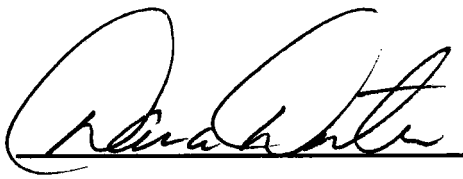
Water Conservation Plan Submittal Cover Letter

Donala Water and Sanitation District

Name and Contact Information	Dana Duthie, General Manager Donala Water and Sanitation District 15850 Holbein Drive Colorado Springs, Colorado 80921 Phone: 719-488-3603 Fax: 719-488-3110 Email: d2@donalawater.com
Organizations and Individuals Assisting in Plan Development	Logan Burba, EI Katie Fendel, PE Leonard Rice Engineers, Inc. 2000 Clay Street, Suite 300 Denver, Colorado 80211 Phone: 303-455-9589 Fax: 303-455-0115
Retail Water Delivery	2006: 1,220 AF (total potable and non-potable) 2007: 1,240 AF 2008: 1,272 AF 2009: 989 AF 2010: 1,158 AF NOTE: All potable water supplied by Denver Basin Aquifers; non-potable irrigation supplied by reuse water and spring water
Population Served	2006: 6,300 2007: 6,400 2008: 6,500 2009: 6,500 2010: 6,500
Public Review and Comment Information	Publicly available beginning August 16, 2011. Board approval and adoption October 20, 2011.



10/21/11

Dana Duthie, General Manager — Date

Donala Water and Sanitation District
Water Conservation Plan

Prepared – 2009

Approved October 21, 2009

Updated August 2011

Adopted October 20, 2011

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EXECUTIVE SUMMARY

In 2004, the CWCB passed Colorado's Water Conservation Act of 2004, which requires all retail water providers who sell at least 2,000 acre-feet of water annually to develop and gain CWCB approval of a water conservation plan. As of July 1, 2005, the minimum water conservation plan requirement elements were defined by the CWCB in §37-60-126(4) C.R.S.. Donala Water and Sanitation District (Donala) has selected to submit a State approvable plan even though Donala provides less than 2,000 acre-feet of water and thus is not required to submit a plan. A crosswalk has been created for this document to show where each CWCB required element is located at the end of the Executive Summary.

Donala is one of hundreds of special districts in Colorado dedicated to providing water and/or sewer service to customers outside the utility service area of a neighboring city or town. It is a Title 32 District located just north of Colorado Springs, with approximately 2600 predominantly residential customers. The current source of water is predominantly the depleting Denver Basin system of aquifers. Donala's Water Conservation Plan is aimed at extending that supply for as long as possible, while reducing the overall demand and associated requirement for new, expensive water purchases. Donala also recognizes the need for aggressive water conservation in Colorado, and is working with partners in the Pikes Peak Regional Water Authority to achieve regional conservation.

Although yet to show a positive effect, Donala's centerpiece of water conservation is its graduated water rate structure. The more water that customers use, the more they pay per gallon. As of 2010, the rate structure, though relatively high, had not resulted in measurable savings. Donala plans to continue raising the rates as necessary to obtain a goal of 15% savings. Tap and development fees are also relatively high in Donala. Because Donala is nearing buildout, these fees are not relied upon for funding. However, to keep development proceeding at a reasonable pace, fees will be kept low enough so that it is viable. In addition, any logical property annexation that would lead to more tap and development fee income will be considered, and is accounted for in future demand. The positive aspect of future development is the financing of high cost water rights and infrastructure that fees would provide.

Donala has minimum regulatory authority over water infrastructure and in-home construction. Donala works with the Pikes Peak Regional Building Department to coordinate specifications, and cooperates with the El Paso County Developmental Services Department to ensure water supplies are adequate for approval by the County Commissioners. Donala also has rules and regulations to ensure there is minimum loss or waste of water.

The annual irrigation rationing program is the most visible of Donala's water conservation efforts. Customers are allowed to water three days a week from Memorial Day through Labor Day, and encouraged to follow the same schedule at other times. Violators are warned and fined, with service terminated, if necessary. The program has been operating since 2007 and results have varied based on the amount of seasonal precipitation. In wetter years, much greater savings were realized than in drier years. The rationing program, enhanced by landscape and irrigation education emphasis, and coupled with the graduated rate structure is aimed at reducing the "Bluegrass Mentality" that customers have. We realize that the high plains desert environment with hot sun and high winds, along with the scarcity of water, means that lush lawns and water-intense plants are not appropriate.

Low water use landscape methods and efficient irrigation systems are encouraged. Donala participates in several outreach and training programs to help influence customers to be water-wise and more conservative. In 2011 the district hired a Conservation Manager; a horticulturalist with landscape architect experience. She has hosted an expo, workshops, training sessions, and sent out newsletters, all aimed toward education and landscape design. Individual landscape plans are developed for bargain prices. "Donala Gardens," a xeriscape demonstration plot, has been developed and tours are conducted as part of the training and encouragement for customers to conserve water. In addition, Donala encourages the use of water efficient fixtures and appliances, and sponsors an extensive rebate incentive program to entice more cooperation.

The most successful part of Donala's water conservation program is the use of treated wastewater effluent on the Gleneagle Golf Course for irrigation. Reuse water, supplemented by the use of a nearby surface water source, has reduced the Golf Course dependency on District aquifer supplies by close to 50%. More reuse water will become available as Donala grows, and Donala will encourage its use in other systems as well.

Donala pays particular attention to its distribution system and the in-home metering system to ensure minimum waste and loss of water. Comparisons between water pumped and water billed are reviewed monthly. Meters are repaired as needed and replaced at least every ten years. These measures have been very successful thus far.

Donala believes that potable reuse of water is inevitable in the future. Although there are no immediate plans to invest in a potable reuse system at this time, Donala will continue to investigate the possibilities and keep up with the technology available to utilize this valuable resource. In addition, we will continue with public education on potential reuse projects. In the meantime, Donala will continue to look for ways to economically market the excess effluent, whether for irrigation purposes, or in exchange for potable supplies.

CWCB Water Conservation Plan Review Crosswalk

Donala Water and Sanitation District

Instructions for Using the Plan Review Crosswalk for Review of Water Conservation Plan Using CWCB Plan Guidelines

Attached is a Plan Review Crosswalk based on the *CWCB Model Water Conservation Plan Development Guidance Document*, published by CWCB in 2005. This Plan Review Crosswalk is consistent with Colorado's Water Conservation Act of 2004 and §37-60-126(4) C.R.S.

Review System:

√ - Element has been satisfied to at least the minimum required extent.

CWCB Plan Element	Locations in the Plan (Report Page Number)	Satisfied
1 Profile the Existing Water System		√
1.1 Profile Physical Characteristics of the Existing Water Supply System	9, 16	√
1.2 Identify All Sources of Water	15, 17	√
1.3 Identify System Limitations	17-18	√
1.4 Characterize Water Costs and Pricing	11-13	√
1.5 Review Current Policies and Planning Initiatives	14	√
1.6 Summarize Current Water Use	10-11	√
2 Characterize Water Use and Forecast Demand		√
2.1 Characterize Current Water Use	10-13	√
2.2 Select Forecasting Method	18-19	√
2.3 Prepare Demand Forecast	18-19, 21	√
3 Profile Proposed Facilities		√
3.1 Identify and Cost Potential Facility Needs	20-24	√
3.2 Prepare an Incremental Cost Analysis	21-22, 26	√
3.3 Develop Preliminary Capacity and Costs Forecasts	20-24	√
4 Identify Conservation Goals		√
4.1 Develop Water Conservation Goals	25-28, 31-54, 58-59	√
4.2 Document the Goal Development Process	27-28	√
5 Identify Conservation Measures and Programs		√
5.1 Identify Conservation Measures and Programs	29-31	√
5.2 Develop and Define Screening Criteria	29	√
5.3 Screen Conservation Measures and Programs	30	√

CWCB Plan Element	Locations in the Plan (Report Page Number)	Satisfied
6 Evaluate and Select Conservation Measures and Programs		√
6.1 Create Combinations of Measures and Programs	30, 55	√
6.2 Estimate Costs and Water Savings of Conservation Options	31-54, 60-61	√
6.3 Compare Benefits and Costs	31-54	√
6.4 Define Evaluation Criteria	29	√
6.5 Select Conservation Measures and Programs	30	√
7 Integrate Resources and Modify Forecasts		√
7.1 Revise Demand Forecast(s)	18-19	√
7.2 Identify Project-Specific Savings	31-54	√
7.3 Revise Supply-Capacity Forecast(s)	21	√
7.4 Summarize Forecast Modifications and Benefits of Conservation	59-60	√
7.5 Consider Revenue Effects	60	√
8 Develop Implementation Plan		√
8.1 Develop Implementation Schedule	58-59	√
8.2 Develop Plan for Public Participation in Implementation	9	√
8.3 Develop Plan for Monitoring and Evaluation Processes	61	√
8.4 Develop Plan for Updating and Revising the Conservation Plan	61	√
8.5 Define Plan Adoption Date/Plan Completed Date/Plan Approved Date	Cover	√
9 Monitor, Evaluate, and Revise Conservation Activities and the Conservation Plan		√
9.1 Implement the Plan		√

1. INTRODUCTION

The Water Conservation Act of 1991 committed the Colorado Water Conservation Board (CWCB) to review and approve water conservation plans created and submitted by covered entities. The required contents of a state approved water conservation plan prior to 2006 included only minimal information relevant to characterizing active water conservation efforts. In 2004, the CWCB passed Colorado's Water Conservation Act of 2004, which requires all retail water providers who sell at least 2,000 acre-feet of water annually to develop and obtain CWCB approval of a water conservation plan. As of July 1, 2005, the minimum water conservation plan requirement elements were defined by the CWCB in §37-60-126(4) C.R.S. The CWCB has outlined and created guidance for the development of plans to include all minimum required plan elements. Donala Water and Sanitation District (Donala) has selected to submit a State approvable plan regardless of providing less than 2,000 acre-feet of water and thus not required to submit a plan. A crosswalk has been created for this document to show where each CWCB required element and is located at the end of the Executive Summary.

The draft plan was posted on Donala's website on August 16, 2011 and public comments were solicited at this time. The Public Notice was posted and is included here as Attachment A. Public comments were requested to be submitted at either the September 15th board meeting or the October 20th board meeting. The public comment period closed at the October 20th board meeting, at which the revised plan was approved by the board. No comments were received at this time.

1.1. EXISTING WATER SYSTEM

The Donala Water and Sanitation District (Donala or The District) is a quasi-municipality organized under the Colorado Special District laws to provide water and sewer services to approximately 2,600 customers and a population of approximately 6,500. The service area is approximately 2.4 square miles in El Paso County, Colorado, just north of the City of Colorado Springs.

Donala is generally bordered by I-25 on the west, Northgate Road (Colorado Springs) on the south, Baptist Road (Town of Monument) on the north, and the Academy Water & Sanitation District service area on the east. The average elevation is 7,000 feet, and only about 15% of the area is

wooded. These factors play significantly in the demand and use of water. Other system information (i.e. system characteristics, sources, limitations, etc.) is included in sections below.

2. WATER USE AND DEMAND

The customer base of Donala is almost all residential, with 85% single family homes on lots of 1/4-3/4 acres. There are seven townhome or patio home areas and one apartment complex, each with its own irrigation system. In addition, there is one elementary school, one small shopping center, a church, four office buildings, a bank, a fire department, and a self storage complex. By far, the largest water customer is the Gleneagle Golf Course and clubhouse complex. There are approximately 35 acres of undeveloped commercial property, an area of yet to be developed townhomes (66), and a number of undeveloped two and a half acre lots (33) within Donala's existing District boundaries. A summary of annual water demands by customer type for 2010 is shown in Table 2-1 below. The Golf Course is the single largest user, accounting for 11.6% of the 1,158 acre-feet annual total demand for Donala while single family customers are the highest water users at 74% of the total water use.

Table 2- 1: Current (2010) Water Use (Groundwater and Reuse/Surface Water) by Customer Class and Customer Type

(Note: Table 2-1 demands include Golf Course irrigation demands)

Customer Class	Customer Type	Demand (AF)	Percent of Total Demand
Residential - Potable Well	Single Family	857	74.0%
	Multifamily	95	8.2%
	Total	**952**	**82.2%**
Non-Residential - Potable Well	Commercial	65	5.6%
	Irrigation[1]	5	0.4%
	Construction	1	0.1%
	Total	**71**	**6.1%**
Golf Course Irrigation - Non-Potable	Reuse Water	65	5.6%
	Surface Water[2]	40	3.5%
	Golf Course Irrigation (Raw Well)	30	2.5%
	Total	**135**	**11.7%**
Total District Demand		**1,158**	**100%**

1. All irrigation not including the golf course irrigation
2. Supplies 100% augmented

Indoor use accounts for about 42.1% of single family residential total uses during April through November. Multifamily indoor use is about 41.6% of the total use. Commercial uses about 50.2% indoor of the total use. As Donala's top user, the golf course, which is 98.5% outdoor use, accounts for 11.7% of all use.

Donala boundaries include a finite number of available lots, most of which have already been developed and are receiving water. Additional service area would need to be incorporated into the district to expand past these current boundaries, and any areas likely to be added to the service area have already been accounted for in demand projections herein. Because of limited ability for growth in Donala, demand trends have remained fairly consistent over the past few years. Each year has shown water use savings due to new programs being implemented. In 2009, Donala saw an 8% savings due to irrigation rationing and higher precipitation than typical. In 2010, there was a 6% savings compared to 2008 due to irrigation rationing and a 3% savings due to rate increases.

2.1. WATER COSTS AND PRICING

2010 data was used to determine water consumption and costs in Donala, assuming no growth, 3% inflation for most costs, 12% for the first five years for Colorado Springs Utility (CSU) rates, and doubled costs for CSU system use fees with Southern Delivery System (SDS)[1]. All available tax income was considered, except what is required for debt service, and only 50% of the available tax income for treated water revenue was used in the analysis. In 2011, 100 acre-feet of water at "full service" rates was used until Willow Creek water is available.

For 2010, the total cost to serve treated water was $7.57 per 1,000 gallons with 333,292,866 total gallons of treated water served. Total raw water to the golf course cost was $6.30 per 1,000 gallons at a total of 9,611,300 gallons served. Costs per 1,000 gallons were down for both service types from 2009, but amount of water served was up for both. Production costs for all reuse sources and effluent reuse augmentation water was $5.18 per 1,000 gallons if all collections systems costs to the golf course were included. A total of 34,310,000 gallons were produced from these sources. Donala measured total waste influent for 2010 at 156,682,000 gallons, which was down from 2009, and it is likely that there was a meter problem as this was less than Donala expected. The total cost to

[1] Based on the assumption that future surface water supplies could be transported through the CSU system and delivered to Donala.

treat the influent was $5.18 per 1,000 gallons if all collections systems costs were included, as the cost to the customer. The least expensive water source is the reuse water serving the golf course, which provides a built-in incentive to continue using this non-potable source for watering. Donala has not experienced any unusual billing or revenue issues for any customer class.

Since 1998, when Donala first began tracking costs of service, its costs for water treatment and service has on average been $33,335 per year less than the total income from property tax and water sales. The total income to Donala from water rate fees for 2010 was $1,944,361 while the total income from sewer rates was $901,383. Additional revenue was used for debt service.[2]

Donala charges customers on an increasing block rate billing structure and water bills are on a monthly schedule. Customers can pay bills online through EBill or auto-deposit. Meters are measured monthly to check for potential system leaks. Rates and fees for 2011 for users in Donala are listed below in Table 2-2. Additional penalty fees not listed here can be found on website donalawater.org. Additionally, Figure 6-1 later in this report shows the increasing block rate structure for 2011 water service in Donala. A significantly higher rate structure is being proposed for 2012 and beyond.

[2] Donala's two major sources of income are water and sewer bills and property tax.

