East Larimer County Water District

January 24, 2017

Mr. Kevin Reidy and Mr. Ben Wade
Colorado Water Conservation Board
1313 Sherman Street, Room 718
Denver, Colorado 80203

RE: ELCO Final Water Efficiency Plan

Dear Kevin and Ben,

Attached is the final version of the East Larimer County Water District (ELCO) 2016 Water Efficiency Plan, which was developed pursuant to C.R.S. 37-60-126. ELCO staff involved with preparation of the plan included Melissa Tremelling, Mike Scheid, and Brigitte Plotner. Matthew Welsh and Beorn Courtney of ELEMENT Water Consulting also assisted with the preparation of the plan. The plan has been adopted by the ELCO Board of Directors as reflected in the resolution included in Appendix A of the attached plan. Comments from the CWCB have been incorporated into the plan; no public comments were received.

ELCO looks forward to implementing the Water Efficiency Plan. ELCO's Administrative Manager, Melissa Tremelling, is the primary contact for the plan and will lead the implementation efforts. Mrs. Tremelling can be reached at: (970) 493-2044 or melissat@elcowater.org.

ELCO would like to genuinely thank you and the Colorado Water Conservation Board for your technical and financial assistance regarding the update of our Water Efficiency Plan. We respectfully request your review and approval of ELCO's final plan.

Sincerely,

Mike Scheid
District Manager
East Larimer County Water District

232 South Link Lane, P.O. Box 2044 • Fort Collins, Colorado 80522 • Phone (970) 493-2044 • Fax (970) 493-1801

East Larimer County Water District

WATER EFFICIENCY PLAN

2016 UPDATE

PREPARED BY:

ELEMENT
Water Consulting

P.O. BOX 140785
DENVER, CO 80214

JANUARY 19, 2017

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ac-ft	acre-feet
ac-ft/yr	acre-feet per year
AWC	average winter consumption
C-BT	Colorado-Big Thompson
City	City of Fort Collins
CWCB	Colorado Water Conservation Board
District	East Larimer County Water District
ELCO	East Larimer County Water District
FCLWD	Fort Collins-Loveland Water District
gpcd	gallons per capita per day
GMA	growth management area
IGA	intergovernmental agreement
kgal	1,000 gallons
MGD	million gallons per day
NPIC	North Poudre Irrigation Company
NWCWD	North Weld County Water District
Poudre River	Cache la Poudre River
SCFP	Soldier Canyon Filter Plant
sq-ft	square feet

1. PROFILE OF EXISTING WATER SUPPLY SYSTEM

1.1 INTRODUCTION

East Larimer County Water District (ELCO or District herein) provides drinking water to homes and businesses within an approximately 53 square mile service area located north and east of the City of Fort Collins (City), Colorado (Figure 1). The District was created by court decree in 1962 after voters in Larimer and Weld Counties approved formation of the District. ELCO is a political subdivision of the State of Colorado and is governed and operated in accordance with the Colorado Special Districts Act by an elected five-member Board of Directors (Board).

Until the mid-1990's, ELCO served primarily low-density rural subdivisions, dairies, farmsteads, mobile home parks, motels, rural residential acreages, industrial parks, and two small wholesale water suppliers. ELCO's residential customers were typically subdivisions approved by Larimer County and located primarily along the Colorado Highway 14 corridor between I-25 and the eastern boundary of Fort Collins. Since about 1995, most of ELCO's new customers have been located in developments approved by the City rather than Larimer County.

Land use regulations adopted by the City create very different types of developments from the County-approved developments historically served by ELCO. Approximately 40% of the District's service area is within the corporate boundaries of the City or within its Growth Management Area (GMA). The GMA was originally established by agreement between Larimer County and the City in 1980, and updated in 2000. The two entities entered into an intergovernmental agreement (IGA) that required all land within the GMA to be annexed into the City before development or, if not eligible for annexation, developed under the City's density and service level standards and annexed as soon as it became eligible. Larimer County has also entered into IGAs with the Towns of Wellington and Timnath, both of which have plans to annex lands within ELCO's service area. Development within the District's service area that overlaps with these City and Town areas has and will continue to increase the number of non-residential customers as well as the density of residential dwelling units.

It is projected that by the time the City is completely developed, 90% of the water provided by ELCO will be delivered to homes and businesses within the City of Fort Collins. Accordingly, ELCO has worked closely with the City to ensure that new developments in annexed areas receive water service as efficiently and economically as possible.

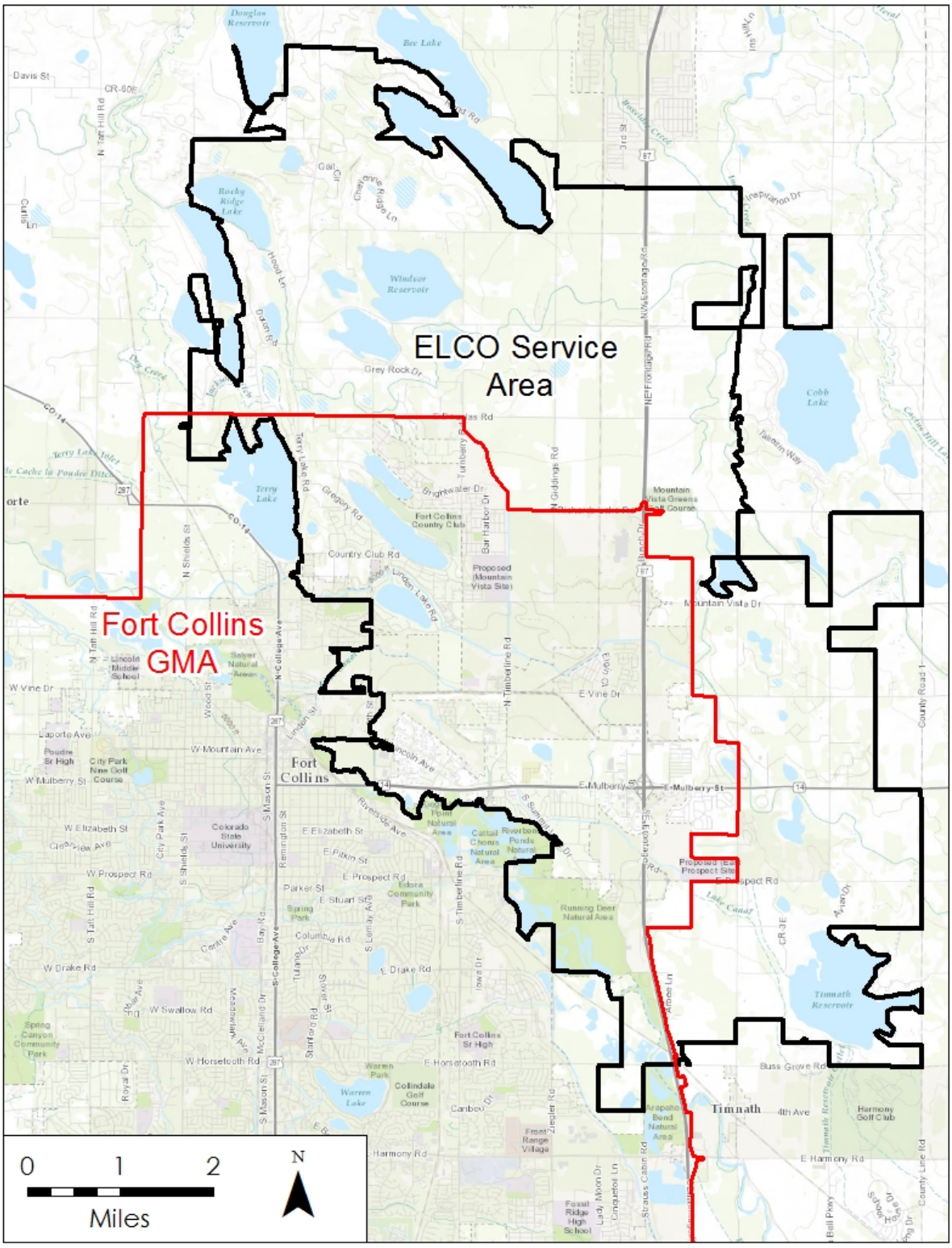

Figure 1. ELCO Service Area Location Map.

ELCO is a "covered entity" as defined by C.R.S. 37-60-126 because its water delivery obligations exceed a total demand of 2,000 acre-feet per year (ac-ft/yr). Covered entities are required to "develop, adopt, make publically available, and implement a plan to …. encourage its domestic, commercial, industrial, and public facility customers to use water more efficiently." ELCO has had a water conservation program in place since 1996 and prepared its first water efficiency plan (WEP) in 2007. This WEP update summarizes the District's previous water efficiency efforts and identifies programs and water efficiency goals moving forward.

1.2 WATER SUPPLY

ELCO and other water suppliers in the Fort Collins area have worked cooperatively to provide high quality and reliable water service to their customers by creating partnerships to jointly construct and operate a number of critical water facilities. ELCO has historically grown at a slower pace than other water providers in the area; therefore, it usually funds projects several years before they might be required to meet the needs of the District. Funding improvements sooner than required is sometimes challenging for the District, but the ELCO Board recognizes the many benefits including lower unit costs through economies of scale, limiting disruption and environmental impacts within the community, improving redundancy and efficiencies, integrating operations with other suppliers, and fostering cooperation among participants.

ELCO historically relied upon Colorado-Big Thompson Project (C-BT) units for the entirety of its supply. However, the construction of the Pleasant Valley Pipeline in 2004 provided the District with the ability to divert other supplies from the Cache la Poudre River (Poudre River). All of ELCO's water supplies are treated at the Soldier Canyon Filter Plant (SCFP), which is a regional water treatment facility owned by ELCO, North Weld County Water District (NWCWD) and Fort Collins-Loveland Water District (FCLWD), collectively referred to as the "Tri-Districts." SCFP is operated under an Amended IGA between the Tri-Districts that own the plant, which establishes SCFP as a separate governmental entity created under the provisions of C.R.S. §29-1-203. The IGA confirms an undivided one-third ownership in the facility by each District and establishes the method of payment for capital improvements and treated water. A Steering Committee consisting of two members from each District governs operations at the SCFP. Through connections with the three Districts that own SCFP, water is also supplied pursuant to wholesale agreements with the Towns of Windsor, Timnath, Severance, Eaton, Ault, and Nunn as well as the Northern Colorado Water Association and Sunset Water District, which are supplied through ELCO's water system.

1.2.1 COLORADO-BIG THOMPSON UNITS

The most reliable and affordable source of water available to ELCO at the time it was created in 1962 was from the C-BT Project. C-BT facilities divert water from the western slope of Colorado to the Front Range to supplement the region's native water supply. It is the largest transmountain water diversion project in Colorado. It was constructed by the Bureau of Reclamation between

1938 and 1957 and imports an average of 213,000 ac-ft/yr to northeastern Colorado for agricultural, municipal and industrial uses.[1]

In 1963, C-BT water could be purchased for $100 per unit from farmers that felt they had more water than they could use. The current market price is approximately $26,000 per unit, as compared to approximately $9,000 per unit at the time the District's prior WEP was completed in 2007. In the sixty years the C-BT Project has operated (1957 – 2016), the average yield has been 0.73 ac-ft/yr per unit, which at current market rates equates to approximately $35,600/ac-ft/yr. C-BT water can still be purchased from farmers and ditch companies; however, the cost is a limiting factor.

1.2.2 Ditch Water Rights

In anticipation of the decrease in availability of C-BT water supplies, ELCO committed funds in 1997 to study the feasibility of a pipeline that would deliver Poudre River water to the SCFP. The project became known as the Pleasant Valley Pipeline and eventually grew into a partnership between the Cities of Greeley and Fort Collins and the Tri-Districts. Construction on the pipeline began in April 2003 and was completed in the spring 2004. Completion of the Pleasant Valley Pipeline allowed ELCO, for the first time since its creation in 1962, to obtain water from the Poudre River.

ELCO has acquired very little water from the C-BT system since completion of the Pleasant Valley Pipeline and instead has secured senior agricultural water rights that have been or will be the subject of a change-of-use application in Water Court. ELCO currently owns and accepts shares in many of the Poudre River ditch companies and the change of use decrees allow these supplies to be diverted for delivery to the SCFP through the Pleasant Valley Pipeline. By contract, ELCO's use of the Pleasant Valley Pipeline is limited to seven months (April through October). Supplies not needed to meet District demands on a given day are diverted for storage or exchanged for water deliverable at a different location or time.

