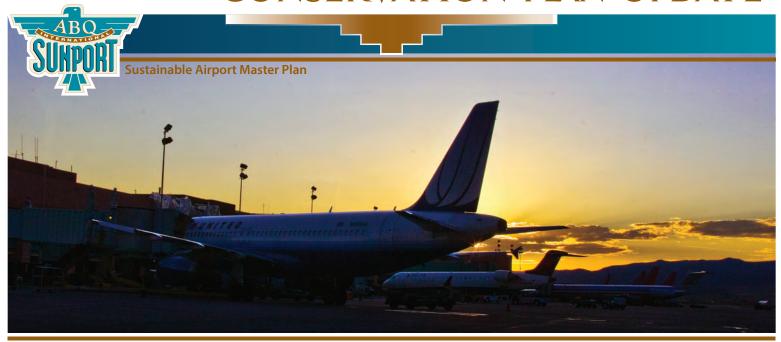
Section Two

WATER USE REPORT AND CONSERVATION PLAN UPDATE





FINAL REPORT

CABQ Aviation Department

Water Use Report and Conservation Plan Update

City of Albuquerque Aviation Department 2200 Sunport Boulevard SE Albuquerque, New Mexico 87106

September 30, 2014

CDM Smith Project No.: 36361-99993



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Section 1 Introduction

1.1 Background

Water conservation is a critical and effective component of reducing water use to ensure a future water supply for the City of Albuquerque (City). The City of Albuquerque Aviation Department's (Aviation) environmental sustainability priorities intend to contribute to the well-being of the City by achieving their transportation and economic mission: using responsible planning and resource management to conserve water.

This Water Use Report and Conservation Plan Update (Plan) will discuss the results of conservation measures already taken at the Albuquerque International Sunport (Sunport) and give additional water-saving recommendations. Reducing the impacts of day-to-day water use operations will protect surrounding natural resources and reduce facility operation costs over time. Savings outlined in this report are estimated in accordance to the level of detail of the data given. The cost-effective improvements may result in a higher or lower savings over time than those estimated.

By establishing best management practices and incorporating innovative ideas and technologies, the Aviation can reach and exceed its goals of being increasingly sustainable with regard to water conservation.

1.2 Organization

The Plan follows the general layout of the Water Use Report and Conservation Plan prepared by the Water Utility Authority and CH2MHill in 2004 (hereafter referred to as the 2004 Plan) which includes the following sections:

Section 2 Current Water Use: Describes the Sunport's water distribution system including accounts, meters, etc. and current indoor, outdoor, and mixed water use.

Section 3 Water Conservation Opportunities: Discusses upgrades implemented at the Sunport to reduce water use and identifies new opportunities to consider to further reduce water use.

Section 4 Conclusions and Recommendations: Summarizes important observations regarding indoor and outdoor use and recommendations for reduction of water consumption in these categories.

1.3 Assumptions

- The data available during the development of this water conservation plan update varied from that available in the 2004 Plan; therefore, the water use information presented in this plan is generated using different methodologies.
- Fixture water savings estimate was calculated assuming:
 - Employees and passengers are 50 percent men and 50 percent women;
 - o Women flush toilets 100 percent of the time; and
 - Men utilize toilets 25 percent of the time (flushing 100 percent of use) and use urinals
 75 percent of the time (flushing 100 percent of use).
 - Passenger assumptions:
 - Each passenger flushes once per visit;
 - o A faucet is used after each flush; and
 - o All enplaned and deplaned passengers are included in the passenger counts.
 - Employee assumptions
 - o Each employee flushes three times a day, five days per week;
 - o A faucet is used after each flush; and
 - Only main terminal fixtures and employee counts were used in this evaluation.
- Some calculations concerning the water budgets for irrigation assumes that the entire landscaped area is turf (two types) because a more detailed analysis of the water budget would require the approximate area of different vegetation types.
- Overall average efficiency of the irrigation system was assumed as 75 percent, which is the average efficiency of various types of irrigation including spray irrigation, drip, bubblers, etc. used for Sunport landscaping.

1.4 Definitions

2004 Plan	Water Use Report and Conservation Plan Prepared for Albuquerque International Sunport, CH2M Hill and City of Albuquerque Water Authority, May 2004.
Aviation	City of Albuquerque Aviation Department
City	City of Albuquerque
gpcd	gallons per capita per day
gpd	gallons per day
gpf	gallons per flush
gpm	gallons per minute
gppd	gallons per passenger per day
Landscape Management Plan	Landscape Management Plan, Landscape and Irrigation for the Albuquerque International Sunport and Double Eagle II Airport, Sites Southwest, January 2013.
MG	million gallons
MG/mo	million gallons per month
MG/mo/ac	million gallons per month per acre
RAC	Rent-A-Car (RAC) facility
Sunport	Albuquerque International Sunport
unit	1 unit = 100 cubic feet = 748 gallons
units/mo	units per month

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Section 2 Water Use Data

Activities performed at the Sunport are directly related to or in support of commercial aviation. The Sunport consists of approximately 2,423 acres with a modern terminal building of 574,000 square feet including 2 concourses and 23 gates. There are three runways currently in use at the Sunport. The airport is currently served by 6 major airline carriers and 1 commuter airline offering non-stop services to approximately 34 cities. The Sunport supports approximately 2,940 employees; broken down into the following categories; approximately 280 Aviation Department employees; 660 Aviation services employees (contractors); 400 food, beverage, and retail concession employees; 540 airline employees; 510 fixed-base operator and cargo employees; and 550 government and law enforcement employees. The Sunport handles over 75,000 major airline takeoffs and landings and an average of 5.4 million passengers per year.

2.1 Water Accounts

Aviation is currently billed for 38 water accounts (1 water account is used for the purpose of billing solid waste disposal and is not associated with a meter) associated with water meters located throughout the interior and exterior areas of the Sunport and other City-owned buildings and properties. In **Table 2-1**, these account numbers are organized into four functional categories; active building, active landscape, mixed, and inactive. The active landscape accounts only include the meters that service irrigated areas. Inactive accounts represent meters that are still shown on the water bill but have had no billable units for the last five years.

The location of each water meter and its corresponding meter number is shown on **Figure A-1 Site Plan (Appendix A)**.

Table 2-1 **Summary of Sunport Water Meter Accounts**

Aviation ID Number	Account Number	Description	Aviation ID Number	Account Number	Description
Active Building Accounts (18)				Active Landscape A	ccounts (15)
1	1954579560	Front of Sunport Terminal / Lower Level	14	1984579560	Sunport Blvd / Sky Chef North Fence
2	9395729560	Belly Freight	15	1305579560	Sunport / University Medians
3	3495729560	Belly Freight	16	1017729560	Yale Medians
4	1495729560	Belly Freight	18	3217729560	East Sunport Loop / Employee & CC Lot
5	5495729560	Belly Freight	19	5764579560	West Sunport Loop / Parking & Sheraton
6	7495729560	Belly Freight	20	7217729560	West Parking Structure (near EG9)
21E	9117729560	North Parking / Economy Lot (hose bib)	26	7036579560	Girard Blvd Median
22	1496729560	Standard Parking	27	5907729560	North Cell Phone Lot (Girard)
23	4407729560	Parking Admin Building	28	1217729560	Sunport Loop / Parking
24	1727729560	Clean Energy	29	9115579560	East Sunport Loop / Employee Parking
25	1595729560	Parks/Rec Satellite Building	31	5217729560	East Employee Lot / Viewing Area
32	9707729560	Eclipse HQ	38	7374579560	Cargo/FedEx
33	7650293054	NM DOT State Aviation Division	44	1417729560	RAC
34	9495729560	T-Hangars	46	9996729560	Eclipse / Sunport III
35	4307729560	Airfield Maintenance	57	5931519654	University/Spirit Medians
47	7885729560	RAC		Mixed Use	: (5)
51	1405579560	RAC	9	7746579560	Old Terminal
60	6407729560	SW Provisioning	36	5707729560	AFSS Building
			37	8407729560	ASIG
			39	5417729560	Kevothermal
			43	7517729560	NWS

2.2 Historical Water Use

Total water use at the Sunport from 1993-2013 is summarized in **Figure 2-1**. Water use in the past six years has been reduced to water use observed in the mid-1990s despite increasing irrigated areas and making other improvements to the Sunport such as constructing the rental car terminal facility. The maximum water usage was observed in 2003 at 166,212 units billed or 124 million gallons (MG) consumed.

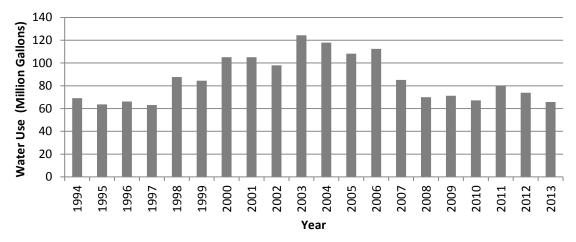


Figure 2-1 Total Water Use from 1994-2013

2.3 Current Water Use

In the 2004 Plan, water use was classified as either indoor or seasonal use. From 2000 to the beginning of 2005, indoor use was defined as 95 percent of the winter average use (December through March) and seasonal use was the remainder of the total water use for any given month. Seasonal use, as described in the 2004 Plan, included water use for landscaping and building cooling. For the purposes of this plan update, water use from the end of 2005 to 2013 was classified as outdoor, indoor, mixed or unidentified use utilizing actual metered data. **Figure 2-2** presents outdoor, indoor and mixed water consumption at the Sunport from 2006 to 2013.

Outdoor use is metered by the accounts dedicated to seasonal landscape irrigation. Indoor use includes meters serving buildings and seasonal water use associated with cooling systems. Mixed use accounts include meters that serve both indoor and outdoor purposes. For example, mixed use meters service the buildings and the surrounding landscaped areas for Kevothermal, National Weather Service, former FAA-AFSS building, Old Terminal building, and the fuel services area. Unidentified accounts represent meters that have not been identified as indoor, outdoor, or mixed.

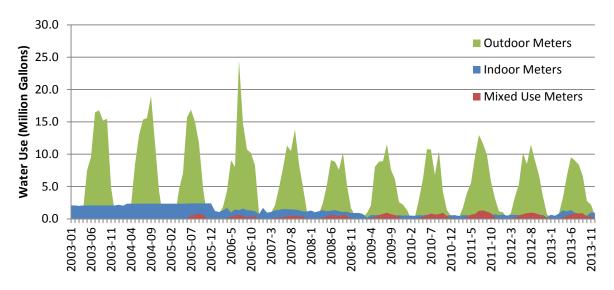


Figure 2-2 Outdoor, Indoor, and Mixed Water Use 2006-2013

In 2013, Aviation used a total of 66 MG of water at the Sunport and surrounding City-owned facilities. The average monthly water usage was 5.5 MG and the average daily water usage was 184,000 gallons.

As defined by *City Ordinance Chapter 6: Water, Sewers and Streets, Article 1 Water, Part 4 Water Conservation Large Users* (**Appendix B**), Aviation is currently categorized as a large user because it uses in excess of 50,000 gallons per day (gpd). The Ordinance was developed to serve several purposes, two of which are to reduce overall per capita water use in the City to 175 gallons per capita per day (gpcd) and require large users to develop and implement water conservation plans. Specifically, the ordinance requires existing large users to:

- Reduce water use for landscaped area to 35 inches per acre by 2004 and
- Use or convert to low flow fixtures in all kitchen facilities and bathrooms by 2004.

Indoor water use steadily declined from 2006 to 2010 due to upgraded water dispensing fixtures in terminal restrooms and in kitchen facilities. Additional discussion on indoor water use is in Section 2.4.

Monthly outdoor water use peaks during summer months due to landscape irrigation. Landscape improvements were made along Sunport Boulevard and other areas surrounding the Sunport from 2004 to 2006. Following establishment of new xeric vegetation, a decrease in outdoor water use was observed through 2008. From 2009 to 2013, annual outdoor water use has sustained between 50-66 MG. In 2011 and 2012, a drought caused a slight increase in water use during the summer months to maintain the landscaped areas.

The cumulative annual water usage and passengers (enplaned and deplaned) at the Sunport from 2003 to 2013 is presented in **Figure 2-3**. From 2003 to 2006, the average annual water usage was 115 MG. In 2007 (following landscape and building fixture improvements), the annual water usage decreased by 27 MG. Since the decline in 2007, the total water use slightly decreased each year with an annual low of 67 MG in 2010.