Table 2- 2: Donala 2011 Water Rates and Fees

Fee Description		Fee Amount
Residential Water Tap Fee		$6,000
Residential Sewer Tap Fee		$6,000
Residential Water Development Fee		$5,000
Residential Sewer Development Fee		$2,000
Commercial Water Tap Fee (3/4 inch – 6 inch line)[1]		Varied Based on Size ($6,000-$240,000)
Commercial Sewer Tap Fee[2]		$6,000 for first for first 20 fixture units (FU)), + $250 per FU over 20, as a basis for negotiation.
Commercial Water Development Fee		$5,000
Commercial Sewer Development Fee		20% of Tap Fee
Installation Fee		$1,250 ($200 refundable)
Availability of Service Fee		$300
Water Service Rate		Minimum $13 which yields no water
Increasing Block Rate Structure	Incremental Rates: $3.40/1000 gallons to 10,000 gallons; $4.55/1000 gallons from 10,001 to 20,000 gallons; $5.25/1000 gallons from 20,001-30,000 gallons; $6.60/1000 gallons from 30,001 to 40,000 gallons; $9.60/1000 gallons above 40,001 to 50,000 gallons; $11.10/1000 gallons above 50,000.	
Townhome Irrigation Service Rate		Same as residential up to 40,000 gallons, $8.50/1000 over 40,000 gallons
Golf Course Rates[3]		$3.90/1000 gallons[4]
Sewer Service Rate		$27
Non-sufficient Check Fee		$40
Re-connection Fee		$75
Lien Removal Fee		$100
Late Payment Fee		5% per month

1. See website for full price breakdown by line size
2. Using AWWA approved formula for fixture units. Actual fee will depend on design and anticipated use. The establishment must also comply with Donala Sewer Use Regulation. Quality concerns could increase tap fee.
3. Potable same as residential rates.
4. Raw water in addition to reuse or Jake's Lake water.

2.2. RULES AND REGULATIONS

As a Water and Sanitation District, Donala's authority to regulate users is somewhat limited. Donala does have rules and regulations relating directly to fees, rates, penalties, and operations for its users. Some of the rules and regulations that are most pertinent are quoted below:

> *"1.5 - Service fees are charged on a monthly basis. There is a set minimum water service fee and the monthly sewer service fee. Additional water usage fees are charged once meters are read and recorded. Service fees are due by a specific due date, and normally declared "late" after five days following the due date. If full payment is not made within 90 days, water service may be terminated after sufficient written and telephonic warning is made, and customers are given ample opportunity to contest the matter. A service re-connection fee will be charged, due with full payment of the bill and before service is re-connected. A lien may be filed on the property after 10 days following service termination. A lien removal fee may be charged and is due along with the service re-connection fee and full payment of the bill. Office staff is authorized to make special arrangements with customers to pay extreme bills over an agreed reasonable amount of time.*
>
> *2.11 - If a customer irrigates during non-authorized times per the District rationing program the first offense will incur a warning letter. Second offense incurs a sterner letter and notification of a fine the third time. The third offense incurs a $25 penalty. Fourth offense results in $50 penalty and a disconnect notice. Fifth offense incurs immediate termination of water service and the applicable fees to re-connect.*
>
> *3.8 - Customers requiring water from a fire hydrant (other than fire department) may only utilize the metered hydrant located at a designated location within the District. Customers must sign up for water at the District office and may be required a deposit. Customers will be required to sign in on the log at the hydrant, to include beginning and ending meter numbers. Customers must have an "air gap" on their vehicle – no direct hydrant connection allowed. The District reserves the right to charge a higher rate for water to be used outside the District service area."*[3]

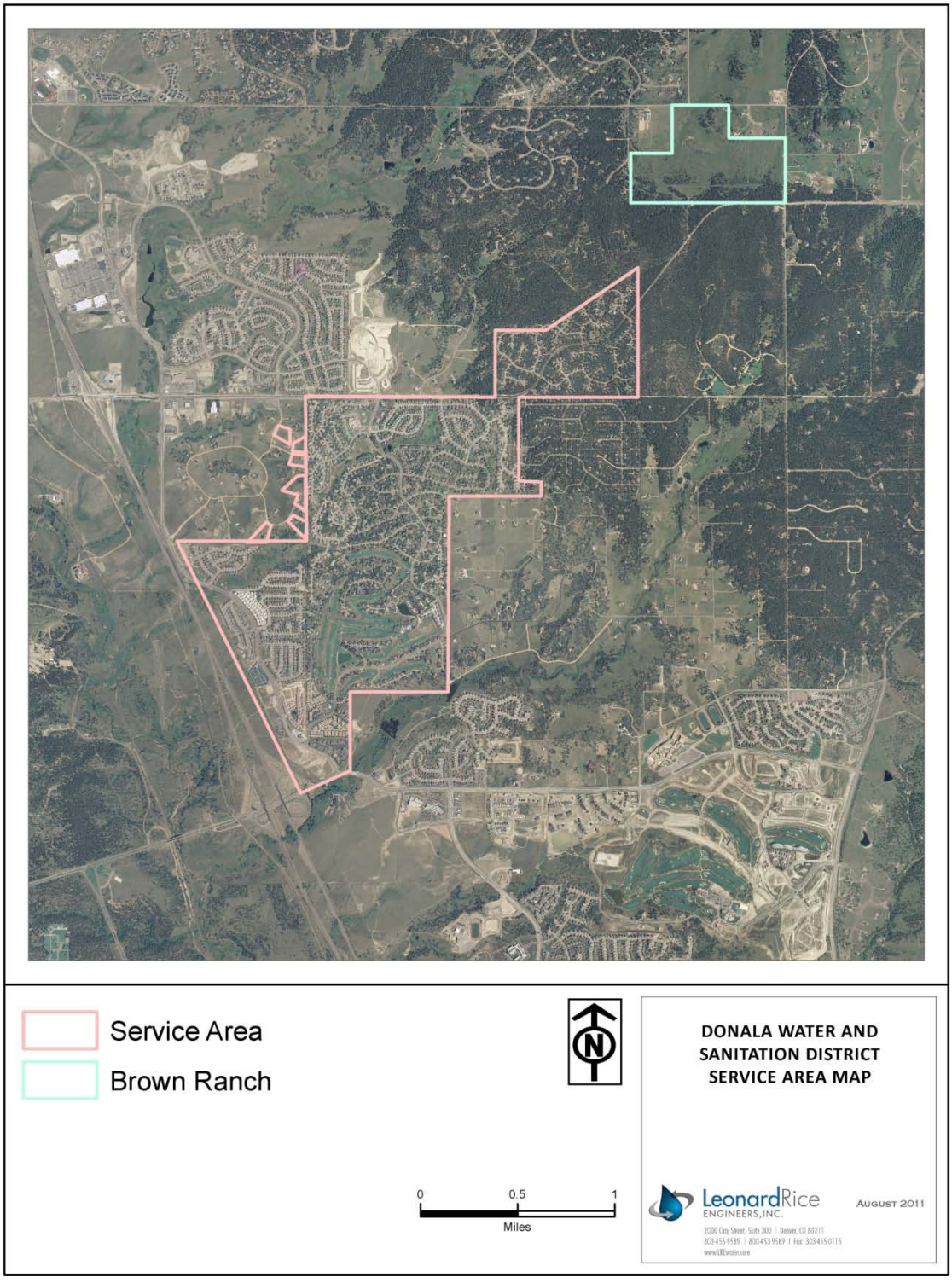
[3] Donala Rules and Regulations, adopted March 28, 2006

3. WATER SUPPLIES AND LIMITATIONS

3.1. EXISTING SOURCES

Donala's predominant water supply is the Denver Basin aquifers. There are 13 wells in the Denver and Arapahoe Aquifers for potable use, and two wells in the Dawson Aquifer for irrigation use on the Gleneagle Golf Course. A recent purchase of the Willow Creek Ranch in Lake County, along with a lease from the Pueblo Board of Water Works, provides approximately 400 acre-feet of renewable water, delivered through the Colorado Springs Utility System. Reuse water and spring water from Jake's Lake is also being used for irrigation on the Golf Course. Most of the potable wells are piped to two water treatment plants for filtration, flocculation, and disinfection, and distributed to the customers directly or to four above ground water storage tanks (4.7 million gallons total capacity). One well is chlorinated on site and mixed with treated water at one tank site. Other wells can be chlorinated directly prior to entering the distribution system if necessary. Output capacity of the treatment plants is approximately 4.5 MGD. Peak historical daily demand is 3.3 MGD, which can easily be met with plant capacity and water in storage. Donala's service area is shown in Figure 3-1 below.

Figure 3- 1: Donala Service Area



The water rights in this area are tied to the land. All of the rights under its service area have been dedicated to Donala. Donala also owns the water underneath Fox Run Park. However, not all of the water is accessible. It is not possible to withdraw all of the water, and some of the water that is available exceeds usable temperature and quality limits. How long the supply will last depends on growth in the area. Because the aquifers are depleting, Donala is actively seeking renewable sources.

The Denver Basin is a known non-replaceable source of water with declining water levels. The rate of decrease has accelerated in the past 10 years with the pace of growth in the region. For this reason, Donala instituted a mandatory irrigation rationing program in 2007. Other conservation measures have been ongoing for several years, but further emphasized since 2005. In addition, Donala has been actively seeking a renewable source of water. In 2008 Donala purchased a 711 acre ranch near Leadville, Colorado for its water. The expected yield for consumable use is about 280 acre feet, and the water will be available for Donala's use in 2012. As part of the process of converting the water for municipal use a lease has been signed that will bring additional water to the District from the Pueblo Board of Water Works (approximately 150 AF/yr). Other plans for renewable water are also being pursued, and Donala's goal is to have a fully renewable source of water by 2020, while continuing to utilize its Denver Basin resource, both for peak demands and as drought proof water.

During the drought of 2002/2003, Donala did not ration water use or push to reduce use as the groundwater sources are not directly connected to precipitation as surface water sources are. The reliability of these sources currently is very high. However, as the water supply is depleting over time, more renewable supplies must be pursued to support continued demand into the future.

3.2. SYSTEM LIMITATIONS

Currently there are no known system limitations for these water sources, however, potential future limitations may exist. More restrictions on reuse water may render it difficult or too costly to produce. Jake's Lake, which is a natural spring, may experience reduced or diminished flows due to hydrologic conditions failing to restore its supply. Other potential limitations include the Dawson wells or the Denver Basin drying up, thus requiring additional supply acquisition as the entire potable system is presently supplied by ground water sources. While there are some potential

system limitations, Donala has plans and funding to continuously improve the system to overcome these limitations. In order to construct needed improvements, a debt increase was passed for up to $20 million to acquire and construct improvements to Donala's water and wastewater treatment systems. Future system improvements are planned to reduce system limitations and are discussed in later sections.

3.3. DEMAND FORECASTS

In order to project anticipated future demands, Donala utilizes historical demands along with prevailing trends and patterns. Because Donala is already implementing a number of high-level conservation programs and measures, projections from the current demand trends will include all existing and future conservation. In 2007, Donala developed a projection showing demand without any conservation compared against a projection with conservation. The projection without any conservation was created using historical pre-conservation demand trends, however, it is meaningless to forecast without conservation from here forward as conservation is already an integral part of Donala's demands and planning. Donala assumes a consistent 12% savings into the future as current conservation programs are operated for potable uses, constant demand for reuse water for the golf course, and a new project is being investigated to use all water to extinction through reclamation.

Current demand levels are not expected to increase significantly over time as Donala's service area boundaries are defined and very few undeveloped lots exist in the service area. Additionally, Donala is currently operating a number of conservation programs and measures, which have already realized savings over the past few years. Therefore, the baseline projection without additional conservation is already taking into account significant savings from current conservation activities.

At full potential buildout including current conservation but no additional conservation, Donala's demand is estimated to reach a buildout potable demand of 1,500 acre-feet, which is projected to occur over the next ten years. The greatest rate of increase for demand is expected to be experienced between 2015 and 2020 due to anticipated development and growth. Reaching buildout will increase the total demand from about 1,052 acre-feet in 2010 to 1,500 acre-feet in 2020. Table 3-1 shows the projected total annual demand through 2030, reaching buildout in 2020.

Additional demand is possible if reuse and raw water is no longer available or economically usable for the golf course. Therefore, a total supply of 1,700 AF is the goal.

Table 3- 1: Donala Total Potable (Groundwater) Demand Projections with Current Conservation through 2030

	2010	2015	2020 (buildout)	2030
Residential Demand				
Current annual water residential sales (AF)	951.5			
Current population served (SFE residential)	2486.6			
Residential sales per capita (AF/SFE)	0.4			
Projected Population (SFE)		2550	2803	2803
Projected annual residential water demand (AF)		975.8	1072.6	1072.6
Nonresidential Potable Demand				
Current annual water nonresidential sales (AF)	100.8			
Current number of employees or jobs	14.0			
Water use per employee or job (AF/)	7.2			
Projected number of employees or jobs		14	14	14
Projected annual nonresidential water demand (AF)		166.1	427.4	427.4
Nonaccount Water (Water not sold to customers)				
Current and forecast amount	0	0	0	0
Water System Total Demand				
Current total annual water demand	1052.3			
Projected total annual water demand		1141.9	1500.0	1500.0
Adjustments to forecast				
Current and adjusted total annual water demand forecast	1052.3	1141.9	1500.0	1500.0
Current and projected annual supply capacity	2900	2900	2900	2900
Difference between total use and total supply capacity	1847.7	1758.1	1400.0	1400.0
Average-Day and Maximum-Day Demand				
Average-day demand (AF)	2.9	3.1	4.1	4.1
Current max-day demand (AF)	10.6			
Max-day to average-day demand ratio	3.7			
Projected max-day demand (AF)		11.5	15.1	15.1
Adjustment to max-day demand forecast				
Current and adjusted max-day demand forecast	10.6	11.5	15.1	15.1
Daily supply capacity	7.9	7.9	7.9	7.9
Ratio of max-day demand to daily supply capacity	1.3	1.4	1.9	1.9

Note: Based on CWCB Worksheet 2-1 using current demand as baseline, which already includes conservation

Does not include Golf Course Demands

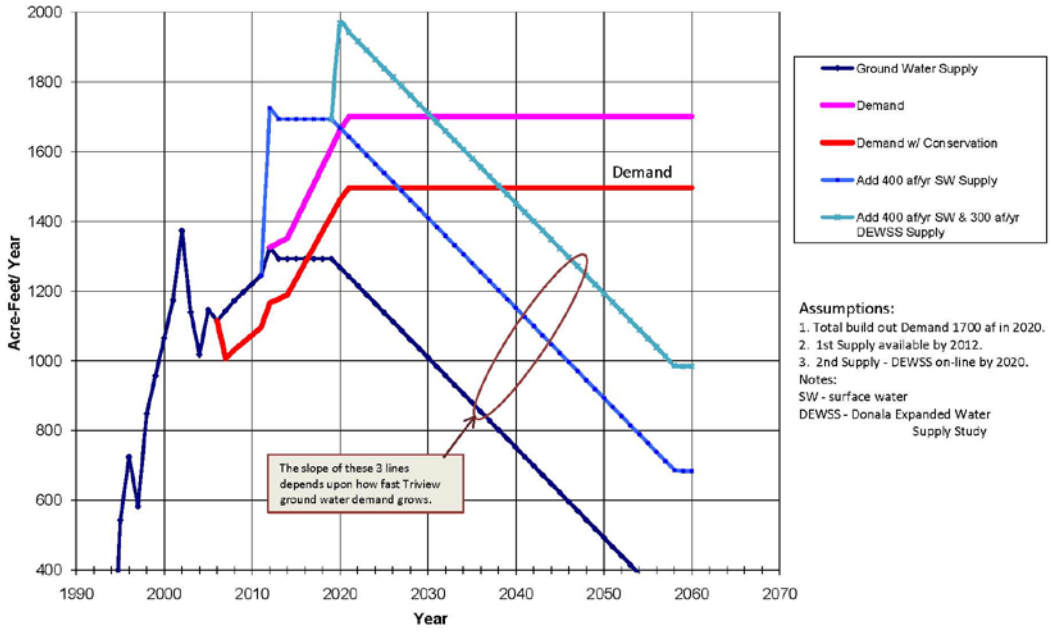
3.4. SUPPLY AND SYSTEM CAPACITY FORECASTS

In 2007, Donala evaluated the anticipated yield of the existing groundwater supplies to determine whether this would continue to meet future demands at buildout. Because the groundwater supplies are non-renewable, the yield decreases over time, while demand will increase until buildout. Evaluation of additional potential supplies, both additional groundwater and surface water sources, were included in the projections of potential future supplies. The planning projections developed in 2007 and updated in 2011, shown below in Figure 3-2, were created under the rough assumption that all conservation activities would result in instant savings, which is sufficient for the purposes of this graph. This shows the groundwater demand as the baseline demand without any planned conservation activities. The demand with conservation represents the 1,500 acre-foot demand at buildout and annual projected demands with the current and planned level of conservation. Demand without any conservation, current or future, was calculated and is shown as Demand on the figure. Actual demands through 2010 were added to the figure below, but do not change the initial projections. Until October, 2011, Donala's current potable supply is now predominantly groundwater and this supply has been depleting over time. Additional supplies will need to be developed to continue satisfying demands. This figure shows different potential supply options evaluated to satisfy projected demands with conservation:

1. Additional wells are not contemplated at this time. Replacement wells will be drilled as necessary if economically viable.
2. An additional estimated 250 acre-feet of annual surface water supply has been purchased (i.e. Willow Creek Ranch), allowing for fifteen years of supply versus the demand with conservation. This is five additional years compared with the demand with no conservation activities. Note that the actual yield of this water right is not yet finalized, and although the consumptive use applied for is 280 acre feet, after evaporation, transit and system loss, 250 AF delivered is the conservative estimate. An additional 150 AF average leased from the Pueblo Board of Water Works brings the total renewable water delivered on an average basis to 400 AF starting in 2012.
3. A water reclamation project is being investigated THAT WILL REUSE ALL OF Donala's available effluent – up to 300 AF/yr. If the project turns out to be workable, current

forecasts are for design and engineering to commence in 2017, with the system operational in 2020.