SCFP, Tri-Districts, and the City of Greeley obtained conditional storage water rights for the Overland Trail Reservoirs in Case No. 00CW251. The reservoirs will be a series of lined gravel pits to be located adjacent to the Poudre River near North Taft Hills Road. Four points of diversion are currently decreed for filling the Overland Trail Reservoirs, which are the New Mercer Ditch, Larimer County Canal No. 2, Overland Trail Diversion structure, and Munroe Gravity Canal via the Pleasant Valley Pipeline. Water diverted into the Munroe Gravity Canal can be subsequently diverted in the Pleasant Valley Pipeline.

The total combined average yield of the District's C-BT units and other decreed changed water rights is approximately 5,100 ac-ft/yr with a dry-year yield of approximately 4,300 ac-ft/yr.

[1] http://www.northernwater.org/AboutUs/C-BTHistory.aspx

Approximately 2,400 ac-ft/yr, or 47%, of ELCO's average-year supply is provided by C-BT units with the balance provided from changed water rights.

1.2.3 Non-Potable Irrigation

ELCO incentivizes new customers to employ the use of non-potable irrigation systems through its development fees and raw water dedication requirements. ELCO's customers with non-potable systems utilize well water and/or ditch and reservoir rights for irrigation purposes, which reduces the need for treated deliveries. New developments that install a non-potable irrigation system receive significant reductions in the raw water dedication requirements and system development charges. ELCO performed a survey in 2004 to assess the extent of non-potable use by its customers. Surveys were sent to 900 customers and 582 were completed and returned. The results of customer survey indicated that 12.9% of respondents use well water for irrigation and that an additional 7.4% use ditch or reservoir rights.

The relatively high percentage of customers (approximately 20%) estimated to be using non-potable/raw water for irrigation is a reflection of the rural conditions that historically characterized the District's service area. Many individual lot owners in areas of high groundwater have drilled their own wells. Large estate lots served by ELCO were usually created by subdividing farms that were irrigated with shares in the North Poudre Irrigation Company (NPIC) or high-capacity irrigation wells. It was standard practice in the past to transfer those water rights to individuals or a homeowner's association to provide raw water for landscape irrigation.

1.2.4 Treatment Capacity

Deliveries to ELCO's customers, including the wholesale connections with Northern Colorado Water Association and Sunset Water District, are treated at the SCFP pursuant to the IGA described above in Section 1.2. The two wholesale customers are required to transfer water rights to ELCO to satisfy the raw water demands associated with their treated deliveries. The SCFP was originally constructed in 1961 and is considered a conventional treatment plant in that it uses coagulation, flocculation, filtration, and disinfection (ELCO 2012). The plant has been expanded in various phases to its current nominal capacity of 45 million gallons per day (MGD), which is the combined total available for the Tri-Districts and all wholesale connections.

1.2.5 Supply Limitations and Challenges

ELCO has been experiencing tremendous growth since the mid-1990s and this trend is expected to continue. At the time the 2007 WEP was being prepared, it was believed that the District would be substantially built-out in 2030, due to lands within the City of Fort Collins GMA being projected to be built-out around 2025. Updated projections completed as part of the District's Water System Master Plan (ELCO 2012) indicated that the District would add 3,978 taps by 2030. Rapid growth was experienced between 2012 and 2015 with 835 taps being added over those 4 years, coupled with proposed development plans not represented in the 2012 Master Plan, which

led the District to prepare a Master Plan Supplement in 2015 (ELCO 2015). The Master Plan Supplement was based on service being provided to an additional 8,846 taps compared to the 3,978 projected taps modeled in the 2012 Master Plan. The majority of the additional taps are related to proposed developments located in the area north of Timnath, south of Highway 14, and east of Interstate-25.

The above information highlights the challenges in projecting ELCO's long-term water demands. Forecasts will need to be regularly updated as Towns such as Wellington and Timnath determine the type of development that will be allowed within their adopted GMAs served by ELCO. In response to studies performed by the City of Fort Collins and inclusion of District served areas in the Timnath and Wellington GMAs, ELCO has implemented policies and programs necessary to accommodate the significant rate of growth projected within its service area.

ELCO's Rules and Regulations require developers or other property owners requiring two or more new water taps on separate lots, tracts, or parcels to furnish water rights or the equivalent of water rights (e.g. C-BT units) to the District to satisfy the raw water requirements (ELCO 2013). ELCO does not currently collect cash from developers or new customers to purchase water rights on the open market; however, ELCO created a Water Bank program to facilitate water transfers between sellers and buyers. Willing water right sellers may deposit water rights into the ELCO Water Bank and are provided credits that can be used to satisfy ELCO's raw water dedication requirements based on the yield of the particular supply. The Water Bank credits may be used by the depositor or may be sold to another developer or individual that does not own enough water rights for their project. The dedication requirements ensure that growth will not occur unless adequate supplies are provided; therefore, ELCO is not expected to experience any supply shortages.

The peak day demand at SCFP has averaged 38.6 MGD over the last 5 years, with a maximum daily flow of 40.4 MGD. The capacity of SCFP can be expanded to meet increased demands; however, the exact timing at which available capacity will be exceeded also depends on the demands from NWCWD and FCLWD. Nevertheless, the relatively limited amount of surplus capacity currently available shows that a water efficiency plan may provide opportunities to defer costs associated with infrastructure upgrades.

2. WATER DEMANDS AND HISTORICAL DEMAND MANAGEMENT

Three forecasts were prepared to assess ELCO's treated water demands over the 20-year planning period through 2035. The purpose of these forecasts was to develop a range of reasonable treated demand estimates that reflect the anticipated growth in ELCO's service area and varying degrees of water efficiency. The forecasts were also used to evaluate water savings from water demand management measures that occur both "passively" as a result of compliance with national and state plumbing codes and standards and "actively" as a result of programs and measures selected for implementation by the District.

The first step in the forecasting process was to gather historical data and information on ELCO's treated water demands and past water efficiency activities. Through a careful review of these data and information, a baseline demand forecast was established. Next, historical population data were used to establish the baseline population, and ELCO's planning data were used to forecast customer growth through the 2035 planning period. This section of the Water Efficiency Plan describes historical water demands and demand management efforts in the District.

2.1 SERVICE AREA CHARACTERISTICS

ELCO provides treated water service to approximately 6,865 customer accounts in its service area with an estimated 2015 population of 18,870 people. The District's service area population has been increasing and this trend is expected to continue through the 2035 planning period as further described below in Section 2.7.1.

To better understand water use among its different customers, ELCO uses the following categories to classify its water service accounts.

- Single-Family Residential
- Multi-Family Residential
- Commercial
- Irrigation
- Mobile Home Parks
- Bulk/Hydrant
- Wholesale

A pie chart showing the percentage of customer connections in 2015 by water use sector is provided on Figure 2. Single-family residential accounts are the most prevalent customer type in ELCO's service area, accounting for 90% of all service connections. Commercial customers account for about 6% of connections followed by multi-family with 2%, with irrigation and mobile home combined making up less than 2%. The two wholesale accounts served by ELCO are included in the treated demand forecasting because they utilize a portion of the District's infrastructure; however, these customers were excluded from the analysis of efficiency measures and water savings estimates. Non-potable/raw demands associated with ELCO's customers that have their own supplemental irrigation supplies were not included in the demand forecasting because these sources of supply are not owned or operated by the District.

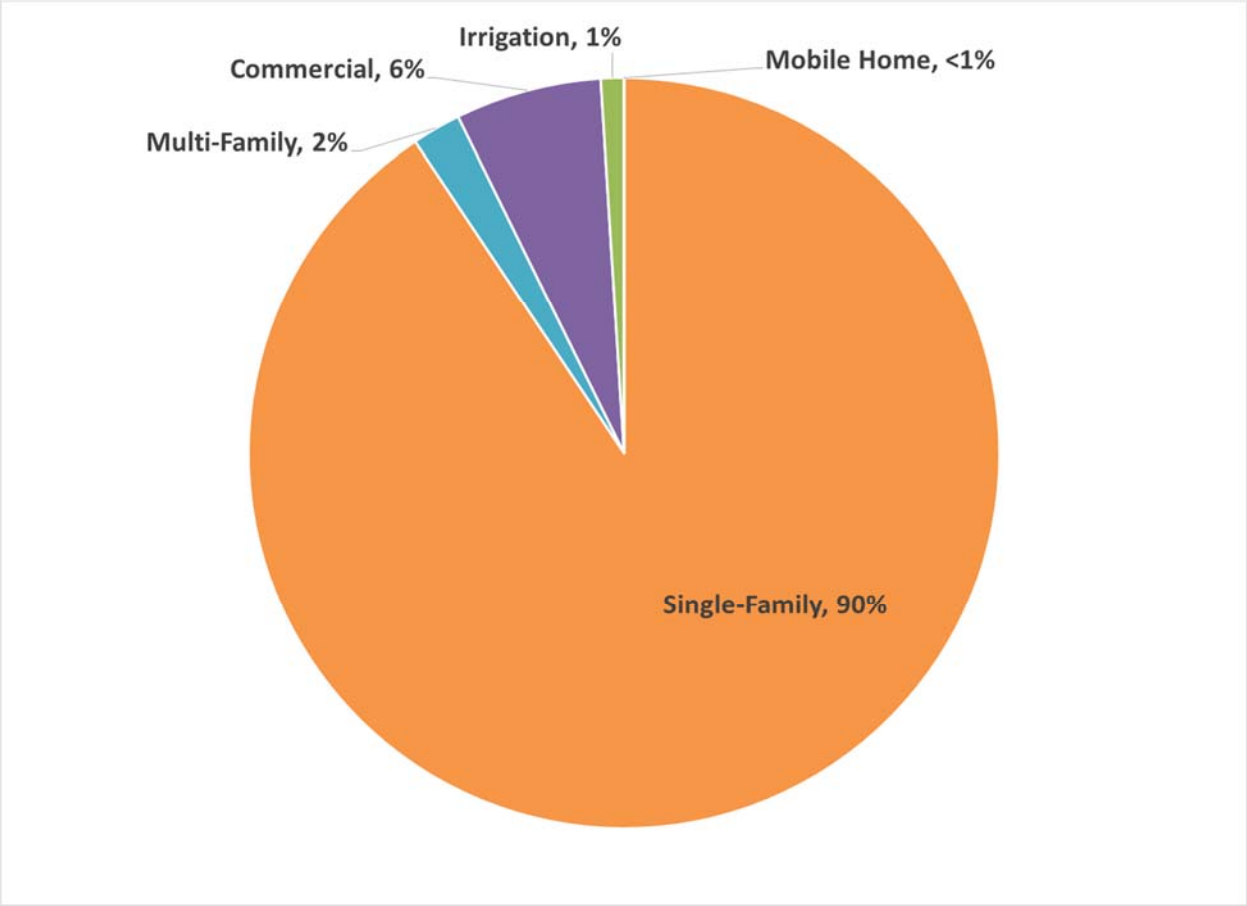

Figure 2. Distribution of ELCO Customer Connections in 2015.

2.2 HISTORICAL WATER DEMANDS

Total billed deliveries to customers within ELCO's service area have been increasing since at least 1999 in response to population growth; however, the normalized average daily use per person, expressed as gallons per capita per day (gpcd), has been declining over the same time period (Figure 3). These trends are consistent with other municipalities throughout Colorado and beyond, and indicates that the District's water efficiency programs, national plumbing codes and standards, and programs like EPA WaterSense are contributing to an overall decrease in per capita water use.