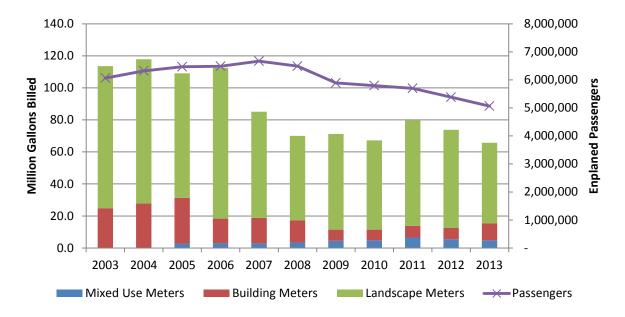


Figure 2-3 Cumulative Annual Outdoor, Indoor, and Mixed Water Consumption 2003-2013

2.4 Per Passenger Water Use

The constant fluctuation of the number of passengers at an airport directly influences indoor water consumption. This variable was removed by dividing water use per year by the number of passengers so that water use from year to year could be better compared. Total and indoor water use at the Sunport is presented on a per passenger basis in **Figure 2-4**. The average total water use per passenger at the Sunport from 2009 to 2013 is 13.3 gallons per passenger (gpp). The average indoor water usage from 2009 to 2013 is 1.6 gpp. A study on water use at international airports indicates that indoor water use per passenger may range from 3 to 5 gpp (Vickers, 2001). Use at the Sunport is 53 percent less than this range. This could be attributed to the use of low flow fixtures throughout the terminal.

The largest main terminal water use per passenger at 4.9 gpp was seen in 2005. This is likely due to construction projects at the end of the year. After 2005 the use per passenger steadily decreases, with the lowest usage in 2009 and 2010 at 1.3 gpp. The installation of low-flow fixtures throughout much of the main terminal result in a significant decrease in total and main terminal water use.

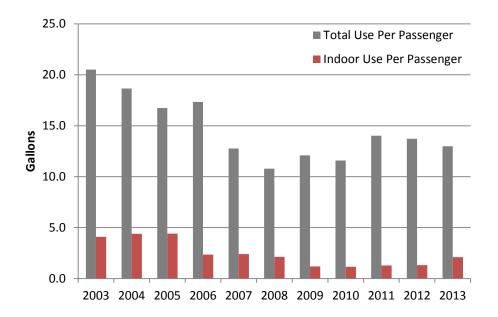


Figure 2-4 Water Use per Airline Passenger 2003-2013

The remainder of the report will utilize a 3-year average from 2011 to 2013 for all baseline (current) calculations. A summary of monthly and annual averages is outlined in **Table 2-2** below.

Table 2-2
Summary of Current Monthly and 3-Year Annual Average Water Use

Water Use Type	Monthly Average	3-Year Annual Average	
	(million gallons)		
Total	6.1	73.1	
Indoor	0.7	8.4	
Outdoor	4.9	59.1	
Mixed	0.5	5.6	

2.5 Indoor Water Use

Currently, indoor water use makes up approximately 11 percent of the Sunport's total annual water use (**Figure 2-5**). The main terminal dominates the indoor water use at the Sunport consuming 82 percent of the yearly indoor water usage. The second largest consumer of the yearly indoor water usage is the Southwest provisioning building with 8 percent of the indoor water use and the remaining at 5 percent is the Rent-A-Car (RAC) facility and the remaining 5 percent is used by the remaining meters located at various other buildings.

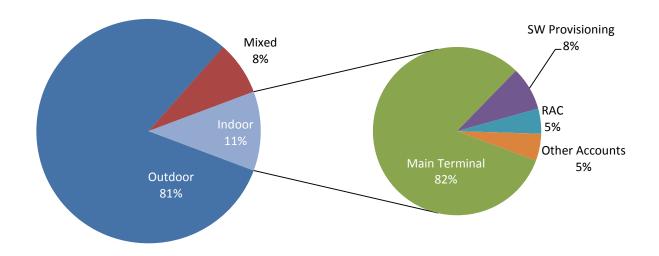


Figure 2-5 Average (2011-2013) Annual Indoor Water Use Breakdown

The main terminal also experiences a slight increase in water consumption during the summer months. This can be attributed to both water consumption for building cooling and increased passenger travel in the summer. **Figure 2-6** displays monthly total water consumption at the terminal building and the total enplaned and deplaned passengers for 2011-2013.

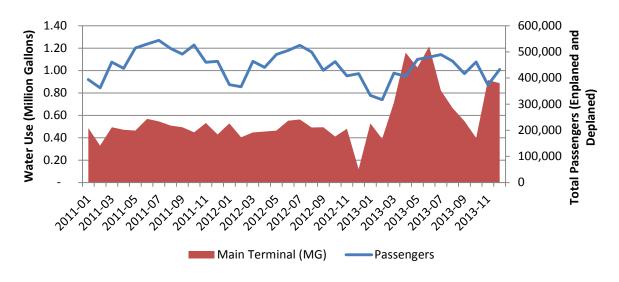


Figure 2-6 Main Terminal Water Consumption (Average 2011-2013) and Total Passengers

2.6 Irrigation Use

Water meters that specifically measure water use for irrigation and mixed-use were identified and analyzed separately. Irrigation is the largest consumer of water with 80 percent of the total water use at the Sunport every year.

2.6.1 Meter Information and Irrigated Areas

Irrigation meters and mixed-use meters were field verified by Aviation staff. Information associated with each meter including a meter ID, account number, type of meter, irrigated area in acres, and other information is included in **Appendix C**. The meter ID can be used to find the location of the irrigation and mixed-use meters and their associated irrigated areas on **Figure A-2 (Appendix A)**. The hatched areas on **Figure A-2** indicate irrigation only areas while the cross-hatched areas indicate mixed-use meters.

The total irrigated area is 72.5 acres. Of that area, mixed use meters irrigate 3.8 acres. Because indoor and irrigation use cannot be separated for the mixed use meters, the total irrigated area used for analysis is 68.7 acres, which is the total irrigated area known to be associated with specifically irrigation only meters.

2.6.2 Sunport Water Budget

The ABCWUA developed the Sunport an irrigation water budget based on total area irrigated. In 2010 the water budget was raised from 34.5 MG to 56.3 MG. **Figure 2-7** displays the actual irrigation budget (in million gallons) and actual volume of water used (**Figure 2-8**) displays the percent of budget used and budget goal (100 percent). The budget was significantly exceeded in 2008-2009, then the budget was raised by ABCWUA in 2010. The most recent calendar year, the Aviation Department used 99 percent of the budget.

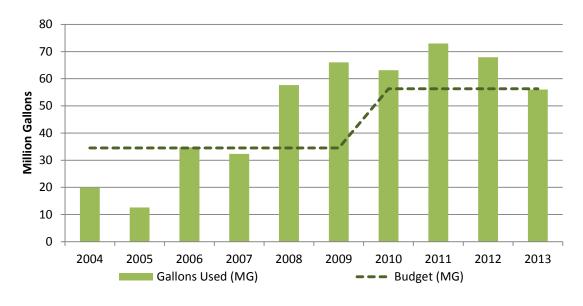


Figure 2-7 ABCWUA Irrigation Water Budget and Annual Budget Used

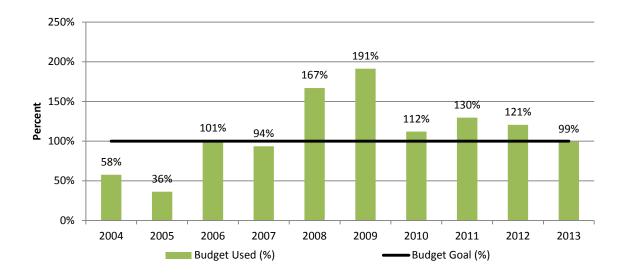


Figure 2-8 Percent of ABCWUA Budget Used

2.6.3 Total Irrigation Water Use

The average annual water used per irrigation meter over the last three years is shown in **Figure 2-9**. The water use at each irrigation meter was normalized by dividing the average annual water use by the total area irrigated for each meter. The average water use per meter is shown on Figure 2-9 and ranges from 0.04-4.3 MG/acre. The greatest total average annual water use for irrigation is observed for the meters serving the Sunport Boulevard and Sunport/University Medians. These two irrigated areas account for nearly 22 acres of irrigated landscape. The areas that require the greatest water use per acre are the 15 - Sunport/University Medians (3.0 MG/acre), 19 - West Sunport Loop/Parking & Sheraton (3.4 MG/acre), and 29 - East Sunport Loop / Employee Parking (4.3 MG/acre).

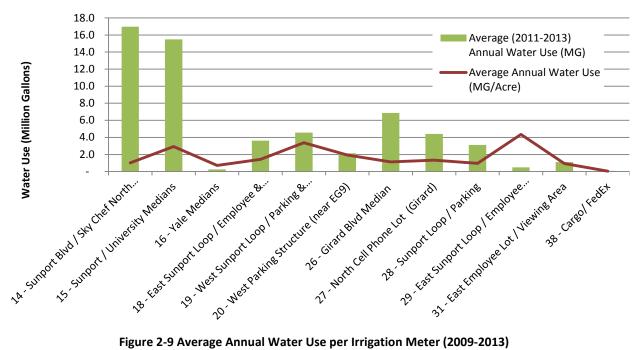


Figure 2-9 Average Annual Water Use per Irrigation Meter (2009-2013)



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General irrigation guidelines from Appendix C of the Landscape Management Plan, Landscape and Irrigation for the Albuquerque International Sunport and Double Eagle II Airport (Sites Southwest, 2013) were used to develop values of expected water use. Although each irrigated area has different vegetation and topography that dictate how much water is needed, an approximation of the total supply needed has been provided for comparison. Note that Appendix E of the Landscape Management Plan provides more detailed information concerning the vegetation of the Sunport landscape that can be used to develop more detailed water budget plans. Assigning this level of detail for each irrigation meter is not feasible due to intricate landscaping present on site; therefore, the detailed analysis presented in the Landscape Management Plan was not applied for budget development.

The Landscape Management Plan specifies the inches of water needed per week for each season for two vegetation types and assuming no precipitation. **Table 2-3** summarizes that information by specifying the values used for analysis. "Cool season turf" (e.g. Bluegrass) and "warm season turf" (e.g. Buffalo Grass) were the only types of vegetation that could be simplified for analysis. The landscaped area of these two turfs can be used to translate depth of water required into a volume. Water use for other types of vegetation was provided per plant and could not be converted to volume.

Approximate Inches of Water Required per Week Vegetation Type Spring Winter **Summer** (Apr-Jun) (Jul-Sep) (Oct-Dec) (Jan-Mar) Cool Season Turf 1.25 1.5 1 0.25 0.5 Warm Season Turf 0.375 0.125 0.125

Table 2-3 Recommended Watering Amounts from the Landscape Management Plan

Efficiency of the irrigation system must also be accounted for in determining the expected use. The required efficiency for rotary irrigation systems according to City Ordinance 6-1-1-10 (F) is 70 percent. Limited field testing performed at the Sunport as part of the 2004 Plan showed that the distribution efficiency of the irrigation system ranges between 39 and 64 percent with an average efficiency was about 50 percent. This testing only accounts for five areas and does not account for the efficiency of the existing drip systems. Drip/bubble irrigation systems may be capable of achieving efficiencies closer to 90-100 percent. Significant improvements have been made to the irrigation system since the 2004 testing including head replacements (with low angles, high efficiency, and low flow nozzles) and master valve replacements, which have improved the efficiency of the irrigation system across the Sunport. Due to these improvements, efficiencies of 75 and 90 percent were used as bounding conditions for developing estimates of expected use. With no other data concerning the efficiency of the rest of the system, it has been assumed that this efficiency applies to the entire irrigation system for the analyses discussed herein.

Table 2-4 is a matrix showing the expected monthly water use for the irrigated area of 72.5 acres for assuming the entire area is covered by each vegetation type and for 75 and 90 percent efficiencies. Average monthly usage is shown as an annual average and as a summer average. These values were converted to expected use per acre to provide reference to actual water use per acre in the graphs in the following sections. Note that these values are the expected use assuming no precipitation.

Table 2-4 Expected Monthly Water Use

Expected Monthly Water Use (MG/mo) – Annual Average (Jan-Dec)				
Venetation Tons	Irrigation System Efficiency			
Vegetation Type	75%	90%		
Cool Season Turf	11.67	8.89		
Warm Season Turf	Warm Season Turf 3.00 2.50			
Expected Monthly Water Use (MG/mo) - Summer Average (Jul-Sept)				
expected Monthly Water Ose (MG/IIIO) - Sullilliel A	verage (Jui-Sept)		
	· '	tem Efficiency		
Vegetation Type	· '	0 (1 /		
	Irrigation Sys	tem Efficiency		

2.6.4 Per Meter Irrigation Use

Figure 2-10 shows normalized water use for each irrigation meter in MG per month per acre (MG/mo/ac) for total annual demand. **Figure 2-11** shows water use for each irrigation meter in MG/mo/ac as an average of summer months only from July to September. This range of summer months was selected because it corresponds to the summer timeframe identified in the Landscape Management Plan.

