



WATER CONSERVATION PLAN

JULY 24, 2026



DRAFT

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1. Introduction

1.1 Purpose of the Water Conservation Plan

The purpose of this Water Conservation Plan is to evaluate the Town of Superior's current water use, forecast future water demands, and identify practical conservation measures that improve water use efficiency while maintaining a reliable water supply. The Plan documents existing conservation efforts, evaluates future water demands associated with Town growth, and identifies opportunities to reduce potable water use through cost-effective conservation practices.

1.2 Regulatory Background

This Water Conservation Plan was developed in accordance with Colorado Water Conservation Board (CWCB) guidance, Colorado Revised Statute CRS 37-60-126, and applicable Environmental Protection Agency (EPA) conservation planning recommendations.

The Plan also supports the sustainability goals identified in the Town of Superior Comprehensive Plan and supports ongoing efforts to improve drought preparedness, system efficiency, and responsible water use.

1.3 Planning Goals

The Town of Superior has established the following conservation planning goals:

- Reduce potable water use by approximately 3.5 percent by 2030. (See Section 2.7)
- Reduce non-potable water use by approximately 13 percent by 2030. (See Section 2.7)
- Maintain annual non-revenue water losses below 5 percent.
- Promote efficient indoor and outdoor water use practices for residential and commercial customers.
- Encourage water efficient development and landscaping practices for future growth and redevelopment within the Town.

1.4 Community Involvement

Community input was incorporated through the Town's Comprehensive Plan outreach process, which included public surveys and community engagement activities related to sustainability and infrastructure planning. Survey responses indicated strong support for maintaining existing sustainability initiatives while expanding conservation efforts that remain practical and cost-effective for residents and businesses. Water conservation, long-term supply reliability, educational outreach, and incentive programs for efficient landscaping were consistently identified as priorities for future planning.

2. Water System Profile

2.1 Service Area

The Town of Superior is located along the Front Range in central Colorado within southern Boulder County and northern Jefferson County. The Superior Metropolitan District #1 (SMD1) provides potable water, wastewater, and non-potable irrigative service throughout the Town of Superior service area.

2.1.1 Service Area Description

The service area generally encompasses the Town's municipal boundaries, shown in **Figure 1**, and includes approximately four square miles of residential, commercial, recreational, and open space land uses. The boundaries of the service area are generally defined by U.S. Highway 36 to the north, McCaslin Boulevard to the west, Colorado State Highway 128 to the south, and portions of Broomfield County to the east.

Land use within the Town is primarily residential, consisting of single-family and multifamily development. The majority of the Town's approximate 4,066 water utility accounts are single-family residences. In addition to residential and commercial development, the Town contains approximately 600 acres of parks, schools, open space, and public areas that contribute to seasonal irrigation demands.

Town of Superior: Water Conservation Plan

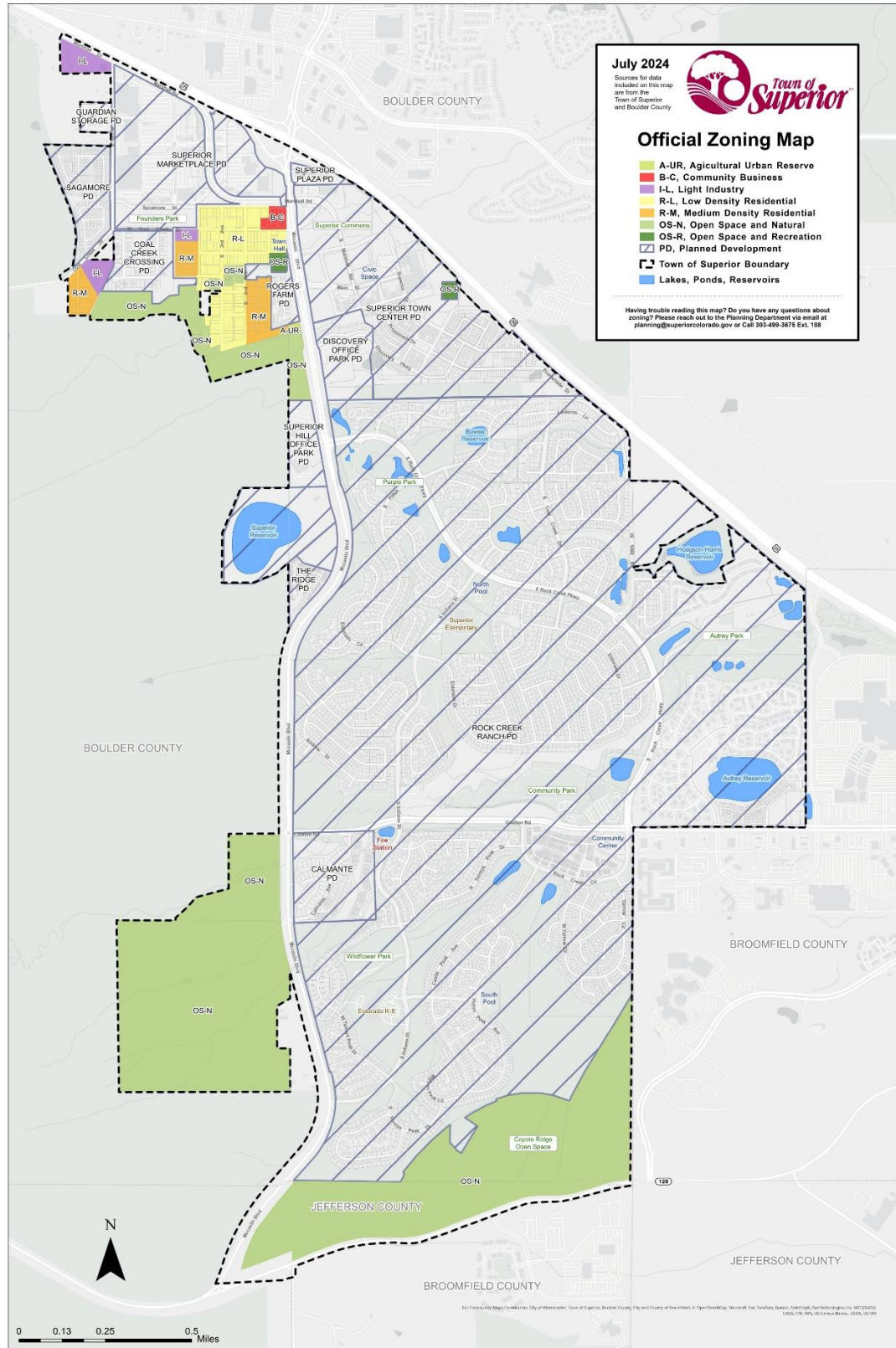


Figure 1: Town of Superior and SMD1 Service Area

2.1.2 Watershed Characteristics

The Town is located within the Boulder Creek Watershed, shown in **Figure 2**. The Boulder Creek Watershed is part of the larger St. Vrain Basin Watershed along Colorado's Front Range. The Town is closest to the Boulder Creek tributaries Coal Creek and Rock Creek, which flow through a mixture of agricultural land and urbanized areas before joining Boulder Creek downstream of Erie.