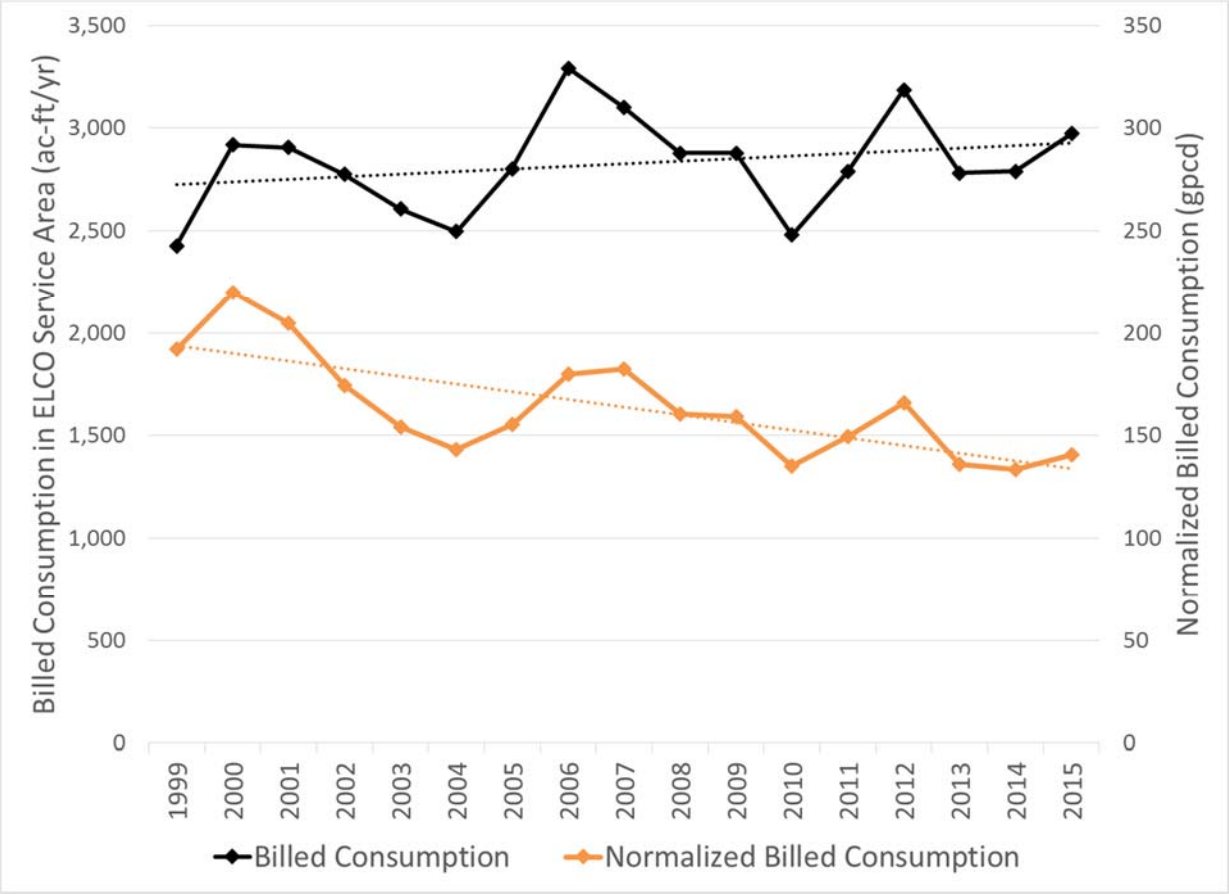

Figure 3. Billed Consumption in ELCO Service Area (no wholesale or bulk), 1999 – 2015.

The total treated billed consumption for ELCO's system ranged from 3,144 ac-ft/yr to 3,605 ac-ft/yr over the last 5 years (Table 1). The baseline population and demand data shown in Table 1 were selected based on recent demands and the best available understanding of water use in ELCO's service area moving forward into the future. The baseline demands are an important component of the three demand forecasts developed in this plan. To assess the adequacy of water supplies and treatment capacity in the future, it is essential to include a representative range of potential future demands that are not biased by the normal fluctuations in demand observed in any individual year. Therefore, the baseline water demand values were based on the 5-year average except for the bulk/hydrant customer class which was based on the 4-year average from 2011 – 2014 to exclude abnormal usage in 2015. Bulk/hydrant customers are temporary users that are approved on a case-by-case basis; therefore, the District has the ability to limit demands based on the availability of supplies.

Table 1. Annual Billed Consumption from 2011 through 2015 and Baselines for Forecasting (ac-ft/yr unless noted otherwise).

Year	ELCO Water Customers							Other Sales		Total
	Population (#)	Single-Family Residential	Multi-Family Residential	Commercial	Irrigation Only	Mobile Home Parks	**Sub-Total**	Wholesale	Bulk/ Hydrant	
2011	16,667	1,947	98	442	105	196	**2,789**	352	3	3,144
2012	17,154	2,323	109	466	119	170	**3,186**	409	10	3,605
2013	18,243	1,981	100	435	92	173	**2,781**	352	12	3,145
2014	18,687	1,889	98	451	100	253	**2,790**	414	7	3,211
2015	18,873	2,048	107	484	116	217	**2,972**	365	217	3,555
Baseline	**17,925**	**2,038**	**102**	**456**	**106**	**202**	2,904	**378**	**8**	**3,290**

Annual indoor (non-seasonal) water use was estimated using a standard average winter consumption (AWC) approach that relies on monthly data from November, December, and January when there is generally no outdoor use. Annual outdoor (seasonal) water use was then calculated as the difference between total billed consumption and the estimated indoor use. The results of this analysis indicate that, on average, treated indoor and outdoor use in ELCO's service area are approximately equal (Table 2); however, the outdoor values are being skewed downward by the approximately 20% of customers that also use raw/non-potable supplies for irrigation. As would be expected, treated outdoor usage tends to be higher in dry and hot years such as 2012 (Table 2).

Table 2. Treated Indoor and Outdoor Billed Consumption in ELCO Service Area, 2011 - 2015.

Year	Indoor (ac-ft/yr)	Outdoor (ac-ft/yr)	Indoor (%)	Outdoor (%)	Annual Precip. (in)	Avg. Annual Temp (°F)
2011	1,433	1,356	51%	49%	17.5	49.1
2012	1,329	1,857	42%	58%	8.6	52.2
2013	1,392	1,389	50%	50%	18.8	48.7
2014	1,360	1,431	49%	51%	16.1	48.8
2015	1,539	1,434	52%	48%	18.1	50.7
5-Yr Avg.	**1,410**	**1,493**	**49%**	**51%**	-	-

ELCO's billed consumption data were further disaggregated by customer class to assist with the evaluation of potential demand management programs (Table 3). The results indicate that outdoor use by mobile home and multi-family residential customers is typically only 10% and 15%, respectively. The District indicated the low outdoor percentages are related to multi-family properties now being required to have an additional irrigation-only tap and mobile home parks typically having a relatively small amount of landscaping.

Table 3. Treated Indoor and Outdoor Percentages by Customer Class.

Customer	Indoor	Outdoor
Single-Family	41%	59%
Multi-Family	85%	15%
Commercial	66%	34%
Irrigation	0%	100%
Mobile Home	90%	10%

As with most municipalities in Colorado, ELCO's demands are higher during summer months due to outdoor irrigation and other seasonal water uses. Figure 4 shows the average monthly billed consumption over the past 5 years from 2011 through 2015 by water use sector versus the mean monthly temperature (WRCC 2016). As a result of outdoor water use, all water use sector demands increase during summer months from June through October when temperatures are higher. The ratio of peak monthly single-family usage to AWC is 5.0 as compared to values of 1.6 for multi-family, 2.4 for commercial, and 1.4 for mobile home parks. Single-family residential

customers have the largest volumetric demands (Figure 4 and Figure 5) and the highest peak month factor, which indicates that this customer class is the key driver with respect to the District's water supply and treatment capacity requirements.

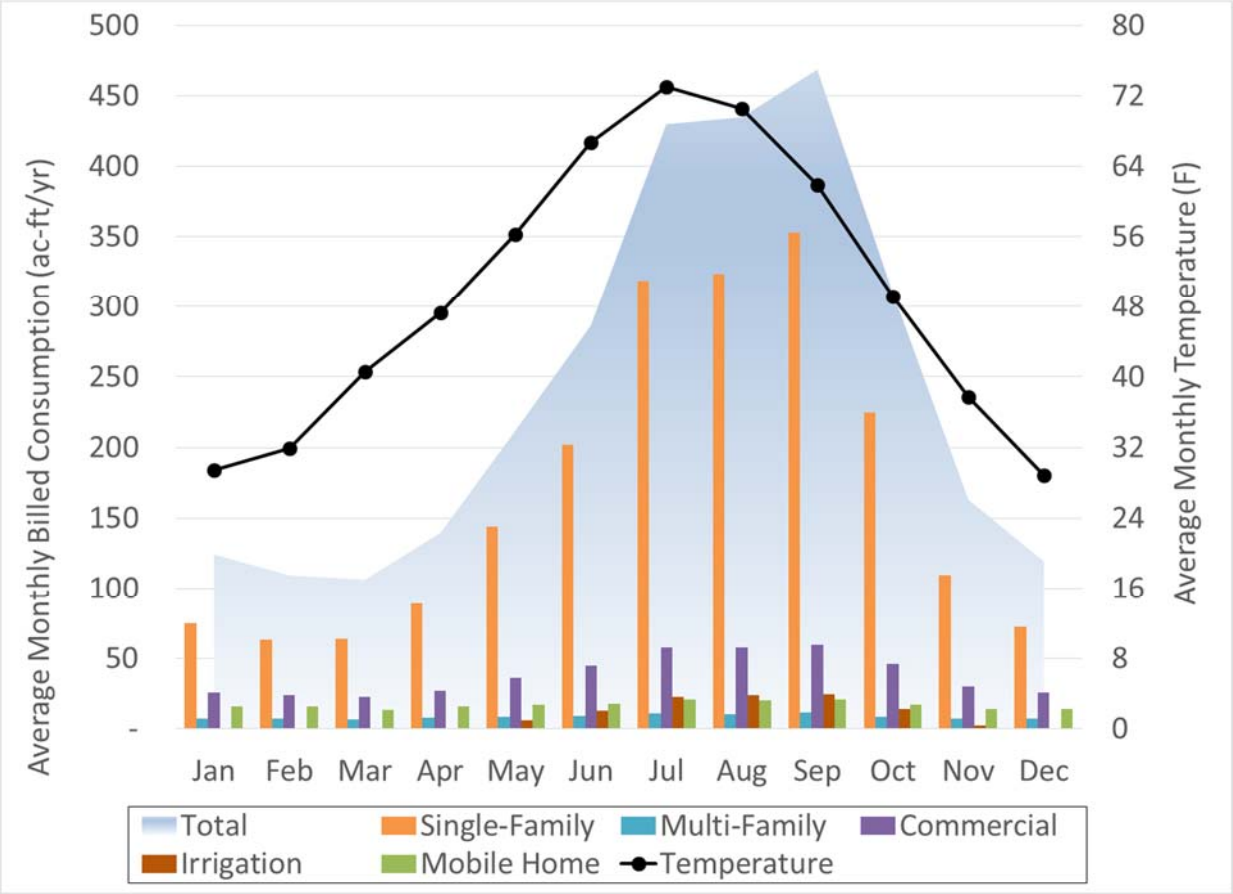

Figure 4. Average Monthly Billed Consumption by Customer Class, 2011 - 2015.

In 2015, single-family residential water use accounted for approximately 69% of ELCO's total annual treated water demand (Figure 5). Commercial customers accounted for 16% of the treated demand, and the other categories (multi-family, irrigation, and mobile home) accounted for the remaining 15% (Figure 5). Figure 5 also shows that the distribution of ELCO's sectoral demands are also very consistent between years.