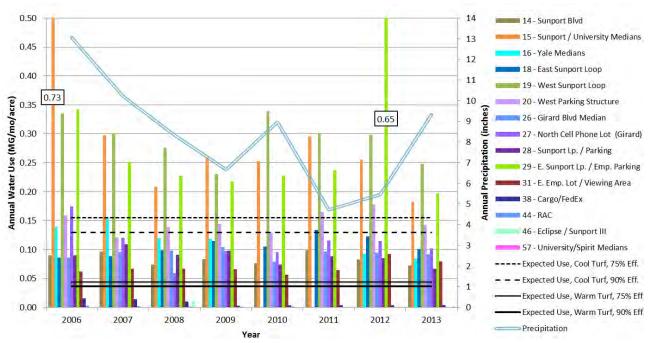


Figure 2-10 Average Monthly Annual Water Use per Irrigation Meter (Jan - Dec) and Expected Water Use

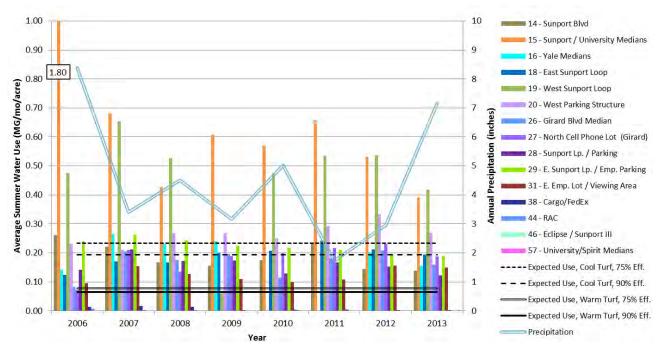


Figure 2-11 Average Monthly Summer Water Use per Irrigation Meter (Jul - Sept) and Expected Water Use

Some of the information that can be gathered from the above graphs include high per acre water use areas, yearly trends of water use per meter, comparisons of water use between each meter, and the differences in actual water use and expected use. Among the irrigation meters, meters 15, 19, and 29 are consistently higher than the other meters on a per acre basis. The use for meter 15 has decreased significantly from 2006 usage, but given the precipitation trends, usage has not decreased dramatically since 2007. The irrigated area for meter 15 may include areas with a significant slope, which may require more watering. Similar high per acre use is seen for meter 19. There are a significant amount of large trees irrigated from this meter that may use more water.

The use per acre for meter 29 should be investigated because high water use was found to occur more during non-summer months compared to summer months. This results in the average annual use being higher than expected while summer use is near the expected amount. This is contradictory to what is expected for an irrigation meter; therefore, investigation of the meter and related data is recommended.

Most of the meters show similar trends in water use. There is an overall decrease in average annual use from 2006 to 2010. There is a slight increase in use in 2011 when the annual and summer precipitation is at the lowest point within a decade. In 2012 and 2013, use continues to decrease, even as precipitation is increasing, showing improved use of irrigation water.

2.7 Mixed Use

Five mixed use meters exist in the Sunport's system including:

- Old Terminal Building (meter 9)
- FAA-AFSS Building and Landscape (meter 36)
- Kevothermal Building and Landscape (meter 39)
- Fueling Landscape and Buildings (meter 37)
- National Weather Service (meter 43)

Each mixed use meter is used to serve at least one building and some outdoor irrigation. **Figure 2-12** and **Figure 2-13** show average monthly water use per acre (MG/mo/acre) for the mixed-use meters. The horizontal lines on each graph correspond to the expected water use values shown in **Table 2-4** normalized by area.

Among the mixed-use meters, meter 39, which serves Kevothermal's manufacturing facility and landscape, shows a water use that is typically greater than twice the use for other meters. The 2004 Plan indicated that water use for this meter was consistent with the required amount for the type of vegetation. **Figure 2-12** and **Figure 2-13** show that the actual water use is consistently greater than the expected use. It is likely that Kevothermal's manufacturing process uses a significant portion of the total water use for this meter.

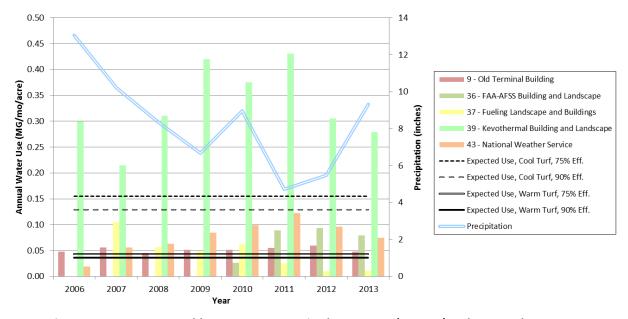


Figure 2-12 Average Monthly Water Use per Mixed-Use Meter (Jan-Dec) and Expected Water Use

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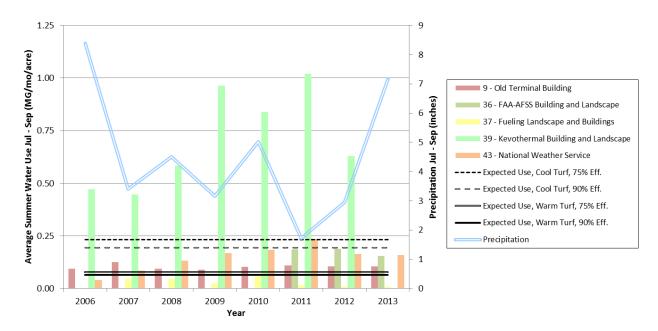


Figure 2-13 Average Monthly Summer Water Use per Mixed-Use Meter (Jul-Sept) and Expected Water Use

Section 3 Water Conservation Opportunities

3.1 Indoor Use

A meeting was held at the Sunport in October 2013 to discuss current and future water reduction improvements at the facility. The following paragraphs discuss the results of measures taken since 2004 and identify other actions that can be taken to reduce the Aviation Department's water use.

3.1.1 Cooling Use

Evaporative cooling is the source of increased indoor water use during the summer months. The main terminal has six portable evaporative coolers used to cool areas for airline landside operations in case of cooler failure. The parks and recreation site is also equipped with two portable evaporative coolers. Airfield Maintenance and Southwest Airlines Provisioning building each have two industrial sized evaporative coolers. Regularly inspecting cooler pads, floats, pumps, and motors will ensure that the coolers are running at the maximum efficiency for which they were designed.

The Sunport houses a chiller system that works with two cooling towers to cool the main terminal. Currently, two chillers have an average capacity of 700 tons (for reference, 1 ton is enough heat to melt 1 ton of ice). The cooling tower supplements the cooling capabilities of the chillers by transferring the heat out of the refrigerant, HFC-134a, coming from the building air handlers. The cooling towers are loaded to 618 tons and use up to 2,434 gpm during the hottest days of the year $(90^{\circ}\text{F} \text{ to } 105^{\circ}\text{F})$. During the winter months, the chiller system is completely shut down.

As noted in the 2004 Plan, the cooling tower condensers can be operated at higher efficiencies to save water. The concentration ratios for the cooling tower should be increased to the manufacturer recommended limit regularly. The best way to achieve the proper concentration ratios is to maintain the proper chemical treatment of the make-up water. Concentration ratios of 4.0 are regularly achieved in Albuquerque, so increasing the concentration ratio to 3.0 will result in a large water savings. Water conservation can also be obtained by upgrading or maintaining the proper control systems. Older pneumatic controls in the air handlers should be replaced where possible. Computer-based control systems that constantly monitor the flow rates and quality of the make-up water, blow down and tower water will help maintain accuracy. Controls and meters should be examined on a regular basis.

3.1.2 Water Line Leaks and Construction

Since 2004, there have been significant reported metered leaks in 2010, 2012, and 2013. Many small meter leaks were reported and repaired throughout the year in 2010. In the spring of 2012, there was a 6-inch line break along Sunport Boulevard. Another major leak occurred in the winter of 2012, due to a leak in a fire riser. Finally, during the spring of 2013, there was a major leak at the Sunport Boulevard water meter, which resulted in the installation of an upgraded master meter at that location.

There have been several notable construction projects that have taken place at the Sunport following development of the 2004 Plan. These construction projects themselves also represent a significant but variable water demand. From 2004 to 2006, the Sunport tarmac was replaced using several Aviation-owned meters as a main water supply. Major landscape improvements were made in 2006, which, not only included the replacement of several irrigation systems and master meters, but the replacement of some high water use landscape with xeric landscape. Main terminal renovations have been occurring over the last ten years which include restroom and kitchen improvements and equipment upgrades.

3.1.3 Restroom Use

An inventory of restroom fixtures within the Sunport are summarized in **Table 3-1**. The table is organized to display fixtures in the main terminal and fixtures in all other Aviation buildings.

Table 3-1 Restroom Fixture Summary

Main Terminal					
Toilets			Faucets		
Total	238		Total	294	
Low Flow (1.28 gal/flush)	184	77%	Low Flow (1.0 gpm)	176	60%
Traditional (3.5 gal/flush)	54	23%	Traditional (2.0 gpm)	118	40%
Urinals			Show	ers	
Total	9	1	Total		5
Low Flow (1.0 gal/flush)	83	91%	Low Flow (≤2.5 gpm)	4	67%
Traditional (2.0 gal/flush)	8	9%	Traditional (>2.5 gpm)	2	33%
		All Other B	Buildings		
Toilet	S		Fauce	ets	
Total	1:	18	Total	1!	52
Low Flow (1.28 gal/flush)	65	55%	Low Flow (1.0 gpm)	1	1%
Traditional (3.5 gal/flush)	53	45%	Traditional (2.0 gpm)	151	99%
Urinals			Showers		
Total	6	1	Total 4		1
Low Flow (1.0 gal/flush)	5	8%	Low Flow (≤2.5 gpm)	0	0%
Traditional (2.0 gal/flush)	56	92%	Traditional (>2.5 gpm)	4	100%

Indoor water use was reduced by replacing the majority of the restroom fixtures to low-flow fixtures in the terminal area from 2008-2010. Installing low-flow fixtures in the remainder of the main terminal area will result in a water savings of 3,630,061 gallons of water per year which results in a savings of approximately \$7,231.00 dollars per year on Aviation's water bills. The majority of the water savings would be achieved by installing aerators in old faucet fixtures or replace them with low-flow faucets. **Table 3-2** presents the current and estimated future water use for the main terminal water fixtures.

Table 3-2 Fixture Water Savings Estimates

	Total Volume (Actual)	Total Volume (100% Low Flow)	Difference
Toilets	3,517,458	2,524,165	993,293
Urinals	1,287,220	1,183,202	104,018
Faucets	8,843,162	6,310,412	2,532,750
Total	13,647,841	10,017,779	3,630,061
Savings			\$7,231

Notes: All volumes in gallons per year.

Uses a potable water cost of 1.49 per unit. Does not assume changes in surcharges, fees, etc.

Expanding this effort throughout the non-terminal airport restrooms can help in water conservation efforts. However, because these upgrades do not generate significant cost savings and because most restrooms located outside of the terminal are used infrequently, fixtures should be replaced as part of larger renovations or after the useful life of the fixture has been expired.

3.1.4 Kitchen Use

There are several restaurants located in the Sunport terminal. The restaurants utilize various types of equipment that consume water. The following is list of water using restaurant equipment and total quantity within Sunport restaurants and an inventory of equipment by restaurant is included in **Appendix D**.

- Beverage Machines
 - Coffee Brewers 13
 - Tea Brewers 11
 - Espresso Machines 4
 - Water Dispensers 2
 - Ice Machines
 - Under Counter 2
 - Within Soda Machines 3
 - Standard Ice Machines 7

- Sinks/Faucets
 - Hand Sinks 34
 - Prep Sinks 7
 - 2-Compartment Sinks -1
 - 3-Compartment Sinks 15
 - Mop Sinks 10
 - Faucets 59
 - Kettle Sinks 2
 - Wok Faucets 2
- Dish Washers 3
- Dip Wells 3

Typical water use values for kitchen equipment are summarized in **Table 3-3**.

Table 3-3 Typical Water Use for Kitchen Equipment

	Conventional	High Efficiency	
Type of Equipment	Estimated Water Use	Estimated Water Use	
Dishwasher	1.5-1.9 gal/rack	> 1.0 gal/rack	
Steamers	40 gal/hour	30 gal/day	
Ice Makers	1040-1440 gal/day	240 gal/day	
Ice Cream Wells	1200 gal/day	0 gal/day	

Many kitchen facilities in the Sunport have been remodeled in the last five years and much of the high water use equipment has been upgraded with newer higher efficiency equipment.

It is important for the commercial kitchens within the Sunport to be mindful of water consumption; for conservation measures and money savings. Upgrading any additional remaining water intensive food service appliances (such as any water cooled equipment) is the best method for reducing indoor water consumption.

