



2021

WATER MANAGEMENT AND CONSERVATION PLAN UPDATE

Prepared for: Washington City, Utah

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SECTION 1: INTRODUCTION

1.1 Objective

State of Utah House Bill 71, The Water Conservation Plan Act, requires water providers to develop a Water Conservation Plan. Washington City first developed and submitted a Water Management and Conservation Plan in May of 1999. As directed by Utah Code 73-10-32, updates to these plans are required every five years. Updates were submitted in 2004, 2010 and 2015. This report fulfills the update obligation and is intended to supersede the 2015 report as a working document that both defines Washington City's approach to water conservation and serve as a management tool for measuring, tracking, and reporting the effectiveness of conservation measures.

Increasingly, Washington City has used a regional approach to development. The Washington County Water Conservancy District (WCWCD) is a vital partner in the planning for future growth needs and implementation of best management practices to ensure that programs effectively meet water use requirements.

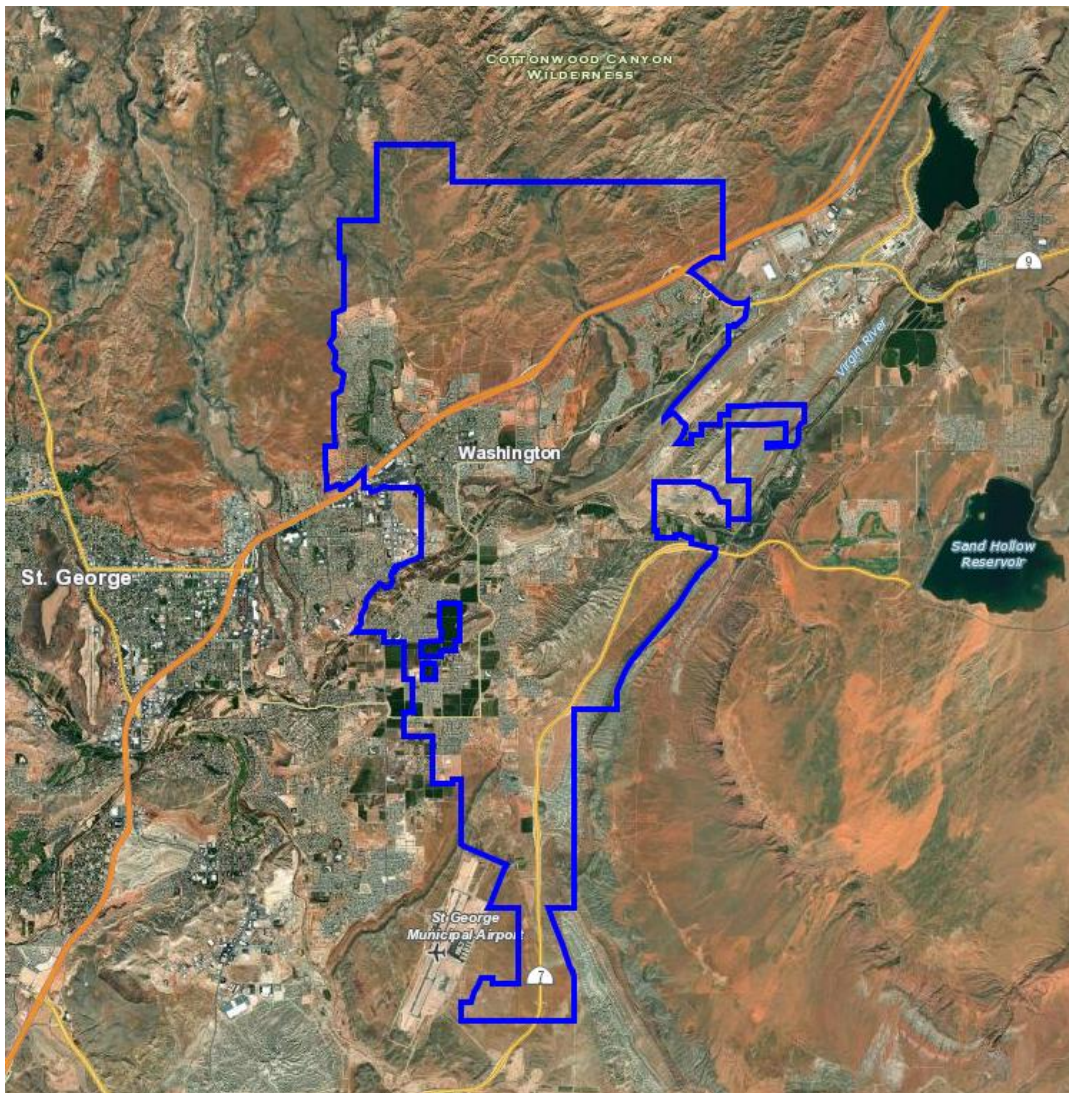
Washington City has continued to grow rapidly. In order to enjoy and preserve these surroundings, Washington City is dedicated to the stewardship of not only the natural beauties of the land, but the water as well. The Washington City Water Conservation Plan consists of seven sections as summarized below.