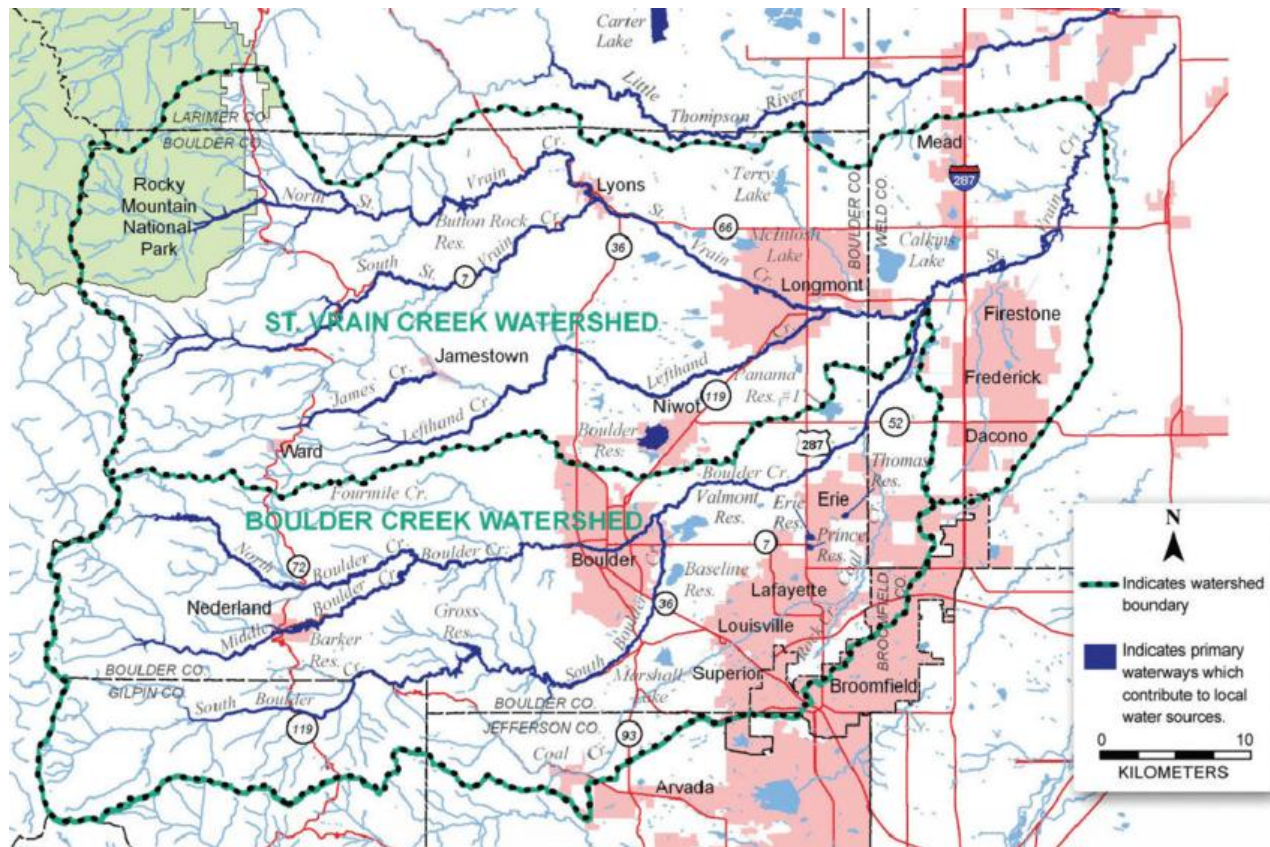


Figure 2: St. Vrain and Boulder Creek Watershed Map

Protection of watershed health and source water quality remains important for maintaining reliable drinking water supplies and treatment options for the Town. The Marshall Fire of 2021 highlighted the importance of source water resiliency and treatment reliability. Following the fire, the Town implemented additional treatment improvements to address taste, odor, and other water quality concerns associated with post-fire watershed impacts.

2.1.3 Current and Proposed Developments

The Town of Superior is expected to continue experiencing residential and commercial growth with several proposed and active developments within the service area. These developments are anticipated to increase future potable and non-potable water demands.

Major planned developments currently include the mixed use development of Alta Flatirons, residential and commercial space of Superior Town Center, affordable senior housing at Kite Route Crossing, and additional residential community developments outlined in **Table 1**. These developments are anticipated to contribute significant additional residential units, commercial floor area, and landscaped acreage over the next several years.

Table 1: Proposed and Active Developments

DEVELOPMENT NAME	RESIDENTIAL UNITS	ESTIMATED POPULATION GAIN	EXPECTED COMPLETION
Coal Creek Innovation Park	1,500	3,750	2024
Alta Flatirons	251	628	2027
Hyatt Studios	114	285	2027
Kite Route Crossing	50	125	2027
Superior Town Center	1,400	3,500	2027
Zaharias	220	550	N/A
Carmel Proposed Project	336	840	N/A

2.2 Water Supply System

Superior's water system profile is detailed in **Figure 3**, outlining the Town's collection system, potable and non-potable distribution systems, and irrigation system.

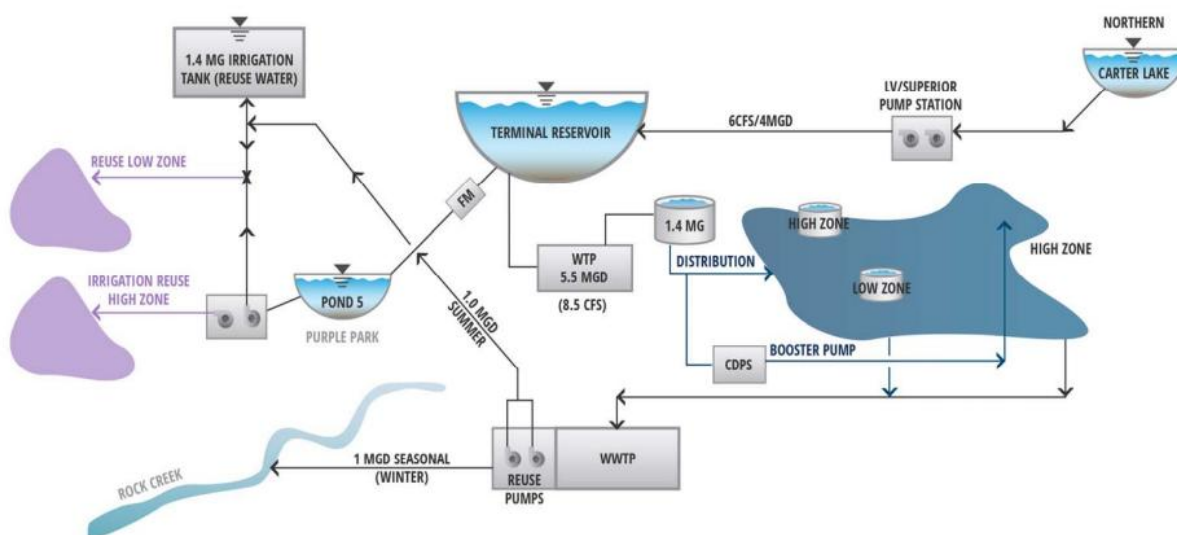


Figure 3: Water System Profile (Town of Superior)

2.2.1 Water Rights and Supply Sources

The Town's water supply portfolio consists primarily of transbasin surface water supplies, supplemental irrigation company shares, and groundwater rights. The Town has only utilized surface water in recent years. The Town's primary municipal water supplies includes Colorado-Big Thompson (C-BT) Project water, Windy Gap Project and Windy Gap Firming Project water, and shares within the Farmers Reservoir and Irrigation Company (FRICO) Marshall Lake Diversion. **Table 2** provides a brief description of the Town's water rights and the projected average and dry yields for each.