Conventional commercial dishwashers typically use up to 1.9 gallons of water per rack. This consumption can be reduced by upgrading to a high efficiency model, specified to use less than 1 gallon of water per rack. Additional measures that can be taken to limit the water consumption on commercial dishwashers:

- Calibrating or verifying that the rinse cycle times and rinse pressures are set to the minimum manufacturer recommended setting;
- Inspecting and adjusting drains and nozzles to avoid wasting water;

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- Only washing fully loaded dish racks; and
- Turning the machine off when not in use.

Conventional commercial steamers are designed to constantly drain water to prevent steam pressure build-up, consuming up to 40 gph during operation. High efficiency commercial steamers strive to capture and condense steam for reuse during the steaming process. On average, high efficiency steamers save up to 25 percent of the water consumed by conventional steamers. For greater water savings, connectionless steamers only consume 1 to 2 gph. This design is manual and requires water to be added and drained from a reservoir at the bottom of the steamer.

Conventional commercial ice machines are often water-cooled models. The best way to conserve water is to upgrade to a high efficiency air-cooled ice machine. Although air-cooled ice machines use slightly more electricity and generate some heat and noise, this model saves up to 1,200 gallons of water per day by bypassing condenser cooling. This design also applies to ice cream wells. Water-cooled ice cream wells only consume water for cooling; if the wells are upgraded to the air-cooled design, there would be no water consumed.

There are many options for optimizing water use in commercial sinks and faucets. Installing low-flow pre-rinse spray nozzles is among the easiest and cost-effective ways to save money for dishwashing activities. Upgrading the nozzles can reduce water use from 3.0 gpm to 1.6 gpm, typically saving up to 66,000 gallons per year. Installation of other faucet features, such as faucet aerators and hands free controls, reduce water use and prevent water waste.

3.1.5 Industrial Use

Nondomestic or outdoor water use that is not seasonal is considered industrial water use. Examples of this are pressure washers, street cleaners, wash racks, hose bibs and potable water cabinets. These activities take place at the triturator, Airfield Maintenance, or on the flightline.

Ensuring that the equipment classified as "industrial use equipment" is maintained is the most vital way to save water in this area. Nozzles on the pressure washers should be inspected and replaced regularly. Pressure washers should also be calibrated to the manufacturers minimum recommended settings. All Aviation hose bibs should be equipped with a locking system to make sure that the use of these hose bibs is controlled. Finally, the triturator should be regularly inspected for leaks and the flushing mechanism should be calibrated.

3.1.6 Miscellaneous Use

Miscellaneous use consists of janitorial use, water softeners, boiler make-up, drinking fountains and other water faucets. Janitorial use includes mopping, scrubbing, and regular daily cleaning. Training janitorial staff in identifying and reporting fixture malfunctions can be a quick and easy way to help to Sunport in its efforts to conserve water.

The Sunport has 39 water fountains that should also be checked regularly for leaks. The main terminal also houses water softening systems and hot water boilers. Water softening system and boiler housekeeping actions, such as, monitoring flow rate and water quality and inspecting pipes, will ensure that water is efficiently being used.

3.2 Outdoor and Mixed Use

As one of New Mexico's most visited landscapes, the Sunport has approximately 75.1 acres of landscape that consumes 89 percent of the total annual water used. Water use for irrigation accounts for the majority of water used at the airport; therefore, there is greater opportunity for reducing overall water use through water conservation that targets irrigation. This section summarizes some of the information available concerning irrigation and the current landscape in order to present potential use and cost savings. Potential savings also consider the use of reclaimed water. Overall best practices for reducing irrigation use are covered in the conclusions and recommendations section.

3.2.1 Water Budget

Irrigation is metered at 20 meters with 15 accounts contributing to landscape only. **Figure A-2** (**Appendix A**) shows the irrigation areas and associated meters. Mixed use meters also include irrigation, but these meters cannot be used in calculating potential water use savings because the irrigation portion of use cannot be separated from the total use.

Slope, terrain, soil type, water quality, and irrigation system components contribute to the overall efficiency of all irrigation systems. Staffing and training irrigation operators to identify landscape types and to implement the proper watering and care techniques is the first step to conserving water used for irrigation.

The Sunport uses two types of turf for landscaping; cool season turf and warm season turf. The cool season turf is composed of Kentucky Bluegrass and covers approximately 14.5 acres of land at the Sunport. This type of grass is classified as high water use grass. One goal based on the 2004 plan was to reduce high water use grass to be 19 percent of the total landscaped area. This has been achieved.

Warm season turf is a combination of Buffalo and Blue Grama turf grass and requires much less water than the cool season grass turf. The warm season grass turf covers about 18.9 acres of the Sunport's landscape. A list of vegetation types and their approximate landscape area is provided in **Table 3-4**.

Table 3-4 Vegetation Types-Landscaped Areas (Approximate)

Vegetation Type Area	Area (Sq.ft)	Acres	% of Total Landscape
Cool Season Turf	630,715	14.5	19.3%
Warm Season Turf And Native Grass Meadows	824,647	18.9	25.2%
High Water Use Landscape	85,820	2.0	2.7%
Moderate Water Use Landscape	714,028	16.4	21.8%
Low Water Use Landscape	652,704	15.0	20.0%
Annuals	2,649	0.06	0.1%
Mulch Only	358,172	8.2	10.9%
TOTAL	3,268,735	75.1	100%

Reference: Landscape Management Plan, Appendix E (2013)

Appendix C of the Landscape Management Plan outlines a general irrigation schedule for each vegetation type shown in **Table 3-4**. The approximate inches of water required per week for the cool and warm season turf vegetation types was previously shown in **Table 2-3**. Using the areas shown in **Table 3-5**, and assuming the irrigation system is 90 percent efficient, water requirements for turf can be converted to volume needed over time as shown below in **Table 3-5**.

Table 3-5 Water Requirements for Turf Areas Only Assuming 90 Percent Efficiency

		Water Requirements by Season (MG/mo)				Annual Avg.
Vegetation Type	Acres	Spring (Apr-Jun)	Summer (Jul-Sep)	Fall (Oct-Dec)	Winter (Jan-Mar)	Water Req. (MG/mo)
Cool Season Turf	14.5	2.34	2.81	1.87	0.47	1.87
Warm Season Turf	18.9	0.92	1.22	0.31	0.31	0.69

Required water to irrigate the remaining areas cannot be determined without additional information concerning the number and types of plants used.

Current use based on the three-year average of irrigated areas only is 4.93 MG/mo (6,587 units/mo). The values in **Table 3-5** show the water requirements for about 50 percent of the landscaped area (33.4 acres of the 68.7 acres covered by irrigation only meters). Such water requirements can be calculated for the rest of the area based on the vegetation types and information in the Landscape Management Plan to develop an overall water budget goal for the Sunport.

As an example, assume that the remaining landscaped area was all warm season turf. The annual average water required for warm season turf at 90 percent efficiency is 0.036 MG/mo/acre. For the remaining 35.3 acres, the required water is 1.27 MG/mo. Adding that to the annual average water requirement for the known areas in **Table 3-5** results in a water budget of 3.83 MG/mo for the irrigation only meters. To meet this budget would require a reduction of 1.10 MG/mo from the current usage.

Based on the information shown here and in graphs in Section 2, there is a potential for water savings by reducing the amount of water used in landscaped areas. **Figure 2-10** and **Figure 2-11** show that for some meters the water use per acre was greater than even the expected amount to be used if the entire landscaped area was all cool turf (a high water demand turf) and there was no precipitation.

There are two quantifiable reductions that can be made based on the data available and making some additional assumptions. One is if the efficiency of parts the system were increased from 75 to 90 percent. It is unlikely that the entire system is only 75 percent efficient; therefore, it is assumed that about half of the water used is from those less efficient systems. Another is if all of the cool season turf areas were converted to warm season turf. Each is calculated below:

- The 3-year average annual use for irrigation-only meters is 4.93 MG/mo. Assuming that half of the water used is from irrigation systems that are only 75 percent efficient, increasing the efficiency of those systems to 90 percent results in a reduction of 0.41 MG/mo (average annual).
- Assuming 90 percent efficiency, the 14.5 acres of cool season turf currently requires 1.87
 MG/mo of water on an average annual basis. Converting the area to warm season turf results in a reduction of 1.19 MG/mo (average annual).

With more detailed information and using the tools provided in the Landscape Management Plan, detailed water budgets can be developed for each metered area. Those budgets can be compared to historical use to better narrow down potential savings. The budgets can also be used moving forward to compare to actual water use at any time to see if improvements need to be made to the irrigation system.

3.2.2 Reclaimed Water Use Opportunity

Additional potable water savings and further reductions to the cost of water used can be achieved through the use of reclaimed water for irrigation. **Figure A-3** in **Appendix A** shows the locations of the irrigation-only meters and the reclaimed water pipelines currently in place. Reclaimed water pipe is near to many of the irrigation meters at the Sunport. **Table 3-6** lists the meters next to and within 500 feet of reclaimed water pipelines and the average annual water use per month from 2011 to 2013. Minimal capital improvements would be required to connect reclaimed water pipelines to the meters shown in the top portion of **Table 3-6**. With the current use, based on the three-year average of irrigated-only areas, 4.93 MG/mo, there is the potential to convert 51 percent of the water use to reclaimed water. Two additional meters would require that the system be extended by about 500 feet. This would add an additional 1.79 MG/mo that could be converted to reclaimed water, or 87 percent of the irrigation water use.

Table 3-6 Irrigation Meters near Reclaimed Water Pipelines

Meters Next to Reclaimed Water Pipelines	Avg. 2011-2013 Annual (MG/mo)
26 - Girard Blvd Median	0.572
27 - North Cell Phone Lot (Girard)	0.368
28 - Sunport Lp. / Parking	0.260
16 - Yale Medians	0.021
15 - Sunport / University Medians	1.291
44 - RAC	0.000
57 - University/Spirit Medians	0.000
TOTAL	2.513
Meters Within 500 Feet of Reclaimed Water Pipelines	Avg. 2011-2013 Annual (MG/mo)
14 - Sunport Blvd	1.413
19 - West Sunport Loop	0.381
TOTAL	1.794

Potential cost savings are determined by comparing the cost of potable water to non-potable or reclaimed water. According to the Albuquerque Bernalillo County Water Utility Authority Water (ABCWUA) and Sewer Rate Ordinance

(http://www.abcwua.org/uploads/FileLinks/b30e534f2f52481ca9bf0d3a817995fb/Section 1.pdf), reclaimed water use is charged at a rate of 80 percent of the potable water use rate (not including fixed monthly charges). If all of the meters in **Table 3-6** were converted reclaimed water, the Sunport could potentially reduce their water costs by 20 percent.

3.3 Savings

The current rate for potable water use (not including fixed monthly fees) as interpreted from the water bills for the Sunport meters is \$1.49 per unit (1 unit equals 748 gallons). Potential savings are based on this rate.

Estimates of irrigation water use savings have been calculated based on information available including water use per irrigation area and size of each irrigated area. A more detailed analysis of water use savings could be completed by collecting more information about the vegetation within each metered area and by using the information in the Landscape Management Plan. Two quantifiable reductions are related to improving the efficiency and changing cool turf areas to warm turf. These reductions are still based on assumptions of current efficiency and expected use, but they provide an estimate of potential savings. These potential reductions on an average annual basis are as follows:

- Improved efficiency: 0.41 MG/mo
- Convert cold season to warm season turf: 1.19 MG/mo

The turf conversion reduction already assumes an efficiency of 70 percent; therefore, these reductions can be considered cumulatively for an overall reduction of 2.50 MG/mo. At a cost of \$1.49 per unit, this equates to annual average savings of \$38,300 per year. This is a significant reduction, but it likely represents the high end of what is possible. Better information regarding efficiency would be needed to refine these reductions. Additionally, there are factors other than turf that dictate the water that is actually required for an area.

Converting some of the irrigation system from potable to reclaimed water also presents potential cost savings. At 80 percent of the potable use rate, the reclaimed water use rate is \$1.19 per unit. If all of the meters in **Table 3-6** were converted to reclaimed water (equating to 4.31 MG/mo of potable use converted to reclaimed water use), the potential cost savings is \$20,600 per year. Note that mixed-use meters cannot be converted because they include indoor uses.

The potential savings for irrigation are summarized in **Figure 3-1**. Note that these savings cannot be added together, but they can overlap. For example, if overall irrigation use is reduced, the amount converted to reclaimed water would also be reduced, thus reducing the potential savings for converting to reclaimed water. Ultimately, it would be best to reduce overall use as it has the most potential for savings.

