitted Project Narrative with great interest. Both documents contain a great deal of useful information. I would like to highlight the following:

1. The project does not produce cost savings for the city unless the three existing convenience centers are closed. City officials have repeatedly stated that the convenience centers will remain open.
2. Full build-out of the proposed transfer station and solid waste facilities will cost the City of Albuquerque and its residents $1.6 million in the first year of operations and $3.2 million over the project's life cycle.
3. In light of these facts, the assertions in the Feasibility Analysis and the Project Narrative that the project will save the city money and prevent future trash collection rate increases are inaccurate, and the reverse – that costs arising from the project may expedite increases in trash disposal rates and convenience center user fees – is more likely to be true.

In addition, it is important to note that:

1. Using the Edith site rather than purchasing a more suitable one does not save the city $5 million as is stated in the Feasibility Analysis. The cost of using an asset is the revenue foregone in not employing it elsewhere. The city's land at 4600 Edith is worth $3.2 million according to Bernalillo county assessor records.
2. Research on other, similar projects indicates that the transfer station may depress property values within a 1.5 mile radius, reducing property tax revenue by $232,000 and depleting home owner assets by $17.5 million.
3. The presence of a transfer station will undermine prospects for future revitalization, commercial development and job growth in the neighborhood.
4. The negative health outcomes likely to result from the transfer station all impose large costs on government and the community.

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Full build-out will cost city residents $3.2 million

Full build-out of the proposed transfer station and solid waste facilities at 4600 Edith NE will impose a $3.2 million net cost on the City of Albuquerque unless all other city convenience centers are closed (updated Feasibility Analysis, p.10). City officials have stated that all convenience centers will remain open.

The city's cover memo to the 2014 Feasibility Analysis, states that "The primary goal of building a waste transfer station is to reduce the cost of transporting waste to the landfill." If the WTS increases, rather than decreases, the city's waste disposal costs, the primary justification for developing the transfer station is eliminated. Further, in responding to several of the policies and criteria from Resolution 270-1980, the Albuquerque-Bernalillo Comprehensive Plan, and the North Valley Area Plan necessary for a zone map amendment, the Project Narrative asserts that the project will "save the city $75 million over 20 years," and "forestall rate increases" for consumers. If, as the feasibility analysis suggests, the project will impose a net cost on the city, these statements are inaccurate and should be disregarded. In fact, by the logic of the Project Narrative, costs arising from the project may expedite future increases in trash collection rates and user fees.

Using the Edith site does not save the city $5 million

Contrary to the Feasibility Analysis, using the Edith site rather than purchasing more suitable property will not save the city $5 million. The Feasibility Analysis recommends that the site's existing Solid Waste Department facilities be razed and rebuilt from the ground up. Thus the Edith site has no inherent advantage over other sites and, although it is already owned by the city, its use is not without cost. The cost to the city of using the Edith site is the value of the site's alternative uses. According to the county assessor, the city property at 4600 Edith is worth $3.2 million. Presumably, the city could re-purpose, sell or swap the Edith parcel. The net value of such transactions must be subtracted to calculate the true value of using the site.

A transfer station may depress property values within a 1.5 mile radius, reducing property tax revenue and depleting homeowner assets

Proximity to the noise, congestion, odors and toxicities of a facility processing 3 million pounds of waste daily will likely reduce residential property values and thus property tax revenue. Numerous studies in the US and abroad have demonstrated a negative correlation between proximity to high volume waste sites and property values. This research suggests that the transfer station will depress property values within a 1.5 mile radius of the site, with properties closest to the station experiencing the greatest impact. A 2005 meta-analysis concluded that the value of residential property immediately adjacent to solid waste sites was depressed by an average of 12.9 percent while property values one mile from the site were depressed by an average of 7 percent.[1] However, the

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most definitive study of how waste transfer stations impact property values, published in the Journal Waste Management in 2007, found that transfer stations impacted the value of residential property within a 1.8 mile radius. The impact on property values decreased as distance from the facility increased, declining from roughly 9 percent within one-quarter mile of the facility to two percent at 1.4 miles from the facility.[ii]

The impact on residential property values from Edith WTS was estimated by applying the coefficients from the Waste Management study to geo-coded 2015 appraisal data from the Bernalillo County assessor. The results are provided in Table 1.

The areas surrounding the site in which property values may be impacted are depicted in Exhibit 1. The five concentric rings radiating outward from the site each correspond to a percentage change in property value. The inner ring represents those properties within one-quarter of a mile of the site. The value of these properties is expected to decline by 9 percent as a result of the WTS. The outermost ring represents those properties within 1 mile and 1.5 miles of the site. Property values in this zone are expected to decline by 2 percent. Percentage declines in property value as a function of proximity to the site are presented in Table 1.