Table 2: Water Rights Summary

WATER RIGHT	AVERAGE ANNUAL YIELD, ACRE-FEET	DRY (FIRM) YR. ANNUAL YIELD, ACRE-FEET
Transbasin Sources		
Colorado-Big Thompson (2,080 Units)	1,456	2,080 (dry) 1,040 (wet)
Wing Gap Project, current Windy Gap Firming Project (15 Units - current) (4,726 Units Windy Gap Firming project)	750 875 ² (additional) 1,575 ² (total after firming)	0 0 ² (additional) 1,575 ²
Irrigation Company Source		
FRICO/Marshall Diversion (54.47 Shares)	245.1	201.5
South Boulder Creek and Coal Creek Ditch Company	37.5	37.5
Goodhue Ditch Company	4.5	4.5
Reuse – Windy Gap	1,575 ² (after firming)	0 ²
Total Surface Water Supply ¹	2,493.1 (current) 3,026.1 (with WG Firming)	2,323.5 or 3,606.5 w/ WG (dry) 1,283.5 or 2,566.5 w/ WG (wet)
Laramie Fox Hills Aquifer	468 decreed, 56.6 used	468 decreed, 56.5 used

¹ Total surface water supply includes water rights from Windy Gap Firming project. It does not include reuse water.

²Windy Gap Firming production is currently estimated based upon discussions with Water Attorney

The Town has sufficient surface water rights to provide an average daily water production of 3.18 million gallons (MG) during a dry year and 3.33 MG during a normal year at the completion of the Windy Gap Firming Project. Currently, the Town can provide an average daily water production of 2.50 MG during a dry year and 2.67 MG during a normal year.

The Town owns 2,080 Colorado-Big Thompson units. Annual water yield from these units varies depending on quotas established by the Northern Colorado Water Conservancy District. Historically, the CBT system has provided a reliable foundation for the Town's municipal water supply.

Superior additionally own 15 Windy Gap Project units and participates in the Windy Gap Firming Project through ownership within Chimney Hollow Reservoir. Completion of the Windy Gap Firming Project is expected to significantly improve the reliability and firm yield of the Town's Windy Gap supplies while increasing the availability of reusable water supplies for irrigation and non-potable uses.

Supplemental irrigation supplies are provided through ownership in FRICO and additional ditch company shares. These supplies are primarily utilized for irrigation purposes and help offset potable water demands during the irrigation season.

2.3 Distribution System

The Town's distribution system, shown in Figure 3, was constructed in 1980 and consists of approximately 65 miles of 6-inch to 20-inch distribution pipeline, two booster pump stations, and storage tanks that serves two pressure zones with a combined storage volume of 3.4 million gallons (MG). The low pressure zone is served by one 1.4 MG tank and one 1.5 MG tank. The high pressure zone is served by one 0.5 MG tank.

2.4 Collection System

The Town's collection system, also shown in Figure 3, was constructed in 1982 and consists of approximately 60 miles of 6-inch to 24-inch sewer lines. The collection system has undergone several expansions in the 1990's as the Town's population increased. The system contains one lift station, the Superior Town Center Lift Station, which was constructed in 1997 and pumps wastewater from the northeastern corner of the service area to the Town's wastewater treatment facility (WWTF).

2.5 Irrigation System

The Town has a separate non-potable irrigation system that provides reuse water for irrigation at parks, commercial properties, schools, and other landscaped areas. The irrigation system consists of one pump station at the water treatment plant (WTP), three pump stations for non-potable distribution, one open storage pond, and one 1.4 MG irrigation reservoir.

Use of non-potable irrigation water is a primary component of the Town's overall water conservation strategy since it reduces demand for treated potable water during peak irrigation months.

2.6 Water and Wastewater Treatment

Superior's WTP was originally constructed in 1993 and was expanded in 1995 and 1999 to its current rated capacity of 5.5 MGD. The WTP is a conventional coagulation/flocculation/filtration water treatment plant. Raw water flows by gravity to the plant from the 400 acre-foot terminal reservoir adjacent to the treatment plant. Coagulant and polymer are added to the raw water to aid in coagulation and flocculation before the water enters the clariflocculators. The solids that settle to the bottom of the clariflocculators are removed and sent to the backwash pond for storage and future disposal. Clarified water flows over the weirs in the clariflocculators before flowing through mixed media filters. After the Marshall Fire in 2021, taste and odor issues became apparent. A granular activated carbon (GAC) system was installed in 2022 downstream of the filtration system to address these issues. After passing through the GAC system, chemicals are added and finished water is pushed through an in-pipe UV system that was installed in 2023. The water is then chlorinated and pumped to an on-site storage tank before entering the distribution system.

The Town's WWTF was originally constructed in 1989 and was expanded in 1996 and 1999 to its current rated capacity of 2.2 MGD. The WWTF utilizes preliminary and secondary treatment with disinfection to treat wastewater. During summer months, the facility utilizes its tertiary effluent filters for effluent reuse. The WWTF receives wastewater from approximately 28 miles of the Town's sewer system. The WWTF consists of a manual bar screen, an automatic bar screen, an aerated grit chamber, two aeration basin trains, two aerobic digestors, a clariflocculator, effluent filters, a solids handling facility, and chlorine disinfection. The WWTF was upgraded in 2021 to include a new headworks building and improvements to the equalization ponds.

2.7 Historical Water Use Trends

Superior provided WTP data and potable and non-potable water used based on billed monthly data for 2020 through 2025. This data was analyzed to create historical water demands and water use trends for the Town. It should be noted that some water use, such as construction water, is measured but billed off-line, and is therefore not accounted for in the billed monthly data.

Service area population has fluctuated between 2019 and 2025, however total annual water demand has remained relatively constant over the past seven years. This can be credited to the Town's current billing structure and water efficiency policies. **Figure 4** summarizes Superior's billing data from 2019 to 2025 and summarizes monthly trends in potable and total water usage over the years.