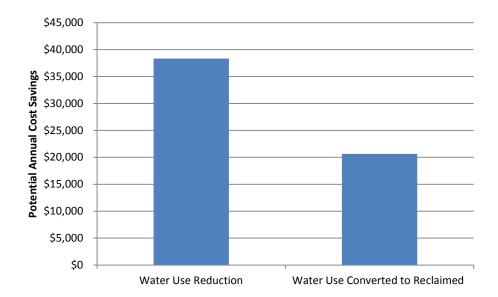


Figure 3-1 Potential Annual Cost Savings for Irrigation Use

In addition to cost savings associated with water use reduction and conversion to reclaimed water, there is potential to save money that is being paid monthly for non-active water meter accounts. Five meters that are currently on the Sunport's water bill have had zero usage over the past 12 months. Each of these five meters has an associated base charge and fees that Aviation pays each month even though there has been no usage on the meter for over a year. These meters, their connection size in inches, and monthly bill amount are summarized in **Table 3-7**. Annual savings for disconnecting unused water meters is approximately \$4,829.

Table 3-7 Potential Savings for Disconnecting Unused Water Meters

Aviation ID – Description	Size (in)	Approximate Monthly Fee*
5 – Belly Freight	1	\$22.73
24 – Clean Energy	1	\$14.09
32 – Eclipse	4	\$175.77
44 – RAC	4	\$175.77
46 – Eclipse/Sunport III	1	\$14.09
TOTAL PER MONTH		\$402.45
TOTAL PER YEAR		\$4,829.40

^{*}As of the June 2013 water bill.

Section 4 Conclusions and Recommendations

4.1 Indoor Use

Aviation has made many improvements and fixture upgrades to reduce indoor water use over the last several years. Indoor use is on average11 percent of the total water usage at the Sunport and the best opportunities for further reducing water consumption are expanding fixture replacement upgrades to all outdated fixtures. Aviation may consider submetering of concessionaires, cooling equipment, restrooms, and irrigation on mixed use meters to provide information for better measurement and management of water usage.

4.2 Outdoor Use

There is the potential for water and cost savings related to outdoor water use, but it is difficult to quantify in some cases. More information can be collected to better determine water budgets overall and water budgets for each area.

The most accurate cost savings that can be quantified is the conversion of potable use to reclaimed water. Several meters are located directly on a stub of the current reclaimed water system. The meter showing the largest use (meter 14) is within 500 feet of the reclaimed water system. The potential savings to be realized as a result of conversion are easily quantifiable as the cost of reclaimed water is 80 percent of the cost of potable water. It is recommended that the Sunport begin the process of converting some of the irrigated areas from potable use to reclaimed water. Converting meter 14 first will provide the most cost savings.

Based on a review of the water meter data for irrigation meters, the following is recommended:

- Staff should investigate meter 15 (Sunport/University Medians, Account #1305579560), meter 19 (West Sunport Loop/Parking & Sheraton, Account #5764579560), and meter 29 (East Sunport Loop/Employee Parking, Account #9115579560) to determine why the use is consistently higher on a per acre basis compared to other meters.
- Staff should confirm that there are no problems with the irritation system on mixeduse meter 39 (Kevothermal Building and Landscape, Account # 5417729560) to confirm that the majority of the water use for the meter is due to the Kevothermal's manufacturing process.

To provide some reference of potential savings, two changes were quantified based on the information available and with some reasonable assumptions. The potential reductions in water use are:

- Improved efficiency: 0.41 MG/mo
- Convert cold season to warm season turf: 1.19 MG/mo

It is recommended that the efficiency of the system be improved where there are known problems. If there are not many areas with known irrigation system problems, the efficiency of the system should be tested to determine a better estimate of overall efficiency. It is also recommended that cool season turf (a high water user) be replaced where possible with a lower water use turf or with xeriscape. The City's rebate programs can assist with the costs of conversion. The potential annual cost savings for these recommendations were discussed in Section 3, but note that the cost of implementation is not included in this analysis.

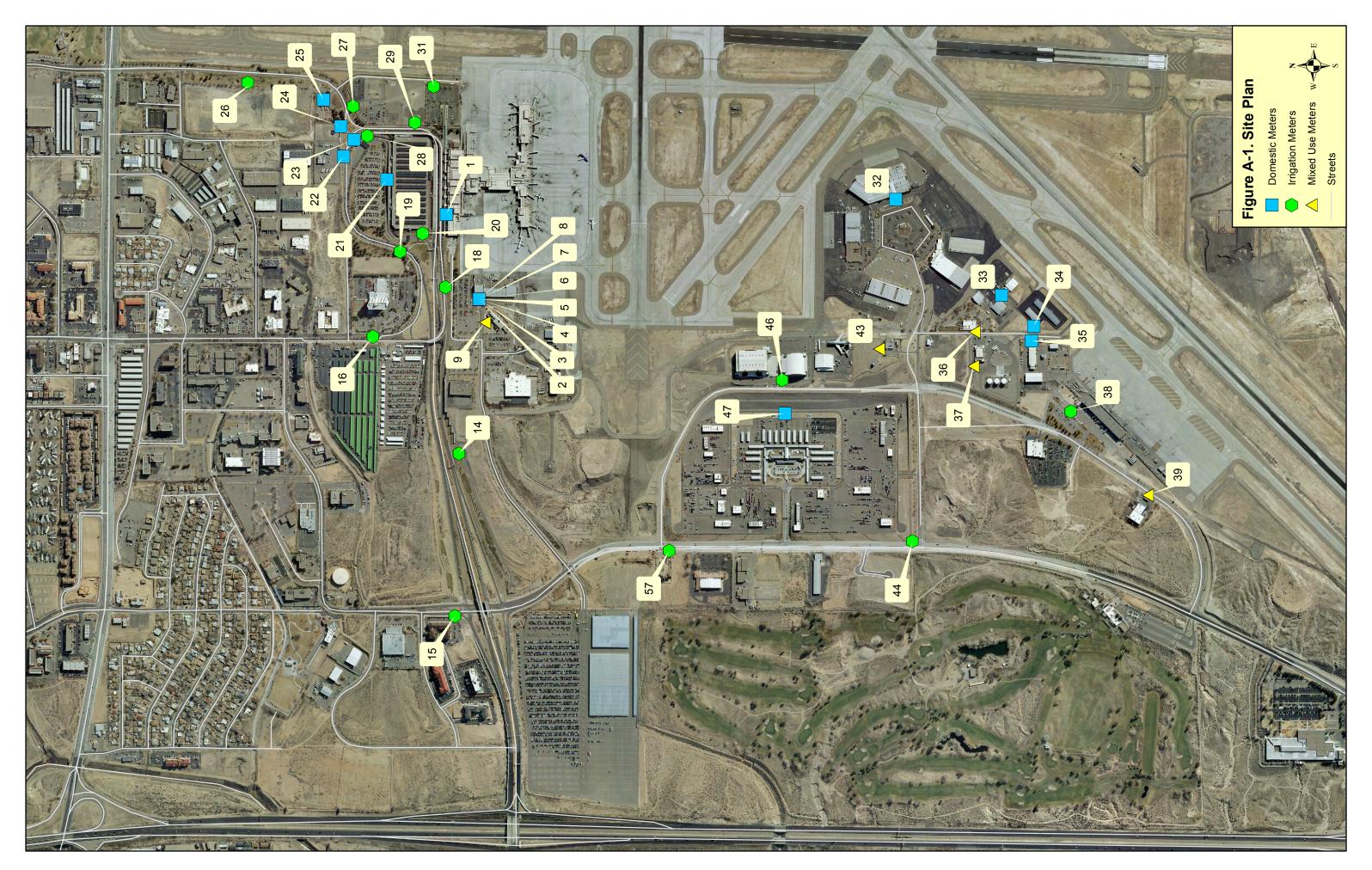
In addition to the above recommendations, below are some general irrigation best practices as discussed in the 2004 Plan:

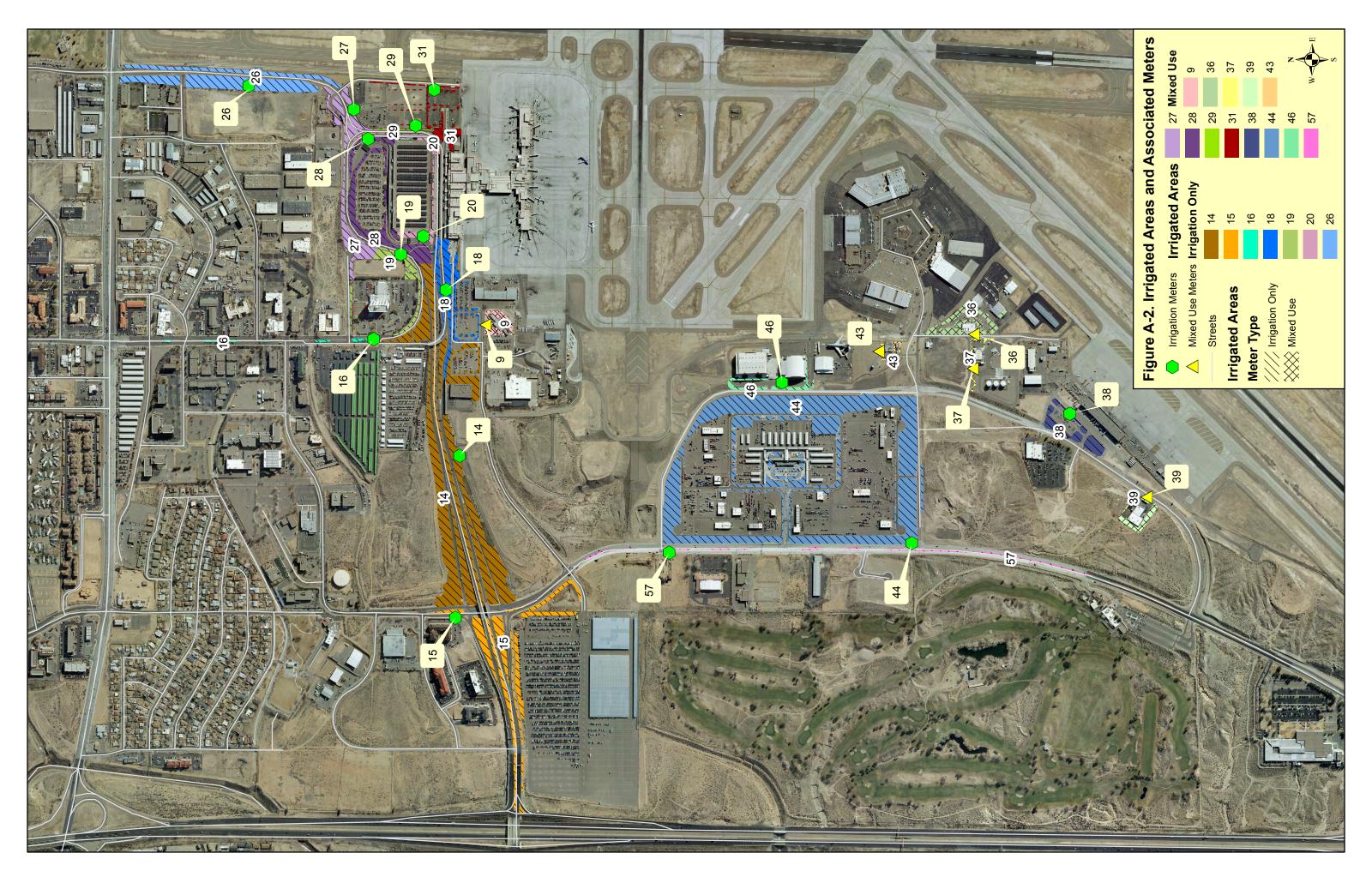
- Water only between midnight and 6:00 AM
- Do not water during windy conditions or when the soil is already wet
- Reduce water runoff
- Water less during cooler seasons
- Do not over water (i.e. develop water budgets for each metered area)