There are 4,653 homes within 1.5 miles of the proposed transfer station with a combined property value of approximately $594 million. If residential property values surrounding the site decline at the rates documented in earlier research and listed in Table 1, residents of the impacted area will lose $17.5 million in home value and local governments will lose approximately $223,232 in annual property tax revenue.

Table 1: Edith Waste Transfer Station, Estimated Impacts on Residential Property Values and Tax Revenue

Distance from WTS	Property Value Reduction	Homes	Residential Property Values	Property Value Reduction	Property Tax Reduction
1/4 mile	9%	3	$299,020	$26,912	$343
1/2 mile	8%	69	$6,913,941	$553,115	$7,058
3/4 mile	7%	392	$44,362,132	$3,105,349	$39,624
1 mile	5%	905	$98,466,774	$4,923,339	$62,822
1 1/2 mile	2%	3,284	$444,300,000	$8,886,000	$113,385
Total		4,653	$594,341,867	$17,494,715	$223,232

Source: Author calculations using geo-coded 2015 Bernalillo County Assessor data compiled by William Hudspeth.

It is very important to note that the analysis presented here considers only residential property values, which constitute just 21 percent of property value in the vicinity of the site. It is reasonable to expect the WTS to depress the value of some neighboring commercial property, however, because research to-date has focused on residential

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property values, there is no basis upon which to quantify the potential magnitude of impacts on non-residential values.

Impact on household assets and homeowner net worth

Home equity is the largest single asset held by most American households. Home value may constitute the *sole* asset of many low-and moderate-income homeowners in the area of the proposed transfer station. Assets provide financial stability to families living paycheck-to-paycheck, enabling them to weather a temporary lay-off or health crisis without triggering the downward financial spiral that can easily culminate in homelessness. A several percent reduction in home value could significantly deplete or even eliminate net worth for many neighborhood families. If the presence of the transfer station forecloses future opportunities for neighborhood revitalization, the impact on property values and home equity may be compounded over time.

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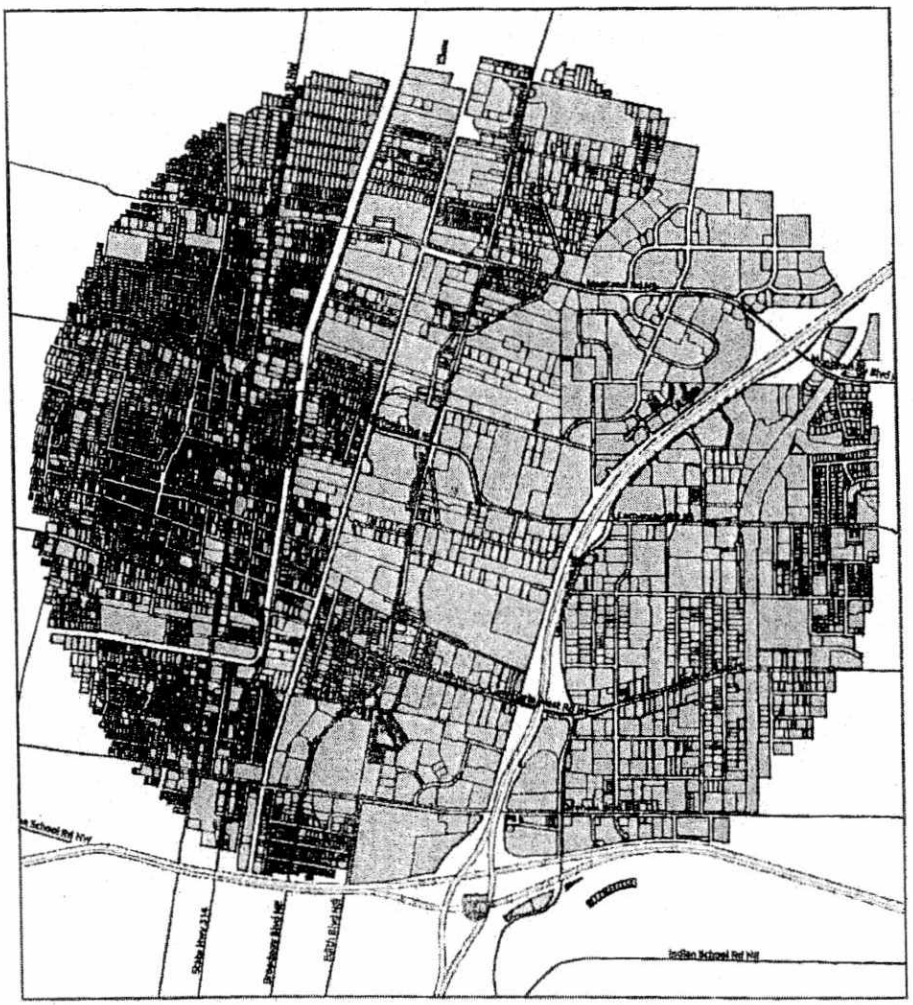