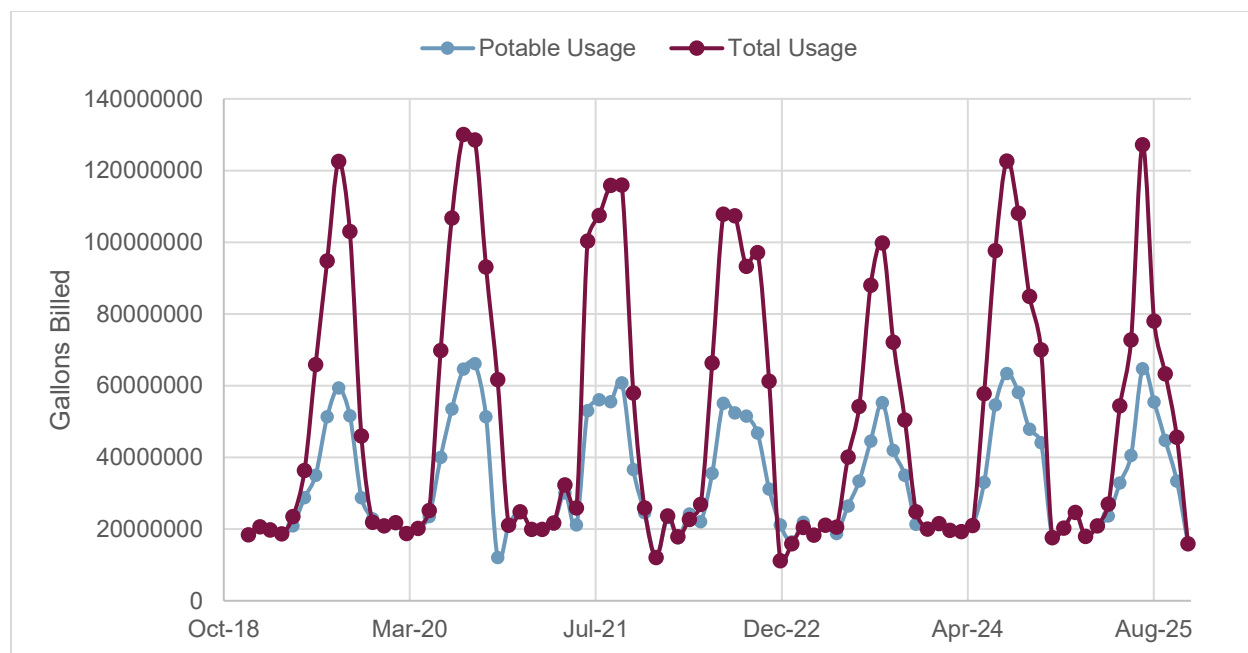


Figure 4: Water Use Trends, 2019 - 2025

Average total demand for this period was approximately 625 MG per year. Across the year, potable use accounts for approximately two-thirds of the demand, but closer to only half of demand during peak summer months. In the 2019 Water Conservation Plan, average annual usage from 2013 to 2018 was approximately 600 MG per year. 2019 to 2025 usage shows a 4.2 percent increase. However, the demand projected for 2019 through 2025 was 725 MG per year, and this current usage data shows a 13.8 percent decrease from initial demand forecasting.

2.7.1 Potable Water Demand

Potable water for the entire service area is supplied by the SMD1 WTP. Total potable water demand for Superior is outlined in **Table 3**. As shown, demand fluctuated between 355 MG and 424 MG over the past seven years. The fluctuations in demand match historical population trends.

Table 3: Potable Water Demand 2019 – 2025

YEAR	RESIDENTIAL DEMAND (MG)	COMMERCIAL DEMAND (MG)	TOTAL POTABLE DEMAND (MG)
2019	286.3	26.4	376.4
2020	348.6	23.1	413.9
2021	319.1	28.1	423.9
2022	297.0	24.1	392.7
2023	260.1	25.3	354.6
2024	323.0	24.3	420.1
2025	302.4	25.0	394.8
Average	305.2	25.2	396.6

2.7.2 Non-Potable Water Demand

The Town's non-potable water contains reuse and raw water. The reuse water comes from treated wastewater effluent from the Town's WWTF. The raw water comes from the Town's reservoir and from ditch shares from the irrigation companies. The total amount of land irrigated by the non-potable system

is approximately 350 acres. The largest non-potable customers served by SMD1 are school districts and the Town of Superior. The Town uses reuse water from the WWTF for irrigation when possible, but storage capacity is limited at the facility and must be supplemented by other raw water sources to meet demand during peak months. **Table 4** summarizes the annual irrigation demand for the Town from 2019 to 2025.

Table 4: Monthly Irrigation Demand 2019 – 2025

MONTH	2019 (AF)	2020 (AF)	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)	AVERAGE (AF)
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.2
Mar	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.1
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May	7.8	5.1	7.0	14.7	5.2	0.0	3.8	6.2
Jun	23.2	91.5	14.5	94.6	41.3	75.7	66.5	58.2
Jul	94.6	163.6	145.4	162.0	63.5	132.1	99.6	123.0
Aug	133.3	200.9	157.8	168.9	133.5	183.0	149.7	161.0
Sep	193.7	191.4	185.3	128.2	137.0	160.2	113.1	158.4
Oct	157.6	128.0	169.3	154.6	93.8	113.7	57.3	124.9
Nov	52.8	67.0	65.3	92.3	45.8	79.0	36.0	62.6
Dec	0.0	1.1	4.0	0.0	5.1	0.0	0.0	1.5
Total	663.1	848.7	748.6	817.4	525.2	743.6	525.9	696.1

The average annual amount of non-potable water used from 2019 to 2025 was 696.1 AF, or approximately 226.7 MG per year. Peak month usage was 200.9 AF in August of 2020, an average of 6.5 AF per day for the month. A small amount of flow is recorded in the winter months due to operational requirements at the WWTF to keep the tank filled. That recorded flow does not go into the non-potable system.

2.7.3 Customer Categories and Billing Structure

Superior categorizes potable and non-potable delivery into customer segments including residential, multifamily, commercial, commercial irrigation, and municipal irrigation. The Town charges system development fees, fixed monthly base fees, and usage fees to these customer categories to cover capital and operating costs. Monthly potable water charges include a base fee and an inclining block rate structure. For commercial establishments, the base fee varies based on tap size. The current base fees and system development fees effective March 2026 are summarized in **Table 5**.

Table 5: Water System Base Fees and System Development Fee by Customer Class

CUSTOMER CATEGORY	BASE FEE (\$/MONTH/EQR)	SYSTEM DEVELOPMENT FEE
Residential	\$22.71	\$37,146.00
Commercial, Multifamily, Industrial, Governmental, Other¹		
3/4" Service Line ²	\$22.71	\$28,894.00
1" Service Line	\$42.95	\$51,590.00

CUSTOMER CATEGORY	BASE FEE (\$/MONTH/EQR)	SYSTEM DEVELOPMENT FEE
1-1/2" Service Line	\$85.85	\$115,560.00
2" Service Line	\$171.08	\$200,174.00
3" Service Line	\$370.37	\$453,997.00
4" Service Line	\$631.69	\$800,683.00
Irrigation (Non-Potable)³		
3/4" Service Line	\$16.92	\$15,686.00
1" Service Line	\$16.92	\$28,236.00
1-1/2" Service Line	\$16.92	\$62,747.00
2" Service Line	\$16.92	\$104,580.00
3" Service Line	\$16.92	\$250,997.00
4" Service Line	\$16.92	\$418,325.00

¹System Development Fee is per EQR

²3/4" Service lines to properties without a separate irrigation tap (when permitted only) will be charged a \$37,146 per EQR System Development Fee

³Monthly base fees for irrigation customers are charges seasonally, typically 8 mos./yr.

Superior also leases non-potable water to the Boulder Valley School District for irrigation use at the Monarch K-8 school in Louisville. The school district pays a monthly base fee of \$188. Irrigation water charges consist of a base fee per meter and a flat rate usage charge per 1,000 gallons. Non-potable water for irrigation is only provided to non-residential customers. **Table 6** outlines usage fees for all potable and non-potable customers.