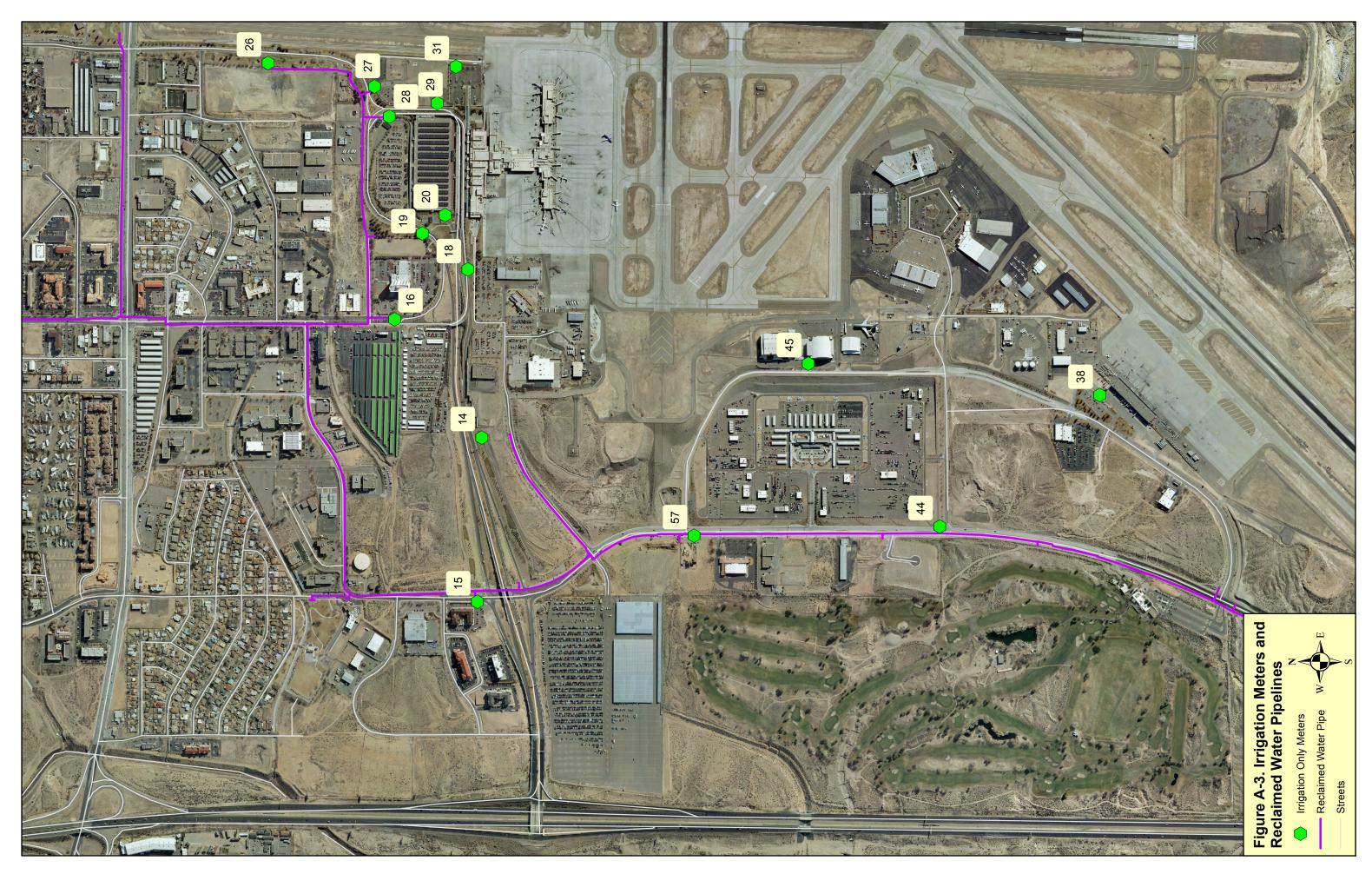
4.3 Low Impact Development/Green Infrastructure Opportunities

In addition to improving the efficiency inside the Sunport buildings and within the irrigation system, there is potential to implement both low impact development (LID) and green infrastructure techniques around the Sunport and as a part of new construction projects. The Sunport and surrounding area is largely paved with concrete and asphalt thus generating significant stormwater runoff. Some LID techniques can be implemented within the current infrastructure including curb cutting between paved and landscaped areas, infiltration trenches, stormwater harvesting and reuse. Increasing the retention time between stormwater flow and landscaped areas will result in additional infiltration and reducing irrigation demand. It is recommended that Aviation explore the potential to implement LID/green infrastructure techniques that may result in reduced water use for landscape irrigation. In addition, LID/green infrastructure techniques will also result in improved quality of stormwater runoff.











▶ PART 4: WATER CONSERVATION LARGE USERS

■ § 6-1-4-1 SHORT TITLE.

This article shall be known as the "Water Conservation Large Users Ordinance."

(Ord. 18-1998)

■ § 6-1-4-2 INTENT.

- (A) To implement the recommendations related to large water users called for in Resolution Bill No. R-173, Enactment No. 40-1995, adopted by the Council in March of 1995.
- (B) To assist in reducing overall per capita water use in the city by 30% from 250 to 175 gallons per person per day.
- (C) To require development, adoption, and implementation of water conservation plans for customers using large amounts of water through a cooperative process with the city.
 - (D) To assist large users in identifying ways to reduce water use.
- (E) To formalize monitoring and feedback for large users on meeting approved goals for water use reductions.

(Ord. 18-1998)

§ 6-1-4-3 DEFINITIONS.

For the purpose of this article, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ATHLETIC FIELD. Physically defined high water use turf area used regularly for athletic practices and/or games.

EXISTING CUSTOMER. Any city water system customer for which a water meter was installed prior to the effective date of this article.

LANDSCAPED AREA. The entire parcel less the building footprint, driveways, and non-irrigated portions of parking lots.

LARGE USER. Any city water system customer which used or uses in excess of 50,000 gallons per day in 1997 or any calendar year thereafter in which annual use is averaged over the year (50,000 gallons per day equals 18.25 million gallons or 24,398 units annually). Usage for multiple meters serving the same geographic facility will be added together and considered one customer

LOW FLOW FIXTURES. Plumbing fixtures as follows: 1.6 gallons or less per flush toilets, 1.0 gallon or less per flush urinals, 2.5 gallons or less per minute shower heads, 2.5 gallons or less per minute faucets and/or aerators.

NEW CUSTOMER. Any city water system customer for which a water meter was not installed prior to the effective date of this article.

VERY LARGE USER. Any city water system customer which used or uses in excess of 300,000 gallons per day in 1997 or any calendar year thereafter in which annual use is averaged over the year (109.5 million gallons or 146,390 units annually). Usage for multiple meters serving the same geographic facility will be added together and considered one customer.

(Ord. 18-1998)

■ § 6-1-4-4 APPLICABILITY.

All sections of this article apply to all large and very large users within the city limits and/or served by the municipal water utility, excepting customers which receive over 80% of their water from sources other than the city and public and private golf courses and parks, which are regulated by the Water Conservation Landscaping and Water Waste Ordinance. Compliance with this article is a condition of service from the utility. Private well usage will be included in the calculation of total usage and surcharges.

(Ord. 18-1998)

■ § 6-1-4-5 WATER USE REQUIREMENTS.

- (A) All new and existing large users shall use proven, economically feasible, most effective technology to minimize the amount of water used, including but not limited to water used for cooling, heating, processing, and operations.
 - (B) New large users shall:
- (1) Comply with the landscaping requirements for new development in the Water Conservation Landscaping and Water Waste Ordinance;
 - (2) Use low flow fixtures in all kitchen facilities and bathrooms.
 - (C) Existing large users shall:
- (1) Reduce water use for landscaped area to 35 inches per acre by 2004, excluding athletic fields at schools;
 - (2) Reduce water use for school athletic fields to 45 inches or less per acre per year;
 - (3) Use or convert to low flow fixtures in all kitchen facilities and bathrooms by 2004;

- (4) For multi-family residential large users, be exempted from fully complying with divisions (C)(1) and (3) if usage equals or averages, on an annual basis, less than 180 gallons per day unit;
- (5) For mobile home parks, be exempted from fully complying with divisions (C)(1) and (3) if usage equals or averages, on an annual basis, 260 gallons per day per unit.

(Ord. 18-1998)

■ § 6-1-4-6 USAGE PROJECTIONS.

- (A) All large users shall assess their projected usage, in cooperation with the city, by developing the following:
 - (1) Description of all uses of water within the facility;
 - (2) A plan for improvements to be implemented prior to 2004;
 - (3) Projections of average annual, monthly, and daily water use through 2004;
 - (4) Projections of annual water costs, based on current rates;
 - (5) Projections of annual sewer costs, based on current rates;
- (6) Projections of annual energy savings through 2004 related to reduced water use, if applicable, based on current rates;
- (7) Projections of changes in annual pretreatment costs through 2004 related to reduced water use, if applicable.
- (B) Existing large users shall also include the following, based on information provided by the city:
 - (1) Average annual, monthly, and daily water use over the last three years;
 - (2) Last three years' annual water and sewer costs.

(Ord. 18-1998)

■ § 6-1-4-7 WATER CONSERVATION PLAN REQUIREMENTS.

- (A) All large users shall develop a water conservation plan, in cooperation with the city, which includes:
 - (1) A policy statement reflecting the commitment of the large user to conservation;

- (2) Findings from § <u>6-1-4-6</u>;
- (3) Improvements to be implemented by 2004, listed by year and specific type of improvement;
- (4) Annual goals and water budget for water usage from the year plan is proposed through 2004 and any significant changes after 2004;
 - (5) A plan for promoting water conservation to employees and/or residents;
 - (6) A contact person with the city for implementation of this article.
 - (B) Existing large users' water conservation plans shall also include:
 - (1) Conservation-related improvements already made;
 - (2) A schedule for converting to low water use plumbing and landscaping.
 - (C) Large users shall also:
- (1) Work with the city to evaluate and, if feasible, implement utilization of appropriately treated industrial sewage return flow to the city's system in alternate ways, such as for deep injection well recharge and for irrigation purposes; sharing of costs to implement these solutions will be negotiated;
- (2) Communicate with similar water users, keep informed of new developments to reduce water use, and implement new processes as feasible;
- (3) Work in partnership with the city, agencies, companies, and/or universities involved in research to facilitate development and sharing of more efficient ways to use water.

(Ord. 18-1998)

- (A) Large users and very large users shall develop and seek approval of a water conservation plan within five months of notification by the city of the applicability of this article to the customer.
- (B) The city will issue a plan approval, based on the customer's water conservation plan, as negotiated by the city and the customer. For new customers, approval must occur prior to issuance of a city water meter. For existing customers, plan approval must occur within eight months of notification by the city of the applicability of this article to the customer, unless the plan is being mediated or appealed. Plan approval will be based on compliance with $\S 6-1-4-6(A)(1)-(3)$, $\S 6-1-4-6(B)(1)$, $\S 6-1-4-7(A)(1)-(6)$, and $\S 7(B)(1)-(2)$ of this article and any additional commitments by the customer to make improvements to use water more efficiently.

(Ord. 18-1998)

Either the customer or the city may initiate a plan revision at any time except during the months of November through February to alter inaccurate projections, reflect growth or decline at the facility, or accommodate other significant changes. Plan revisions will not be made to accommodate minor, short-term fluctuations caused by line breaks, leaks, fire flow delivery, and weather. No more than two revisions may be initiated by the customer during any 12 month period. The city will notify customers prior to making plan revisions. Revisions will be made only if the projections/goals will be changed by at least 5%.

(Ord. 18-1998)

■ § 6-1-4-10 VERY LARGE USERS.

- (A) Very large users are subject to the same requirements as large users.
- (B) In addition, prior to plan submittal, existing very large water users must provide an audit of their uses of water by a qualified expert accepted by both the city and the customer. Implementation of the auditor's recommendations will be subject to negotiation with the city. The city may terminate water service to any very large user refusing to implement improvements the city considers reasonable, subject to the provisions described in § 6-1-4-14.

(Ord. 18-1998)

■ § 6-1-4-11 NOTIFICATION.

- (A) The city will notify all existing large users of the requirements in this article and its applicability within 18 months of the final adoption of the article, starting with the largest users and moving downward. Large users are not required to submit plans prior to their notification in order to allow time for adequate staff review and approval.
- (B) All large water users with approved plans will be informed of their annual usage relative to their projected usage every year prior to March 31. Notification to customers who have achieved their final goal for two consecutive years will not continue unless usage exceeds the reduction goal in a subsequent year. Notification to customers who exceed their goal will continue indefinitely.

(Ord. 18-1998)

№ 8 6-1-4-12 VARIANCES.

(A) The Mayor shall be responsible for the enforcement of this article. The Mayor may prescribe policies, rules, or regulations to carry out the intent and purposes of this article.

(B) Administrative variances to the restrictions in § 6-1-4-5 through § 6-1-4-7 may be issued by the Mayor or his/her designee, provided that the general intent of this article has been met, compliance with this article is proven to cause practical difficulties and unnecessary hardship, and all reasonable options for abatement have been exhausted. The criteria to determine hardship shall include level of capital outlay and time required to be in compliance with this article.

(Ord. 18-1998)

№ § 6-1-4-13 MEDIATION AND APPEALS.

- (A) In the event that the customer and the city cannot agree on the customer's plan and annual goals, a mediation will be scheduled through the city's Dispute Resolution Office. The goal of the mediation is to create a mutually acceptable plan with the help of a third party mediator. The mediation will be scheduled by the Dispute Resolution Office within three weeks of the request. Follow-up mediations, if necessary, will be scheduled as quickly as possible. Costs for the mediation will be split equally between the city and the customer. Based on the mediation(s) and any subsequent discussions between the city and the customer, a plan will be proposed for approval within ten working days of the final mediation. In the event agreement is not reached through the mediation process, the city will propose a plan for approval within 12 working days of the final mediation.
- (B) Any large user dissatisfied with the plan proposed by the city following the mediation may appeal the plan to the City Hearing Officer by filing an appeal within seven calendar days of receipt of the proposed plan. Such request shall be made in writing and filed in the Office of the City Clerk. The appeal shall include the proposed plan and state the customer's disagreement with the proposed plan, together with all material facts in support thereof. When a hearing is requested, the City Hearing Officer shall send written notice by certified mail, return receipt requested, to the appellant of the time and place of the hearing. At the hearing, the appellant and the city shall have the right to present evidence to aid the City Hearing Officer in determining whether the proposed plan should be approved. The City Hearing Officer shall, within seven working days following the hearing, issue a written decision specifying any modifications to the plan that must be made prior to plan approval. If no modifications are required by the City Hearing Officer, an appeal filing fee of \$20 shall be added to the customer's water bill.
- (C) The exclusive remedy for parties dissatisfied with the decision of the City Hearing Officer shall be the filing of a petition for a writ of certiorari with the State District Court. The petition for review shall be limited to the record made at the hearing held by the City Hearing Officer pursuant to this article.