- Section 1 introduces the goals for the Conservation Plan
- Section 2 provides a description of the Washington City water system
- Section 3 identifies present and future water needs
- Section 4 describes the water problems and conservation goals within Washington City
- Section 5 describes the current and planned water conservation practices
- Section 6 describes the current water pricing structure
- Section 7 describes the process for plan implementation, monitoring, and evaluation

1.2 Washington City

Washington City was established April 15, 1857 and is home to an estimated 33,678 people. It is located in Washington County, which is in the southwest corner of Utah, in what is commonly known as Utah’s Dixie. The city is situated within the St. George Basin with sandstone hills and the Pine Valley Mountains to the north. The Virgin River traverses the city, separating the Washington Fields area with newer development to the south from the established downtown area. Washington City has experienced rapid population growth over the past several years, which is driving transformation of its historically agricultural land to suburban housing. Washington City is progressing as a well-planned community that provides a variety of housing types and amenities to residents. A map of the current Washington City Water service area is provided in Figure 1.1.

Figure 1.1: Washington City Water Service Boundary



1.3 Washington City Contact

The Washington City Public Works Department is responsible for the implementation of this Water Conservation Plan. The programs and goals indicated in the plan are overseen by the Public Works Director and the Assistant Public Works Director. Contact information for the responsible parties is provided below.

Name	Position	Phone Number	Email Address
Michael D. Shaw	Public Works Director	(435) 656-6317	mshaw@washingtoncity.org
Lester C. Dalton	Assistant Public Works Director	(435) 656-6317	ldalton@washingtoncity.org

SECTION 2: SYSTEM PROFILE

2.1 City Owned Water Rights

The existing Washington City water rights are identified in Table 2.1.

Table 2.1: City Owned Water Rights

WR #	Source	Total Diversions (cfs)	Total Volume (acre-feet)
81-666, a19389	Underground Water Wells	0.5	151.4
81-1087, a19389	Underground Water Wells	0.74	535.76
81-1610, a35984	Underground Water Wells	-	53
81-1674, a25120	Underground Water Wells	1	724
81-1719, a25121	Underground Water Wells	0.6	434.4
81-1747, a27463	Underground Water Wells	0.04882	11.786
81-2412, a46260	Underground Water Wells	-	1,578
81-4313, a35984	Underground Water Wells	-	160
81-5075, a46260	Underground Water Wells	0.22038	159.55
81-207	Price/Pierce Springs	0.0156	11.2941
81-222, a5549	Prisbrey/Westover Spring	0.00668	4.8429
81-266, a5548	Mascrew, Iron Bush & Cottonwood Springs	0.0141	10.2081
81-710	Mill Creek	0.3	71.834
*81-1150, a3592	Sand Hollow Creek (Mill Creek)	0.35	-
*81-1151, a3593	Sand Hollow Creek	0.03	-
*81-4076	Westover Spring and Sproul Spring	0.76	-
81-4077	Westover Spring and Sproul Spring	0.07	50.6786
81-4078	Adair Spring and Warm Spring	0.09	65.1582
*81-4079	Adair Spring and Warm Spring	2.7	-
Total:		7.44558	4,021.9119