Table 6: Water System Monthly Usage Fees by Customer Class

CUSTOMER CATEGORY	USAGE FEE (\$/1,000 GAL/EQR)	
Residential, Commercial, Multifamily, Industrial, Governmental, and Other	\$4.44	0 - 7,000 gal
	\$4.86	7,001 - 20,000 gal
	\$6.87	20,001 - 30,000 gal
	\$9.04	30,001 - 40,000 gal
	\$13.27	40,001+ gal
Irrigation (Non-Potable)	\$3.54	
Boulder Valley School District	\$3.04	

2.7.4 Equivalent Residential Units

The Town utilizes an Equivalent Residential Unit (EQR) schedule to compare the demands of different customer types. An EQR is the amount of demand that can be attributed to the equivalence of an average single-family detached residence. The EQR value assigned to each customer is applied to the base and usage fees for that account.

2.7.5 Water Losses and Non-Revenue Water

To estimate water losses in the Town's system between 2019 and 2025, treated water data was taken from meters located throughout the treatment plant and compared to billing data. Water losses were then quantified as a percentage of total production. **Table 7** summarizes the water losses in the system.

Table 7: 2019 – 2025 Water Loss Summary

YEAR	TOTAL PRODUCTION (MG)	BACKWASH (MG)	BILLED METERED USAGE (MG)	WATER LOSS (MG)	WATER LOSS (%)
2019	-	-	376.4	-	-
2020	502.0	8.4	413.9	79.8	15.9
2021	462.8	1.9	423.9	37.0	8.0
2022	462.8	3.4	392.7	66.7	14.4
2023	415.5	3.5	354.6	57.4	13.8
2024	486.1	3.5	420.1	62.5	12.9
2025	462.3	3.6	394.8	64.0	13.8

WTP production and backwash volume could not be obtained for 2019, and therefore was not included in the water loss calculations. Water losses over the past seven years have shown loss values ranging from 8 percent to 16 percent, with an average loss of 13 percent. System water losses typically fall above the 10 percent threshold, indicating opportunities for continued distribution system improvements. This water loss may confirm that leakage and breaks are still an occasional problem for the Town and will be addressed through ongoing leak detection programs.

2.8 Water Constraints

Historically, the Town's water system has been impacted by drought conditions, including the 2002 drought and subsequent dry periods. Similar challenges are currently being experienced during the 2026 drought, including reduced water sales revenue, declining storage reserves, and increased per-unit water treatment costs. These impacts are expected to intensify if drought severity increases.

To address these constraints, the Town has updated its [Drought Mitigation Plan](#) at the same time as this Plan to outline response actions and communication strategies during water shortages. Ongoing efforts include monitoring drought indicators and establishing cooperative water sharing agreements with neighboring communities. The Town also continues to implement and enhance practices that improve distribution system efficiency alongside conservation measures outlined in this Plan. Standard operations emphasize long-term water conservation and drought resilience, including routine irrigation audits of Town-owned landscapes, turf reduction where feasible, and staff education on water-saving practices.

2.9 Existing Conservation Efforts

2.9.1 Existing Conservation Programs and Measures

Superior currently implements several water conservation programs and measures intended to reduce potable water demand and improve overall system efficiency. The primary measure used by the Town to conserve water is having a separate non-potable irrigation distribution system, which supplies irrigation water for parks, open space, and other landscaped areas without using treated drinking water. The following programs and measures are currently being utilized by the Town:

- Free residential irrigation evaluations through the Slow the Flow sprinkler audit program administered by Resource Central.
- Free Smart irrigation controller installation for qualifying Slow the Flow participants.
- Free rain sensor installations through Resource Central for qualifying Slow the Flow participants, a program initiated in 2025 to improve irrigation efficiency.
- Residential lawn replacement and xeriscaping incentives through Resource Central.
- Discounts on Resource Central's Garden In A Box low water landscape kits.
- Waterwise Yard Seminars to teach participants low-water landscaping basics through free webinars coordinated by Resource Central

- Town of Superior Water Efficiency Rebate Program providing incentives for water-efficient indoor fixtures and appliances, as well as efficient irrigation measures and rain barrels
- Ongoing water meter inspection, testing, replacements, and calibration.
- Continuous leak detection and water loss reduction efforts.
- Water efficiency measures integrated into the Town's Green Building program, where points can be allocated to meet the permitting requirements for qualifying new developments and major renovations.

Further details on these existing conservation programs and measures can be found in Section 5 of this Water Conservation Plan.

2.9.2 Education and Outreach

Currently, the Town shares water conservation tips and strategies through its Town e-newsletters to residents. Superior also has a [Sustainability page](#) on their website and a [Sustainable Water page](#) which advertises water conservation programs, events, and tips for residents to view. The Water Efficiency Rebate program is advertised on this site. The program offers rebates to homeowners for installing certain water-efficient products at their home, including efficient shower heads, dishwashers, toilets, drip equipment and rain barrels.

In addition to the newsletter and website, the Town meets with all non-potable water customers annually to discuss their irrigation practices, in compliance with Regulation 84 requirements.

The Town budgeted \$26,000 for all its water conservation Resource Central programming in 2026. An additional \$7,000 was allocated for Town water rebate funding. These allocations are anticipated to continue into the future, with 3% annual inflators built into to keep up with the increasing cost of programming.

3. Demand Forecast

3.1 Forecasting Methodology

Future water demand forecasting was conducted to evaluate long term potable and non-potable water needs associated with projected residential and commercial growth within the service area. Future water demands were estimated using a combination of historical water use trends, equivalent residential unit projections, projected population growth, and anticipated future developments within the Town.

The following assumptions were made for forecasting the Town's water demand:

- Continued implementation of water conservation measures
- Improved irrigation efficiency over time
- Average population growth rates can be applied through 2037 and are conservative when compared to the Town's Comprehensive Plan.

3.1.1 Population Projections

Population for the Town from 2012 to 2025 was taken from the estimates of the US Census Bureau, excluding 2018 where no census data is available. As shown in **Table 8**, the Town's average annual population growth rate from 2012 to 2025 was 0.58 percent. That growth rate was applied to the 2017 population to estimate the population in 2018. Population projections for 2026 through 2037 were estimated by applying that same average growth rate of 0.58 percent to each preceding year. While several proposed developments may increase future population beyond these estimates, the timing and rate of buildout remain uncertain and were therefore not fully incorporated into the population forecast. The forecast presented below remains more conservative than the Town's latest Master Plan.

Table 8: Population Growth and Projections

YEAR	POPULATION	PERCENT GROWTH	YEAR	POPULATION	PERCENT GROWTH
2012	12,721	0.98	2025	13,637	0.57
2013	12,779	0.46	2026	13,716	0.58
2014	12,755	-0.19	2027	13,796	0.58
2015	12,879	0.97	2028	13,876	0.58
2016	13,059	1.40	2029	13,956	0.58
2017	12,951	-0.83	2030	14,037	0.58
2018	13,026	0.58	2031	14,119	0.58
2019	13,387	2.77	2032	14,200	0.58
2020	13,106	-2.10	2033	14,283	0.58
2021	13,105	-0.01	2034	14,366	0.58
2022	13,025	-0.61	2035	14,449	0.58
2023	13,404	2.91	2036	14,533	0.58
2024	13,560	1.16	2037	14,617	0.58
2012-2025 Average Growth Rate			0.58		

3.2 Water Demand Projections

3.2.1 Residential Demand

Residential water demand for the Town was developed based on single and multifamily billing data as well as the developed population projections. Annual residential water use was calculated for 2019 through 2025 for the combined single family and multifamily customer accounts as shown in **Table 9**. The average individual usage for these seven years was used as the residential per capita usage. This residential per capita usage was then multiplied to the projected population through 2037 to estimate the residential demand forecast.