(Ord. 18-1998)

§ 6-1-4-14 COMPLIANCE; NONCOMPLIANCE.

(A) Failure to comply with the provisions of this article to develop and seek approval of a water conservation plan within five months of notification by the city of the applicability of this

article to the customer will result in city assignment of annual water usage goals, based on the customer's past usage, estimated potential for reductions, and the 30% reduction goal adopted in Resolution 40-1995.

- (B) Compliance with this article is a condition of service from the utility.
- (C) Water conservation staff or consultants authorized for this purpose by the Mayor may conduct an inspection of a customer's property for the purpose of assessing proposed plan validity and/or compliance with this article or approved plan. Inspections shall be conducted with the voluntary consent of the customer or the customer's representative. Inspection is deemed a condition of service. Customer refusal of an inspection for these purposes will result in city assignment of goals as described in division (A) above.

(Ord. 18-1998)

■ § 6-1-4-15 EFFECTIVE DATE.

This article shall become effective five days after publication in full.

(Ord. 18-1998)



				ABCWUA Billing Data			Aviation Field Data								
Aviation ID	ABCWUA Account Number	Meter Number	June 2014 Usage (Units)	Name on Bill	Service Address	Description	Status	Туре	Meter Badge (4/2014)	Meter Badge (8/2014)	Physical Location of Meter	LAT	LONG	Additional Comments and Notes	
1	1954579560	46045	1865	Aviation Dept City Of Albuquerque	1 Sunport Loop SE Aviation Terminal	Front of Sunport Terminal / Lower Level	Active	Domestic	No ID # on meter		1 Sunport Loop SE Aviation Terminal	35.04945	-106.61796	Listed as 46045 on ABWUA billing and previous Aviation information. Front Sunport terminal/lower level	
2	9395729560	88792	1	Aviation Dept City Of Albuquerque	2220 Kirtland Dr SE E	Belly Freight	Active	Domestic	88792		2220 Kirtland Dr SE E	35.04857	-106.62071	Belly Freight	
3	3495729560	77863	1	Aviation Dept City Of Albuquerque	2220 Kirtland Dr SE F	Belly Freight	Active	Domestic	77863		2220 Kirtland Dr SE F	35.04857	-106.62071	Belly Freight	
4	1495729560	52766	1	Aviation Dept City Of Albuquerque	2220 Kirtland Dr SE G	Belly Freight	Active	Domestic	52766		2220 Kirtland Dr SE G	35.04857	-106.62071	Belly Freight	
5	5495729560	88793	0	Aviation Dept City Of Albuquerque	2220 Kirtland Dr SE H	Belly Freight	Active	Domestic	88793		2220 Kirtland Dr SE H	35.04857	-106.62071	Belly Freight	
6	7495729560	65464	5	Aviation Dept City Of Albuquerque	2220 Kirtland Dr SE I	Belly Freight	Active	Domestic	65464		2220 Kirtland Dr SE I	35.04857	-106.62071	Belly Freight	
7								Tenant	9235			35.04857	-106.62071	Belly Freight	
9	7746579560	00787	128	Aviation Dept City Of Albuquerque	Old Terminal	Old Terminal	Active	Tenant Mixed Use	88788 No ID # on meter		Old Terminal	35.04857 35.048417	-106.62071 -106.621446	Belly Freight Listed as 00787 on ABWUA billing and previous Aviation information. Old Terminal Building	
10								Unused				35.047654	-106.622245	Old Terminal Area	
11								Unused				35.047663	-106.62195	Old Terminal Area	
12								Unused				35.047617	-106.622004	Old Terminal Area	
13	1984579560	27060	3040	Twin Mt Const	1850 George Rd SE Aviation Sunport Medians	Sunport Blvd / Sky Chef North Fence	Active	Tenant Irrigation	12198097 No ID # on meter		1850 George Rd SE Aviation Sunport Medians	35.047612 35.04909	-106.621768 -106.625683	ASIG glycol Listed as 27060 on ABWUA billing and previous Aviation information. Sunport blvd/Old Sky Chefs area north fence	
15	1305579560	48855	2660	Owner Current	2 University Blvd SE	Sunport / University Medians	Active	Irrigation	1277999		2 University Blvd SE	35.049188	-106.630947	Listed as 48855 on ABWUA billing and previous Aviation information. Sunport/University Medians	
16	1017729560	11517898	54	Aviation Dept City Of Albuquerque	2910 Yale Blvd SE	Yale Medians	Active	Irrigation	11517890		2910 Yale Blvd SE	35.051399	-106.621916	Yale median irrigation, ID and meter # previously assigned to #17	
17	see #16						Active	Tenant	See #16		2910 Yale Blvd SE	35.051541	-106.621777	Sheraton Hotel (ID and meter # transferred to #16)	
18	3217729560	64401	605	Aviation Dept City Of Albuquerque	9 Sunport Blvd SE Aviation Landscape Areas	East Sunport Loop / Employee & CC Lot	Active	Irrigation	64401		9 Sunport Blvd SE Aviation Landscape Areas	35.049469	-106.620308	Sunport loop east side/employee and cc lot	
19	5764579560	1184053	789	Aviation Dept City Of Albuquerque	10 Sunport Blvd SE Aviation Landscape Areas	West Sunport Loop / Parking & Sheraton	Active	Irrigation	4063		10 Sunport Blvd SE Aviation Landscape Areas	35.050677	-106.619153	Listed as 1184053 on ABWUA billing and previous Aviation information. Sunport Loop/West Parking/Sheraton	
20	7217729560	00087	340	Aviation Dept City Of Albuquerque	4 Sunport Blvd SE	West Parking Structure (near EG9)	Active	Irrigation	87		4 Sunport Blvd SE	35.05008	-106.618565	Parking Structure West/by emergency generator G9	
21E	9117729560	12515138	0	Aviation Dept City Of Albuquerque	11 Sunport Loop SE	North Parking / Economy Lot	Active	Domestic	66426		11 Sunport Loop SE	35.05104	-106.616835	Hose Bib. North of Parking Structure/Economy Lot	
21W							Active	-	68500549		Not sure which meter is active (Badge # listed as 1060 which is incorrect)	-	-	North of Parking Structure/Economy Lot	
22	1496729560	96126	7	Aviation Dept City Of Albuquerque	2501 Sunport Blvd SE Standard Parking	Standard Parking	Active	Domestic	96126		2501 Sunport Blvd SE Standard Parking	35.052195	-106.61609	Standard Parking	
23	4407729560	44461	6	Aviation Dept City Of Albuquerque	5 Sunport Blvd SE Parking Division	Parking Admin Building	Active	Domestic	44461		5 Sunport Blvd SE Parking Division	35.051918	-106.615548	Parking Administration Building	
24	1727729560	11230156	0	Aviation Dept City Of Albuquerque	2601 Sunport Blvd SE	Clean Energy	Active	Domestic	11230156		2601 Sunport Blvd SE	35.052275	-106.615112	Clean Energy	

				ABCWUA Billing Data			Aviation Field Data								
Aviation ID	ABCWUA Account Number	Meter Number	June 2014 Usage (Units)	Name on Bill	Service Address	Description	Status	Туре	Meter Badge (4/2014)	Meter Badge (8/2014)	Physical Location of Meter	LAT	LONG	Additional Comments and Notes	
25	1595729560	02122	6	Aviation Dept City Of Albuquerque	2801 Girard Blvd SE Aviation Parks Satellite Bldg	Parks/Rec Satellite Building	Active	Domestic	2122		2801 Girard Blvd SE Aviation Parks Satellite Bldg	35.052735	-106.61425	City Parks/Rec Satellite Building	
26	7036579560	09335800	1284	Aviation Dept City Of Albuquerque	2301 Girard Blvd SE Aviation Landscape Areas	Girard Blvd Median	Active	Irrigation	9335800		2301 Girard Blvd SE Aviation Landscape Areas	35.054755	-106.613716	Girard Blvd North, grass	
27	5907729560	90473	816	Aviation Dept City Of Albuquerque	7 Sunport Blvd SE Aviation Landscape Areas	North Cell Phone Lot (Girard)	Active	Irrigation	90473		7 Sunport Blvd SE Aviation Landscape Areas	35.051946	-106.614463	Girard/North of Cell phone lot	
28	1217729560	43418	458	Aviation Dept City Of Albuquerque	6 Sunport Blvd SE Aviation Landscape Areas	Sunport Loop / Parking	Active	Irrigation	43418		6 Sunport Blvd SE Aviation Landscape Areas	35.051559	-106.615421	Sunport Loop/Parking	
29	9115579560	1254540	49	Aviation Dept City Of Albuquerque	3 Sunport Blvd SE	East Sunport Loop / Employee Parking	Active	Irrigation	1254540		3 Sunport Blvd SE	35.050562	-106.615142	Sunport Loop east/ employee parking	
30	1864579560	1246047	0	Aviation Dept City Of Albuquerque Maintenance Shop	2 Sunport Loop SE Aviation Terminal	Used for Billing Solid Waste Only	Active	Solid Waste	1246047		2 Sunport Loop SE Aviation Terminal	35.050452	-106.615189	Used by ABCWUA to bill garbage and recycling.	
31	5217729560	69819	199	Aviation Dept City Of Albuquerque	8 Sunport Blvd SE Aviation Landscape Areas	East Employee Lot / Viewing Area	Active	Irrigation	69819		8 Sunport Blvd SE Aviation Landscape Areas	35.049804	-106.613808	East employee parking lot and viewing area	
32	9707729560	76131	0	Aviation Dept City Of Albuquerque	1900 Clark Carr Loop SE Aviation Landscape Areas	Eclipse HQ	Active	Domestic	76131		1900 Clark Carr Loop SE Aviation Landscape Areas	35.03753	-106.61764	No irrigated area associated with this meter. Has to be building meter, usage is 0.	
33	7650293054	10766684	1	NM DOT State Aviation Division	3501 Access Rd C SE NM DOT State Aviation Div	NM DOT State Aviation Division	Active	Domestic	10766684		3501 Access Rd C SE NM DOT State Aviation Div	35.103679	-106.62194	New Mexico DOT Aviation, originally mapped incorrectly between Aerolynx and Eclipse (New COORD taken 5/14)	
34	9495729560	12391559	1	Albuquerque International Airport	3621 Access Rd C SE	T-Hangars	Active	Domestic	33325187		3621 Access Rd C SE	35.03381	-106.6215	Listed as 12391559 on ABWUA billing and previous Aviation information. T-Hangars	
35	4307729560	03806	25	Aviation Dept City Of Albuquerque	3601 Access Rd C SE	Airfield Maintenance	Active	Domestic	3806		3601 Access Rd C SE	35.033862	-106.62198	Airfield Maintenance (east parking) by John Deer Tractors	
36	5707729560	68100380	142	Aviation Dept City Of Albuquerque	3500 Access Rd C SE	AFSS Building	Active	Mixed Use	68100380		3500 Access Rd C SE	35.035382	-106.62169	AFSS Building	
37	8407729560	21996	7	4 Seasons Aviation (ASIG is actual location)	3550 Access Rd C SE 4 Seasons Aviation	ASIG	Active	Mixed Use	66333412		3550 Access Rd C SE 4 Seasons Aviation	35.035407	-106.622805	Listed as 21996 on ABWUA billing and previous Aviation information. ASIG north of fence by emergency generator	
38	7374579560	31926759	7	Aviation Dept City Of Albuquerque	3720 Spirit Dr SE Aviation Landscape Areas	Cargo/FedEx	Active	Irrigation	10243638		3720 Spirit Dr SE Aviation Landscape Areas	35.032808	-106.624258	Listed as 31926759 on ABWUA billing and previous Aviation information. Cargo/FedEx	
39	5417729560	10243638	420	Aviation Dept City Of Albuquerque	3720 Spirit Dr SE	Kevothermal	Active	Mixed Use	67496009		3720 Spirit Dr SE	35.030756	-106.626953	Listed as 10243638 on ABWUA billing and previous Aviation information. Kevothermal	
40								Irrigation	63328765			35.034078	-106.624654	Spirit Drive by SW Reservations. Meter #63328765 was incorrectly assigned to #44. COORD verified 5/14). Not on billing list.	
41								Unused				35.03491	-106.62417	Spirt Drive undeveloped land	
43	7517729560	30423	52	Albuquerque International Airport	2341 Clark Carr Loop SE National Weather Service	NWS	Active	Unused Mixed Use	30423		2341 Clark Carr Loop SE National Weather Service	35.03561 35.037919	-106.62391 -106.622256	Spirt Drive undeveloped land National Weathr Service	