*Listed as irrigation right rather than a municipal right

2.2 Annual Water Supply from City Owned Water Resources

The annual water supply from Washington City owned resources in 2020 is identified in Table 2.2.

Table 2.2: Annual Water Supply in 2020 from City Owned Water Resources

WR #	Source	Type	Culinary (af)	Secondary (af)
81-1747, 81-2412, 81-666, a19389, a35583	Grapevine Well #1 (WS012)	Well	138.34	-
81-2412, a35583	Grapevine Well #2 (WS013)	Well	67.61	-
81-2412, 81-1674, 81-1747, a35583	Well No.2 (WS007)	Well	628.88	-
81-1719, 81-2412, 81-1747, a35583	Well No. 3 (WS008)	Well	143.50	-
81-2412, 81-1747, a35583	Well No. 4 (WS009)	Well	264.58	-
81-1747, 81-2412, a35583	Well No. 5 (WS010)	Well	1063.90	-
81-2412, 81-1747, a35583	Well No. 6 (WS011)	Well	745.13	-
81-4078, 81-4079	Adair Spring	Spring	-	48.36
81-710	Mill Creek (Tanner Ditch)	Stream	-	715.92
81-207	Price/Pierce Springs	Spring	-	62.52
81-222	Prisbey/Westover Spring	Spring	-	77.28
81-4076, 81-4077	Sproul Spring	Spring	-	128.88
81-2412, a35583	Sullivan Well Golf Lower	Well	-	499.99
81-4078, 81-4079	Warm Spring	Spring	-	427.44
-	Well #1 (Irrigation)	Well	-	70.86
Total (acre-feet)			3,051.94	2,031.25

2.3 Annual Water Supply from City Purchased Water Resources

Washington City’s annual water supply from purchased water resources from the Washington County Water Conservancy District consisted of both finished water and raw water. Purchased finished water resources are presented in Table 2.3 and purchased raw water resources are presented in Table 2.4.

Table 2.3: Annual Finished Water Supply in 2020 from City Purchased Water Resources

Source Name	Culinary (af)	Secondary (af)	Total (kgal)	\$/kgal	Total
WCWCD Landfill Booster	577.91	-	188,325	\$0.76	\$143,127.00
WCWCD (Heritage Fields)	1,719.70	-	560,403	\$0.76	\$425,906.28
WCWCD (Washington Dam Booster)	1,866.34	-	608,189	\$0.76	\$462,223.64
Total	4,163.95	-	1,356,917		\$1,031,256.92

Table 2.4: Annual Raw Water Supply in 2020 from City Purchased Water Resources

Source Name	Culinary (af)	Secondary (af)	Total (kgal)	\$/kgal	Total
*WCWCD Treatment Production	1,303.97	-	424,928	\$0.80	\$339,942.40
WCWCD Coral Canyon Golf Course	-	484.63	157,928	\$0.80	\$126,342.40
Total	1,303.97	484.63	582,856		\$466,284.80

*Purchased from WCWCD as raw water and sold to customer as finished water after treatment.

2.4 Intersystem Agreements

Washington City is part of a coordinated effort of neighboring communities and the Washington County Water Conservancy District (the District) to combine resources to efficiently develop new water resources. The City has joined the regional Water Supply Agreement to allow the District to provide water for future growth. In accordance with the agreement, the District will be actively pursuing water resources for future growth.