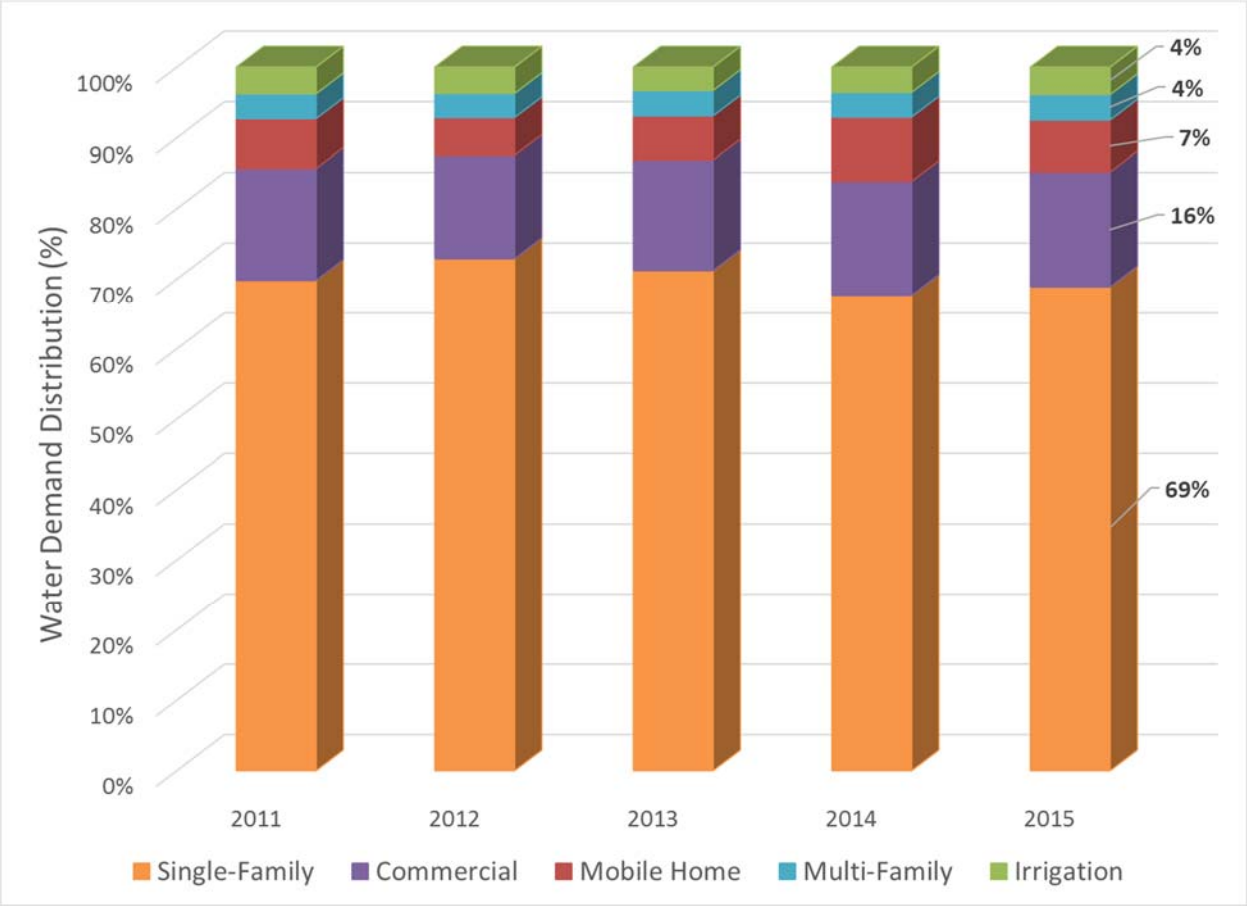

Figure 5. Distribution of Billed Consumption by Customer Class.

It is important to note that the values presented in this section reflect only treated water deliveries within ELCO's service area. The treated water deliveries to wholesale customers and bulk/hydrant water sales were included in the forecasting completed as part of this Water Efficiency Plan, but are not part of the efficiency measures or water savings estimates. Independently-owned raw water supplies used by ELCO customers for irrigation use were not included in the forecasting or as part of the efficiency measures and water savings estimates.

2.3 ANNUAL WATER ALLOTMENT

ELCO currently bills its customers on a monthly basis using a 2-tier rate structure where the 2nd tier threshold is based on an annual volumetric allotment that is tied to the raw water dedication requirements for new service connections. The annual allotment is analogous to a combined annual water budget for indoor and outdoor uses. The District originally required a raw water dedication of 1 C-BT unit per residential unit and these customers were given an allotment of 240,000 gallons/year (gal/yr). Since 2000, the annual allotment for single-family residential customers has been based on lot size (Table 4), which includes 70,000 gal/yr for indoor use regardless of size or occupancy.

Table 4. Single-Family Residential Annual Water Allotment.

Lot Size	Annual Allotment (gal/yr)		
(sq-ft)	Indoor	Outdoor	Total
3,000 - 4,999	70,000	44,000	114,000
5,000 - 6,999	70,000	62,000	132,000
7,000 - 8,999	70,000	80,000	150,000
9,000 - 10,999	70,000	98,000	168,000
11,000 - 12,999	70,000	116,000	186,000
13,000 - 14,999	70,000	134,000	204,000
15,000 - 16,999	70,000	152,000	222,000
17,000 - 18,999	70,000	171,000	241,000
19,000 - 20,999	70,000	189,000	259,000
21,000 22,999	70,000	207,000	277,000
over 23,000	70,000	226,000	296,000

The annual allotment for multi-family and mobile home customers is 60,000 gal/yr/unit and 100,000 gal/yr/unit, respectively. The annual allotment for irrigation customers is determined using a site-specific landscape plan based on 20 gal/yr per square foot (sq-ft) of turf area and 10 gal/yr/sq-ft of mulched planting area. The allotment for commercial accounts is based on tap size with 240,000 gal/yr provided for a 3/4" tap, 672,000 gal/yr for 1", and 1,440,000 gal/yr for 1-1/2"; allotments for taps 2" and larger are calculated based on water use.

Consumption in excess of a customer's annual allotment is assessed an additional "conservation charge" per 1,000 gallons of use in excess of the allotment. The District uses this rate structure to incentivize customers to manage their demands to be consistent with the volume of raw water dedicated for a given tap. Usage above the annual allotment places additional and unplanned demands on the District's infrastructure and water resources.

Five years of consumption data from 2011 through 2015 were analyzed to evaluate usage trends in relation to the District's annual allotment program. On average, approximately 13% of single-family accounts exceed their annual allotment (Table 5), which is a substantial reduction from the value of 28% reported in the District's 2007 WEP (ELCO 2007). Approximately 22% of "non-residential" customers (sum of irrigation and commercial) exceed their allotment, which is a small reduction from the 27% reported in the 2007 WEP. However, a closer examination of non-residential customers shows that 49% of irrigation accounts exceed their allotment as compared to 19% of commercial accounts. The proportion of accounts exceeding the allotment is fairly consistent between years, although exceedance increases slightly in hot and dry years such as 2012.

Table 5. Proportion of Customer Accounts Exceeding Annual Allotment.

Customer Type	2011	2012	2013	2014	2015	Average
Single-Family	13%	21%	10%	9%	11%	**13%**
Multi-Family	6%	17%	3%	5%	6%	**7%**
Non-Residential	22%	26%	21%	20%	23%	**22%**
Commercial	18%	21%	17%	17%	19%	**19%**
Irrigation	46%	56%	46%	44%	50%	**49%**
Mobile Home	50%	64%	57%	57%	43%	**54%**

In 2015, District-wide consumption in excess of the annual allotments totalled 335 ac-ft (Table 6), which is about 11% of the total annual billed consumption within ELCO's service area. Approximately 69% of pre-2000 customers with the generic allotment of 240,000 gallons per year exceed their allotment every year, and these customers account for 82 ac-ft/yr of 2015 consumption in excess of the annual allotments. On average, approximately 86% of all accounts use less than their annual allotment; therefore, the District's total demands have been less than the total supply provided through raw water dedication requirements. Nevertheless, the results in Table 6 indicate that there may be potential to achieve water savings by reducing usage in excess of the annual allotments. Potential programs related to this effort are presented below in Section 4.

Table 6. 2015 Consumption in Excess of Annual Allotment.

Parameter	Commercial	Irrigation	Mobile Home	Multi-Family	Single-Family	Total
(ac-ft/yr)	138	47	24	2	124	335
(% of Total)	41%	14%	7%	1%	37%	-
Accounts Exceeding (#)	82	34	6	8	683	813
(ac-ft/yr/account)	1.68	1.39	4.04	0.21	0.18	-

2.4 SEASONAL AND PEAK DAY DEMANDS

A summary of ELCO's total annual and peak water production values at the SCFP from 2011 through 2015 is presented in Table 7. Over the last five years, ELCO's peak maximum day production was 9.78 MGD. ELCO's average daily treated water production has been 3.68 MGD and the peak day production has averaged 8.19 MGD. This indicates that ELCO experiences an average peaking factor of approximately 2.3, although it is possible that higher system losses in recent years, as discussed in the following section, are skewing the average downward. Accordingly, a peak day factor of 2.6 has been used for forecasting future maximum daily demands in this Water Efficiency Plan based on data from 2011 – 2012 and direction from District staff.

Table 7. Annual and Daily Potable Production at SCFP.

Year	Annual (ac-ft/yr)	Annual (MG/yr)	Average Daily (MGD)	Maximum Daily (MGD)	Peaking Factor	Peak Day
2011	3,442	1,122	3.07	9.78	3.18	August 2
2012	4,322	1,408	3.85	8.13	2.11	June 18
2013	4,076	1,328	3.64	8.59	2.36	June 27
2014	4,029	1,313	3.60	6.41	1.78	July 9
2015	4,764	1,552	4.25	8.05	1.89	August 12
Averages	**4,127**	**1,345**	**3.68**	**8.19**	**2.27**	-

2.5 System Water Losses

The District annually contracts with a professional leak detection firm that utilizes sophisticated listening equipment to test for leaks over approximately 20% to 25% of the system per year. District staff also compare production data to meter readings on an ongoing basis. Repairs are then made based on these analyses. District staff also inspect service connections and meters for customers with a suspected leak. A comparison of annual water production at SCFP and total billed consumption, including wholesale and bulk/hydrant, over the last 5 years indicates an average water loss of 18.7% (Table 8).

Table 8. Comparison of Treated Production and Total Billed Consumption (ac-ft/yr unless noted otherwise).

Year	SCFP Production	Billed Consumption	Water Loss	Water Loss (%)
2011	3,441	3,144	297	8.6%
2012	4,322	3,605	716	16.6%
2013	4,075	3,145	930	22.8%
2014	4,028	3,211	817	20.3%
2015	4,763	3,555	1,208	25.4%
Average	4,126	3,332	794	18.7%

The reduction of system water losses has been a primary focus of the District's demand management program for over 10 years. As described in the 2007 WEP, the District reduced system losses from approximately 25% to 10% from 2004 through 2007, which is a remarkable improvement. System losses have increased in recent years and there have been challenges in promptly identifying and repairing leaks with no surface indicators due to extremely porous soils. The District recently repaired several large leaks that are expected to reduce system losses; however, the five year average of 18.7% was used as a baseline value in this water efficiency plan.

2.6 Past and Current Demand Management Activities and Estimated Water Savings

ELCO's demand management program dates back to 1996. The program has included conservation-based rate and tap fee structures, leak detection and repair, targeted technical assistance and incentives, and public outreach and education. The past and current demand management activities demonstrate the District's commitment to water use efficiency, as many of the most essential municipal water conservation program measures have already been implemented.

ELCO's average system-wide water consumption was approximately 180 gpcd in 2006 (ELCO 2007). ELCO's system-wide consumption has averaged 145 gpcd from 2011 – 2015, which is a reduction of almost 20% as compared to the usage in 2006. A hypothetical demand forecast was used to estimate water savings achieved by ELCO using the observed change in gpcd and the current population. This analysis showed that passive savings and the District's demand management efforts have reduced consumption by 730 ac-ft/yr relative to what would have been experienced if normalized consumption had not decreased since 2006. The District's 2007 conservation plan called for a total savings of 572 ac-ft/yr by 2016; therefore, ELCO has achieved (and exceeded) their previous conservation goal.

Approximately 200 ac-ft/yr of water savings are estimated to be attributable to passive efficiency with the balance of 530 ac-ft/yr being achieved through the District's active demand management programs. ELCO does not discretely track water savings by demand management program. Therefore, water savings were estimated based on the District's qualitative assessment of program effectiveness coupled with the *Colorado Waterwise Guidebook of Best Practices for Municipal Water Conservation in Colorado* (Table 9). The majority of savings have been attributed to the ongoing meter replacement program and conservation-oriented rates. These overlapping programs are yielding more accurate billing, which results in customers being charged for their actual consumption and improves the District's revenue recovery.

Table 9. Estimated Breakdown of Savings since 2006.