Figure 3- 2: Donala Denver Basin Supply and Demand Projections with and without Conservation

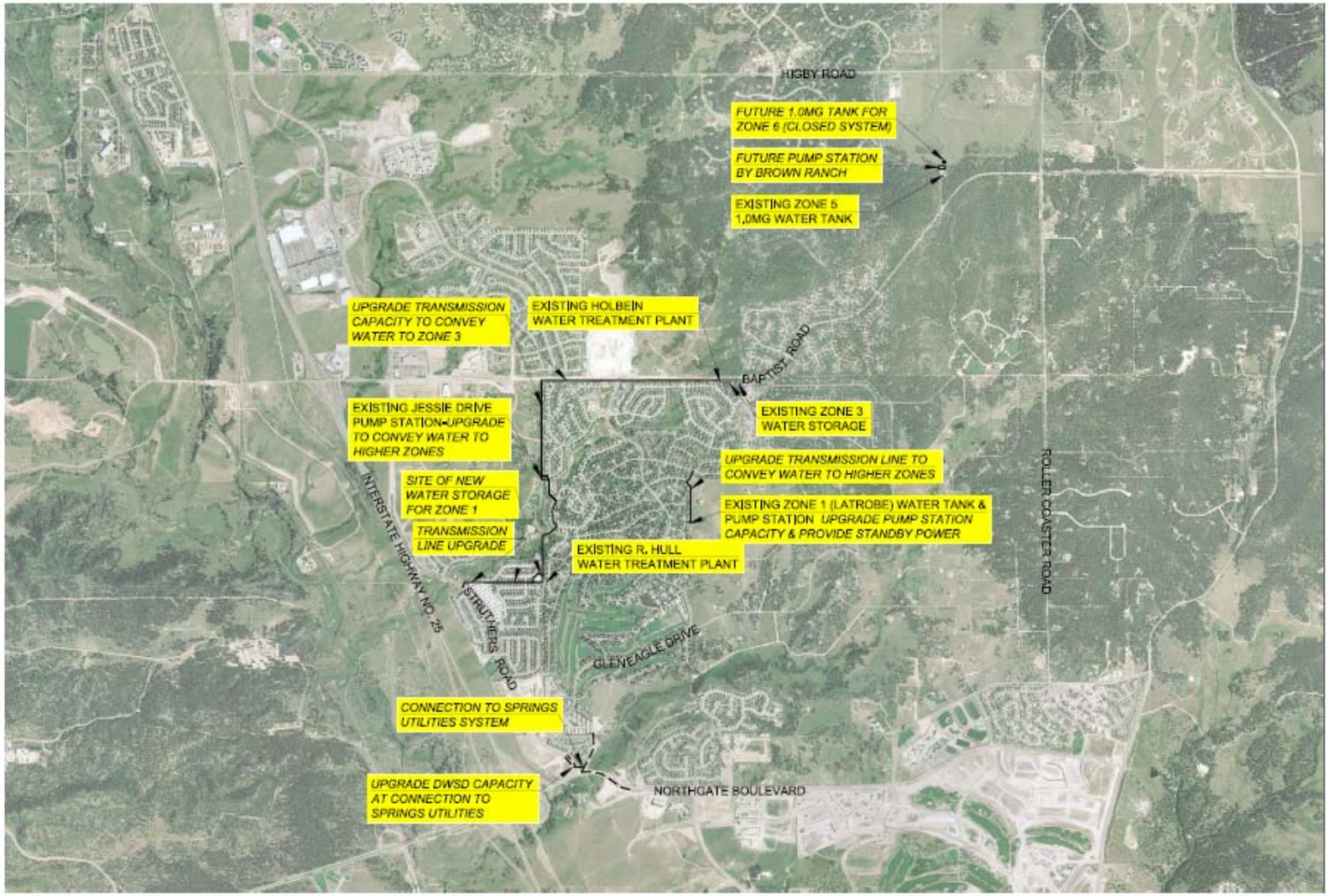


3.5. POTENTIAL SUPPLY AND FACILITY NEEDS

As discussed above, buildout is projected to be reached in 2020 and it is not anticipated that significant development or increased system demands will occur. Because there is a limited number of available lots for expansion or new development within the service area, it is likely that facility needs will include mostly system preservation rather than system expansions or new facilities. Expected facility needs are operation and maintenance for existing infrastructure and systems, incurring costs for replacement and maintenance based on a depreciation schedule as the primary costs anticipated to satisfy demand into the future. Recognizing that many expenses incurred during the year are for maintenance or capitol project costs on infrastructure that will continue past one year, Donala has established a depreciation schedule. A detailed depreciation schedule for general items as well as specific depreciation schedules assuming both non-growth and repair and maintenance for existing systems through 2030 is available upon request.

Additional pipes for delivery within Donala are planned for construction and are shown below in Figure 3-3. The funding for this and other currently unknown system improvements will be funded through the passing of a debt increase for up to $20 million. This was passed in May of 2010 and improvements that can be funded through this include but are not limited to water storage reservoirs, water wells, water pump stations, water pipelines, water diversion facilities, water rights, water treatment facilities, wastewater treatment facilities, and stormwater system facilities. Construction on much of the infrastructure is planned for late 2011, early 2012.

Figure 3- 3: Donala Planned Pipeline Locations



Additional future system costs will include supply expansion or purchase of new water as the Denver Basin Aquifer is depleted. The cost to develop a surface water supply was a little over $6 million for a yield around 280 acre-feet. This cost includes purchase of supply, engineering fees, and legal fees. Additional wells, which would only be drilled as replacement, not as a newly developed supply, cost around $650,000 to drill and an additional $500,000 to install all equipment and plumbing. Leasing additional surface water is expected to range from $500 per acre-foot on a leased basis (when and if) to $23,000 to $30,000 per acre-foot if purchased.

4. ROLE OF WATER CONSERVATION IN WATER SUPPLY PLANNING

The Water Conservation Act of 1991 committed the Colorado Water Conservation Board (CWCB) to review and approve water conservation plans created and submitted by covered entities. This original Act did not require the reporting of any data by the planning entity, including population served, delivery data, or costs and benefits of local water conservation efforts. Additionally, plans were not required to include any information regarding future water conservation goals or projected savings. The required contents of a state approved water conservation plan prior to 2006 included only minimal information relevant to characterizing active water conservation efforts.

In 2004, the CWCB passed Colorado's Water Conservation Act of 2004, which requires all retail water providers who sell at least 2,000 acre-feet of water annually to develop and gain CWCB approval of a water conservation plan. As of July 1, 2005, the minimum water conservation plan requirement elements were defined by the CWCB in §37-60-126(4) C.R.S. The CWCB has outlined and created guidance documentation for the development of plans to include all minimum required plan elements. While Donala serves less than 2,000 acre-feet of water annually, it has been operating high levels of conservation and has selected to submit its plan to the CWCB for approval.

Donala recognizes that the cost of renewable water rights and the infrastructure required to deliver it are substantial. In addition, it is certain that water policy and politics in Colorado dictate that long term planning and regional cooperation are mandatory. Such activities do not take place quickly. Therefore, Donala understands that it is imperative to extend the life of the Denver Basin water supply for as long as possible. Conservation is a major component of that strategy.

The primary goal of the Conservation Plan is to reduce the overall demand, thereby decreasing the amount of renewable water required to obtain. It is estimated that replacing the groundwater with renewable surface water for the total buildout demand of Donala could cost as much as $25 million in water rights alone, even with additional savings from conservation. The infrastructure required to deliver that water to the customers could be another $25 million. With a customer base of 2600, that equates to close to $20,000 per customer. Unless spread out over a financing term or a depreciation schedule, such costs are unrealistic. Therefore, the main goal is to reduce the demand to correspondingly reduce the cost per customer.

A secondary goal of Donala is to work in a regional cooperative basis with neighboring water utilities on the same supply to reduce the number of wells being drilled in close proximity, and/or to coordinate pumping schedules to extend the life of the aquifers. This in itself is a conservation measure. Coupled with the regional approach however, is the effort to ensure that all local customers are working under the same rules and conserving as much as possible.

5. DEVELOPMENT OF WATER CONSERVATION GOALS

The conservation planning and implementation process is iterative, as is the development of the conservation plan. Donala first developed a comprehensive water conservation plan in 2008 and has since been creating annual updates on the status of each program and measure in operation. This original plan was presented at an open board meeting for approval. The plan was posted on Donala's website and public comments were accepted to finalize the plan, which is still publicly available. This will be the second iteration, or update, of the overall plan, and as such, will include all results and discussions from each previous year. Annual updates show what types of programs are influencing savings and what customer use classes may need additional programs to produce greater savings. Currently, the irrigation rationing program has been showing the greatest annual savings over time, however, it should be noted that many of the programs are not able to show direct savings or are measured using different goal parameters such as efficiency.

Donala's goal for water savings over time from all water conservation programs, including those programs already in operation, is 12% from the demand levels prior to any conservation. This is an additional 9% savings from the current demand which already reflects a savings of about 3% as of 2010 from currently operating conservation programs since 2008. All conservation goals for individual programs represent savings if no conservation was already occurring and do not represent savings from overall demand, but savings in usage directly relative to that program. Additionally, some goals are represented by other parameters, such as overall efficiency, rather than percent savings.

Donala's treatment and delivery system is currently operating at an available capacity which will be more than sufficient to satisfy the buildout demand. Continued conservation will affect the timing of additional water sources required, and depending on the future source, will postpone the development of additional sources from five years for surface water supplies to ten years for surface water sources in combination with reuse for potable use. This can be seen above in Figure 3-2. If no conservation had occurred to this point, additional supplies would need to be developed and operating around 2016. With continued conservation, Donala may be able to defer "turning on" additional water supplies for several years.

Donala is targeting outdoor water use as a primary focus for water conservation programs. The golf course is already operating on reuse and non-potable surface water system out of Jake's Lake, but additional savings can be achieved through targeting residential outdoor use in particular. A number of continuing programs are driven by residential outdoor use and Donala would like to continue targeting programs for additional savings here.

Because commercial customers account for such a small percent of the total demand (5.6%), and as such potential savings are minimal, programs have not been developed to specifically target savings for these uses. Currently, commercial customers are treated as all other customers, except in the current plan review process for construction. Commercial customers are subject to a plan review process for construction. Donala has purple pipe along Struthers Road where most of the commercial property (yet to be developed) is located. Donala encourages continued use of the purple pipe; however, it is an economic choice for each business. It may require a reservoir or storage tank for some developments. What has tended to happen thus far is a minimization of landscaping, many opting instead for asphalt and concrete (parking lots and sidewalks). The impact of Donala's high water rates helps to implement water conservation and experience shows this works.

6. CONSERVATION MEASURES AND PROGRAMS

The overall goals of the Donala Water Conservation Plan are to extend the life of its Denver Basin groundwater resource and to reduce the costs of renewable water by reducing overall demand. Each of the measures that follow is designed to meet a specific goal or percentage in water savings. Results are calculated and monitored continuously, and reported annually with Donala's Cost of Service Analysis. The Donala website (www.donalawater.org), monthly newsletters, and training activities are aimed at educating the Donala customer both in the need for conservation, as well as ways to accomplish it.

Donala was instrumental in organizing regional cooperation among neighboring water utilities with the formation of the Pikes Peak Regional Water Authority (the Authority). The Authority encourages coordinated conservation programs, public relations campaigns, and training sessions, while seeking a renewable water solution for all of its members. It is recognized that because of the extreme costs associated with the delivery of a renewable water supply, economies of scale dictate cooperative policies and financing.

6.1. SCREENING CRITERIA

The area served by Donala could be classified as a high plains desert. At about 7,000 feet above sea-level and with near constant winds, some programs relating to irrigation and landscaping that work successfully in other areas fail in Donala's service area. Because of this, a major screening criterion is the determination that the program will operate successfully in this area. A large contributor to the selection of programs to be operated is cost. While it is not impossible to operate a program without incurring substantial costs, it is rare.

6.2. MEASURES AND PROGRAMS

The CWCB has a number of measures and programs that are required for evaluation for conservation planning. Donala is currently operating a number of them and is considering others that are not already being operated. Below in Table 6-1 is a summary of these programs and measures required to be considered, along with a brief description of its status in Donala.

Table 6- 1: CWCB Required Measures and Programs

Measure or Program	Current Status in Donala
Water-efficient fixtures and appliances	Donala provides rebates for water-efficient toilets, showerheads, washing machines, and dishwashers. Currently, no programs to promote water-efficient urinals or faucets are operating.
Landscape efficiency	Donala is promoting low water use landscapes and drought-resistant vegetation through xeriscape education programs (see below). Efficient irrigation practices are incentivized through rebates for rain sensors and irrigation controllers.
Industrial and commercial efficiency	Very few customers in these classes within service area, so there is limited potential for savings here. (Largest user is the Golf Course – targeted through reuse. See below).
Water reuse systems	Non-potable supply from effluent reuse for golf course irrigation. Potable supply under investigation to provide up to 300 AF of additional water.
Distribution system efficiency	Leak detection system in place but have not yet begun replacement of asbestos-cement water lines. No phreatophyte removal currently in Donala.
Education/information dissemination	Hired a landscape expert and horticulturist whose duties include workshop presentations, training sessions, and school education programs. Subsidized consultation for xeriscape design in private residences and demonstration garden currently being built.
Customer water use audits	Outdoor water audits are conducted by landscape expert and available per customer upon request.
Rate structures and billing systems designed to encourage efficiency	Operating under increasing block-rate structure with recent increases targeting upper tiers to promote greater savings.
Regulations/ordinances	Working with Pikes Peak Regional Building Department to enhance conservation efforts as Donala has no direct authority over home construction and plumbing codes. Donala's ordinances prohibit water waste and assign penalties for such waste.
Incentives	Rebates for showerheads, rain sensors, irrigation controllers, dishwashers, toilets, and washers.
Distribution system efficiency	Leak identification through leak detection program.