2.5 Distribution and Treatment System

The Washington City culinary water distribution system is in excellent shape with few leaks. The distribution system maintains a minimum of 20 psi under peak day and fire flow conditions. Several projects have been recently completed and others are anticipated for construction in the near future. The City has recently added additional storage capacity with the construction of the 2 MG Red Cliffs Storage Tank. Currently, the City is working on developing a master plan to evaluate the feasibility of a secondary irrigation system. Starting in 2005, new developments have been required to install irrigation distribution lines and metering infrastructure in anticipation of developing a pressurized irrigation system. Currently, this infrastructure is “dry” and not in use.

2.6 System Deficiencies

Washington City’s secondary system is small and inefficient. The system is underutilizing the City’s secondary water resources which leads to a significant amount of water that goes unaccounted for. The City had a secondary water supply of 2,515.88 acre-feet in 2020. Of this total, only 1,055.48 acre-feet was accounted for. As part of the ongoing water master planning, the City is considering upgrading the secondary irrigation system in an effort to reduce real water loss by preventing unaccounted water use.

2.7 Financial Resources

The Washington City water budget is in excellent condition. Significant funds are collected and held in reserve for future improvements and upgrades to the system.

SECTION 3: PRESENT WATER USE AND FUTURE NEEDS

3.1 Population

Using the 2012 Baseline City Population Projections published by the Governor’s Office of Planning and Budget, Washington City has projected their population through 2060 as presented in Figure 3.1 and Table 3.1. The Washington City general plan predicts the population build-out is approximately 80,000, based on current land and water resources. Additionally, the potential annexation areas could add 40,000 people for a total build-out of 120,000. As presented in Table 3.2, the recorded population estimated for the City has historically exceeded the projections by the Governor’s Office of Planning and Budget. In 2020, the population was estimated to be 33,678 versus the projected population of 26,727.

Figure 3.1 Population Projections

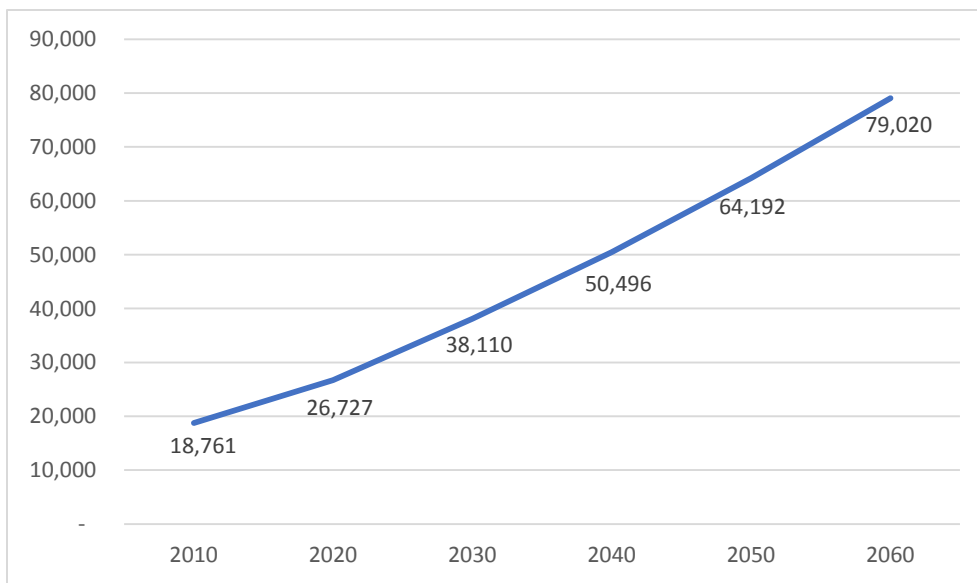


Table 3.1: Population Projections

Year	Projection
2010	18,761
2020	26,727
2030	38,110
2040	50,496
2050	64,192
2060	79,020