Location of Parcels within Zones based on Distance from Proposed Site of the North Valley Waste Transfer Station (1/4 Mile Increments)

0.5 0 0.5 Nm

Legend

- North Valley Waste Transfer Station
- Parcels within 1/4 Mile
- Parcels between 1/4 and 1/2 Mile
- Parcels between 1/2 and 3/4 Mile
- Parcels between 3/4 and 1 mile
- Parcels between 1 and 1 1/2 mile

A transfer station may undermine future revitalization and job growth

The area likely to be impacted by the transfer station is home to over 500 private businesses including retailers, professional services, food manufacturers, warehousing, distribution, and government services with over 16,000 proprietors and employees and payrolls in excess of $272 million.[iii]

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These businesses may experience declining property values, diminished productivity due to traffic congestion and reduced retail sales as the neighborhood environment is degraded. In addition, by damaging the public perception of the surrounding neighborhoods, the transfer station is likely to diminish the community's future prospects for economic development and revitalization.

Health impacts impose high costs on government and the community.

The Health Impact Assessment of the transfer station provides an inventory of possible health consequences, all of which impose costs in the form of lost productivity, increased utilization of the healthcare and emergency response systems, and greater dependence on the social safety net. These costs are potentially quite large, but also difficult to forecast.

The more readily estimated tax revenue and employment impacts presented in this memo should be regarded as lower bound estimates of total cost, both because they exclude the aforementioned health impacts and because they do not account for reduced commercial property values or other business impacts.

In conclusion, reducing the cost of solid waste disposal through development of a new transfer station is a laudable objective that warrants further study. However, waste facilities such as the waste transfer station contemplated at 4600 Edith NE generate numerous negative externalities. It is therefore essential that the benefits and costs of any siting decision be weighed extremely carefully. Potential costs unaccounted for in the 2014 update of the transfer station feasibility study commissioned by the City of Albuquerque Solid Waste Department include $17.5 million in lost home values, job and productivity losses due to traffic congestion and environmental degradation, and a $232,232 reduction in annual property tax revenue.

Sincerely,

Kelly O'Donnell, PhD

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[i] Braden, J., Feng, X., Won, D. (2011). Waste sites and property values: A meta-analysis. Environmental and

[ii] Eschet, T., Baron, M., Schecter, M., Ayalon, O. (2007). Measuring externalities of waste-transfer station using hedonoic prices: Case study: Israel. Waste Management. 27 (5).

[iii] U.S. Department of Commerce, County Business Patterns, 2013 by Zip Code, portions of 87107, 87102, 87104, and 87197 corresponding to census tracts 30.01, 30.02, 3100, and 2900

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701 Griegos Rd NW
Albuquerque, NM 87107
October 2, 2015

Environmental Planning Commission
600 Second St NW
Albuquerque, NM

I am writing to urge you to deny the request to expand the Solid Waste Station at Edith and Griegos. This plan is against the sector plan which states that these projects should not endanger the citizens in the area. As the North Valley Coalition recommendation states, it does exactly that by bringing in more traffic and health hazzards in an area that already has more than it should. I am particularly opposed to having an additional hazzard in the proposed convenience center. Why should we have this in addition to the expanded citywide waste pick up. This will be even more injurious to the area. If you must allow the expansion request, please deny the convenience station which, in many ways,will bring unplanned traffic and open waste to our neighborhood.

Sincerely,

Dr. Tey Diana Rebolledo

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Henry, Dora L.

From: Peggy Norton <peggynorton@yahoo.com>
Sent: Thursday, October 01, 2015 1:29 PM
To: Quevedo, Vicente M.
Cc: Henry, Dora L.
Subject: response to HIA questions
Attachments: tsquevedoNVC - 08.21.14 board meeting - agenda.pdf

Dear Vicente,

Here is information about the North Valley Health Impact Assessment of the Proposed Edith Transfer Station in answer to your question for documentation. We are copying Dora on this email so that it is included in the record.

At our August 21, 2014, Board Meeting, a regularly scheduled meeting, NVC's Board heard a presentation from two health professionals about health impact assessments generally, engaged in discussion and voted unanimously to request a health impact assessment of the proposed Edith Transfer Station.

The health professionals emphasized that a health impact assessment must be requested by the community, that completing the assessment would require community participation and **that the completed assessment would be used to inform decision-makers during the approval and permitting process.**

Twenty-four people were present at the meeting, including board members, City personnel (Barbara Taylor and Jill Holbert), the health professionals and other residents active in neighborhood matters.