Additional measures and programs that Donala has considered and has begun to implement include:

1. Water tap/development fee structure
2. Irrigation rationing
3. Water meter exchange/repair program
4. Reuse of wastewater effluent

6.3. MEASURES AND PROGRAMS: NEW FOR 2011

6.3.1. CONSERVATION MANAGER

Goal – None Defined

Donala has hired a landscape expert and horticulturist to administer its conservation program beginning in 2011, especially in the area of landscape management. Specific duties include presentations at workshops, lead training sessions, develop and run school education programs, and perform landscape design. For the summer of 2011, there is a great emphasis on xeriscape landscaping to include professional design of customer landscape projects and construction of a xeriscape garden.

The total cost to Donala for the Conservation Manager is $60,000 per year for salary and benefits. Because direct savings are difficult to measure, there is no direct cost per acre-foot of savings. Savings will be influenced through public education and providing consultation for xeriscaping customer lawns.

Results

This is the first year with a conservation manager, so there are no results yet. Savings directly from this new position itself will not be quantifiable. Results will be recognized through the addition of xeriscape integration and irrigation improvements into residential yards and savings will occur through lower outdoor usage.

6.3.2. DONALA GARDENS

Goal – None Defined

Donala has developed and constructed a xeriscape demonstration garden that highlights sample landscaping and vegetation that are specifically designed to thrive in the Donala climate area. The project includes walkways, instructional and informational signs, and water friendly plants and mulches. Tours are planned for the future to be conducted for customer training.

This demonstration garden cost around $30,000 for all costs including materials, tools, and labor. Because savings cannot be directly tied to this program, the cost cannot be represented per acre-feet of savings. Savings can only be indirectly influenced by the garden by providing information and inspiration to residents to include xeriscape techniques in their own lawns.

Results

This is the first year with a demonstration garden, so there are no results yet. Results will be recognized through the addition of xeriscape integration into residential yards and savings will occur through lower outdoor usage.

6.4. MEASURES AND PROGRAMS

6.4.1. CONSERVATION DRIVEN WATER RATE STRUCTURE

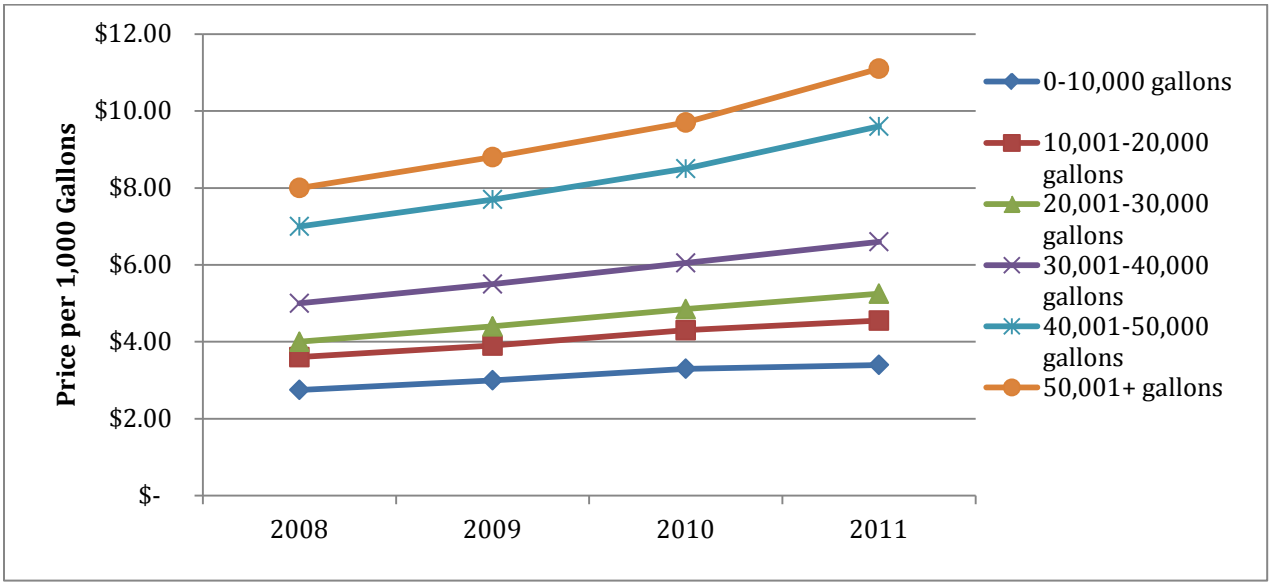
Goal – 15% savings

The centerpiece of Donala's water conservation program is the escalated scale water rate structure. The high volume water users need to understand that the more water they use, the more it will cost them per unit. It has been determined that the only way to get some customer's attention is "through their pocketbook." The relative affluence of the average Donala customer has in the past meant that because of the overwhelming desire for "Bluegrass" landscaping, they will pay the price for green lawns. Although the irrigation rationing program and landscaping technique training have a mild effect, so far it appears that the rate structure will eventually be the most successful tool available to Donala.

It needs to be emphasized that Donala has a property tax mill levy of approximately 16 mills that can be used for any expenses. It is therefore an operations and maintenance funding mechanism that should be added to the normal water bill to clarify the real monthly expense to the customer. As an example, in 2008 the average single family home owner in Donala paid another $4.50 per month in property taxes on top of their water bill.

The rate structure defines the different tiers of cost per 1000 gallons as shown below in Figure 6-1 for each year from 2008 through 2011. Because townhome irrigation accounts typically hit the high volumes due to their system size, there is a break at the top tier rate. In addition, if the townhome complex significantly reduces its irrigation requirement (xeriscape landscaping); the top tier rate is reduced by another $1/1000 gallons. As of 2009, one of six townhome systems has taken advantage of that opportunity. Townhome systems are approached about once a year by Donala to inform them of this opportunity and to alert them when prospective rate increases are expected.

Figure 6- 1: 2008-2011 Water Service Rate Block Structure



For the next several years, additional increases are planned as well to help pay for the financing of projects and the import of renewable water. Specific emphasis will be put on high volume users, up to 60% increases in 2012. Because the block rate structure has not seen significant savings in the past, it is Donala's hope that by drastically increasing the upper end amount (i.e. greater than

40,000 gallons), this will begin to influence residential use. Already, the increase in price has been greater in the higher use (up $3.10, or 39%, since 2008) than in lower use (up $0.65, or 24%, since 2008).

The Gleneagle Golf Course is Donala's largest customer (5% of well water, 10% of overall water service). Because most of the well water provided to the course is untreated (raw), there is a special rate. In addition, the course uses treated wastewater and a surface water source that is augmented at the Donala wastewater treatment plant. They too are served at a lower rate. Otherwise, the golf course pays the same rate for treated potable water as other customers. This acts as an incentive to reuse and also saves on water treatment costs.

The Ridgepoint Apartment complex is charged for water used at the same rate as other customers, with the monthly minimum based on an average occupancy of 80% capacity. Water is charged to the complex as per the meter in each building. Ridgepoint in turn charges its residents their own monthly fee.

Two dollars of each monthly water bill is deposited in Donala's Water Development Account, earmarked for future water rights and infrastructure.

Results from Annual Evaluations

2008 Results - To date it appears that the graduated rate structure has not had a significant impact on water conservation. The total use of water varies from year to year based on the amount of precipitation, but apparently our customers will use whatever it takes to keep their current landscaping green. The two customer categories below in Table 6-2 indicate that since 2000 there has been very little change in the use of water per customer, and even during the two rationing years of 2007 and 2008, the amount of water used was based on the perception of need, not cost. It should be noted that the 2002/2003 drought was categorized as a significant drought in the region, while 2004 and 2006 were relatively "wet."

It should be understood that because of the nature of a golf course, the management rightfully decides that it must do whatever is necessary to keep the course green and viable. Even at the reduced rates for non-potable water, the course faces an economic crisis every year and has sold out to new owners three times in the last five years. Although a new irrigation system would help

them save water and costs, they basically cannot afford it. The end result is that because of the demand and cost of water to keep the course viable, it is teetering on bankruptcy and closure.

Table 6- 2: Annual Billed Water Usage

Year	Single Family Gallons per Month	Golf Course Gallons for Year
2000	14,787	53,435,000
2001	16,805	61,715,000
2002	14,967	75,322,000
2003	15,556	39,887,000
2004	11,708	24,322,000
2005	12,215	25,638,000
2006	11,489	31,548,000
2007	13,555	32,436,000
2008	14,237	44,969,000

2009 Results– We are finally possibly seeing savings due to the graduated rate scale. As per Table 6-2, and comparisons since 2000, single family homeowners used 7,866 gallons per month in 2009, almost half that used in 2008, and significantly less than any previous year. The Golf Course used 33,170,000 gallons – 26% less than in 2008, but more than in 2004, 2005, 2006 & 2007. The Golf Course also took more advantage of available reuse and surface water augmentation (Jake's Lake), which sell at a reduced rate. It is very difficult to determine how much of the savings was due to the rate structure and how much was due to the smaller demand due to the weather.

A relatively large number of customers still used over 40,000 gallons in one month (55 customers, 2%, in August, 2009). That indicates that for at least those customers, the higher rates are not a factor.

Overall – A relatively "dry" year is needed for adequate comparison.

2010 Results– Whereas 2009 was a relatively "wet" year and difficult to analyze, 2010 was not. Although the graduated rate structure may have contributed to less individual usage, it could not be shown by comparing the two years. Homeowners used 348,000,000 gallons of water in 2010 vs.

290,000,000 gallons in 2009. However, the year does compare favorably (in terms of conditions) to 2008 when there was also significant usage (10% less in Jun – Aug, 2010 than 2008). Comparing the September usage, the two years are similar.

There were still a relatively large number of customers that used over 40,000 gallons in one month (587 customers, 23%, in 2010). That indicates that for at least those customers, the higher rates are not a factor.

Overall – Though one year of dry weather is not enough to analyze thoroughly, an analysis of June-September use in 2010 compared to the similar year of 2008 shows that a **savings of 3%** can be attributed at least partially to the tiered rate structure for non-golf course customers. The golf course showed a 2% improvement over the same two years by taking advantage more of the reduced rate reuse and augmentation water (Jake's Lake). They actually used 66% less of the more expensive well water in 2010

Intentions

Although the tiered rate structure and relative expense of water to Donala customers has not appeared to yet make a significant difference in conservation, Donala will continue to raise rates as appropriate to attempt to force conservation. It is expected that rates will increase by 100% over the ten year period from 2008-2018 to help cover the substantial expense of renewable water. Rates are planned to continue to increase until the total 15% savings from the increasing block rate structure are realized. For the 2012 year, rate increases are proposed to go up 15% for the lowest usage and up to 60% for the highest usage.

6.4.2. WATER TAP/DEVELOPMENT FEE STRUCTURE

Goal – No specific savings percentage. Use fee revenue to help finance water rights and infrastructure.

The tap and development fee structure shown in Table 2-2 is meant to ensure that development pays its way in Donala. Fees are relatively high, but similar to what neighboring utilities charge. The idea is to not make development so prohibitive that landowners will look elsewhere, yet to be sure that Donala's infrastructure to serve the new developments can be adequately financed. Although there is very little land in Donala's existing boundaries yet to be developed, there is

potential for further inclusions of property in the District. Management has taken all potential demands into account when planning for future water supplies and infrastructure. As an example, a 500 home development adjacent to Donala could bring in $10 million in tap and development fees – money that would go a long way in financing the future water rights and infrastructure needed to serve it and the current customer base. In the meantime, the wastewater and water rights capacity of the current district is sufficient to serve the new area.

Until the late 1990s, Donala was working under a tap fee agreement with previous developers that returned large portions of the fees. That hindered Donala's ability to build up funds that now are necessary for future water and infrastructure. The development fee was established in 1992 to partially overcome that lack of funding, but was mainly sufficient to just keep up with demand, drilling new wells and associated infrastructure.

Since the late 1990s, Donala keeps all funds and has been able to build up finances for some of the required future demand structure. Unfortunately, development has waned, both because of the current economic slowdown, and because of the lack of property yet to be developed. Without inclusions of neighboring potential development, Donala can expect to recognize only about $4 million in future tap and development fees, and that will likely be spread over 10-15 years.

Results from Annual Evaluations

2009 Results– No construction due to the economic slowdown. Therefore, no savings noted.

2010 Results– Only four new fees were collected due to the economic slowdown. Therefore, no savings noted.

Intentions

Keep the fee structure high enough to ensure development continues to pay its own way, but attractive enough to encourage the empty landowners to develop their property. Work with neighboring entities and landowners to include property that makes sense for Donala's growth, and helps finance the needed infrastructure and water rights.

6.4.3. REGULATORY MEASURES

Goal – No specific saving percentage. Work with Pikes Peak Regional Building Department to enhance conservation efforts.

As a Water and Sanitation District outside of a city or town, Donala has no direct authority over home construction and plumbing codes. In addition, the decision to approve or deny development lies with the County Commissioners. Donala's charter is to provide service to landowners looking to develop with the water they deeded to Donala upon inclusion. Up until current times (2009), that political decision has been based on water "on paper," and as long as the State Engineer has adjudicated the water available, it is up to Donala to provide it for service.

Although Donala has construction specifications and requirements for water and sewer service into a building, the installation of water-friendly plumbing fixtures and appliances cannot be mandated. The District Rules and Regulations do outline fines and penalties for "wasting" water through illegal means, but there is no direct authority over internal activities and the use of water. Some pertinent regulations are:

1. Unauthorized Hydrant Use Penalty – District owned and maintained fire hydrants are "off limits" to everyone except fire department and District personnel. Unauthorized use of a fire hydrant will result in a penalty and a charge for the suspected water used.
2. Unauthorized Irrigation Penalty – If a customer irrigates during non-authorized times per Donala's program, the first offense will incur a warning letter. Second offense incurs a more stern letter and notification of a fine the third time. The third offense incurs a $25 penalty. Fourth offense incurs a $50 penalty and a disconnect notice. Fifth offense incurs immediate disconnection of water service and the appropriate fees to re-connect.
3. Water Plumbing Maintenance Procedures – To ensure that the meter works properly, District personnel will repair or replace any inoperative or leaking water meter.
4. Water Service Line Maintenance Procedures – Although the responsibility for repairing a broken or leaking service line may be the responsibility for the customer, Donala will take steps to cease flow to the leak to avoid wasting water.

Results from Annual Evaluations

2008 Results– Through diligent management of "actual" water, as opposed to "paper" water, Donala has provided service as necessary for development. Although Donala realizes the supply is non-renewable, responsible management of aquifers means they will supply enough water for an estimated 20 more years before becoming uneconomical. That outlook and policy has been adequately provided to the County staff and Commissioners so that development has not exceeded demand. Good relations with the Pikes Peak Regional Building Department (PPRBD) and the region's efforts to enhance conservation have encouraged builders to install "water friendly" appliances for the most part. Original landscaping still leaves much to be desired. Installation of bluegrass sod is much cheaper to the builder than xeriscape plants and bushes. District participation in regional educational awareness programs help some, but the simple fact is that a builder and developer will spend only what is necessary to sell the home, leaving the resulting conservation efforts up to the homeowner and service provider.

2009 Results– No savings noted. The lack of construction translates to the lack of results when working with the Regional Building Department and new landscaping. Donala is seriously considering hiring a part-time environmental/conservation officer who in part will be responsible for developing and administering conservation regulations.

2010 Results– No savings noted. The lack of construction translates to the lack of results when working with the Regional Building Department and new landscaping. Donala has hired a part-time environmental/conservation manager who in part will be responsible for developing and administering conservation regulations.