Water Efficiency Activities	Estimated Active Water Savings (ac-ft/yr)
Meter Replacement Program	210
Conservation-Oriented Rates	210
Temporary Irrigation Tap Program	0
Sprinkler Audits	20
Commercial, Institutional, and Industrial Water Efficiency	10
Waste of Water Ordinance*	0
Raw Water Dedication Requirements	80
TOTAL SAVINGS SINCE 2006 (ac-ft/yr)	**530**

*No savings because no enforcement and program has not been actively communicated to customers.

2.7 DEMAND FORECASTS

Three separate demand forecasts were prepared as part of this Water Efficiency Plan:

1. Baseline
2. Passive
3. Passive and Active ("Active")

The baseline forecasting method used historical demand patterns to establish baseline normalized demands and then to project demands out to 2035 based on population changes, assuming the normalized demands remain representative. The baseline forecast did not include the impact of any additional water demand reductions. It was developed only to evaluate future demands if population increases and the unit rate of water use remains the same as current conditions, and to demonstrate the impact of anticipated efficiency improvements. In the baseline forecast, all treated water demands (indoor and outdoor) increase proportionally with the population at the current rate of usage. Treated water demands bulk/hydrant customers were held constant in all forecasts at 8 AF/yr in all forecasts (Table 1). Demands for the two wholesale customers were set to a starting value of 378 AF/yr based on recent consumption (Table 1) and then increased linearly to 496 ac-ft/yr in 2035 to reflect potential growth as estimated by the District. This is a standard approach to demand forecasting, but it does not take into consideration the expected impacts of water efficiency measures.

The passive and active forecasts were developed using a more robust approach, where demands were separated by customer category (i.e. single family, multi family, mobile home, commercial, and irrigation), with seasonal and non-seasonal demands (outdoor and indoor) disaggregated for each category. A separate demand forecast was prepared for indoor and outdoor demand in each customer class. This allowed the impacts of specific water efficiency measures like high-efficiency fixtures/appliances and irrigation management to be considered. The passive forecast includes the impact of passive efficiencies from Colorado legislation, and federal plumbing codes and standards. The active forecast includes the anticipated impact from the District's planned water efficiency program measures described in this plan.

These three forecasts form the core of the water efficiency plan and are the forecasts upon which estimated water savings are based. Each forecast shows demand starting in 2016 and going through the planning horizon of 2035 (20 years). The costs and benefits associated with these scenarios are considered in the next section of this plan document. The forecasts are presented graphically in Figure 6 and further described in the sections below.

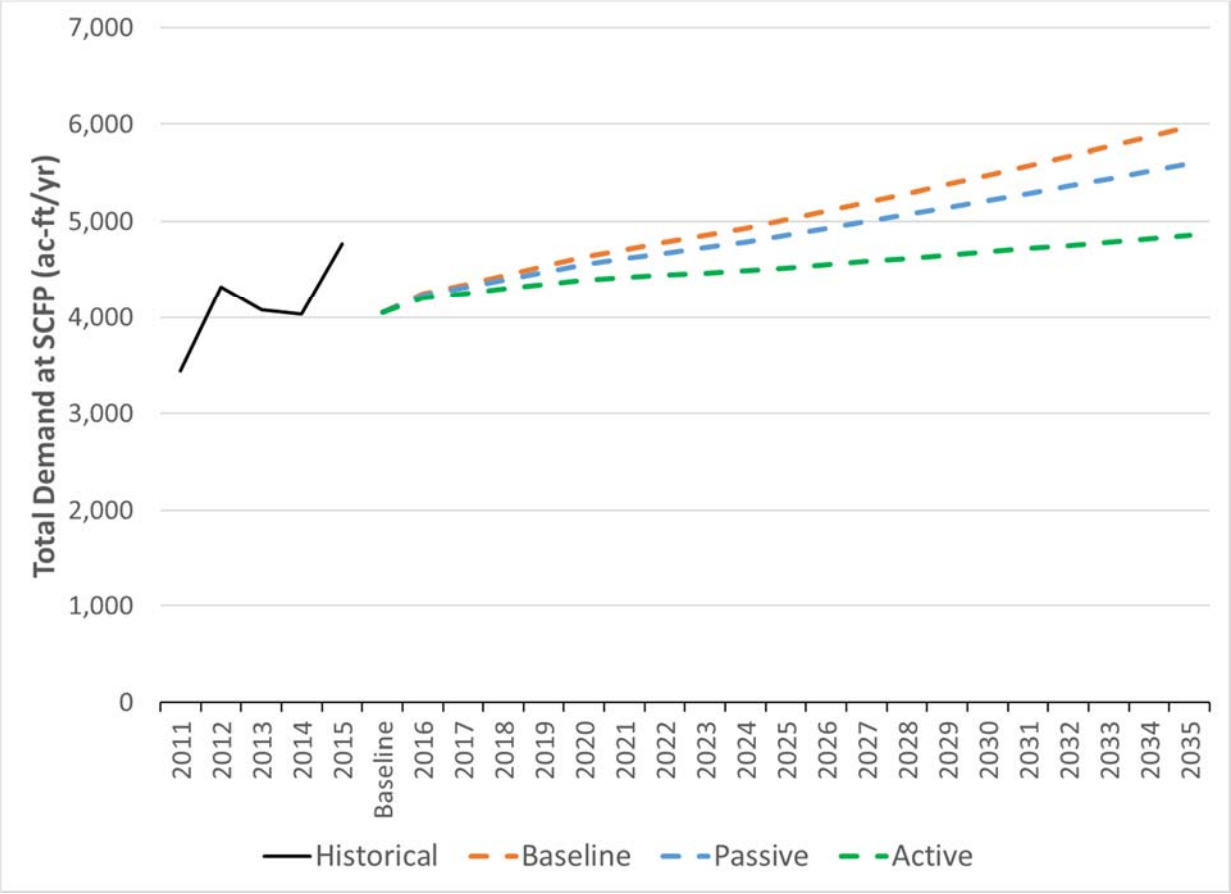

Figure 6. Demand Forecasts.

2.7.1 Population Planning Projections

The 2007 WEP estimated that ELCO's service area population was 16,300 in the year 2006 and that the population at build-out would be 47,000 people. Data provided by ELCO indicates that there was little population growth between 2006 and 2010, due to the economic recession; however, the estimated population has grown by approximately 2,500 people from 2010 through 2015. This equates to an average growth rate of 3.1% per year, with growth between 2012 and 2013 being almost 6.0% (Table 10).

ELCO provided a planning projection of its service area population through 2024, which resulted in an average annual growth rate of approximately 2.2% over that period. An annual growth rate of 2.0% was then used to estimate the population through the 2035 planning period being considered in this Water Efficiency Plan.

Table 10. Historical and Forecasted ELCO Service Area Population.

Year	Population	Growth Rate (%/yr)	Information Source
2009	16,148	-	Historical
2010	16,368	1.3%	
2011	16,667	1.8%	
2012	17,154	2.8%	
2013	18,243	6.0%	
2014	18,687	2.4%	
2015	18,873	1.0%	
2016	19,064	1.0%	ELCO Cash Flow Analysis
2017	19,580	2.6%	
2018	20,096	2.6%	
2019	20,612	2.5%	
2020	21,128	2.4%	
2021	21,515	1.8%	
2022	21,902	1.8%	
2023	22,289	1.7%	
2024	22,676	1.7%	
2025	23,129	2.0%	Long-Term Planning Value
2030	25,537	2.0%	
2035	28,195	2.0%	

As discussed above in Section 1.2.5, it is challenging to accurately predict ELCO's population growth due to ongoing revisions to land use planning within the District's service area. Nevertheless, the projected population values in Table 10 are considered to be appropriate for the 20-year forecast period being used in this plan, and the District intends to make adjustments to the planning values in any updates to the Master Plan as well as in the next updates to its water efficiency plan that will be completed no later than 2023.

2.7.2 Baseline Forecast

The concept of the baseline forecast is to exclude additional conservation of any kind (beyond what has already been observed) and to simply assume that typical baseline treated water demand patterns (i.e. observed from 2011 through 2015) are continued into the future without change. It is also assumed that typical water demands for the District will change proportionally with increases in population. This assumes new customers joining the system use water identically to the current customer base. The fundamental purposes of the baseline forecast are to provide an upper bound of future water demands (i.e. no additional demand management), and to demonstrate the anticipated impact of water efficiency from both passive and active conservation programs. The baseline forecast is presented on Figure 6.

Key assumptions in the baseline forecast include:

- Baseline treated water use patterns (Table 1).
- Population forecast (Table 10).
- Treated water use in all sectors, both seasonal and non-seasonal, changes proportionally with the population.
- Water losses are equal to historical average of 18.7%.
- Outdoor water use impacts from temperature and precipitation in 2035 are similar to 2015 (i.e. no effects of additional climate change).
- Annual demands for wholesale and bulk/hydrant customers are initially 386 AF/yr and increase linearly by 100 ac-ft/yr by 2035.

ELCO's baseline treated water demands at SCFP, including water loss, totaled 4,050 ac-ft/yr and are projected to increase to 5,980 ac-ft/yr in 2035. Peak daily demands at SCFP are projected to be 13.9 MGD in 2035.

2.7.3 PASSIVE FORECAST

A second treated water demand forecast was prepared to assess the impact of anticipated passive efficiencies from Colorado legislation, federal plumbing codes, and other standards on a sector-by-sector basis for both indoor and outdoor use. Colorado Senate Bill 2014-103, which was passed in 2014 and phases out the sale of low-efficiency lavatory faucets, showerheads, flushing urinals, and tank-type toilets, is an example of local legislation that is accounted for in the forecast of passive conservation. The passive forecast is presented on Figure 6.

Key assumptions in the passive forecast include:

- Baseline treated water use patterns (Table 1).
- Population forecast (Table 10).
- Outdoor water use for residential sectors increases proportionally with the population.
- Outdoor water use for commercial and irrigation customers increases proportionally with the number of accounts.
- Outdoor water use impacts from temperature and precipitation in 2035 are similar to 2015 (i.e. no effects of additional climate change).
- Average decrease of 0.9% per year in residential indoor per capita water use to reflect continuing trends of the past 15 years (see Figure 3) and recent Colorado legislation under Senate Bill 14-103 that phases in the sale of WaterSense labeled faucets, showerheads, toilets, and urinals starting on September 1, 2016. For single-family residential indoor, this equates to a reduction from 52.5 gpcd in 2015 to 43.9 gpcd in 2035.
- Average decrease of 0.25% per year in commercial indoor use from ongoing replacement of fixtures, appliances and equipment and new Colorado legislation assuring high-efficiency plumbing in new construction.
- Water losses are equal to historical average of 18.7%.

- Annual demands for wholesale and bulk/hydrant customers are initially 386 AF/yr and increase linearly by 100 ac-ft/yr by 2035.

Under the passive forecast, ELCO's demand at SCFP is projected to be 5,600 ac-ft/yr in 2035, which is a reduction of approximately 380 ac-ft/yr or 6.3% in the year 2035 as compared to the baseline forecast. Peak daily demands at SCFP are projected to be 13.0 MGD in 2035, which is a reduction of 0.9 MGD as compared to the baseline forecast.

2.7.4 Active Forecast

A third forecast was prepared that includes the anticipated impact of the District's selected water efficiency program measures described below in Section 3. The active forecast is presented on Figure 6.

Key assumptions in the active conservation forecast include:

- Baseline treated water use patterns (Table 1).
- Population forecast (Table 10).
- Outdoor water uses increases proportionally with the population or number of accounts, but is reduced by an average of 0.25% per year due to a combination of factors including: ELCO's conservation-oriented rate structure which charges higher rates for outdoor use, irrigation efficiency improvements and irrigation audits, new ordinances and regulations targeted at reducing outdoor water use, and the District's ongoing education and information efforts. Irrigation-only accounts are reduced by an additional 0.25% per year to reflect increased participation in the District's temporary tap program.
- Outdoor water use impacts from temperature and precipitation in 2035 are similar to 2015 (i.e. no effects of additional climate change).
- Average decrease of 1.0% per year in residential indoor per capita water use to reflect ELCO's active conservation program and recent Colorado legislation under Senate Bill 14-103 that phases in the sale of WaterSense labeled faucets, showerheads, toilets, and urinals starting on September 1, 2016. For single-family residential indoor, this equates to a reduction from 52.5 gpcd in 2015 to 43.0 gpcd in 2035.
- Average decrease of 0.5% per year in commercial indoor use to reflect ELCO's active conservation program and ongoing replacement of fixtures, appliances and equipment and new Colorado legislation assuring high-efficiency plumbing in new construction.
- System water losses are gradually reduced to 10%.