Table 9: Residential Per Capita Use

YEAR	POPULATION	ANNUAL RESIDENTIAL USE (MG)	RESIDENTIAL PER CAPITA USE (GPCD)
2019	13,387	288	58.9
2020	13,106	346	72.3
2021	13,105	319	66.7
2022	13,025	299	62.9
2023	13,404	259	52.9
2024	13,560	322	65.1
2025	13,637	298	59.9
AVERAGE		298	62.7

3.2.2 Commercial Demand

Commercial water demand for the Town was estimated based on observed monthly commercial water use and connection data. The average daily commercial water use per connection was calculated for each year from 2019 to 2025, outlined in **Table 10**. Using linear interpolation between 2019 and 2025, an annual connection growth rate of 1.03 percent was estimated. This estimate was used to project the number of commercial connections through 2037. Those values were multiplied by the average yearly commercial water use per connection to estimate the commercial water use forecast.

Table 10: 2019 – 2025 Commercial Per Tap Use

YEAR	NUMBER OF COMMERCIAL TAPS	ANNUAL COMMERCIAL USE (MG)	DAILY USAGE PER TAP (GAL)
2019	96	26.4	753.4
2020	100	23.1	632.9
2021	107	28.1	719.5
2022	109	24.1	605.8
2023	110	25.3	630.1
2024	111	24.3	599.8
2025	113	25	606.1
AVERAGE		25.2	649.7

3.2.3 Irrigation Demand

Irrigation water demand was estimated based on observed monthly irrigation water use and connection data. The average daily irrigation water use per connection was calculated for each year from 2019 to 2025, as shown in **Table 11**. Based on that data, a projected annual irrigation growth rate of 1% percent was estimated. A final buildout total of 90 taps was used in the 2019 Water Conservation Plan and was used as a max number for years 2021 through 2037 in the forecast. Assuming irrigation behaviors remain relatively constant, non-potable usage for the planning period can be assumed to be approximately 6,904 gallons per connection per year.

Table 11: 2019 – 2025 Irrigation Per Tap Use

YEAR	NUMBER OF IRRIGATION TAPS	ANNUAL NON-POTABLE USE (MG)	DAILY USAGE PER TAP (GAL)
2019	87	216.0	6,802.0
2020	89	276.4	8,509.8
2021	90	243.9	7,423.2
2022	90	256.3	7,801.2
2023	90	171.1	5,207.4
2024	90	242.2	7,373.8
2025	90	171.3	5,214.8
AVERAGE		225.3	6,904.6

3.2.4 Water Demand Forecast

Using the forecasts mentioned above for each category of water use, total annual potable and non-potable water demand were forecasted for the planning period and summarized in **Table 12**. The estimated future demand of potable and non-potable water does not exceed the peak day water treatment capacity or the average water rights yield of the Town's portfolios. The total annual demand at the end of the planning period is 591.5 MG, approximately 1,815 AF. This volume can be met by the Town's existing water rights.

Table 12: Total Water Demand Forecast

YEAR	PROJECTED POPULATION	RESIDENTIAL (MG)	COMMERCIAL (MG)	TOTAL POTABLE DEMAND (MG)	IRRIGATION (NON-POTABLE) (MG)	TOTAL ANNUAL DEMAND (MG)	AVERAGE DAILY DEMAND (MGD)
2026	13,716	313.8	27.1	340.8	226.8	567.7	1.56
2027	13,796	315.6	27.3	342.9	226.8	569.8	1.56
2028	13,876	317.4	27.6	345.1	226.8	571.9	1.57
2029	13,956	319.3	27.9	347.2	226.8	574.0	1.57
2030	14,037	321.1	28.2	349.3	226.8	576.1	1.58
2031	14,119	323.0	28.5	351.5	226.8	578.3	1.58
2032	14,200	324.8	28.8	353.6	226.8	580.4	1.59
2033	14,283	326.7	29.1	355.8	226.8	582.6	1.60
2034	14,366	328.6	29.4	358.0	226.8	584.8	1.60
2035	14,449	330.5	29.7	360.2	226.8	587.0	1.61
2036	14,533	332.5	30.0	362.4	226.8	589.3	1.61
2037	14,617	334.4	30.3	364.7	226.8	591.5	1.62

4. Planned Facilities

4.1 Planned Facilities and Infrastructure

4.1.1 Planned Capital Improvements

A major planned conservation project is the conversion of one of the Town's largest landscaped medians located at the intersection of Rock Creek Parkway and McCaslin Boulevard. The project will replace irrigated turf with drought-tolerant landscaping and modern irrigation infrastructure at an estimated total project cost of \$250,000. To offset project costs, the Town has applied for funding through the WaterSMART Small-Scale Water Efficiency Projects grant program and the Colorado Water Plan Grant Program. Each grant may provide up to 50 percent of eligible project costs. The Town has included a \$125,000 local match in the proposed 2027 Parks budget should grant funding be awarded.

The proposed 2027 Capital Improvements Program budget also includes an additional \$375,000 to remove turf and upgrade irrigation on three additional medians along the Rock Creek Parkway corridor, completing conversion of landscaped medians within that corridor to more water efficient landscapes.

The Town has an annual budget of \$50,000 for annual parks' irrigation upgrades and \$100,000 for Xeriscaping Projects and Design capital improvements intended to promote conservation on Town-owned properties. An additional \$100,000 was included in the 2026 budget and requested in 2027 under the Sustainability Enhancements capital improvements projects for non-functional turf removal and irrigation system upgrades. These investments are guided by the Town's draft Roadmap for Sustainable

Landscaping and Irrigation Upgrades, set to be finalized this fall, and are expected to continue throughout the planning period.

4.1.2 Supply and Treatment Capacity

Superior currently has no plans to acquire additional water rights. The 400 acre-foot reservoir at the WTP provides 23 days of storage at peak flows, so the Town has no plans to construct additional raw water storage at this time. The latest Master Plan also indicates that there is no need to evaluate whether the WTP would require a capacity increase until 2030. The Town also has an interconnected pipeline with the City of Louisville to supply water to the Town in the event of catastrophic failure at the Town's facility, which provides additional redundancy to the Town's treated water supply system.

The potable and non-potable water distribution pipelines may require capital improvements to meet higher demands, as per the latest Town Master Plan. The completion of the Windy Gap FIRMing Project will provide the Town with additional surface water supply that may aid in delaying the need for current capacity upgrades.

4.2 Supply Forecasting

Future water supply requirements were evaluated by comparing the projected potable and non-potable water demands in Section 3 with the Town's existing water rights portfolio, treatment capacity, storage facilities, and planned capital improvements. Based on the demand forecast through 2037, the Town's existing water rights and treatment infrastructure are expected to provide sufficient water to meet projected average annual demands through the planning period.