Intentions

Continue managing our well field while diligently seeking and putting in place a follow on renewable water supply. Work with the County Commissioners and planning personnel to ensure regulations are intact so that development does not outpace the water supply. Continue to work with PPRBD and to promote regional training and educational programs to raise awareness of the critical situation of water to enhance conservation.

6.4.4. IRRIGATION RATIONING

Goal – 15% savings

The mandatory irrigation rationing program is the most visible and controversial piece of Donala's Conservation Plan. The goal of the program is to conserve water by curbing demand, thereby extending the life of the aquifer supply. In addition, it is recognized that the more Donala's customers save, the smaller the overall demand, and consequently, the less expensive the replacement supply.

The rationing program consists of mandatory restrictions from Memorial Day through Labor Day, and voluntary restrictions otherwise. Customers are allowed to water three times a week, generally corresponding to their address number. Odd numbered addresses water on Monday, Wednesday and Friday, while even numbered addresses water on Tuesday, Thursday and Saturday. Normally, no irrigation is allowed by residential and commercial customers on Sundays. Commercial and business customers are allotted watering days based on their location, and are generally evenly split (Monday, Wednesday, Friday or Tuesday, Thursday, Saturday). A copy of Donala's irrigation rationing program is included as Attachment B.

Donala is flexible in allowing waivers for new landscaping (one month), and customers who want to water Sunday instead of Saturday or Monday, etc. Hand watering is allowed at any time, as long as it is constantly tended. Watering times are from 6 PM to Midnight, and Midnight to 9 AM. Rain controllers are recommended and incentives awarded for their installation. Donala has installed two weather stations – one at each water treatment plant – that display rainfall and evapotranspiration data on the District website. Weather based irrigation controllers are offered and controlled through the District weather stations. Although it is estimated that over a year's time the ET controller may save approximately 20% of water usage, that is not the case during the irrigation rationing period, unless there is substantial precipitation. They do allow peace of mind, especially for customers who will be away from their home, and will shut down the system during precipitation events.

The rationing program is enforced through District Rules and Regulations. Violators are verified by District personnel, and a series of warning letters are issued. The third and fourth warning also incur a fine ($25/$50), and the fifth occurrence is grounds to terminate water service.

Donala does not have regulatory authority over the Gleneagle golf course, so irrigation operations are not regulated by Donala outside of their encouragement to use reuse and non-potable water for irrigation. The water rate structure may influence irrigation efficiency practices on the golf course, but that is as far as Donala is able to restrict the golf course water use. Any additional regulations on the golf course would place a financial burden on them that is not achievable at this time.

Results from Annual Evaluations

2008 Results– 8% Savings - Overall results of the irrigation rationing program have been mixed. Since the program has only been in effect for two seasons, and because the rainfall varies from month to month and year to year, it is difficult to measure the effect of the program. However, by comparing relatively similar months in terms of rainfall from rationing years to pre-rationing years, the overall savings have been 7%-8%. By observing the actual usage of customers, it is obvious that for many, the plan only restricts when they irrigate, not how much they irrigate. Donala believes that many customers simply "double up" their usage during their allotted days, or water late at night when they believe no one will notice. By looking at both the water volumes used and the appearance of the customers' lawns, it is easy to see which customers are not keeping with the spirit of the program. As a general rule of thumb, Donala uses 40,000 gallons per month as a "glutton factor." Customers who use over 40,000 gallons generally have the greenest lawns and highest water bills. It is obvious that they still have the "Bluegrass Mentality," and that the high cost of water or the threat of the depleting supply does not phase them.

2009 Results- Actual irrigation savings in 2009 were about 22% over 2008, and 19% better than in 2006 (pre-rationing). However, the timely and significant rain events most likely had more to do with the success than the rationing program.

What can be seen from the rationing program is a reduction in the daily peak demand. Assuming that most customers adhere to their Monday, Wednesday, & Friday or Tuesday, Thursday, & Saturday irrigation schedule, only half of the supply is on demand each day.

2010 Results- As described above under "Water Rate Structure," actual irrigation showed an increase of almost 22% up from 2009, but savings were still slightly better than 2008. It was also evident that the month of September, when the rationing program was not in effect, customers over-used their irrigation systems to mitigate the dry, hot weather.

What we continue to see from the rationing program is a reduction in the daily peak demand. Assuming that most customers adhere to their Monday, Wednesday, & Friday or Tuesday, Thursday, & Saturday irrigation schedule, only half of the supply is on demand each day.

With the total 22% increase over 2009 and 3% savings seen over 2008, an estimated overall savings due to the rationing program **drops to 6%.**

Intentions

Continue with the irrigation rationing program while increasing rates and education programs to attempt to overcome the "Bluegrass Mentality." Continue to strive for the 15% reduction goal.

6.4.5. LOW WATER USE LANDSCAPE MEASURES

Goal – 10% More Xeriscaped Yards per Year

The basic goal of Donala's education and training programs is to help do away with the "Bluegrass Mentality" of our customers. The aim is to convince citizens that lush, green lawns and water intensive plants are not appropriate for the high plains desert area in which they live. Newsletters, website links, presentations, and other materials are all available and disseminated on a regular basis.

In 2008, Donala participated in the Water Returns Project. WR was a regional educational program of workshops and training, bringing together professionals from the nursery, irrigation, and consultant fields to help participants design and install their own water-friendly landscaping. Donala sponsored nine participants from the service area, funding their enrollment in the plan and offering an incentive of 25% (up to $2,000) of their landscaping costs. Expected return for Donala was a public relations campaign whereby the participants educated their neighbors and advised them on their own projects.

Results from Annual Evaluations

2008 Results– 6%-8% More Yards per Year - Unfortunately, 2008 was the first year for WR, and the workshops were not scheduled in a timely manner for all participants to complete their projects. The economic downturn that started in late 2008 also contributed to minimum actual

project completion by customers. There has been very little indication of "spreading the word," and neighbors helping neighbors.

During the drought years of 2002 and 2003, customers of Colorado Springs Utilities were also under irrigation rationing and the emphasis on landscaping enhancements became more important. Since that time, although there has been a continued decrease in precipitation on the Front Range of Colorado, the snowpack has been at or above normal levels. CSU and other large metropolitan areas that are dependent on snowpack water for their renewable supply have not been pushing conservation as much. That creates confusion among Donala customers who believe everyone should be in the same situation. As a result, those that can afford the high water rates and ignore or bypass the spirit of Donala's irrigation rationing plan, continue to landscape with the "Bluegrass Mentality."

2009 Results- Less than 5% more yards. Mainly due to the waning economy, the number of Donala customers out of work, and the fact that significant rainfall kept water bills lower (less sense of urgency), there were very few xeriscape projects initiated in 2009.

Donala is considering hiring a part-time environmental/conservation officer to help train the community and design landscape projects. A baseline "inventory" of water-friendly yards will also be established before the 2010 irrigation season.

2010 Results- Less than 2% more yards. Mainly due to the waning economy and the number of Donala customers out of work, there were very few xeriscape projects initiated in 2010. A baseline "inventory" of water-friendly yards was also established before the 2010 irrigation season began. Of 2,133 total single family yards, 274 are mostly in the natural wooded environment of Fox Run/Pines. Leaving 1,859 yards to survey, 106 (5.7%) have xeriscaping in some manner that encompasses at least 30% of the front (visible) area.

Donala has hired a part-time environmental/conservation manager to help train the community and design landscape projects.

Intentions

Continue education and training on all fronts, emphasizing xeriscaped landscaping and reducing the demand for irrigation water. Continue with Water Returns or a similar, more localized program

with immediate neighboring entities. Work with homeowners associations to recommend covenants that encourage more conservation, including the use of artificial turf. Consider a onetime rebate for customers who decrease their irrigation demand by landscaping techniques and improvements.

6.4.6. EFFICIENT IRRIGATION MEASURES

Goal – No specific savings percentage. Contribution to the overall landscaping efficiency program.

Donala publishes a monthly newsletter with several articles about how much and when to irrigate. Some of the suggestions are:

1. Do not irrigate in the heat of the day (Rationing program mandates 6 PM – 9 AM).
2. Do not irrigate in periods of high wind.
3. Irrigate lawn areas for more frequent, short durations – 40 minutes per day total for lawns, 15-20 minutes for plants and bushes.
4. Keep lawns cut at a relatively long length (5”), keeping moisture from drying up so quickly.
5. Use appropriate fertilizers and aeration techniques.
6. Do not irrigate during or immediately after a precipitation event.
7. Use the District weather station ET data for when/how much to irrigate.
8. Maintain irrigation system annually to check for leaks and inefficient spray heads.
9. Use the information provided on the District website to determine how much the system puts out, and how much is needed for each zone. Set the controllers accordingly.

The District Incentive Programs include rebates for new programmable irrigation controllers and rain controllers (see Section 6.2.7). In addition, Donala offers the use of the Rainbird weather based (ET) irrigation controller, although not as a conservation measure during the summer season. The ET controller takes temperature, ET, wind, precipitation, and specific system type into consideration and controls the operation of the irrigation system. Although it is a good set-it-and-forget-it system that customers who travel or who just want the peace of mind can use, it does not save water during hot, dry times. Although it is estimated that over a year’s time the ET controller may save approximately 20% of water usage, that is not the case during the irrigation rationing

period, unless there is substantial precipitation. Therefore, although it is available for customer purchase, it does not relieve them of the rationing responsibility.

Through the Water Returns and other xeriscape landscaping programs and techniques, the use of drip irrigation systems is recommended. Although it is virtually impossible for District personnel to tell if a customer using a drip system is operating it during the "off irrigation hours," in fact, if a customer has installed such a system and the landscaping that goes with it, Donala will issue a waiver to the rationing program.

Results from Annual Evaluations

2008 Results- General results of Donala's efforts to educate the public on irrigation techniques have been positive. Often Donala responds to customer calls for help programming their systems, and where customers have adopted a more "water-friendly' landscape, they are also more cognizant of their irrigation system operation. However, it continues to be a facet of the "Bluegrass Mentality." Until the rate structure, the rationing program, or a more severe drought take hold, many customers will continue to overuse water during the irrigation season.

2009 Results- No perceived savings due to timely and significant rainfall.

2010 Results- No perceived savings due to lack of new landscaping and related programs.

Intentions

Continue education, outreach programs, and incentives while continuing to raise the rates and continuing to ration, aiming toward more "water friendly" landscaping, and the irrigation systems and techniques that go with it.

6.4.7. WATER EFFICIENT FIXTURES AND APPLIANCES

Goal – 5% savings

Donala has a rebate program to encourage water conservation on a per capita basis. Customers who convert their present plumbing or irrigation systems to newer "water saving" devices will be awarded the rebates below. The devices generally meet the Energy Star government rating. The District website contains links to some of the suggested water efficient appliances/fixtures.

Table 6-3 shows a summary of all rebates offered for water efficient fixtures and appliances replacing lower efficiency systems. There is currently no upper limit on how many rebates are awarded each year by Donala.

Table 6- 3: Rebates for Water Efficient Fixtures and Appliances

Fixture or Appliance	Rebate Details
Showerhead	$10 rebate to replace higher use showerheads (4 gallons per minute) with a more efficient showerhead (2.5 gallons per minute)
Rain Sensor	$25 rebate to purchase a rain sensor that overrides an irrigation system when detecting rainfall
Irrigation Controller	$35 rebate to customers who do not already have an irrigation control that sets multiple days and time limits to conserve water
High Efficiency Dishwasher	$45 rebate on an approved model high efficiency dishwasher
High Efficiency Toilet	$50 rebate for a high efficiency toilet that is rated to use mo more than 1.6 gallons per flush
High Efficiency Washer	$100 rebate to replace higher water use washing machines (45 gallons per load) with low usage front load washers (18-25 gallons per load)

While commercial and industrial customers are not specifically targeted, they have been encouraged to participate in these rebate opportunities. A number of toilet rebates have been awarded since the beginning of this program to commercial customers. While commercial customers account for only 5.6% of the total demand, and of their demand about 50.2% is for indoor uses, the savings for commercial customers is minimal with commercial indoor uses accounting for about 3% of overall demand. There are 44 commercial accounts that could apply and receive rebates and quantify potential savings. A number of these are modern buildings that

already put in more efficient appliances, and 13 of these accounts are apartment buildings, which would relate more directly to residential uses.

In 2010, all rebates awarded totaled $5,910, resulting in a cost of about $200 per acre-foot savings. Cost per savings will depend on how many of each rebate is awarded as each rebate is a different amount and each appliance provides a different amount of savings, so this will vary each year. Beginning in 2012, Donala will investigate providing rebates only for the most efficient technology available.

Results from Annual Evaluations

2008 Results- 1%-2% Savings - As of April, 2009, Donala had paid out over $3000 in rebates. One percent of our customers have converted to high efficiency washers. The program has not been in effect long enough to accurately determine water savings, but a presumption can be made of 1% savings. Additional savings through toilets, showerheads, irrigation controllers, and rain sensors indicated further savings.

As new construction takes place, and as appliances are replaced, it is expected that even more savings will occur, even if not indicated by the rebate program. The Energy Star and other water saving appliances and devices are becoming predominant in stores, so all customers will by default become more conservation conscious.

2009 Results- below shows the increase in rebates paid out for retrofitted appliances.

Assuming 2,490 customer accounts, 40 new appliances represents another 1.4% increase, and 110 total is 4.4%. Since there has been no new construction in the District in two years, we can assume no other new water savings appliances were installed (or rebates requested). Specific results show a savings of 1.4% in 2009. Donala is still predicting 60% “water friendly” appliances by 2018.

2010 Results- below shows the increase in rebates paid out for retrofitted appliances.

Table 6- 4: 2008-2010 Rebates for Retrofitted Appliances

Appliance	2008	2009	2010	Total
Washing Machines	43	29	36	108
Low Flush Toilets	17	4	34	55
Low Flow Showerheads	4	3	1	8
Rain Sensors	2	1	1	4
Irrigation Controllers	4	3	1	8
Dishwashers	n/a	n/a	12	12
TOTAL	**70**	**40**	**85**	**195**

Assuming 2,490 customer accounts, 85 new appliances represents another 112% increase from 2009 (but is mostly attributed to adding dishwashers to the program). The 195 total appliances that have been retrofitted since 2008 shows a 44% increase in water efficient appliances. Since there has been no new construction in the District in two years, Donala can assume that no other new water savings appliances were installed (or rebates requested). Specific results show a savings of close to 3% in 2010. Donala is still predicting 60% "water friendly" appliances by 2018.

Intentions

Continue the outreach and educational programs and the incentive rebates to encourage more savings of water and money and continue tracking.

6.4.8. WATER REUSE PROGRAMS

Goal - 50% of all Golf Course Irrigation Water to be Reuse Water

The Gleneagle Golf Course is the most water conservative customer in Donala. Since 1994 the golf course has been using treated wastewater (reuse) for irrigation, significantly decreasing its dependence on Donala's Denver Basin aquifers. Donala does not have regulatory jurisdiction over the golf course irrigation operations. In addition to reuse and non-potable water reducing potable demands, irrigation practices are heavily influenced by Donala's high water rates for both. Reuse and non-potable waters are mixed with raw water in the golf course ponds and used directly from there to irrigate, so although they are using less expensive irrigation water, price is still an effective conservation tool. This may influence more efficient irrigation practices.

While the Golf Course may not be utilizing efficient irrigation practices, reuse itself is a conservation practice. In reusing water for a second time, new supplies are not required to be developed. Donala cannot regulate the Golf Course as they are a business. However, Donala can increase rates. Water is the Golf Course's top expense, therefore driving the Golf Course to use more of the reuse and non-potable supply. This means that Donala has to develop less new raw water supplies which in effect is conserving new water for Donala.

A separate distribution system is in place for most of the commercial areas yet to be developed within Donala. If development demands a substantial amount of irrigation to support those areas, reuse water will be utilized.