If the elements of this plan are fully realized, then it is estimated that water demand at SCFP in 2035 will be reduced to 4,860 ac-ft/yr. This is a reduction of approximately 740 ac-ft/yr as compared to the passive forecast and 1,120 ac-ft/yr of savings relative to the baseline forecast. Peak daily demands at SCFP are projected to be 11.3 MGD in 2035 under the active forecast, which is a reduction of almost 1.7 MGD as compared to the passive forecast.

3. SELECTION OF WATER EFFICIENCY ACTIVITIES

ELCO considered a variety of water efficiency programs and measures before selecting the final components for inclusion in this plan, which were used to develop the active efficiency program forecast included in the previous section. An iterative process was used, with efficiency measures screened using a variety of criteria including:

- Applicability
- Effectiveness
- Feasibility and practicality
- Water savings and estimated costs

The District utilized the CWCB's *Municipal Water Efficiency Plan Guidance Document* (CWCB 2012) and the *Colorado Waterwise Guidebook of Best Practices for Municipal Water Conservation in Colorado* (CWW 2010) to inform and guide the development of this water efficiency plan, including the activity selection worksheets to assist in the screening process. Through this process, the District developed a goal of reducing treated demands by 740 ac-ft/yr in the year 2035 as compared to the passive forecast.

3.1 SUMMARY OF THE SELECTION PROCESS

The District implemented a tiered screening and selection process for evaluating potential water efficiency activities. Existing activities were included in the list of measures and were expected to continue as part of the ongoing water efficiency program unless specifically noted below.

Initial Screening. An initial screening was conducted by ELEMENT Water Consulting, using the CWCB screening and evaluation worksheets (CWCB 2012) and the Colorado Waterwise Guidebook of Best Practices (CWW 2010) as the key technical resources, along with professional experience. Activities that passed the initial screening were assembled and passed along to District staff for screening.

Final Screening. The final level of screening and selection of water efficiency activities was made by District staff with subsequent approval by the Board of Directors. Activities selected during the final screening were then used to estimate the anticipated savings associated with the District's water efficiency program.

3.2 WATER EFFICIENCY ACTIVITIES

ELCO has had a water conservation program in place since 1996, which includes many of the most important demand management programs. A summary of new and updated water efficiency activities selected for inclusion in this plan is presented in Table 11. Each measure is described in more detail in the sections below.

Table 11. New and Updated Water Efficiency Activities and Water Savings Estimates.

Water Efficiency Activities	Sectors Impacted	Projected Active Water Savings in 2035 (ac-ft/yr)
FOUNDATIONAL ACTIVITIES		
Meter Replacement Program	All	580
Enhanced Water Loss Control	All	
Conservation-Oriented Rates	All	80
Temporary Irrigation Tap Program	Non-Res, outdoor	10
TARGETED TECHNICAL ASSISTANCE AND INCENTIVES		
Sprinkler Audits	All, outdoor	30
Commercial, Institutional, and Industrial Water Efficiency	Non-Res, indoor	20
ORDINANCES AND REGULATIONS		
Waste of Water Ordinance Update	All	20
Landscape and Irrigation Regulations	All, outdoor	
EDUCATION AND OUTREACH		
Public information, customer outreach and education	All	-
Community outreach event participation	All	
Newsletter and utility billing inserts	All	
TOTAL SAVINGS IN 2035 (ac-ft/yr)		**740**

3.2.1 Foundational Activities

3.2.1.1 Metering

A quality metering program is fundamental to the success of water management efforts. Colorado statute requires all water providers to meter the water use of their customers and to bill based on metered consumption. ELCO meters 100% of connections (including all District facilities) and the Rules and Regulations prohibit the provision of any free water service (ELCO 2013). Staff read meters on a monthly basis between the 1st and 15th of the month and the District is in the process of expanding meter reading capabilities from hand-held to remote radio readers. The District began the process of replacing mechanical meters with more accurate magnetic meters around 2012 and estimates that approximately one-third of meters have been upgraded to-date. The District intends to continue the meter replacement program until all meters have been replaced. The District then plans to replace meters every 10 years to facilitate the collection of accurate consumption data. This program is a key component of the District's plan to meet its goal of reducing water system losses to be consistently less than or equal to 10%.

3.2.1.2 Enhanced Water Loss Control

Leak detection and water loss control are also fundamental water efficiency practices for all water utilities. As discussed above in Section 2.5, ELCO's system loss was calculated to be greater

than 20% during each of the last 3 years, which is high as compared to other Colorado utilities that have achieved losses less than 10% (CWCB 2009). The 2007 WEP estimated that ELCO's system losses were approximately 10%, and data from 2011 shows that the District's losses were less than 9% (Table 8). System losses have increased in recent years due to challenges in being able to promptly identify and repair leaks because there are often no surface indicators due to extremely porous soils. The District recently repaired several large leaks that are expected to reduce system losses; however, the recent trends highlights the importance of an aggressive water loss control program in ELCO.

A key focus of the District's demand management program is to improve its overall water loss control and accountability by implementing an annual water audit using the AWWA M36 Water Audits and Loss Control Programs methodology and the free AWWA water loss control Excel spreadsheet software. This program will further assist the District in managing its water by categorizing all water uses and identifying real losses that directly impact revenue, as shown in Figure 7 below. Staffing resources have been a limiting factor for implementing the AWWA water audit, but the District has identified this as a high-priority program to assess water losses and evaluate the cost of real and apparent losses to the utility. The AWWA M36 audit is a critical tool for informing water loss control programs and understanding where best to apply water loss control resources, and when coupled with the District's ongoing leak detection surveys, will help achieve the District's goal of reducing water system losses to be consistently less than or equal to 10%.

<table>
<tr><td rowspan="11">Total System Input (Own Sources and Imports)</td><td rowspan="3">Authorized Consumption</td><td rowspan="2">Billed Authorized Consumption</td><td rowspan="2">Revenue Water</td><td>Billed Metered Consumption</td></tr>
<tr><td>Billed Unmetered Consumption</td></tr>
<tr><td rowspan="2">Unbilled Authorized Consumption</td><td rowspan="9">Non-Revenue Water</td><td>Unbilled Metered Consumption</td></tr>
<tr><td>Unbilled Unmetered Consumption</td></tr>
<tr><td rowspan="8">Water Losses</td><td rowspan="3">Apparent Losses</td><td>Unauthorized Consumption</td></tr>
<tr><td>Customer Metering Inaccuracies</td></tr>
<tr><td>Systematic Data Handling Errors</td></tr>
<tr><td rowspan="5">Real Losses</td><td>Leakage on Mains</td></tr>
<tr><td>Leakage and Overflows from Storage</td></tr>
<tr><td>Leakage on Service Lines</td></tr>
</table>

Figure 7. AWWA M36 Audit Water Audits and Loss Control Categories.

3.2.1.3 Conservation-Oriented Rate Structure and Tap Fees

Rates

As described above in Section 2.3, ELCO currently bills its customers on a monthly basis using a two-tier inclining block rate structure (Table 12). The threshold between the first and second tier is based on the customer-specific "annual allotment" which is analogous to a water budget.

ELCO's rate structure meets the definition of a "conservation-oriented rate structure" from both the *Colorado Best Practices Guide for Municipal Water Conservation* and the AWWA/ANSI *G480 Water Conservation Program and Management Standard*.

Table 12. Single-Family Residential Water Rates Effective September 1, 2015.

Rate Tier	Rate ($/kgal)
Tier 1 - up to Annual Allotment	$3.02
Tier 2 - Conservation Charge*	$2.75
Minimum Monthly Charge (3/4-inch)	$18.90

*Total rate is $5.77/kgal after the annual allotment is exceeded.

The District is in the process of evaluating its annual allotments relative to the annual use based on actual metered data. The District Board will determine whether any modifications are necessary to the annual allotments in 2017, and the District plans to periodically evaluate its annual allotments using metered consumption data. The District will also evaluate potential benefits of modifying its rate structure to be better aligned with monthly indoor and outdoor demands. For example, a 3-tier structure could be implemented where tier 1 is based on indoor use, tier 2 is outdoor, and tier 3 is excess and subject to the conservation charge. Tier 1 could be based on average winter consumption in the prior year, or alternatively could be based on assumptions regarding occupancy as modified on a case-by-case basis. Both of these methods are currently implemented by other Front Range water providers (Castle Rock 2016; CWSD 2016).

The District will likely complete two rate studies prior to its next Water Efficiency Plan update and the District will evaluate the potential benefits of transitioning from annual to monthly water budgets as part of these rate studies. Under the District's current structure, a customer is subject to the conservation charge for all months after the annual allotment has been exceeded. A monthly allotment and rate structure would allow the customer to respond to a price signal from conservation charges and potentially avoid excessive use in subsequent months. The District may also evaluate modifications to the bill information provided to customers pre-dating 2000 with an annual allotment of 240,000 gallons/month to inform them of what their allotment would be under the current raw water dedication requirements (see Table 4). The intent of these measures is to reduce consumption in excess of the annual allotments.

If the District does not implement monthly water allotments, then it may alternatively implement a program to include tracking of water use versus the annual allotment on monthly water bills. The current water allotment and water bill system do not provide sufficient information to trigger demand management actions earlier in the year. Currently, the year to date usage is shown alongside the annual allotment and water use for the previous 12 months. Under the current structure, customers may not notice that demand management actions are necessary until late in the year when their usage approaches their annual allotment. The program could entail modifications to the water bill to show the percentage of water left in the customer's account in

addition to the information already shown. This will allow customers to better monitor their water use and influence water use decisions earlier in the year.

Tap Fees

ELCO has an existing program that incentivizes the installation of native landscaping by waiving water dedication and plant investment fees for landscapes that do not require any permanent irrigation. A temporary tap is allowed for up to five years to provide establishment irrigation, and all use is metered and billed in accordance with the District's water rates. A professional landscape plan is required in order to qualify for the temporary tap program to ensure that planted vegetation will not require irrigation after five years.

The District has not had any customers participate in the temporary tap program; however, interest in the program has increased in recent years due to the costs for raw water supplies. A mixed-use development that is in the preliminary planning stages is considering 100% native landscaping for all community irrigation areas such as roadway medians, streetscapes, etc. The District will make efforts to better inform developers about this opportunity.

The City and Larimer County regulate the landscaping material (e.g. amount and type of irrigated turf versus xeriscape, number and type of trees, etc.). The District will work with these entities to review the land use codes, and identify opportunities to further incentivize outdoor demand management for new projects, particularly in commercial and other non-residential areas. Since ELCO does not have land use authority, this type of program is not entirely in the District's control. The District expects that tap fee programs can expand in the future; therefore, a nominal amount of associated water savings are included in the active forecast

3.2.2 Targeted Technical Assistance and Incentives

3.2.2.1 Fixtures, Appliances, and Incentives

ELCO is not expected to have any volumetric supply constraints due to its raw water dedication requirements; however, there are potential benefits of reducing its peak demand such as deferred costs related to infrastructure upgrades. Accordingly, there is value in reducing its non-seasonal, or indoor, water uses. The gradual replacement of inefficient fixtures and appliances and other water using devices is an excellent way to accomplish this objective.

In the past, ELCO provided indoor water conservation kits to customers upon request; however, this program is no longer implemented because it was not cost effective. For similar reasons, ELCO has not implemented a rebate program to encourage and accelerate the installation of efficient fixtures and appliances for the purpose of water savings, preferring instead to rely on natural replacement. However, the District is interested in becoming an EPA WaterSense promotional partner to gain access to promotional materials to help educate customers about the benefits of high-efficiency fixtures and appliances.

3.2.2.2 Outdoor Water Efficiency

ELCO experiences peak water demands during the summer due to irrigation demands. The District implements a variety of programs and pricing mechanisms to improve irrigation efficiency and reduce outdoor demands, and is implementing programs to help reduce summer peaking effects.