At this time, no additional water rights acquisitions or treatment capacity expansions are anticipated to be necessary to satisfy projected demands.

4.3 Preliminary Supply-Capacity Analysis

A high-level comparison of the projected water demands with the Town's current available water supply indicates that existing water rights, treatment capacity, and storage infrastructure are expected to remain sufficient throughout the planning period. Planned conservation measures and continued improvements to irrigation efficiency reduce the likelihood that additional supply infrastructure will be needed before 2037. At this time, no additional information on supply capacity related to the needed improvements on the potable and non-potable distribution systems is available, which limits the extents of a supply-capacity analysis through the entire planning period.

5. Conservation Measures

5.1 Levels and Measures

Consistent with the EPA Intermediate Guidelines for Water Conservation Planning, the applicable Level 1 conservation measures were evaluated for inclusion in this Plan.

Level 1 conservation measures represent basic water conservation practices intended to improve water use efficiency, reduce system water losses, encourage efficient customer water use, and improve overall system management. The Town currently implements multiple Level 1 measures and intends to continue these efforts throughout the planning period.

Level 1 conservation measures evaluated as part of this Plan are outlined in **Table 13**.

Table 13: Level 1 EPA Conservation Measures

MEASURE	RESIDENTIAL	COMMERCIAL	IRRIGATION	SYSTEM EFFICIENCY	ALREADY IMPLEMENTED
UNIVERSAL METERING					
Source Water Metering				X	X
Service Connection Metering		X	X	X	X
Public Use Water Metering				X	X
Fixed-Interval Meter Reading				X	X
Meter Accuracy	X	X	X	X	X
Meter Testing, Calibration, Repair, and Replacement		X	X	X	X
WATER ACCOUNTING AND LOSS CONTROL					
Account for Water				X	X
Repair Known Leaks		X	X	X	X
Analysis on Non-Account Water			X	X	
Water System Audit	X	X	X	X	X
Automated Sensors/Telemetry	X	X	X		
Leak Detection and Repair Strategy				X	X
Loss-Prevention Program				X	
COST AND PRICING					
Cost of Service Accounting				X	X
User Charges	X	X	X		X
Metered Rates	X	X	X		X
Cost Analysis				X	
Non-Promotional Rates	X	X	X		
Advanced Pricing Methods				X	
INFORMATION AND EDUCATION					
Understandable and Informative Water Bill	X				X
Available Information	X				X
Public Education Programs	X	X		X	X
Water Bill Inserts	X	X	X		
School Program	X	X		X	
Workshops	X	X	X	X	X
Advisory Committee		X	X	X	

5.2 Identifying Conservation Measures

The Town already implements many of the water conservation measures outlined in the EPA Intermediate guidelines. The Town's existing measures fall within one of the four EPA given categories, and can be applied to residential, commercial, irrigation, and/or system efficiency measures. Measures not currently implemented by the Town were also evaluated as part of this Plan to determine their feasibility, anticipated benefits, and compatibility with existing Town operations.

5.2.1 Residential Measures

Residential conservation measures evaluated in this Plan primarily support the EPA categories of Cost and Pricing and Information and Education, while also relying on Universal Metering to monitor water use and evaluate program effectiveness.

Education and outreach include water conservation information provided through the Town's website, newsletters, new resident materials, and sustainability programming. These efforts are complemented by the Slow the Flow irrigation evaluation program, Garden in a Box discounts, lawn replacement incentives, and free rain sensors and smart irrigation controllers offered through Resource Central to encourage efficient outdoor water use. The Town also promotes conservation through its Water Efficiency Rebate Program that provides financial incentives for installing high-efficiency plumbing fixtures and appliances. Universal metering of residential accounts allows customers to better understand their water use while enabling the Town to evaluate the effectiveness of its conservation programs.

5.2.2 Commercial Measures

Commercial conservation measures evaluated in this Plan primarily address the EPA categories of Universal Metering, Cost and Pricing, and Information and Education.

All commercial connections are individually metered to accurately measure water use and identify opportunities for improvement. Green Building requirements establish minimum water efficiency standards for qualifying commercial and multifamily developments. Separate non-potable irrigation connections reduce potable water demand for landscape irrigation where available. Commercial irrigation evaluation and customer outreach are conducted as needed to promote efficient irrigation practices and compliance with Town water conservation requirements.

5.2.3 Irrigation Measures

Outdoor irrigation represents one of the Town's greatest opportunities for reducing overall water demand and incorporates all four EPA conservation categories.

Information and Education measures include Slow the Flow irrigation evaluations, weather-based irrigation scheduling recommendations, and customer outreach promoting efficient irrigation practices. Cost and Pricing measures include the Town's Water Efficiency Rebate Program, annual investments in irrigation system upgrades, xeriscaping, and non-functional turf removal on Town-owned properties. Universal Metering measures allow irrigation demands to be monitored separately from potable water use and Water Accounting and Loss Control measures improve irrigation performance through inspection, maintenance, and infrastructure upgrades.

5.2.4 System Efficiency Measures

System efficiency measures evaluated in this Plan primarily support the EPA categories of Universal Metering and Water Accounting and Loss Control.

The Town conducts ongoing leak detection, water accounting, meters testing and replacement, and distribution system maintenance to reduce non-revenue water and improve operational efficiency. Water system audits, infrastructure rehabilitation, and routine monitoring help identify system losses while ensuring reliable water service to the Town. At this time, no additional water audits are planned for Town-owned properties beyond existing operational practices.

6. Benefits and Cost Analysis

6.1 Water Savings

The conservation measures identified in Section 5 are expected to reduce potable water demand, improve irrigation efficiency, and reduce non-revenue water losses over the planning period. Because many of these measures are already incorporated into existing Town operations, individual water savings cannot be reliably quantified using available data. Future monitoring of water use trends and program participation will allow the Town to better quantify conservation benefits during future updates to this Plan.

6.2 Implementation Costs

Implementation cost estimates include initial capital costs and reoccurring operational expenses associated with each conservation measure. Cost estimates may include labor, equipment, public outreach, incentive programs, maintenance activities, and administrative support. For applicable measures, available grant funding and existing operating budgets may offset implementation costs. The costs outlined in **Table 14** are to show relative differences between measures and programs and do not encompass all costs associated with each.

Table 14: Estimated Cost Summary

PROPOSED PROGRAM / MEASURE	ANTICIPATED BENEFITS	ESTIMATED COSTS
Rock Creek Parkway Median Conversion Project	Reduces outdoor irrigation demand and improves irrigation efficiency	\$250,000
Additional Median Conversion	Further reduces irrigation water demand and long-term landscape maintenance requirements	\$375,000
Annual Parks Irrigation Upgrades	Improves irrigation efficiency and reduces unnecessary water use	\$50,000
Xeriscaping Projects and Design Programs	Reduces long-term potable and non-potable irrigation demand	\$100,000
Sustainability Enhancement Projects	Improves outdoor water use efficiency and supports long-term conservation goals	\$100,000
Garden In A Box	Encourage residential customers to participate in water conserving landscaping methods	\$2,100
Lawn Replacement	Incentivize customers with discounts for lawn removal or subsidized gardens	\$8,000
Slow the Flow Sprinkler Evaluations	Educates homeowners on best irrigation practices	\$4,320
Smart Control Clock Installations	Reduces unnecessary irrigation water losses	\$6,200
Rain Sensors	Reduces unnecessary irrigation water losses	\$2,880
Waterwise Yard Seminars	Education on low-water landscaping basics through free webinars	\$2,500
Town Water Rebates	Incentives homeowners to install water-efficient products in their homes	\$7,000
Windy Gap Firing Project	Provide the Town with additional water supply units	\$27,000,000

6.3 Comparison of Measures

The conservation measures evaluated in this Plan were compared in **Table 15** using evaluation criteria including anticipated water savings, implementation costs, cost effectiveness, operational feasibility, customer acceptance, and compatibility with existing Town programs.