Results from Annual Evaluations– 40%-50% of all Golf Course Irrigation Water to be Reuse Water

2008 Results- From 1994 to 2006, when another source of water was obtained (non-potable surface water – see next section), reuse water accounted for 48% of the golf course water requirements. The mix of surface water as a source contributes to a total savings of close to 60%. Although production of "swim beach standard" reuse water is not a cheap process, it has been an economical and efficient use of Donala's excess effluent.

2009 Results- 58% of all Golf Course Irrigation Water was Reuse Water. 2009 was an outstanding year for the Golf Course, aided immensely by the weather.

2010 Results- 46% of all Golf Course Irrigation Water was Reuse Water. 2010 was a good year for the Golf Course, despite the dry weather.

Intentions

Continue to expand the use of reuse water on the Gleneagle Golf Course. The challenge is to make it economical enough to keep the golf course in business, while covering the costs of production, and exceeding what the effluent could otherwise garner on the downstream market. Continue to emphasize and force the use of reuse water for irrigation on any new commercial construction with viable landscaping plans. Continue with current investigation into a reclamation project aimed at using all water to extinction. If viable, plan on design and engineering in 2017, operational in 2020. Continue to participate with regional neighbors in investigations of the use of both non-potable and

indirect potable uses of treated wastewater. Continue to market and find the best price for downstream excess effluent.

6.4.9. NON-POTABLE SUPPLIES

Goal – 60% savings of all Golf Course Irrigation Water attributed to non-potable supplies, including Water Reuse Systems (previous section)

In 2006, in conjunction with the Gleneagle Golf Course, Donala was adjudicated the use of a small surface water source, known as Jake's Lake, for irrigation use on the course. A distribution system had been installed by a previous developer and owner of the golf course. Donala augments 100% of the water used through the jointly owned wastewater treatment plant. As discussed in previous sections, Donala does not have regulatory jurisdiction over the Golf Course, and therefore cannot require more efficient use of non-potable supplies. This can only be implemented by the Golf Course.

In 2008 Donala participated in the Pikes Peak Regional Water Authority in supporting HB-1129, a precipitation harvesting bill aimed at allowing customers to capture rainwater runoff to use in irrigation. Though the bill was significantly diluted with amendments, and turned into a ten year test, Donala continues to support the concept. As an example, on April 17 and 18, 2009, Donala received over 20 inches of very wet snow. Runoff from the storm on April 18 and 19 increased the flows to the wastewater treatment plant by close to 30% due to infiltration and inflow. In addition, several detention pond areas had standing water and customers had significant groundwater flows into their basements. Although we understand the legality and water rights issues associated with use of such water, our position is that if it could be captured and used later for irrigation, much of it would still reach its "rightful owners," and in the meantime, customers would reap the benefits of available "nuisance" water.

Results from Annual Evaluations

2008 Results- 50%-60% of all Golf Course Irrigation Water attributed to non-potable supplies when coupled with reuse water - The amount of water available from Effluent reuse is significantly dependent on precipitation and the level of the lake. During and immediately after precipitation events, it flows at near 200 gallons per minute, while during drier times it only produces 25 GPM.

Regardless, it is a good source of water and an economical use of Donala excess effluent. The two sources together (Jake's Lake and reuse) have drastically cut the requirement to deplete the Denver Basin aquifer wells to supply the golf course.

2009 Results- 86% of all Golf Course Irrigation Water attributed to supplies combining raw water from Jake's Lake and reuse water. As discussed in the previous section, 58% of this is attributed to reuse and the remaining 28% is attributed to Jake's Lake supplies.

2010 Results- 74% savings of all Golf Course Irrigation Water attributed to supplies combining raw water from Jake's Lake and reuse water. As discussed in the previous section, 46% of this is attributed to reuse and the remaining 28% is attributed to Jake's Lake supplies.

Intentions

Continue the use of Effluent reuse as an irrigation source for the Gleneagle Golf Course. Search for other similar sources in our local area. Continue support for legislation that makes a logical use of precipitation runoff legal.

6.4.10. DISTRIBUTION SYSTEM LEAK DETECTION/REPAIR

Goal – 90%+ of water produced is also billed

The goal of Donala, through leak detection and repair, as well as other methods, is to maximize the amount of water billed that is produced and minimize leaks and waste. By installing meters at several locations, we are able to measure the amount of water pumped from each well, moved through the various phases of the treatment process, and finally pumped to the distribution system. Through the use of automation (SCADA), we also know the level of the water in storage. By comparing those figures to the amount measured during customer meter reading, and thereby billed, we have an excellent idea of water lost to waste or leaks. We even measure the amount of water used during the backwash phase of the treatment, redirected through the process again, and finally the amount pumped to wastewater. All meters are calibrated at least annually.

When a leak in the distribution system is detected, Donala has the equipment and personnel to make all but the largest repairs. Donala's response time is excellent, and even if the leak is on the

customer side of the system, Donala will assist in repairs, or at least turn off the supply to the leak to avoid further waste.

When a leak is suspected but not specifically located, Donala calls out contract personnel with detection equipment, and makes repairs as needed

Results from Annual Evaluations

2008 Results- 95% of water produced was billed- Because the Donala distribution system is relatively new, and because of all of the controls described above, the system is "tight," with very few leaks. Waste is identified immediately and corrected. A report of pumped vs. billed water is provided to the District Board of Directors monthly. Two leak surveys have been conducted to pinpoint actual leaks and repairs were made.

2009 Results- An average of 95% water produced was billed. Donala repaired two major distribution system leaks in the neighborhood.

2010 Results- An average of 96% water produced was billed. Donala repaired three distribution system leaks in the neighborhood.

Intentions

Continue to monitor and upgrade the system. When budget allows, purchase Donala's own leak detection equipment. Do contract leak surveys as necessary. Continue to monitor older asbestos cement water mains, and line or replace them when necessary.

6.4.11. WATER METER EXCHANGE/REPAIR PROGRAM

Goal – 80% efficiency

Donala understands that mechanical water meters erode and wear as time goes by. The result is that less water is measured than actually flows through the meters. For this reason, Donala started a meter replacement program in 2004, replacing water meters every ten years. The old meters are rebuilt with new impellors and used again.

Although the water meters are purchased by the builders, Donala will maintain (repair or replace) them. Donala understands that a non-functioning meter means no water usage is measured and therefore charged to the customer. Leaking meters also generally do not register the lost water. Water lost or wasted (not measured), or excess water not accurately measured by old meters gives the customer a false sense of economy. As a result, customers will use more water than they are actually paying for, and have less incentive to conserve.

Current meter software will detect constant flow of water over a 24 hour period during the preceding period (since the last meter reading). The computer will alert administrative staff, and a notice is sent out to the customer alerting them of a possible leak.

Annual meter replacement costs Donala on average $10,000 per year. For 2010, this translates to a cost of about $238 per acre-foot saved.

Results from Annual Evaluations

2008 Results- 70% + efficiency - Donala conducted a survey on water usage after the first wave of meter change outs, and the result was up to a 30% higher reading through new meters than old. Although the degree of accuracy of a meter depends on the degree of wear on the impellors, the general concept is that the older the meter, the less it will accurately measure the flow of water.

Repairs and replacements of defective meters, and the constant flow alerts have limited water loss and improved customer relations.

2009 Results- Donala repaired or replaced 208 meters in 2009. Donala is in a ten year cycle now. A random sampling of 50 accounts where the meters had been repaired/replaced in 2007/2008 showed an increase in savings of 16% water recorded with a new/rebuilt meter. **Overall efficiency remains at 70% plus**.

2010 Results- Donala repaired or replaced 208 meters in 2010. Donala is in a ten year cycle now. A random sampling of 50 accounts where the meters had been repaired/replaced in 2009 showed an increase (savings) of 23% water recorded with a new/rebuilt meter. **Overall efficiency remains at 70% plus**.

Intentions

Continue to change out water meters every ten years, conducting surveys to determine actual savings. Continue meter repair and replacements when necessary. Continue with constant flow alerts.

6.4.12. POTABLE WATER REUSE POTENTIAL

Although there are no specific goals and plans to pursue potable water reuse at this time, it is the opinion of the Donala management and directors that indirect and direct potable reuse of water is inevitable in the future. The shortage of water on a worldwide basis, combined with the changing global climate, make water a most valuable resource. The excessive use of water in the United States, and in the Southwest U.S. in particular, has exacerbated the depleting supply to a point where water shortages are becoming critical. Reuse of water, along with desalinization and other processes will become necessities. As technologies improve, Donala believes that reuse of water supplies to extinction will be extremely important.

Donala will comply with all current and future standards for producing potable standard water from wastewater. The potential of detrimental effects on water supplies from pharmaceuticals and personal care products will undoubtedly incur further restrictions on water and/or wastewater treatment. Reverse osmosis, activated carbon treatment, and other technologies will likely become the norm.

Donala intends to continue investigating and planning for future reuse of water to meet demand. We will participate in studies and tests, and continue to upgrade our infrastructure to meet the challenges of reality when the time comes. In the meantime, the important process of educating the public is ongoing. Not only will we continue to emphasize conservation through current means, we will work to improve the public perception associated with reuse water, and prepare our customers for the inevitable.

In 2009, Donala was investigating a treatment process and system to reuse excess effluent from the wastewater plant. Its merits and cost will be weighed against credits and sales of the effluent downstream.

In 2010, Donala continued to investigate a treatment process and system to reuse excess effluent from the wastewater plant. Its merits and cost will be weighed against credits and sales of the effluent downstream, as well as relative costs of purchasing new outside water.

6.4.13. EFFICIENT USE OF WASTEWATER EFFLUENT

Although Donala's wastewater effluent may not be available for potable reuse at this time, Donala will continue to use it in the most economical means. Non-potable (irrigation) reuse is the most efficient, and Donala will continue to provide as much as possible, either directly or in augmentation, to the Gleneagle Golf Course. If other opportunities arise for reuse water for irrigation, Donala will pursue those as well.

Although Donala does not believe it has the capability of using effluent for indirect potable reuse as recommended by WIPS, Donala will cooperate to make our excess effluent available to regional neighbors, should they choose to develop an IPR program. It is Donala's opinion that the more its neighbors can reduce their demand on the Denver Basin of aquifers, the better it will be for Donala as well. Since the influence of the Denver Basin wells spreads laterally beneath the surface, any decrease in regional demand means a decrease in Donala's drawdown. Therefore, it may be that our regional partners can take advantage of the WIPS recommendation and develop an IPR system north of Donala, and that by providing the use of Donala effluent as a supply, Donala would gain the benefit of reduced regional well pumping.

Donala participated in the Monument/Fountain Creek Transit Loss Model to be able to sell or lease excess effluent. Although there has been no significant market yet, Donala will continue to search for customers. Any price Donala can get for its effluent will help to offset the extremely high price of renewable water and infrastructure.

2009 - Two customers were identified for effluent leases in 2010. Negotiations are continuing with Colorado Springs Utilities and other potential sources of water for effluent "swaps for potable" or credits.

2010 - Two customers leased effluent is 2010. One has been identified for continued lease in 2011. Negotiations continue with Colorado Springs Utilities and other potential sources of water for effluent" swaps for potable" or credits.

DEWSS

An extensive study to use reclaimed water in the Donala Extended Water Supply Study (DEWSS) was kicked off in 2010. Hopefully it will serve to set the stage for a project that will use water that is available to extinction and increase the overall Donala supply by close to 25%. *This will be the ultimate water conservation program!*

In 2010, Donala embarked on an investigation of the potential to capture and reuse hundreds of millions of galls of reusable water that is lost down Monument Creek every year. This is Donala's water that can be used to extinction. The study, DEWSS, is examining what it would take to keep the water, secure its integrity in state-of-the-art treatment processes, and mix it with incoming water. This could extend our water supply. To explore the reclaimed water supply option, Donala launched a year-long study. It is investigating our current resources, multiple means of water purification, potential facility locations, regulatory issues, etc. A Citizens Advisory Committee (CAC) has been formed, a number of workshops have been held, and the investigation continues. As of this writing the study is being finalized and looks promising. If it is workable and economically viable, the district will consider design and engineering in 2017 and hopes to have the project operational in 2020.

If the DEWSS reclamation project is completed, it is estimated to cost around $7 million to complete. Expected savings for the project operation will be estimated through the completion of the current study.

6.5. PROGRAMS IN COMBINATION

Many of the programs and measures that Donala is currently operating or is planning to implement are designed to work in conjunction with or to enhance other programs. To target residential users, both the rate structure and the irrigation rationing directly influence savings for this customer class. Although savings may be more directly influenced by one of these programs, both are directed towards residential use and help to support the other. Similarly, low water use landscape programs (including the demonstration garden, landscape expert, and other educational programs) and efficient irrigation measures work in conjunction with each other to reduce the amount of outdoor demand throughout Donala. The golf course uses a mixture of reuse and non-potable

sources for its full irrigation supply, which require these conservation programs to be used in conjunction with each other to provide a full supply.

6.6. OBSERVATIONS

Overall the weather played a huge role in water conservation in 2009. Measurable successes otherwise could be seen in the Gleneagle Golf Course use of reuse and non-potable water, the appliance rebate program, distribution system maintenance, and the meter change-out program.

Overall the weather played another large role in the water conservation program in 2010. It was a relatively hot and dry year, and the water usage showed it. However, by comparing 2010 to a similar year of 2008, Donala did see about a 3% savings in water demand with the same number of customers. Some of that can be attributed to the tiered rate structure, and some to the irrigation rationing program. Although the golf course used a large amount of water, they concentrated their use on the reuse and augmentation supplies to a significant degree.

Although the rationing program did not show a significant decrease, with almost 600 customers using over 40,000 gallons in any given month in 2010, the huge increase in September, when the program was not in effect, could show that customers tend to abide by it when they have to, and abuse the system when they don't.

There was very little xeriscape landscaping initiated in the community. The addition of a Conservation Manager and a Landscape Expo with related training and support is designed to push that aspect of the program in 2011.

Donala participated in a Water Infrastructure Planning Study (WIPS) with regional neighbors in 2006. One of the recommendations of WIPS is to jointly develop an indirect potable reuse (IPR) system to conserve water and to decrease local storage and supply requirements. The price tag for a regional system was estimated at $47 million, and it did not include the requirement for reverse osmosis treatment. A separate study was funded by Donala to ascertain the regulatory and public perception issues with an "in house" IPR system for Donala only. Results of that preliminary study were that Donala does not have the drainage area, infrastructure, and capability of satisfying current Health Department (HD) and EPA regulations. That same study recommended the regional partners in WIPS investigate further with the HD and public before investing in a regional system.

In addition, it is generally believed that when a renewable source of water is obtained, depending on where it comes from and who actually "owns" it, there may not be available effluent to process for IPR. The owner of the water will also own the effluent. In 2011 Donala is conducting its own study to determine if a reclamation project is doable and economically viable. Preliminary results indicate there may be an opportunity using advanced wastewater and streambed treatment. Results may lead to design and engineering in 2017 and operations by 2020.

There are markets for effluent downstream, and depending on the demand and price, sales of excess effluent may prove more economical than an IPR system.

7. ADDITIONAL INFORMATION

7.1. CONSERVATION SCHEDULE AND GOALS

The overall goal of the Donala Conservation Plan is to preserve our precious resource of water, both our current depleting supply and an eventual renewable supply. That goal will not be diminished once the renewable supply is available. In fact, as described in section 6.3.12, Donala expects water to become even more of a scarce resource, mandating conservation at the levels described herein or tighter.

The specific schedule Donala is pursuing currently is to have the first components of a renewable source of water by the year 2012. Conservation efforts are aimed at extending the Denver Basin aquifer supply to at least make that timeframe, and then to continue with the Basin supplies as augmentation, peak demand, and drought proof sources.

Specific goals as described above in Section 6 are summarized below. They are not cumulative goals in that we do not expect to save 15% through our water rate structure and another 15% through irrigation rationing. Each goal is directly related to the use of water that may be impacted by the measure or program. The general overall goal is for a cumulative 20% savings of total demand.