Table 3.2: Recorded City Population

Year	Projection
2010	22,000
2020	33,678

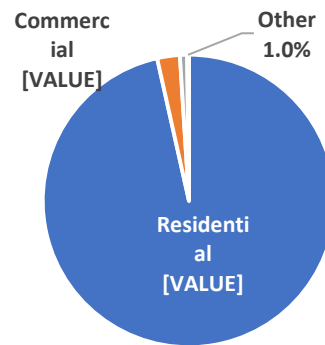
3.2 Current Use

Washington City currently has a total of 12,198 connections broken down by connection type as indicated in Table 3.3. These connections are 96.5% residential, 2.5% commercial, 0.8% institutional, and 0.2% industrial as shown in Figure 3.1.

Table 3.3: City Connections by Type

Type	Connections
Residential	11,772
Commercial	302
Industrial	30
Institutional	94
Total	12,198

Figure 3.2 City Connections by Type



3.3 Per Capita Consumption

The Utah Department of Water Resources provides calculation guidance for determining per capita water consumption, gpcd (gallons per capita per day). This method was used in determining the values presented in Table 3.4 based on the 2020 estimated population of 33,678. Washington City’s per capita consumption is 226 gpcd when secondary use is not included. This use is primarily residential at 170 gpcd. Commercial use is 21 gpcd and Institutional use is 15 gpcd. The current estimated system loss is 8.75%. When secondary use is added, the total per capita consumption becomes 254 gpcd as shown in Table 3.5.

Table 3.4: Breakdown of Per Capita Water Use Excluding Secondary Use

Type	Connections	Use (ac-ft)	Use (kgal)	*GPCD
Residential	11,772	6,399.90	2,085,550	170
Industrial	30	14.77	4,813	0
Commercial	302	779.26	253,939	21
Institutional	94	580.19	189,068	15
Total	12,198	7,774.12	2,533,370	206
**8.75% Estimated System Loss		745.49	242,935	20
		8,519.61	2,776,305	226

*Calculation based on UDWR formula: GPCD = Total Water Deliveries/365/Total Population (rounded to nearest whole number)

**System losses estimated from comparison of total 2020 supply (Tables 2.3 and 2.4) and total metered use calculated above (7,774.12 ac-ft)

Table 3.5: Breakdown of Per Capita Water Use Including Secondary Use

Type	Connections	Use (ac-ft)	Use (kgal)	*GPCD
Total Culinary	12,198	8,519.61	2,776,305	226
*Secondary	3	1,055.48	343,952	28
Total	12,201	9,575.09	3,120,257	254

* Secondary connections include golf course and cemetery irrigation.

3.4 Projected Water Demand

Washington City’s projected water demands were calculated using the 2020 GPCD and population numbers published by the Governor’s Office of Management and Budget. The projected water demands have been summarized in Table 3.6. It should be noted that the City has historically exceeded the population projections as presented in Section 3.1 of this report; therefore, the actual demands will likely be higher than what is presented below.

Table 3.6: Project Annual Water Demand

Year	Projected Population	GPCD	Projected Demand (ac-ft)
2030	38,110	254	10,842
2040	50,496	254	14,366
2050	64,192	254	18,262
2060	79,020	254	22,481

3.5 Secondary Water Use

Washington City operates a small low-pressure or flood irrigation secondary irrigation system that serves older portions of the community (i.e., downtown area). This system flows from several different sources which are conveyed to the end user via a network of ditches, pipes, gates, valves, etc. The sub-systems that make up the secondary irrigation system are distinguished as irrigation districts.

The City currently has 396 shareholders for the secondary water and 3 metered connections. Of the 3 metered connections, 1 is a Commercial user and 2 are Institutional users. The total metered use for these connections was 1,055.48 acre-feet in 2020 while the total source supply in 2020 was 2,515.88. The difference indicates a significant amount of water that is currently unaccounted for and highlights the deficiencies of the current system. Implementation of a city-wide pressurized irrigation system will allow for utilization of water that is currently unaccounted for. Additionally, most of the city utilizes culinary water for irrigation. The new pressurized irrigation system would reduce the culinary water demands and free up culinary water to be used for future growth.