				ABCWUA Billing Data	1		Aviation Field Data									
Aviation ID	ABCWUA Account Number	Meter Number	June 2014 Usage (Units)	Name on Bill	Service Address	Description	Status	Туре	Meter Badge (4/2014)	Meter Badge (8/2014)	Physical Location of Meter	LAT	LONG	Additional Comments and Notes		
44	1417729560	28765	0	Albuquerque International Airport	3720 Spirit Dr SE Aviation Landscape	RAC	Active	Irrigation	No ID # on meter		3720 Spirit Dr SE Aviation Landscape	35.037012	-106.628483	Listed as meter number 28765 on ABWUA billing and previous Aviation information. University/Clark Carr SW corner		
45								Domestic	66692051			35.040494	-106.623277	Listed as on ABWUA billing and previous Aviation information.Eclipse Sunport II. SHOULD BE DOMESTIC		
46	9996729560	64021554	0	Aviation Dept City Of Albuquerque	2440 Clark Carr Blvd SE	Eclipse / Sunport III	Active	Irrigation	66692050		2440 Clark Carr Blvd SE	35.040727	-106.623314	Listed as 64021554 on ABWUA billing and previous Aviation information. Eclipse Sunport III. SHOULD BE IRRIGATION		
47	7885729560	47126	32	Payless Car Rental	3400 University Blvd SE D	RAC	Active	Domestic	47126		3400 University Blvd SE Enterprise Rent A Car	35.040416	-106.624355	Rental Car Facility. Eastern side of perimeter road.		
48								Tenant	57247129		·	35.038939	-106.62436	Advantage		
49								Tenant	57389933			35.038866	-106.625347	EAN		
50								Tenant	57389928			35.03889	-106.62658	EAN		
51	1405579560	09059823	68	COA Aviation Dept	3400 University Blvd SE	RAC	Active	Domestic	57247125		3400 University Blvd SE	35.039787	-106.626745	Listed as 9059823 on ABWUA billing and previous Aviation information. SW Corner of perimter road near Hertz.		
52								Tenant	57247128			35.041112	-106.626736	Budget		
53								Tenant	57247126			35.041754	-106.626795	Payless		
54								Tenant	57247121			35.041881	-106.626606	Dollar/Thrifty		
55								Tenant	57389937			35.041914	-106.625329	Avis		
56								Tenant	57247120			35.042148	-106.626797	Enterprise		
57	5931519654	55588001	6	City of Albuquerque Aviation, Median	3902 University Blvd SE	University/Spirit Medians	Active	Irrigation	55588001		3902 University Blvd SE	35.043485	-106.628807	University/Spirt Drive, medians		
60	6407729560	92972	64	City of Albuquerque	3113 Yale Blvd SE	SW Provisioning	Active	Domestic	53972			35.04673	-106.62324	SW Provisioning (Assigned 60 in field by CPA and JW). New COORD taken 5/14.		
Need #							Active	Tenant	4437		Not on Aviation Billing			Aerolynx and Eclipse; originally assigned meter #33 but needs to be assigned new #. Tenant or aviation?		
Need #							Active	Tenant	37221996		Not on Aviation Billing			Fenceline south of Aerolynx; needs to be assigned new #. Tenant or aviation?		





Kitchen Equipment Inventory

	Unit	Qty	Model
Black Mesa Coffee			
Main Bakery			
Front Line	Prep Sink	1	
	Under Countier Ice Machine	1	Manitowoc QY-0274A
	Coffee Brewer	1	Fetco CB-2052
	Tea Brewer	1	Bunn TB6Q
	Espresso Machines	2	Franke Evolution
	Hand Sink	1	
	Pepsi Fountain with Ice Maker	1	Cornelius Enduro 250 & Manitowoc 2-0450
Kitchen	3-Compartment Sink	3	
	Hand Sink	1	
	2-Comparment Prep Sink w Disposal	1	Salvajor 75-SA-3.5 MRSS
	1 Compartment Prep Sink	1	
	Mop Sink	1	
	Ice Machine	1	Manitowoc QY-D454A
Concourse A			
Front Line	Prep Sink	1	
	Under Counter Ice Machine	1	Manitowoc QY-0274A
	Hand Sink	1	
	Coffee Brewer	1	Fetco CB-2052
	Ice Tea Brewer	1	Bunn TB6Q
	Pepsi Fountain with Ice Maker	1	Cornelius Enduro 250 & Manitowoc 2-0450
	Espresso Machines	2	Franke Evolution
Kitchen	3-Compartment Sink	1	
	Hand Sink	1	
	Mop Sink	1	
Fresquez Concessions			
Watch!			
	Hand Sink	3	
	3-Compartment Sink	1	
	Mop Sink	1	
	Faucets	5	
	Dish washers	1	Auto Chlor MOD A4
	Ice Maker	1	Hoshizki KM900MWH
	Coffee Brewer	1	
	Tea Maker	1	

Kitchen Equipment Inventory

3-Compartment Sink		Unit	Qty	Model
Hand Sink	Tia Juanita			
Mop Sink		3-Compartment Sink	1	
Kettle Faucet 1 Prep Sink 1 Faucets 8 Dish washers 1 Auto Chlor AC-44 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Coffee Brewer 3 Water Dispenser 2 Water Dispenser Rio Grande 3-Compartment Sink 1 Hand Sink 7 Mop Sink 1 Auto Chlor LL10264 Hoshizki KM-1301Sah Hoshizki KM-1301Sah Hoshizki KM-1301Sah Tea Maker 1 Hoshizki KM-1301Sah Hoshizki KM-1301Sah <td></td> <td>Hand Sink</td> <td>4</td> <td></td>		Hand Sink	4	
Prep Sink		Mop Sink	1	
Faucets B Dish washers 1 Auto Chlor AC-44 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Coffee Brewer 3 Water Dispenser 2 Value Rio Grande		Kettle Faucet	1	
Dish washers 1 Auto Chlor AC-44 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Coffee Brewer 3 Water Dispenser 2 Tea Maker 5 Auto Chlor AC-44 Ice Maker 5 Auto Chlor AC-44 Hoshizki KM-1301Sah Tea Maker 5 Auto Chlor LL10264 Hoshizki KM-1301Sah Tea Maker 1 Auto Chlor LL10264 Hoshizki KM-1301Sah Tea Maker 1 Coffee Brewer 2 Water Dispenser 1 Tea Maker 1 Coffee Brewer 2 Hoshizki KM-1301Sah Tea Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Hoshizki KM-1301Sah Tea Maker 4 Hoshizki KM-1301Sah Tea Maker 4 Hoshizki KM-1301Sah Tea Maker		Prep Sink	1	
Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Coffee Brewer 3 Water Dispenser 2 Rio Grande 3-Compartment Sink 1 Hand Sink 7 Mop Sink 1 Hoshizki KM-1301Sah Tea Maker 3 Hoshizki KM-1301Sah		Faucets	8	
Tea Maker		Dish washers	1	Auto Chlor AC-44
Coffee Brewer 3 Water Dispenser 2 Rio Grande 3-Compartment Sink 1 Hand Sink 7 Mop Sink 1 Faucets 9 Dish Washer 1 Hoshizki KM-1301Sah 1 Coffee Brewer 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah 1 Hos		Ice Maker	1	Hoshizki KM-1301Sah
Rio Grande 2 Rio Grande 3-Compartment Sink 1 Hand Sink 7 Mop Sink 1 Faucets 9 Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 1 Coffee Brewer Water Dispenser 1 Very Compartment Sink Auto Chlor LL10264 Hoshizki KM-1301Sah Tea Maker 1 Hoshizki KM-1301Sah Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 1 Hoshizki KM-1301Sah And Sink 1 Hoshizki KM-1301Sah Hoshizki KM-1301Sah Tea Maker 3 Hoshiz		Tea Maker	2	
Rio Grande 3-Compartment Sink 1 Hand Sink 7 Mop Sink 1 Faucets 9 Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 1 Coffee Brewer 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Mop Sink 1 Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Coffee Brewer	3	
3-Compartment Sink 1 Hand Sink 7 Mop Sink 1 Faucets 9 Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express		Water Dispenser	2	
Hand Sink 7 Mop Sink 1 Faucets 9 Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2	Rio Grande			
Mop Sink 1 Faucets 9 Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1		3-Compartment Sink	1	
Faucets Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 4 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 1 Hoshizki KM-1301Sah		Hand Sink	7	
Dish Washer 1 Auto Chlor LL10264 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 1 Coffee Brewer 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Mop Sink	1	
Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 1 Coffee Brewer 2 Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Faucets	9	
Tea Maker Coffee Brewer Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 4 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 2 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Dish Washer	1	Auto Chlor LL10264
Coffee Brewer Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 4 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink Mop Sink 1 Wok Faucets 2		Ice Maker	1	Hoshizki KM-1301Sah
Water Dispenser 1 Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Tea Maker	1	
Food Court (II Trattoria, Comida Buena, Tia Juanitia's) 3-Compartment Sink		Coffee Brewer	2	
3-Compartment Sink 2 Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink Hand Sink Mop Sink Wok Faucets 2		Water Dispenser	1	
Hand Sink 7 Mop Sink 1 Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2	Food Court (Il Trattoria, C	omida Buena, Tia Juanitia's)		
Mop Sink Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink Hand Sink Mop Sink Mop Sink Wok Faucets 2		3-Compartment Sink	2	
Kettle Faucet 1 Faucets 12 Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Hand Sink	7	
Faucets Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink Hand Sink Mop Sink Wok Faucets 2		Mop Sink	1	
Ice Maker 1 Hoshizki KM-1301Sah Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Kettle Faucet	1	
Tea Maker 3 Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Faucets	12	
Coffee Brewer 4 Panda Express 3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Ice Maker	1	Hoshizki KM-1301Sah
Panda Express 3-Compartment Sink Hand Sink Mop Sink Wok Faucets 2		Tea Maker	3	
3-Compartment Sink 1 Hand Sink 3 Mop Sink 1 Wok Faucets 2		Coffee Brewer	4	
Hand Sink 3 Mop Sink 1 Wok Faucets 2	Panda Express			
Mop Sink 1 Wok Faucets 2		•	1	
Wok Faucets 2			3	
			1	
		Wok Faucets	2	
Prep Sink 2		Prep Sink	2	
Faucets 10		Faucets	10	
Ice Maker 1 Hoshizki KM901Mah		Ice Maker	1	Hoshizki KM901Mah
Tea Maker 1		Tea Maker	1	

Kitchen Equipment Inventory

	Unit	Qty	Model
Quiznos			
	3-Compartment Sink	1	
	Prep Sink	1	
	Hand Sink	1	
	Mop Sink	1	
	Faucets	4	
	Ice Maker (in Soda Machine)	1	
	Coffee Brewer	1	
	Tea Maker	1	
Route 66 Lounge			
	Hand Sink	2	
	3-Compartment Sink	1	
	Faucets	3	
Keva Juice			
	Hand Sink	1	
	3-Compartment Sink	1	
	Mop Sink	1	
	Faucets	3	
	Ice Maker	1	Scotsman b3225
	Dip Well	1	
Baskin Robbins/Snack Att	ack		
	Hand Sink	2	
	3-Compartment Sink	2	
	Mop Sink	1	
	Faucets	5	
	Dip Well	2	

Kitchen Equipment Summary

	Coffee Brewer	Tea Brewer	Espresso Machine	Water Dispenser	Under Countier Ice Machine	Pepsi Fountain with Ice Maker	Ice Machine	Hand Sink	Prep Sink	2-Comparment Sink	3-Compartment Sink	Mop Sink	Faucets	Kettle Sink / Wok Faucet	Dish Washer	Dip Well
Black Mesa Coffee	2	2	4		2	2	1	4	3	1	4	2				
Watch!	1	1					1	3			1	1	5		1	
Tia Juanita	3	2		1			1	4	1		1	1	8	1	1	
Rio Grande	2	1		1			1	7			1	1	9		1	
Food Court (Il Trattoria, Comida Buena, Tia Juanitia's)	4	3					1	7			2	1	12	1		
Panda Express		1					1	3	2		1	1	10	2		
Quiznos	1	1				1		1	1		1	1	4			
Route 66 Lounge								2			1		3			
Keva Juice							1	1			1	1	3			1
Baskin Robbins/Snack Attack								2			2	1	5			2
	13	11	4	2	2	3	7	34	7	1	15	10	59	4	3	3