Table 7- 1: Donala Water Conservation Savings Goals for Measures and Programs

Measure/Program	Goals
Water Rate Structure	15% savings
Water Tap/Development Fee Structure	Non-specific. High enough to help finance water rights and infrastructure needs – low enough to keep development viable.
Regulatory Measures	Non-specific
Irrigation Rationing	15% savings during irrigation season
Low Water Use Landscape Measures	10% more Xeriscaped yards per year
Efficient Irrigation Measures	Non-specific
Water Efficient Fixtures and Appliances	5% savings
Water Reuse Programs	50% of golf course irrigation water
Non-Potable Supplies	60% of golf course irrigation water (with reuse water)
Distribution System Leak Detection/Repair	90% of water pumped also billed
Water Meter Exchange/Repair Program	80% meter efficiency

7.2. PRESENT AND PROJECTED SAVINGS

Below is a table showing the present achieved savings for each of the above described programs and measures as well as the projected savings for each. It should be noted that the projected savings are different than the goals shown in Section 7.1. Projected savings take into account potential impacts due to weather and also account for current savings patterns thus far. Goals are the optimum savings that Donala strives to hit over time. As described herein, following are the current savings and projections for each of the above programs:

Table 7- 2: Donala Water Conservation Present and Projected Savings

Measure/Program	Present Savings (2008-2011)	Projected Savings Discussion
Water Rate Structure	An overall estimated 1% of total potable water savings attributed to rate structure in 2011. Otherwise, no savings have been realized due to rate structure.	Increases over the next 8-10 years will have enough impact that coupled with the landscaping changes, irrigation techniques and rationing programs in place, Donala projects to achieve the 20% overall goal by the year 2018. An ultimate savings of 15% is projected (about 8-10 AF per year if the savings remain evenly distributed through 2030 with a current demand of 1,100 AF).
Water Tap/Development Fee Structure	No savings realized	With very little development on the immediate horizon, Donala is not relying on tap/development fee income for operations or capital projects. If property available for development becomes potential for annexation, Donala will consider it in order to help fund the water rights and infrastructure needed for the future.
Regulatory Measures	No savings realized	No new construction in 2011 and Donala has very little authority over building regulations, we can only coordinate and cooperate with those that do, hoping to instill a "green" mentality and conservation ethics. In house regulations will continue to ensure water is not wasted or lost.
Irrigation Rationing (Regulatory Components)	8% savings in total potable outdoor use through 2010, 3% in 2011	Donala will continue to enforce the rationing program while encouraging "water friendly" landscaping and irrigation techniques, and increasing the high volume rate structure. Projections are that we will achieve the 15% savings by 2018.
Low Water Use Landscape Measures	8-10% more Xeriscaped yards per year through 2011. In 2009, 120 yards were converted for a total of 2.95 AF saved. In 2010 and 2011, 15 and 25 yards were converted for a total of 0.37 and 0.61 AF saved, respectively	Donala will continue with education and training programs and incentives to encourage more customers to convert from the "Bluegrass Mentality." Projections are that 60% of District yards will highlight Xeriscape landscaping of varying degrees by 2018. Assuming 20 yards per year are converted, the expected savings are 0.5 AF annually.

Measure/Program	Present Savings (2008-2011)	Projected Savings Discussion
Efficient Irrigation Measures	Specific savings not identified. Of the landscape changes done in 2011, it is estimated that about 30% of the resulting savings are from new/upgraded irrigation systems.	Donala will continue with education and training programs and incentives to encourage more customers to convert to more "water friendly" irrigation systems. Rain sensors with accompanying irrigation controllers that had been installed were found to actually increase water use due to the arid climate, therefore most sensors were removed from operation and no future savings are projected. Additional irrigation system upgrades are anticipated to save 0.2 AF annually.
Water Efficient Fixtures and Appliances	1%-2% savings in total potable use. An average of 1.41 AF was saved from appliance rebates over the past 4 years.	Donala will continue to offer rebate incentives. Projections are for more savings as "water friendly" products become more and more the norm. Past projections of 60% savings by 2018 seem unrealistic due to the slowdown of construction and the economy. New goal will be set in another 2-3 years. Anticipated future savings are 1.4 AF per year.
Water Reuse Programs	Currently 52% of Golf Course irrigation water is reuse.	Goal of 50% of Golf Course irrigation as reuse has been met, and is projected to continue. Any future commercial development will also be considered for reuse irrigation. A projected 63 AF per year reduction is expected to be maintained in the future.
Non-Potable Supplies	52% of Golf course water is reuse, combination of reuse and Jake's Lake non-potable supply is 69% of Golf Course's supply	Goal of 60% of Golf Course irrigation as non-potable supplies including reuse has been met, and is projected to continue.
Distribution System Leak Detection/Repair	94% of water produced was billed on average	Projections are that results will drop off a bit as the distribution system ages, but that the 90% goal will be consistently met.
Water Meter Exchange/Repair Program	70% efficiency with a savings of 6.2% of potable water through a random sampling in area of repaired/replaced meters.	More meters will be replaced every year as they reach 10 years in service. Projections are for a leveling out of 80% efficiency by 2013. About 5 AF of savings is projected to be accounted for and charged against due to the replacement of meters.

7.4. PLAN REVIEW/REVISION PROCESS

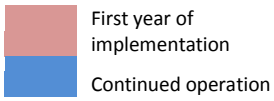
Parts of the Donala Conservation Plan will continued to be reviewed monthly (leak detection pumped vs. billed). Other parts will be reviewed after each irrigation season (rationing results, landscaping techniques, etc.) Almost all aspects will be reviewed annually during the preparation of the Annual Cost of Service Analysis. Attachment C shows the Conservation Plan Annual Review Checklist that is used by Donala's General Manager each year to assess savings and usage over the previous year. Each program and measurement is addressed and potential savings are quantified for each year. The program status and effectiveness is discussed and modified as deemed fit. The Annual Review/Update is then developed using a compilation of all information gathered through the Annual Review Checklist, and give a discussion of how each program operated, what occurred over the year that may have affected participation or savings and why, and what is recommended for the upcoming year. The Annual Review/Update for 2011 is included as Attachment D. The Plan itself will be reviewed every two years for accuracy and revision, utilizing the discoveries made during the annual review. Donala's commitments as a result of this Conservation Plan are listed below in Table 7-1.

Because Donala has been operating much of its Conservation Plan for a number of years now, many of the conservation programs and measures have been implemented and are currently underway.

Table 7- 3: Donala Water Conservation Commitments

Program/Measure	Commitment	Timing	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Conservation Manager	Hire Conservation Manager	Beginning of 2011										
Donala Gardens	Construct and manage Demonstration Garden	Beginning of 2011										
Conservation Driven Water Rate Structure	Increase water rates by 15% at low usage and up to 60% for higher usage	Beginning in 2012										
Water Tap/Development Fee Structure	Keep tap fee structure high enough to ensure development will pay its own way	Continuous										
Regulatory Measures	Work with Pikes Peak Regional Building Department to enhance conservation efforts	Continuous										
Irrigation Rationing	Continue irrigation rationing while increasing rates and education programs to overcome "bluegrass mentality"	Continuous										
Low Water Use Landscape Measures and Efficient Irrigation Measures	Education and training focusing on landscaping and reducing demand for irrigation water	Continuous										
Water Efficient Fixtures and Appliances	Continue outreach and incentive programs	Continuous										
Water Reuse Programs	Continue to expand the use of reuse water on the Gleneagle Golf Course	Continuous										
Non-Potable Supplies	Continue effluent reuse and Jake's Lake as irrigation source for Gleneagle Golf Course	Continuous										
Distribution System Leak Detection/Repair	Repair distribution system where leaks have been detected to minimize leaks and waste	Continuous										
Water Meter Exchange/Repair Program	All meters calibrated annually and replaced as needed	Beginning of 2012										
Water Meter Exchange/Repair Program	Monitor and upgrade metering system	Continuous										
Water Meter Exchange/Repair Program	Change out water meters every ten years	Continuous										
Water Reuse Programs	Continue investigating and planning for future reuse of water to meet demand	Continuous										
	Work in regional cooperative basis with neighboring water utilities on same supply	Continuous										
	Manage well field while seeking a renewable water supply	Continuous										

Program/Measure	Commitment	Timing	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Annual tracking of savings due to specific conservation programs	Beginning of 2012										
	Review and update Conservation Plan	2013										



Attachment A

PUBLIC NOTICE

THE CONSERVATION PLAN DRAFT IS AVAILABLE FOR PUBLIC COMMENT. YOUR WRITTEN COMMENT(S) ARE DUE NO LATER THAN OCTOBER 20 AT THE DISTRICT OFFICE (15850 HOLBEIN DR.) OR EMAILED TO JACKIES@DONALAWATER.COM.

TO: DONALA WATER AND SANITATION DISTRICT BOARD OF DIRECTORS; RESIDENTS AND PROPERTY OWNERS WITH THE DISTRICT; OTHERS WHO MAY BE CONCERNED (**C.R.S. 32-1-903**).

NOTICE IS HEREBY GIVEN THAT THE REGULAR SCHEDULED BOARD MEETING WILL BE HELD ON THURSDAY, OCTOBER 20, 2011. ALL MEETINGS ARE SCHEDULED TO BE HELD AT:

MEETING PLACE: DONALA WATER AND SANITATION DISTRICT
15850 HOLBEIN DRIVE
COLORADO SPRINGS, COLORADO
PHONE: (719) 488-3603

BILL GEORGE, PRESIDENT
DONALA WATER AND SANITATION DISTRICT

DONALA WATER & SANITATION DISTRICT

(719) 488-3603 www.donalawater.org September 2011

TOWN MEETING

Donala is hosting a "Town Meeting" for all its customers on Wednesday, September 7th, at 7PM, at the Antelope Trails Elementary School on Gleneagle Drive. We will cover the status of our water projects and most importantly – the near and short term outlook for water rates and taxes! You should have received a special newsletter in the mail recently discussing these issues.

Please join us. We will start the presentation promptly at 7 PM and leave plenty of time for questions.

MURPHY DEPARTS

Board President Tim Murphy has stepped down from the Board to pursue a new career in the D.C. area. We often kid Tim that "Murphy's Law" prevails around here – especially when things don't go just right. Now we will have no excuses. Tim has provided outstanding leadership to the District and he and Jan have been a great help to the community. We all owe them a debt of gratitude, and we wish them the best of luck in their upcoming change.

The Board will appoint a replacement director to serve until the next election – May, 2012. At that time there will be three director positions up for election. More information on how to apply and run for office will be provided in January.

RATIONING REPORT

July was a much better month for water demand – thanks to 2.7 inches of rain spread over 17 days. Still, we pumped over 50,000,000 gallons of water, and 64 customers used over 40,000 gallons. At least one water bill topped $1,000.

Although the mandatory rationing period ends on Labor Day, all of us will remember September of last year – HOT and DRY! We used more water last September than any September in our history and almost as much as in June, when demand reached an all-time high. PLEASE continue the rationing program (three days/week). With the cooler nights you do not need to over water or water every day just because you can. See Susan's conservation article to follow.

DONALA GARDENS

If you have driven by the Gleneagle Shopping Center over the past few weeks you've seen the work going on at Donala Gardens – the District's new Xeriscape Demonstration Garden. Susan McLean, our Conservation Manager has spearheaded the project and we want to show it off. There are many xeriscaping demonstration gardens in Colorado Springs, but none showcase plants that are uniquely adapted to our neighborhood's high, dry, windy climate like Donala Gardens, a multi-tiered display of tough, attractive, locally available plants that thrive in our community on limited water. Natives as well as adapted plants and some Plant Select vegetation are growing happily there in compost- enriched soil, irrigated by drip. They're small now, but they will grow into thriving specimens of their kind and should bloom ferociously next year. The surrounding ground, currently under intense weed management, will be

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- When you turn on your irrigation system after 15 May, tune it up! Perform an audit of your system to reveal plugged nozzles, missing or improperly aimed and adjusted heads, and heads that are not straight. Fix problems now to avoid stressed or damaged turf later in the growing season
-

Donala's summer irrigation rationing program will be in effect Monday May 30-Tuesday, Sept 5th 2011.

Residential homeowners with odd house numbers will water Monday, Wednesday and Friday while those with even numbered house numbers will water Tuesday, Thursday and Saturday.

Townhome and commercial accounts are assigned water days as follows:

Monday, Wednesday, Friday	**Tuesday, Thursday, Saturday**
Antelope Trails Elementary	Academy View Storage
Club Villa Townhomes	Bethesda Executive Office Bldgs.
Eagle Villas Townhomes	Donald Wescott Fire Dept
Falcon's Nest III HOA	Eagle Point HOA
Gleneagle Exec. Center	Gleneagle Civic Association
Gleneagle Golf Club and Greens	Gleneagle Townhomes
Gleneagle North HOA	Nichlas Court Patio Homes
Gleneagle Square Shopping Center	Paradise Villa Townhomes
Peoples National Bank	Shops in the Glen
Ridge at Fox Run HOA	Struthers Ranch I HOA
Ridge Point Apartments	Sun Mesa Townhomes
Summer Glen Townhomes	The Place
Sunrise Townhomes	

Irrigation times are from midnight to 9am and 6 pm to midnight on assigned days. Colorado State University reports that watering at night does not contribute to disease development. Watering 3x/week is more than enough to keep a bluegrass lawn healthy!

- Each time you water, apply enough to moisten as much of the root zone as possible. Clay soils may require 1 inch of water spread between 2 applications to avoid runoff and allow the water to soak in to the root zone, while root zones in sandy soils can be moistened with as little as ½ inch of water.
- Lawns on sandy soils may require more frequent irrigation (3x/week) as sandy soil does not retain much moisture. Lawns on clay soils may be watered less frequently (2x/week) as they tend to hold moisture.
- It is perfectly normal for bluegrass lawns to turn brown during the hottest part of the summer. The lawn is not dying, it is merely dormant, which is perfectly normal. Continue to water your lawn as usual. Please do not waste water by overwatering at this time. Dormancy will break as the weather cools and the grass will be green again. Visit Donalawater.org for more tips on efficient watering.

Mowing preserves the beauty of your lawn.

- Minimum height for any bluegrass lawn is 2 inches. Preferred mowing height for bluegrass is 2.5 -3 inches.
- Mow often enough so that no more than 1/3 of the grass height is removed at any single mowing. If weather or another factor prevents mowing at the proper time, raise the height of the mower temporarily to avoid cutting too much at one time. Cut the grass again a few days later at the normal mowing height.
- Let grass clipping fall back onto the lawn. Grass clippings provide a source of recycled nutrients and organic matter for the lawn. They do not contribute to thatch accumulation.
- Check mowing equipment for sharpness. Dull mower blades shred leaf blades instead of cutting them cleanly, resulting in a brown unattractive lawn. If you water adequately and your lawn is still brown, check the sharpness of your mower blade!

2. Penalties and Fines

2.1. Late Fees - Late fees are normally 5% of the unpaid balance and are charged on all service bills after the established "late" date (see above). Late fees are due with the full payment of the unpaid bill.

2.2. Disconnect Letter Fee - A fee will be charged to the customer if a certified (registered) letter is sent to notify of pending disconnection of service for any reason. The fee will be due along with the bill in question and any associated late fees.

2.3. Service Re-Connection Fee - If water service is terminated for any reason a re-connection fee may be charged and is due before service will be restored. If District staff is forced to dig up the service "stop box" valve in order to terminate the service, charges for time and materials may be added to the payment due.

2.4. Lien Removal Fee - A lien removal fee will be charged if a lien has been filed on the property. It is due in full along with any re-connection fee, late fees, interest, and any unpaid balance before the lien will be formally removed with the County Clerk's office.