Starting in 2005, new developments have been required to install irrigation distribution lines and metering infrastructure in anticipation of developing a pressurized irrigation system. Currently, this infrastructure is “dry” and not in use.

3.6 Comparison of Water Supply to Projected Demands

Washington City currently owns water rights totaling approximately 4,021.9119 acre-feet for culinary and secondary sources as indicated in Table 2.1. Some of the water rights listed in Table 2.1 are irrigation rights and only quantified by a diversion rate rather than a total volume. How each source was utilized in 2020 is summarized in Table 2.2, which indicates a culinary use of 3,051.94 acre-feet and a secondary use of 2,031.25 acre-feet. An additional 5,468 acre-feet of culinary water and 484.63 acre-feet of secondary water was purchased in 2020 as indicated in Tables 2.3 and 2.4. These numbers prove an adequate supply at this time; however, based on the projected demands presented in Table 3.6, new sources will be required as the population continues to grow. The City is planning on additional purchases from the Washington County Water Conservancy District to account for projected demands into the future, including future Washington Fields and Warner Valley connections. The City is also expected to add additional groundwater sources to help meet projected demands.

In addition to new sources being brought online, the City is working on developing a pressurized irrigation system, as described above in Section 3.5. Once in operation, additional culinary water will be made available for use.

SECTION 4: WATER PROBLEMS, CONSERVATION MEASURES AND GOALS

4.1 Identified Problems

Washington City has carefully managed new growth, through both ordinance and staff review, to include water conservation principles. In conjunction with these efforts, old water infrastructure has been upgraded to a technologically current system that effectively manages water delivery. The City has also cultivated regional partnerships to more effectively develop City resources. These conservation strategies have succeeded in achieving significant reduction in water usage. However, the City needs to achieve additional future reductions to continue to demonstrate not only regulatory compliance, but good stewardship of City resources. In the process of updating the Water Conservation Plan, three key areas were identified to achieve additional reductions in the next five years:

1. Maintaining support for and extending current conservation measures.
2. Continued development of a new pressurized secondary irrigation system.
3. Improving the City's utility operations to reduce real water loss.

4.2 Water Conservation Goals

The following goals have been identified by Washington City:

1. Washington City has already achieved a 16.7% reduction in total per capita usage, based on the 2015 baseline demand of 305 gpcd for the region as presented in the Regional Water Conservation Goals Report. This surpasses the 2030 reduction goal for the region which required a 14% decrease to 262 gpcd. Future projections indicate the City will need to achieve a 22% decrease to 237 gpcd by 2065 to meet the regional water conservation goals. Since the City has already achieved a 16.7% reduction in gpcd from the 2015 baseline demands, and this reduction has already eclipsed the regional water conservation goals for the next decade, **the City will look to the long-term reduction target of a 22% decrease in gpcd by 2065 as the measurable goal for this plan.**
2. Continue to support current conservation measures. Primary focuses will be:
 - Improving data collection strategies,
 - Increasing the frequency of effectiveness reviews of best management practices for existing and new conservation measures, and
 - Improving public outreach to improve customer awareness and access to conservation measures

3. Improvement to current data collection strategies will include transitioning to advanced metering infrastructure (AMI). This will increase the frequency of data collection as data is automatically sent to the Water Department at set intervals. AMI will also allow the consumer to continuously track usage. The transition to AMI has been approved and will be fully implemented within the next year. The City tests meters randomly to determine if there is an issue with inaccuracies. If inaccuracies are encountered, replacement is based on the age of the meters within that sample group.
4. Assess the desirability, costs, and effectiveness of replacing the old secondary system with a new pressurized irrigation system. A pressurized irrigation system will free up culinary water that is currently being utilized for landscape irrigation. Additionally, the pressurized irrigation system would replace the current downtown secondary system, thus, reducing significant amounts of water that is currently unaccounted for. The secondary irrigation system is a very high priority for the City and once the Master Plan has been adopted, implementation of the system will begin.
5. Expand the City's real water loss reduction strategies. The City will perform a system-wide audit to determine areas for improvement once AMI is implemented.