Irrigation Efficiency Audits and Education. In coordination with the City of Fort Collins, sprinkler system audits are offered to homeowners and homeowner associations to help them reduce water use by improving sprinkler system efficiency. An additional benefit of the audit program is that it provides a direct point of contact for customer education, which supplements the District's "Conservation" page on its website with various water conservation related information focused on outdoor water use. A total of 433 sprinkler irrigation audits were completed from 2007 through 2015, ranging from 0 to 127 per year, which indicates that approximately 7% of single-family residential customers have had their irrigation systems audited. The District intends to evaluate opportunities to expand the audit program participation rate up to 15% by 2035. The District tracks pre- and post-consumption for participating customers, although it has been challenging to accurately estimate the level of water savings due to overlapping efficiency programs and variable weather conditions. Based on the available data, it is estimated that audited customers reduce their water use by 5%; therefore, the targeted increased participation by 2035 may reduce single-family water consumption by approximately 0.75%.

Demonstration Site. In 2008, ELCO received grant money from CWCB to partially fund the design and installation of a landscape garden that promotes water conservation. The garden promotes a large variety of drought tolerant plants, including six varieties of turf grass for low to moderate water use. The District offers tours of the facility to interested parties and will continue to implement this program; however, no additional water savings are attributed to this program in the active forecast.

3.2.2.3 Commercial, Institutional, and Industrial Water Efficiency

The District's demand management program for commercial, institutional, and industrial (CII) customers focuses on education and pricing mechanisms. Pricing water and wastewater services appropriately has been shown to be an effective method for reducing water demands (Mayer et. al. 2008). ELCO's CII customers are billed for water using the same rate structure as residential customers, which means that many large users regularly incur conservation charges.

Six of the District's largest 10 customers are in the commercial customer class. Three of these customers are hotels/motels while the others are light industrial and professional services businesses. The District has participated in targeted programs to reduce hotel/motel water use by providing informational placards to encourage guests not to change their sheets and towels every day unless necessary. This has become an effective and successful industry-wide best-practice for hotels and motels across the U.S. ELCO has also provided similar informational materials to restaurant customers.

ELCO intends to evaluate new programs targeted toward non-residential customers. Two potential programs of interest at this time include promoting participation in the EPA H2Otel program and offering system efficiency audits for up to five of its largest non-residential customers. Opportunities for partnering with the City of Fort Collins on these programs will also be evaluated. Depending on the findings of the system efficiency audits, the District will evaluate whether supplemental targeted assistance such as rebates for pre-rinse spray valves would be cost effective.

3.2.3 Ordinances and Regulations

3.2.3.1 Regulatory Measures

Soil Amendment and Tilling (City). ELCO customers located within the City of Fort Collins' GMA are subject to the City's codes and ordinances. Chapter 12 of the City Code requires that soil amendments be applied at a rate of at least 3 cubic yards per 1,000 square feet and tilled to a depth of at least six inches. This ordinance was first adopted in 2003, and additional water savings will continue to be realized as new ELCO customers are added within the GMA.

Waste of Water. Article 5 of the ELCO's Rules and Regulations (ELCO 2013) states that "No User shall knowingly permit leaks or waste of water. In the event water is wastefully or negligently used on the Premises by a User, the District may terminate Water Service within five (5) days following written notification." ELCO intends to evaluate potential revisions to its rules and regulations regarding waste of water that may further prohibit:

- Watering with spray irrigation between the hours of 10 am and 6 pm except for plant establishment or reasonable system maintenance.
- Watering landscaped areas during periods of rain or high wind.
- Applying water to impervious surfaces such as a street, parking lot, alley, sidewalk, or driveway.
- Using water instead of a broom or mop to clean outdoor impervious surfaces, except when cleaning with water is necessary for public health or safety reasons or when other cleaning methods are impractical.
- Failing to repair, for a period more than five days after notice, leaking or damaged irrigation components, service lines, or other plumbing fixtures.

Landscape and Irrigation Standards. New development is regulated by the City and County landscape and irrigation regulations included in the applicable entity's land use codes (Fort Collins 2015; Larimer County 2016). Existing regulations include several water efficiency measures. For example, the City requires rain shut-off devices and post-installation audits for commercial sprinkler systems and the County only allows native or adaptive ornamental grasses and/or wildflowers to be planted in right-of-way areas outside of GMAs. ELCO will work with the City and County to evaluate opportunities to implement additional demand standards for non-residential landscapes such as a minimum percentage of native and drought-tolerant plants and/or a maximum irrigation demand requirement such as 15 inches. Since ELCO does not have land use authority, coordination with

the City and County is critical so that any new programs are properly integrated with the governing entity's land use regulations. Managing outdoor landscaping demands through land use regulations for new development provides an opportunity to reduce future demands; however, this type of program is not entirely in the District's control.

Restrictive Covenant Ordinance (City). City Code prohibits homeowner association covenants from banning the use of xeriscape or requiring a percentage of landscape area to be planted with turf, if the homeowner owns the property and pays for the water that irrigations the landscape.

Plumbing Code. Article 11 of the ELCO's Rules and Regulations (ELCO 2013) requires that service lines "be installed in accordance with the plumbing codes and other specialty codes, as applicable, of the State of Colorado and any local governmental authority having jurisdiction." Service connections within Fort Collins' GMA are required to comply with the most recent International Plumbing Code (Fort Collins 2015).

Irrigation System Requirements. The District will evaluate modifications to their Rules and Regulations to recommend smart irrigation controllers and/or wind/rain sensors for new installations. Regulations would initially be focused on non-residential customers, but the District will also consider similar regulations for residential customers. The District will work with the City and County to ensure any new programs are compatible with the governing entity's land use regulations, such as the City's smart controller, rain sensor, and audit requirements for non-residential development.

Drought Restrictions. While not a long-term outdoor water conservation measure, in the event of drought conditions, Article 6 of ELCO's Rules and Regulations (ELCO 2013) allow for the implementation of outdoor watering restrictions to reduce demands. Restrictions may include water rationing, time of use schedules, limitation of use, and other measures deemed necessary by the District.

3.2.3.2 Raw Water, Reuse, and Recycling

ELCO encourages the installation of non-potable irrigation systems through its development fees and raw water dedication requirements. New developments that install a non-potable irrigation system designed by a registered professional engineer receive significant reductions in the raw water dedication requirements and plant investment fees. This is an ongoing program to reduce treated demands, and as described above in Section 1.2.3, approximately 20% of existing customers use non-potable/raw supplies for irrigation. Several new developments are considering non-potable irrigation systems; however, it is unknown whether there will be a change in the relative proportion of customers with supplemental irrigation supplies.
The SCFP is equipped to recycle filter backwash water – equal to approximately 5% of the total water production. The water produced at SCFP is delivered to the three owners of the filter plant: ELCO, FCLWD and NWCWD and ELCO is entitled to claim its proportionate share of the backwash

recovery. This measure is currently operational and represented in the baseline demand values; therefore, no additional water savings are attributed to this program in the active forecast.

3.2.4 Public Education and Information

A key component of ELCO's demand management efforts is public education and information. The District provides new customers and renters packets with water conservation tips with their first utility bill. The District also prepares a newsletter, typically bi-annually, that contain water efficiency tips that are typically focused on outdoor water use. The District will evaluate opportunities to include additional information in future newsletters regarding recommended monthly irrigation run times organized by irrigation method (e.g. spray versus drip) and plant type (e.g. shrubs versus turf). The District will also utilize the newsletter to inform customers of ways they can save water and reduce their water bills, as well as programs the District is implementing to manage water efficiently. It is also important to communicate with customers about the inevitably increasing costs associated with a system that has aging infrastructure with increasing operations and maintenance costs over time.

The District and its customers also have access to the City of Fort Collins' designated Water Conservation Officer, which is a valuable resource for customers that are interested in conserving water. In the past, the District also used its Demonstration Garden as a public outreach and education tool as described above in Section 3.2.2.2; however, no additional water savings are attributed to this program in the active forecast.

4. Implementation and Monitoring Plan

4.1 Implementation Plan

ELCO staff are primarily responsible for implementation of this plan, and have been successfully implementing the District's water efficiency programs since the last plan was completed in 2007. ELCO will continue to budget money and may pursue CWCB water efficiency grants to further achieve its water efficiency goals.

The District has developed a phased implementation approach, with many programs being implemented immediately as a continuation of existing programs. A summary of the planned implementation schedule for new or substantially expanded programs is provided in Table 13.

Table 13. Program Implementation Schedule.

Water Efficiency Activities	Start Date	Implementation Plan
Meter Replacement Program	Ongoing	100% replaced by 2022, then cyclical
Enhanced Water Loss Control	2017	Annual
Conservation-Oriented Rates	Ongoing	Intermittent updates
Temporary Irrigation Tap Program	Expand in 2017	Annual
Sprinkler Audits	Ongoing	Annual
Commercial, Institutional, and Industrial Water Efficiency	2019	Annual
Waste of Water Ordinance Update	2018	2018
Landscape and Irrigation Regulations	Initiate discussions w/ land use entities in 2017	TBD

4.2 Monitoring and Evaluation

ELCO plans to review and update this water efficiency plan at least every seven years, or as needed. The District monitors water use on a regular basis and will continue to maintain consumption records. Progress towards meeting the stated water savings goal will be evaluated as part of the District's annual water demand reporting to the State as required under House Bill 1051. This tracking analysis will help determine what (if any) additional demand management programs are necessary to help ELCO meet its stated goal by 2035.

The District produces monthly and annual demand reports for each customer sector and the system as a whole and keeps close track of demand. Unexpected or abnormal water usage by a customer or sector is quickly identified and investigated. The District will monitor the following on an ongoing basis, coordinated with 1051 reporting, until the next water efficiency plan update:

- System-wide normalized consumption.
- System water losses.
- Savings attributable to participation in sprinkler audits.
- Acreage included in temporary tap program.
- Consumption in excess of water allotments.
- Information regarding non-residential efficiency audits and estimated water savings.
- Number of waste of water violations.

4.3 Revenue Stability

The District's water rate structure includes a significant minimum monthly charge and tier sizes designed to promote efficiency and revenue stability. ELCO's water demands are anticipated to increase over time in response to population growth. Water efficiency as practiced by ELCO helps ensure water rates remain as low as practical for customers, because efficiency is being achieved at a lower cost than procuring new supplies or constructing new infrastructure. Ongoing

customer education and communication is critical, so that as rate changes are implemented, customers understand the reasons for rising costs and that using water efficiently helps reduce the costs relative to the alternative of acquiring, treating, and delivering additional new supplies. When updating its rates, the District will utilize the range of demand forecasts provided in this plan to evaluate potential impacts of both passive and active conservation on future revenue.

5. Public Review, Adoption, and Approval of Water Efficiency Plan

5.1 Public Review

The public review process is described in Appendix A. No comments were received during the 63-day public review period.

5.2 Water Efficiency Plan Adoption

The ELCO Board reviewed an initial draft of the Water Efficiency Plan prior to the public comment period and reviewed an updated version after the public comment period was completed and conditional approval was provided by CWCB. On January 17, 2017, the ELCO Board approved the Water Efficiency Plan as presented. A copy of the Board Resolution adopting the Water Efficiency Plan is included in Appendix A.

5.3 Water Efficiency Plan Approval

The draft plan was submitted to the CWCB Office of Water Conservation and Drought Planning on September 20, 2016 immediately prior to the public review period. CWCB comments were addressed in this updated final version. On [**Date**], the District received official notification that the plan was approved by the CWCB.

6. Compliance with State Planning Requirements

Colorado Revised Statute § 37-60-126 requires a covered entity to develop, adopt, make publicly available, and implement a water conservation (efficiency) plan that will encourage its domestic, commercial, industrial, and public facility customers to use water more efficiently. According to the statute, a "covered entity" means a municipality, agency, utility, or other publicly owned entity with a legal obligation to supply, distribute, or otherwise provide water at retail to domestic, commercial, industrial, or public facility customers, and that has a total annual demand for such customers of two thousand acre-feet or more.

Key elements that must be fully evaluated in development of the plan are listed as follows:

A. Water-saving measures and programs including:

I. water-efficient fixtures and appliances;
II. low water use landscapes, drought-resistant vegetation, removal of phreatophytes, and efficient irrigation;
III. water-efficient industrial and commercial water-using processes;
IV. water reuse systems;
V. distribution system leak identification and repair;
VI. information and education;
VII. conservation-oriented rate structures and billing systems;
VIII. regulatory measures designed to encourage water conservation;
IX. incentives to implement water conservation techniques including rebates.