A copy of the agenda for the meeting is attached. We do not keep formal minutes.

NVC's Executive Committee released the HIA to the public once it was finalized.

NVC provided the HIA to the Planning Department so it would be part of the record and available to the Environmental Planning Commission for consideration.

Sincerely,

Peggy Norton, President
North Valley Coalition

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September 18, 2015

Diana Grover
Lifedance Mediation Services
PO Box 20337
Albuquerque, NM 87154-0337

Dear Ms. Grover,

The North Valley Coalition respectfully declines your invitation to participate in a facilitated meeting. Many hours have been spent communicating our concerns about the proposed Edith Transfer Station project. The City is well aware of our concerns, there are numerous comments on their web site and it does not seem productive at this late stage to spend time in a meeting. Rather than a private facilitated meeting, I would recommend the City hold a public meeting to present the final, completed site plan. The fact that I could not receive an electronic copy of the application to the EPC until you send out an invitation demonstrates the futility of a facilitated meeting.

Sincerely,

Peggy Norton, President
North Valley Coalition

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Peter Nicholls, Chairman, Environmental Planning Commission
c/o Vicente Quededo, Planner
600 2nd Street NW, 3rd Floor
Albuquerque, NM 87102

Re: Edith Transfer Station, Case #1010582

My name is Dr. Kristine Suozzi. I apologize for not being able to be present for the hearing scheduled Thursday, November 5, 2015; I have a family obligation out of town. I submit this, my written testimony, in hopes that you will accept it into the written record.

I have a Ph.D. in health promotion with an emphasis in public health practice and have worked in public health for over 30 years. I was formerly Deputy Director of the Bernalillo County Environmental Health Department and Director of the Public Health Division, the largest division in state government, for the State of New Mexico during the Richardson Administration.

I am one of the co-authors of the Health Impact Assessment on the proposed Edith Transfer Station. I have extensive trainings on Health Impact Assessments and have completed five Health Impact Assessments in the past several years. I also helped former Senator and current New Mexico State Auditor Tim Keller develop Health Impact Assessment legislation several years. I have worked on anti-institutional racism legislation every year for the past six years. SM 51 was passed in 2012 and encourages all agencies and institutions that receive state funding to examine their anti-racism policies. I mention this as this site is an environmental justice issue.

I will address three main points in my letter – first the HIA process; second, how this is an environmental justice issue; and, third why the requested zone change should NOT be allowed.

First the North Valley Health Impact Assessment of the Proposed Edith Transfer Station is sound methodologically and scientifically. We adhered to the Standards for Health Impact Assessments through out the process. I refer you to a letter written by Dr. Rajiv Bhatia on record to substantiate this. And by the way, Dr. Bhatia is one of the principle authors of the Standards for Health Impact Assessments, which are included in the CABQ packet.

There were no outside interests involved in the NV HIA. No one was excluded from the process or participation as implied by the City of Albuquerque's Environmental Health Department's rebuttal. In fact, members of the Solid Waste Department were aware of the HIA Committee since before its inception, as they were in attendance at the NVC meeting at which the HIA Committee was formed. They chose not to sign up and participate.

Second, this site constitutes an environmental justice issue. Those living closest to the proposed Edith Transfer site and most likely to be adversely impacted are predominantly minority (64.6%) and low income (35.6%) and already experience greater health burdens compared with other areas in Bernalillo County. Claiming that this is predominantly an industrial area ignores the fact that over 18,000 people live there, and totally discounts the importance of these people's general welfare.

Third, this requested zone change is inconsistent with the North Valley Area Plan, the Albuquerque/Bernalillo County Comprehensive Plan Update, Enactment 270-1980, and the United States Environmental Protection Agency's 2002 manual on the siting of waste transfer facilities. It is also inconsistent with the basics tenets of public health, which reinforce the need to keep garbage and potentially hazardous waste away from populations, not to bring them to the heart of the city. Others have submitted letters expanding on this.

The City of Albuquerque maintains that every policy in the Comprehensive Plan, Enactment 270-1980, the NV Area Plan are all "furthered" by the proposed Edith Transfer Station. However, the authors fail to say how and they limit their answers to within the confines of both the transfer station building and the site. While this is nice and we applaud the great building and site engineering, we are most concerned with the adverse effects of the proposed transfer station on the immediate surrounding community, the north valley communities and the City of Albuquerque as a whole. These are not included in the Environmental Health Department's Rebuttal to our Health Impact Assessment, and constitute much of the reason that this zone change should not be permitted.

The health, safety and welfare of our residents should be the most important consideration in making this decision. Therefore, I strongly urge you to **deny the requested zone change.**

Sincerely,
Kristine Olson Suozzi, MS, Ph.D.