SECTION 5: CONSERVATION MEASURES

5.1 Water Conservation Plan

Washington City’s conservation measures are designed to meet regulatory requirements, demonstrate stewardship, decrease operating costs, avoid capital costs, and extend available water supplies. Utility operations practices are intended to address an efficiently designed operating system and increase water supply. Education and incentive categories are intended to encourage the use of water saving devices and wise water use. The mandates category is intended to ensure that water conservation policies are active and enforceable. Each category has one or more measure components. Current and planned conservation measures from the Washington County Water Conservancy District have been included herein.

5.2 Utility Operations Measures

The current utility operations conservation measures provide broad customer targeting and water use reduction strategies through operations and infrastructure upgrades. The measures are summarized in Table 5.1.

Table 5.1: Utility Operations Measures

Conservation Management Measure	Customer Target			Water Use	
	RSF	RMF	CII	Indoor	Outdoor
Conservation Pricing					
Continue drought management pricing structure	X	X	X	X	X
Assess needed changes and updates to regular and drought stages utility pricing	X	X	X	X	X
Universal Metering					
Continue installing meters on all connections	X	X	X		X
Continue maintenance and replacement program for existing meters	X	X	X		X
Upgrade secondary water metering	X	X	X		X
Comprehensive Water Conservation Plan					
Update the water management and conservation plan and submit to the Utah Division of Water Resources	X	X	X	X	X
Assess and update the water management and conservation plan measures annually	X	X	X	X	X

RSF-Residential Single Family; RMF-Residential Multi-Family, CII-Commercial, Industrial, Institutional

5.3 Education Measures

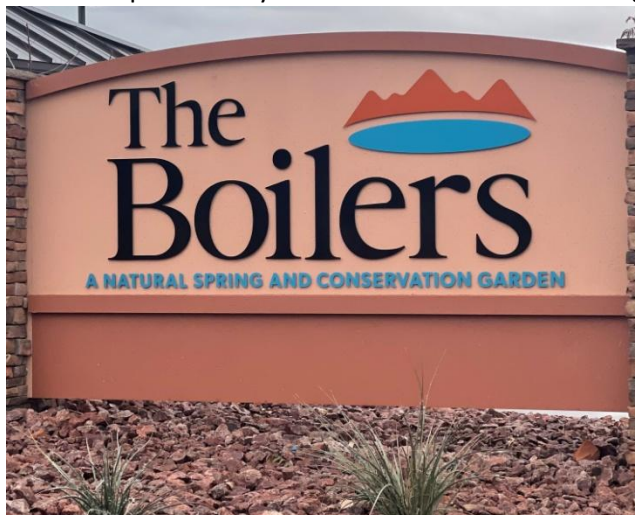
Current education measures are targeted primarily to educating single family residential customers about wise outdoor water use. These measures are summarized in Table 5.2.

Table 5.2: Education Measures

Conservation Management Measure	*Customer Target			Water Use	
	RSF	RMF	CII	Indoor	Outdoor
Billing Report Education Tool					
Provide customers with data designed to increase awareness of use patterns and promote conservations	x				
**Single Family Water Surveys					
Provide customized report to the homeowner regarding how to save water in their home	x			x	x
**Public Information Program					
Public education used to raise awareness of other conservation measures available to customers	x	x		x	x
Update City website	x	x		x	x
**Irrigation Water Surveys					
Provide free landscape water surveys upon request	x	x	x		x
**Xeriscape Demonstration Gardens					
Demonstration garden displaying living examples of low-water usage gardens and landscaping. The City has one and the WCWCD currently has two demonstration gardens: Boilers Park, Red Hills Desert Garden and The Garden at Tonaquint Park.	x				x
**Train Landscape Maintenance Workers					
Training for managers and workers in landscape maintenance methods that will save irrigation water					x
**Efficient Outdoor Use Education Program					
Educational workshops for homeowners in efficient landscaping and irrigation principles	x				x