B. Role of conservation in the entity's supply planning.
C. Plan implementation, monitoring, review, and revision.
D. Future review of plan within seven years.
E. Estimated savings from previous conservation efforts as well as estimates from implementation of current plan and new plan.
F. A 60-day minimum public comment period (or other time period based on local ordinance).

6.1 ELCO WATER EFFICIENCY PLAN COMPLIANCE

The District developed this water efficiency plan in order to comply with C.R.S. § 37-60-126. Each element of compliance is documented below.

A. Consideration of specific water efficiency measures.

(I) Fixture and appliances – In In the past, ELCO provided indoor water conservation kits to customers upon request; however, this program is no longer implemented because it was not cost effective. ELCO has carefully considered and evaluated the costs and benefits associated with giveaways, rebates, and incentives to encourage more rapid adoption of efficient technology, but no additional expenditures are economically justified at this time because of the State regulations mandating WaterSense labeled fixtures.

(II) Outdoor water efficiency – ELCO actively promotes water wise landscaping practices through its regular education efforts and conservation-oriented rate structure and temporary tap program. The District partners with the City to offer sprinkler system audits to homeowners and homeowner associations to help them improve irrigation efficiency. The audit program also provides a point of contact for customer education. The District also has a "Conservation" page on its website that has various water conservation related information focused on outdoor water use.

(III) Commercial, Industrial and Institutional (CII) measures – ELCO actively promotes CII water conservation through its regular conservation education efforts and conservation-oriented rate structure. Six of the District's largest 10 customers are in the commercial

customer class, with 3 of these customers being hotels/motels. The District has participated in targeted programs to reduce hotel/motel water use by providing informational placards to encourage guests not to change their sheets and towels every day unless necessary. This has become an effective and successful industry-wide best-practice for hotels and motels across the U.S. ELCO has also provided similar informational materials to restaurant customers. ELCO intends to consider new programs targeted toward non-residential customers. Two potential programs of interest at this time include promoting participation in the EPA H2Otel program and offering system efficiency audits for their largest non-residential customers. Opportunities for partnering with the City on these programs will also be evaluated

(IV) Water reuse systems – ELCO encourages the installation of non-potable irrigation systems through its development fees and raw water dedication requirements. The District does not currently have a non-potable reuse program, and all reuse of its water rights are by exchange. The District is evaluating opportunities to develop additional storage to maximize the amount of reuse by exchange. The SCFP is equipped to recycle filter backwash water – equal to approximately 5% of the total water production, which is delivered to the three owners of the filter plant.

(V) Water loss and system leakage reduction – ELCO's current program includes an active utility water loss and leak detection program that includes contracting with a leak detection firm every year. The District plans to start implementing an annual AWWA M36 water loss control audit starting in 2017. The District strives to replace aging water mains and reduce water loss wherever possible and will continue to do so.

(VI) Information and public education – A key component of ELCO's water efficiency efforts is public education and information. The District regularly provides information to customers about ways to conserve water and avoid water waste through its newsletters, and the utility maintains conservation materials and information on its website. Education efforts focus on outdoor water demands.

(VII) Water rate structure – ELCO currently bills its customers on a monthly basis using a two-tier inclining block rate structure. The threshold between the first and second tier is based on a customer-specific "annual allotment" which is analogous to a water budget. The District is in the process of evaluating its annual allotments relative to the annual use based on actual metered data. While not a high-priority program at this time, the District will also evaluate the potential benefits of transitioning from annual to monthly water budgets to provide an earlier price signal to their customers.

(VIII) Regulatory measures – ELCO customers are subject to several regulatory measures that encourage water efficiency. The District's Rules and Regulations prohibit the waste of water, require compliance with plumbing codes, and allow for the implementation of drought restrictions. Customers residing within the Fort Collins GMA are also required to

abide by the City's landscape regulations. The District will continue to review local codes and regulations for opportunities to specify additional water efficiency requirements.

(IX) Incentives – ELCO promotes the replacement of old and inefficient toilets, showerheads, faucets, and clothes washers through its regular education efforts.

B. Role of conservation in ELCO's supply planning. This Water Efficiency Plan represents ELCO's most comprehensive effort to integrate water conservation into water supply planning. Through this plan, the District has established that its raw water supply will be sufficient to meet future growth under all current planning scenarios.

C. Plan implementation, monitoring, review, and revision. The District monitors water use on a regular basis and will continue to do so. The District produces monthly and annual demand reports for each customer sector and the system as a whole, and keeps close track of demand. The District has also started providing annual water demand reporting to the State as required under House Bill 1051. The District submitted a report for 2014 and intends to submit annual reports going forward. The 1051 reporting is anticipated to produce useful data to assist the District in monitoring and evaluating progress on achieving its conservation goals.

D. Future review of plan within seven years. ELCO plans to review and update this water efficiency plan every seven years, or as needed. During this review, progress towards achieving the stated conservation goal will be evaluated.

E. Estimated savings from previous conservation efforts and current plan. Since 2006, it is estimated that ELCO has already saved approximately 730 ac-ft/yr, which exceeds the forecast from the previous conservation plan. The active conservation forecast prepared for this Water Efficiency Plan includes the anticipated impact of the District's planned water efficiency program measures. Under this forecast, demand increases to around 4,860 ac-ft/yr in 2035. Compared with the passive forecast, if the elements of this plan are fully realized, then it is estimated that water demand in 2035 will be reduced by 740 ac-ft/yr as a result of ELCO's active water efficiency measures.

F. Public comment period. A 63-day public review process was held from September 23, 2016 through November 24, 2016, as described in Appendix A. No comments were received during the public review period.

7. REFERENCES

Castle Rock 2016. Utility Billing Rates and Administrative Fees. Town of Castle Rock. Accessed online at http://www.crgov.com/2070/Rates on July 25, 2016.

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CWCB 2009. Utility Water Loss: A Review of Current Practices in Colorado, Requirements in other States, and New Procedures and Tool dated July 1, 2009. Prepared by Aquacraft, Inc.

CWCB 2012. Municipal Water Efficiency Plan Guidance Document. Colorado Water Conservation Board.

CWSD 2016. Water Budgets. Centennial Water and Sanitation District. Accessed online at http://centennialwater.org/account-information/water-budget/ on July 25, 2016.

ELCO 2007. Water Conservation Plan dated June 2007. East Larimer County Water District. Prepared by Clear Water Solutions, Inc. and Water Consulting Group.

ELCO 2012. Water System Master Plan. East Larimer County Water District. Prepared by Farnsworth Group dated November 2012.

ELCO 2013. Rules and Regulations effective on July 16, 2013. East Larimer County Water District

ELCO 2015. Master Plan Supplement. East Larimer County Water District. Prepared by Farnsworth Group dated August 2015.

Fort Collins 2013. Streetscape Standards. City of Fort Collins. Dated February 26, 2013.

Fort Collins 2015. Water Efficiency Plan. City of Fort Collins.

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Mayer, P.W. et. al. 2008. Water Budgets and Rate Structures: Innovative Management Tools. Journal of the American Water Works Association. Vol. 100, No. 5.

WRCC 2016. Fort Collins 4 E, Colorado Period of Record Climate Summary from 1994 – 2015, Station No. 053006. Western Regional Climate Center.

APPENDICES

APPENDIX A

EAST LARIMER COUNTY WATER DISTRICT WATER EFFICIENCY PLAN PUBLIC NOTICE ANNOUNCEMENT, PUBLIC COMMENTS, AND OFFICIAL PLAN ADOPTION

A1. PUBLIC NOTICE ANNOUNCEMENT

The draft Water Efficiency Plan was made available for public comment through ELCO's website. Notice was also placed in the Fort Collins Coloradoan newspaper on September 23, 2016 requesting public comment (affidavit attached hereto). A printed copy of the plan was available for review at the District's office.

A2. PUBLIC COMMENTS

A 63-day public review process was held from September 23, 2016 through November 24, 2016. No comments were received during the public review period.

A3. OFFICIAL PLAN ADOPTION RESOLUTION

The ELCO Board reviewed an initial draft of the Water Efficiency Plan prior to the public comment period and reviewed an updated version after the public comment period was completed and conditional approval was provided by CWCB. On January 17, 2017, the ELCO Board approved the Water Efficiency Plan as presented. A copy of the Board Resolution adopting the Water Efficiency Plan is attached.

Account #: FTC-689925

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RECEIVED

SEP 30 2016

ELCO WATER DISTRICT

Invoice Text

East Larimer County Water District Public Input Requested for ELCO

STATE OF COLORADO)
) ss: AFFIDAVIT OF PUBLICATION
COUNTY OF LARIMER)

I, being duly sworn, deposes and says that said is the legal clerk of the Fort Collins Coloradoan; that the same is a daily newspaper of general circulation and printed and published in the City of Fort Collins, in said county and state; that the notice or advertisement, of which the annexed is a true copy, has been published in said daily newspaper for

1 Day;

East Larimer County Water District Public Input Requested for ELCO's Draft Water Efficiency Plan

East Larimer County Water District (ELCO) has completed a draft of an updated water efficiency plan and is requesting public input. The report is designed to look at future municipal-related demands and water efficiency measures. To read the report and get information on how to comment go to www.elcowater.org. A copy of the plan is also available for review at ELCO's offices located at 232 S. Link Ln., Fort Collins, CO 80524. The deadline for comments is November 23, 2016.

Contact: Melissa Tremelling, Administrative Manager, East Larimer County Water District, (970) 493-2044 or melissat@elcowater.org.

1596029
Coloradoan
Sept 23, 2016

that the notice was published in the regular and entire issue of every number of said newspaper during the period and time of publication of said notice, and in the newspaper proper and not in a supplement thereof; that the first publication of said notice was contained in the issue of said newspaper on

Friday, September 23, 2016

that the last publication thereof was contained in the issue of said newspaper on

Friday, September 23, 2016

that said Fort Collins Coloradoan has been published continuously and uninterruptedly during the period of at least six months next prior to the first publication of said notice or advertisement above referred to; that said newspaper has been admitted to the United States mails as second-class matter under the provisions of the Act of March 3, 1879, or any amendments thereof; and that said newspaper is a daily newspaper duly qualified for publishing legal notices and advertisements within the meaning of the laws of the State of Colorado.

Roxann K. Meiches

Legal Clerk

Subscribed and sworn to before me, within the County of Larimer, State of Colorado this

Friday, September 23, 2016

My Commission expires September 3, 2019

LADONNA MARY LAMAR
NOTARY PUBLIC - STATE OF COLORADO
My Identification # 20154035099
Expires September 3, 2019

LaDonna Mary Lamar

Notary Public

Legal No. 0001596029

Delivered to:
ELCO/EAST LAR CTY WATER DIST
PO BOX 2044
FORT COLLINS, CO 80522

Affidavit Prepared
Friday, September 23, 2016
9:38 am

EAST LARIMER COUNTY WATER DISTRICT

RESOLUTION NO. 2017-01-01

(RESOLUTION OF THE EAST LARIMER COUNTY WATER DISTRICT REGARDING ADOPTING A WATER EFFICIENCY PLAN)

WHEREAS, the Board of Directors of East Larimer County Water District ("District") recognizes the importance of conserving water and improving water use efficiency; and

WHEREAS, pursuant to HB 04-1365, adopted on June 4, 2004, a State-approved plan will qualify the District for future funding opportunities offered by the Colorado Water Conservation Board; and

WHEREAS, a Draft Water Efficiency Plan ("Plan") that describes the role of water use efficiency plans in the District's water supply planning was presented for review and comment at the Board meeting held on September 20, 2016; and

WHEREAS, a public notice announcing the availability of the Plan for review and comment was published and the Plan was publicly available for a period of not less than sixty (60) days; now, therefore.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE DISTRICT:

That the Board of Directors of the East Larimer County Water District hereby adopts the Water Efficiency Plan attached hereto.

Passed and adopted at a regular meeting of the Board of Directors of the East Larimer County Water District held this 17th day of January, 2017.

By: _____
Loren Maxey, Board President

ATTEST: _____
Mike Scheid, Secretary – General Manager