2.5. Bad Check fee - A fee will be charged for any check received by the District that is returned for Non-sufficient Funds (NSF), or for insufficient funds in the account when utilizing the District automatic withdrawal system. Normal payment of the bill that is due and the bad check fee will be by Cashier's Check or Money Order. Cash may be accepted, but is discouraged, unless it is the exact amount.

2.6. Ground Water Discharge to Sewer Penalty - Penalty charges will be established and assessed against any person, company, or corporation who is determined to be discharging ground water to the District sanitary sewer.

2.7. Unauthorized Discharge to Sanitary Sewer Penalty– Discharge of unauthorized materials, to include but not limited to: petroleum products, paint, paint cleaner, toxic, poisonous or explosive substances, is prohibited. Such discharge or any other misuse of the District sanitary sewer facilities may result in fines or special charges as deemed necessary by the General Manager.

2.8. Unauthorized Hydrant Use Penalty– District owned and maintained fire hydrants are "off limits" to everyone except fire department and District personnel. Unauthorized use of a fire hydrant will result in a penalty, and a charge for the suspected water used.

2.9. Cross Connection control Penalty - Failure to provide adequate cross connection control will result in immediate termination of service. This includes failed tests of backflow devices and any other cross connection issue deemed irregular by District personnel. Failure to provide annual certified backflow test results to the District will result in a penalty, and eventual disconnection of service.

2.10. Grease Trap/Interceptor Charge – A customer who fails to comply with grease trap or interceptor cleaning and pumping requirements may be assessed a penalty. The penalty will be doubled the second time it occurs, and water service may be terminated if there is a third occurrence. All applicable service re-connection fees, etc. will apply.

2.11. Unauthorized Irrigation Penalty - If a customer irrigates during non-authorized times per the District rationing program the customer may incur warning letters, penalty fees and potential termination of water service.

2.12. Special Service Fee – If, in order to enforce compliance with District regulations, employees of the District provide special services at a property which the owner or occupant neglects or refuses to perform himself, or which are not related to the general maintenance of District facilities, then the cost of such work, including, but not limited to all materials, may be charged to the property owner or occupant as a service charge.

CONSERVATION PLAN ANNUAL REVIEW

CHECKLIST – YEAR _____

1. Overall Water Consumption

   A. Record total water usage by non-golf course customers.

   _____ Gallons

   _____ Gallons Year before

   _____ % more/less

   B. Record usage from June through August (rationing season).

   _____ Gallons

   _____ Gallons Year before

   _____ % more/less

   C. Record golf course usage for year and June – August.

   _____ Gallons Reuse

   _____ Gallons Year Before _____% M/L

   _____ Gallons Jakes Lake

   _____ Gallons Year before _____ % M/L

   _____ Gallons total Reuse/Jakes

   _____ Gallons Year before

   _____ Gallons total (including wells)

   _____ Gallons Year before

   _____ % more/less

   _____ Gallons total , June- August

   _____ Gallons Year before

   _____ % more/less

D. Record number of days of rainfall and total inches in June, July, August and Sept.

June: _____ Days. _____ Inches

Last Year _____ _____

July: _____ Days. _____ Inches

Last Year _____ _____

August: _____ Days. _____ Inches

Last Year _____ _____

Total (3 months): _____ Days _____

Last Year _____ _____

September: _____ Days. _____ Inches

Last Year _____ _____

E. Record the above information for any unusually dry or wet month other than Jun-Aug, if appropriate.

_____ Gallons

_____ Year before

_____ Days. _____ Inches

Last Year _____ _____

F. Compare above totals to previous years to determine savings or excess usage.

2. Water Rate Structure (15% goal)

A. Record number of single family customers who used over 40,000 gallons in any one month.

_____ (over what months? _____)

_____ Year before

B. Using information gathered in Section 1, make an observation whether higher rates are working to encourage conservation, and what percentage of savings could be attributed to the rate structure.

3. Water Tap/development Fee Structure (No specific goal)

A. Record number of fees collected.

_____

B. Make an observation whether fee structure is contributing to conservation.

4. Regulatory Measures (15%)

A. Make an observation and attempt to quantify savings attributed to District and Regional Building regulations, and any effect of the Conservation Manager influence.

5. Irrigation Rationing (15%)

A. Record number of violations to program noted.

_____

Year before _____

B. Make an observation and attempt to quantify savings or excess usage using the information gathered in Sections 1 & 2 above. If possible, discern what savings can be attributed to rationing vs. the rate structure.

6. Low Water Use Landscape Measures (10%)

A. Record number of yards that were xeriscaped during the year (30% or more of front yard).

_____

_____ Total from previous years

B. Record number of landscape designs provided by Conservation Manager. How many actually followed up and changed landscaping?

_____ Designs. _____ Actual

C. Determine actual savings for newly landscaped yards from year before.

_____ Gallons

D. Compare newly landscaped yards to total from beginning of the year for percentage of upgrades.

_____ %

7. Efficient Irrigation Measures (No specific goal)

A. Make an observation as to savings in landscape projects that can be attributed to more efficient irrigation systems.

_____ %

8. Water Efficient Fixtures and Appliances (5%)

A. Record number of rebates awarded for following:

Washing Machines	_____	Low Flush Toilets	_____
Total before	_____	Before	_____
Low Flow Showerheads	_____	Rain Sensors	_____
Total before	_____	Before	_____
Irrigation Controllers	_____	Dishwashers	_____
Total before	_____	Before	_____

B. Compare rebates to total before this year. Assume new construction uses all new water efficient appliances. Add appropriate number for new construction.

Total Rebates _____

New Construction appliances (Tap fees X 5) _____

Total new appliances _____

Total from prior years _____

C. Record rebate/appliance upgrade as total saving percentage.

_____ %

9. Water Reuse Programs (50% of golf course irrigation water)

A. From data collected in Section 1, determine percentage of total golf course irrigation water was from reuse.

_____ %

_____ % Year before

10. Non-Potable Supplies (60% of golf course irrigation water with reuse)

A. From data collected in Section 1, determine percentage of total golf course irrigation water was Jakes Lake water and total of both Jakes and Reuse.

_____ % Jakes Lake

_____ % Year before

_____ % Jakes and Reuse of Total

_____ % Year before

11. Water Meter Exchange/Repair Program (80% efficiency)

A. Record number of meters replaced/repaired.

_____

B. Identify 50 accounts that had new meters installed (changed out) the year before last. Compare water usage for the year before that and the year after.

_____ Gallons used year before _____

_____ Gallons used year after _____

_____ % percent more/less

12. Other Measures and Programs

A. Update efforts to use indirect or direct potable reuse water.

B. Update efforts to obtain efficient sales/leases of WWTP effluent.

13. Summary – After quantifying the above information where possible, summarize the conservation program, being as specific as possible.

ANNUAL REVIEW/UPDATE – 2011

Annual reviews and updates to the Donala Water Conservation Plan will be accomplished in February/March of the following year. Because of the variations in weather from year to year, and the fact that over 50% of Donala's water is used for irrigation, results vary significantly from year to year. Where appropriate a "base year" might be selected that is deemed as more normal.

Overall Water Consumption

The year 2011 was very much like 2010 in weather, therefore in most cases it will be compared to the "base year" of 2010. It rained on 35 days during June, July and August for 5.77 inches, as compared to 37 days and 6.54 inches in 2010. September was closer to a normal month in 2011, vs. the extremely dry and hot September, 2010. Overall Donala's non-golf course customers used 347,804,000 gallons – 5.2% less than in 2010. However, during the months of June – August they used 13.8% more water than in the same period of 2010. The observation from this statistic is that the water rate structure has not taken effect yet as a deterrent to water abuse.

The Gleneagle Golf Course used less water in 2011 as well – 43,144,000 gallons total, and 6.5% less than in 2010. However, during June – August they too used 11% more water than the same period of 2010.

Water Rate Structure

Goal – 15% Savings

Result – Although the graduated rate structure may have contributed to less individual usage, it apparently has not taken true effect yet. Homeowners used 330,000,000 gallons of water in 2011 vs. 348,000,000 gallons in 2010.

We had a significantly fewer number of customers who used over 40,000 gallons in one month (367 in 2011 vs. 587 in 2010). That indicates that for at least those customers, the higher rates have helped to curb their abuse.

Overall – customers still used more water during the irrigation season of 2011 than in 2010. They used less water overall than in 2010, indicating they may be trying to conserve to keep their water bills down. But when it comes to keeping their lawns lush and green, they have not felt the "hurt" of high rates enough to comply. The golf course showed a 5.2% improvement over 2010 by taking advantage more of the reduced rate reuse and augmentation water (Jake's Lake). But again, during the hot months, they too did what was necessary to keep the course green, using 13.8% more water.

An overall estimate is that only 1% of water savings (of 5.2%) can be attributed to the rate structure.

Water Tap/Development Fee Structure

Goal – No specific savings percentage.

Result – Only six new fees were collected due to the economic slowdown. Therefore, no savings noted.

Regulatory Measures

Goal – 15% savings.

Result – No savings noted. The lack of construction translates to the lack of results when working with the Regional Building Department and new landscaping. Donala's new Conservation Manager is developing regulations where appropriate and enforcing those in place (rationing regulations).

Irrigation Rationing

Goal – 15% savings.

Result - As described above under "Water Rate Structure," actual irrigation during the rationing season (June – August) increased 13.8% from 2010. It could be that more customers figured out how to "bypass" the system by watering more at night to avoid detection, or simply increasing their watering times on their allotted days. Off peak use did go down, and this is partially due to a significant effort by District staff to emphasize use of the rationing schedule during non-mandatory months. More customers seemed to comply.

What we continue to see from the rationing program is a reduction in the daily peak demand. Assuming that most customers adhere to their M,W&F or T,T&S irrigation schedule, only half of the supply is on demand each day.

With the total 5.2% decrease in water use vs. 2010, and 1% attributed to the rate structure, approximately 3% is attributed to the rationing program.

Low Water Use Landscape Measures

Goal - 10% more xeriscaped yards per year.

Result - Less than 1%. Mainly due to the economy and the number of Donala customers out of work, there were very few xeriscape projects initiated in 2011. A baseline "inventory" of water-friendly yards was established before the 2010 irrigation season began. Of 2133 total single family yards, 274 are mostly in the natural wooded environment of Fox Run/Pines, leaving 1860 yards to survey as of 2011 (Includes new construction). The Conservation Manager designed landscapes for 20 customers. Eight followed up in 2011 with actual changes, increasing the total of xeriscaped yards (including others done on their own) to 116 (6.2%) that have xeriscaping in some manner that encompasses at least 30% of the front (visible) area.

Donala has hired a part-time environmental/conservation manager to help train the community and design landscape projects. A demonstration garden was put in, and we are working with the large-lot customers (townhomes) and others to promote more xeriscaping. It is believed that these efforts, coupled with the significant increase in the rate structure, will result in more water conservation attributed to landscaping.

Efficient Irrigation Measures

Goal – No specific savings percentage.

Result - Of the landscape changes done as a result of the District Conservation manager suggestions it is estimated that about 30% of the resulting savings would be from new/upgraded irrigation systems. The rest would be attributed to the landscaping itself.

Water Efficient Fixtures and Appliances

Goal - 5% savings

Result - The chart below shows the increase in rebates paid out for retrofitted appliances.

Appliance	PRIOR	2011	Total
Washing Machines	87	32	119
Low Flush Toilets	54	33	87
Low Flow Showerheads	8	5	13
Rain Sensors	3	1	4
Irrigation Controllers	7	2	9
Dishwashers	12	17	29
TOTAL	171	90	261
NOTE: Add 30 total appliances for new construction (5 per house)		30	291

Assuming 2490 customer accounts, 120 new appliances represents another 41% increase. Assuming an average of 5 appliances/fixtures per home – 2497 homes X 5 = 12,485 total appliance/fixtures. 291 = 2.3%. District goal of 60% by 2018 is unrealistic due to the slowdown of construction and the economy. No new goal will be set for another 2-3 years until a determination of the economy can be assessed.

Water Reuse Programs

Goal - 50% of Golf Course irrigation water.

Result - 52% of Golf Course irrigation water, while 69% came from a combination of reuse and surface water (Jake's Lake) augmentation. This is a decrease from use habits in 2010 (74.4%) – partially due to the availability of reuse water (WWTP malfunctions).

Non-Potable Supplies

Goal - 60% (with reuse water) of Golf Course irrigation water

Result - 69% of Golf Course irrigation water. 17% from Jake's Lake alone.

NOTE: 2010 was a very good year for the golf course. However – much of it was attributed to their effort to "catch up" from the extremely dry previous winter. 2011 is likely more normal for the golf course.

Distribution System Leak Detection/Repair

Goal – 90% of water produced is also billed.

Result - An average of 94% water produced was billed. The District repaired six distribution system leaks in the neighborhood.

Water Meter Exchange/Repair program

Goal - 80% efficiency.

Result - The District repaired or replaced 254 meters in 2011. We are in a ten year cycle now. A random sampling of 50 accounts where the meters had been repaired/replaced in 2010 showed an increase (savings) of 6.2% water recorded with a new/rebuilt meter. Overall efficiency remains at 70% plus.

OTHER MEASURES AND PROGRAMS

Potable Water Reuse Potential

Donala completed a study of an indirect potable reuse project in 2011 – Donala's Extended Water Supply Study (DEWSS). Seven different potential projects were looked at. The estimated costs ranged from $7M to $19M for approximately 300 acre feet of available water. The cost is prohibitive at this time, but the project will be looked at more seriously in 2017 when funding will be potentially available and the demand/supply curve gets close again. In addition, a direct potable reuse application will be further investigated at that time.

NOTE: Donala completed the legal and engineering projects associated with bringing in renewable water from the Willow Creek Ranch. Agreements were formed with Colorado Springs Utilities and the Pueblo Board of Water Works, and construction was completed that will bring approximately 400 AF of water into the District every year. That represents about 30% of the total demand and pushes the demand/supply curve prognosis to beyond 2020. Unfortunately the increase in O&M costs associated with imported water will reach over $1.5M in 2012 alone (70% increase). Therefore – projects like a potable reuse system and more renewable water will be delayed until affordable.

Efficient Use of Wastewater Effluent

There were no leases of effluent in 2011, other than the normal El Paso County swap for water contract and two small individual leases. We will continue to search for viable customers for lease/sale of the excess effluent wasted down Monument Creek now.

SUMMARY

As usual, the weather played another large role in the water conservation program in 2011. It was another relatively hot and dry year (similar to 2010), and the water usage showed it. Although there was a small savings of 5.2% from normal customer usage in 2010, there was an increase during the irrigation months of June, July and August. The same results showed in the golf course – reduction overall, but an increase during June – August.

There was a significant reduction in the number of "glutton" customers – those who used over 40,000 gallons in one month - that reduction did not manifest throughout. The tiered rate structure seems to be working to a degree with the extremely high users, but it has not affected everyone as much. The rationing program continues to be effective in curbing the peak day demand, but is not contributing to as much overall conservation as we would like.

There was still very little xeriscape landscaping initiated in the community. The addition of a Conservation Manager has helped to encourage the program, but the economy and the realization that xeriscaping is expensive is still the major issue. We are optimistic that with the addition of our new Conservation Manager, the Donala Gardens demonstration garden, new training materials, seminars, expos, and tailored landscape designs, there will be a significant benefit and conservation effort over the near future.

The bottom line continues to be that Donala customers still are not paying enough for the abuse of water to make them pay attention. The average of a 45% rate increase in 2012 should help. However, there is a very fine line that the District must walk to encourage conservation and meet O&M costs, while not forcing customers to move out.

A DEWSS project would definitely be the ultimate in water conservation, but the costs are prohibitive. In fact, for what a reuse project would cost to use all excess effluent we could purchase another renewable water supply source (ranch/farm) and import the water. This obviously goes against the desire that most in Colorado have of saving agriculture. We will continue to investigate a DEWSS related project, but delay any action until the supply/demand curve requires it, and hopefully the technology makes it more affordable.