Table 15: Conservation Measure Comparison Summary

MEASURE	COST EFFECTIVE	NET BENEFITS / LOSSES	ALREADY IMPLEMENTED	FEASIBLE TO IMPLEMENT
Water Efficiency Rebate Program	Yes	Positive	Yes	Yes
Advances Water Rate Pricing Structures	No	Minimal Benefit	No	No
Slow the Flow Audits	Yes	Positive	Yes	Yes
Smart Controllers	Yes	Positive	Yes	Yes
Rain Sensors	Yes	Positive	Yes	Yes
Xeriscape Incentives	Yes	Positive	Yes	Yes
Meter Replacement	Yes	Positive	Yes	Yes
Additional Public Water Audits Beyond Current Practices	No	Minimal Benefit	No	No
Leak Detection	Yes	Positive	Yes	Yes
Education and Outreach	Yes	Positive	Yes	Yes
Expanded School Water Conservation Program	No	Minimal Benefit	No	No
Additional Automated Monitoring Beyond Existing Telemetry	No	Minimal Benefit	No	No
Conservation Advisory Committee	No	Minimal Benefit	No	No
Green Building Standards	Yes	Positive	Yes	Yes

The comparison shows that no single measure is sufficient to achieve the Town's conservation goals, and therefore a combination of customer-based programs, irrigation improvements, system efficiency initiatives, and education efforts provide the most balanced and effective conservation strategy.

7. Conservation Measures Selection

7.1 Selection Criteria

Applicable conservation measures have been evaluated using several selection criteria including water savings potential, cost effectiveness, operational feasibility, ease of implementation, staffing and budget availability, public acceptance, and compatibility with existing infrastructure and Town operations.

7.2 Measure Selection

The Town selected conservation measures that complement existing operations and provide practical opportunities to improve water use efficiency. Priority was given to measures that are already incorporated into Town programs, including leak detection, irrigation efficiency improvements, rebate programs, public outreach, and xeriscaping initiatives. These measures require minimal additional resources while supporting the conservation goals established in this Plan.

Several EPA Intermediate conservation measures were also evaluated but not selected because they would provide limited additional benefits beyond existing programs, are not applicable to the Town's current operations, or are not practical given available staffing and resources. These measures may be reconsidered during future updates to this Plan.

8. Resource Integration and Forecast Modification

8.1 Integrating Options

The conservation measures selected in this Plan have been or planned to be incorporated into the Town's long-term water resources planning by considering their effects alongside projected water demands, existing water supplies, and planned infrastructure improvements. Rather than evaluating conservation measures independently, the Town considered how each measure contributes to reducing future demands while supporting existing utility operations and capital improvement planning. Integrating conservation planning with demand forecasting allows the Town to evaluate future infrastructure needs while continuing to improve water use efficiency.

8.2 Modifying Demand Forecasts

The demand forecasts outlined in Section 3 represented projected water demands assuming continuation of existing conservation programs and anticipated growth within the service area. At this time, sufficient monitoring results are not yet available to accurately quantify additional demand reductions associated with each conservation measure. As participation data and measured water savings become available, the Town may revise future demand forecasts during subsequent updates to this Water Conservation Plan.

8.3 Modifying Supply Forecasts

Existing water rights, treatment plant capacity, and storage are expected to satisfy water demands throughout the planning period. Because no additional supply projects are currently planned beyond those discussed in Section 4, modifications to the supply forecast are not necessary at this time. Future supply forecasts should be updated if significant infrastructure improvements, additional water rights acquisitions, or changes in the projected demand occur.

8.4 Revenue Effects

Implementation of the conservation measures identified in this Plan is expected to reduce overall water sales, especially during peak irrigation months. Although lower water consumption may reduce usage revenue in the short-term, these reductions are expected to be partially offset through existing monthly base charges, continued population growth, and avoided costs associated with developing additional water supplies or expanding treatment and distribution infrastructure.

Continued conservation reduces treatment and maintenance costs while improving the long-term reliability of the Town's existing water supply. As water demands and operating costs change, the Town will continue to periodically evaluate its water rates to ensure sufficient revenue is available to support utility operations while maintaining appropriate conservation incentives.

9. Implementation and Evaluation Strategy

9.1 Implementation of Measures

Implementation of the conservation measures identified in this Plan will occur throughout the planning period using an approach that prioritizes measures offering the greatest water savings and operational benefits. Existing conservation programs, including leak detection, meter replacement, public education, and water efficiency rebates will continue throughout the planning period. Capital improvement projects, including irrigation system upgrades and turf conversion projects, will be implemented as funding becomes available through the Town's annual Capital Improvement Program.

Responsibility for implementation will primarily reside with the Superior Public Works and Utilities Department, Parks and Open Space Division, and Sustainability Program staff. Coordination between these departments will ensure conservation measures are integrated with infrastructure improvements, public outreach efforts, and future development planning. Additional support may be provided through partnerships with organizations such as Resource Central and through engineering consultants when specialized technical assistance is required.

Funding for conservation measures will continue to be provided through the Town's annual operating budget, capital improvements budgets, and external grant opportunities. The Town will continue pursuing

state and federal funding programs to offset implementation costs for eligible conservation programs. Annual budget priorities will be reviewed during the Town's budgeting process to ensure conservation investments remain aligned with long-term water supply objectives.

9.2 Monitoring and Evaluation

The Town will monitor the effectiveness of this Water Conservation Plan through routine evaluation of water use trends, conservation program participation, and system performance. Key performance metrics will include annual potable and non-potable water demand, residential daily per capita usage, non-revenue water, participation in rebate and irrigation programs, and progress toward the conservation goals established in Section 1. Periodic reviews of this data will allow the Town to identify changing water use patterns and identify opportunities for program improvements.

9.3 Public Review and Updates

The Superior Public Works and Utilities Department, and Sustainability Division staff reviewed this Water Conservation Plan and made comments that were addressed before the draft plan was available for public review.

The Draft Water Conservation Plan was available for public comment for 30 days beginning on MONTH XX, 2026. Notice of the opening for public comment included a description of how the public could submit comments to the Town for consideration. Notice was posted on the Town's website with a PDF copy of the draft, distributed in the Town's E-newsletter, and a physical copy was available at Town Hall for in-person reviews.

The Town received a total of ... public comments on the draft. Comments have been addressed in this updated Plan. A copy of the comments received, and corresponding responses can be found in **Appendix A**.

The Town will be responsible for updating this Water Conservation Plan every seven years as required by the CWCB. The next update will be no later than 2033. It is recommended that the Town perform periodic reviews to ensure compliance with the Plan.