*RSF-Residential Single Family; RMF-Residential Multi-Family, CII-Commercial, Industrial, Institutional

**Measure provided by coordination with the Washington County Water Conservancy District



The recently constructed Boilers Park located adjacent to Interstate 15 just off Buena Vista Boulevard

5.4 Incentive Measures

Current incentive measures are primarily targeted toward single-family residential outdoor water saving devices. These measures are summarized in Table 5.3.

Table 5.3: Incentive Measures

Conservation Management Measure	*Customer Target			Water Use	
	RSF	RMF	CII	Indoor	Outdoor
**Smart Irrigation Controller Rebates					
Provides a 50% cost share for the purchase of a SMART irrigation controller. Requires customer to have a “water check” and education.	x	x	x		x
**High Efficiency Toilet (HET) Rebates					
Provide a \$75 rebate or voucher for the installation of a high efficiency toilet (HET). HETs are defined as any toilet that flushes 20% less than an ultra-low flow toilet (ULFT) and include dual flush technology. Rebate amounts reflect incremental purchase cost. This program will be eliminated as 1.28 gpf toilets are mandated by state or federal law. This program must be WaterSense labeled.	x	x	x	x	
**Replace Spray Nozzles					
Rebate for upgrading to a rotating nozzle for single family properties	x				x

*RSF-Residential Single Family; RMF-Residential Multi-Family, CII-Commercial, Industrial, Institutional

**Measure provided by coordination with the Washington County Water Conservancy District

5.5 Mandated Measures

Current mandated measures have broad customer and water use targets. These measures are summarized in Table 5.4.

Table 5.4: Mandated Measures

Conservation Management Measure	*Customer Target			Water Use	
	RSF	RMF	CII	Indoor	Outdoor
Incentive Water Conservation Pricing					
Continue implementing water pricing policies that promote water conservation.	x	x	x		x
Water Conservation Ordinances					
Continue implementing an incentive water rate structure.	x	x	x		x
Continue implementing a time-of-day water ordinance.	x	x	x		x
Assess adopting an ordinance requiring water-efficient landscaping in new development.	x	x	x		x

*RSF-Residential Single Family; RMF-Residential Multi-Family, CII-Commercial, Industrial, Institutional

5.6 Evaluation of Previous Conservation Management Measures

Based on the per capita usage of 254 gpcd calculated in Section 3.3, the current water conservation measures have been successful in achieving significant reductions from what was reported in the 2015 Water Conservation Plan Update which listed a per capita usage of 281 gpcd. The current per capita usage of 254 gpcd is a reduction of 16.7% from 2015 baseline usage of 305 gpcd per the Regional Water Conservation Goals Report. The 16.7% reduction exceeds the 14% required reduction by 2030. Implementations of significant improvements in water use data collection has contributed to accurate water usage reporting. Continued implementation of the measures presented in the previous sections in addition to development of a pressurized irrigation system is expected to result in additional reductions, which will be necessary to meet future water conservation goals.

5.7 Planned Conservation Measures

Additional conservation measures are being considered to meet future water conservation goals. Table 5.5 provides a summary of possible measures that may be implemented by Washington City and the Washington County Water Conservancy District.

Table 5.5: Planned Conservation Measures

Conservation Management Measure	*Customer Target			Water Use	
	RSF	RMF	CII	Indoor	Outdoor
Movement to AMI System on Water Meters					
Moving to advanced metering infrastructure (AMI) will allow for more frequent collection and tracking of water use data in addition to allowing the consumer to continually track usage.	x	x	x	x	x
**Locascapes Rewards					
Provides rewards for landscaping projects that meet program requirements of providing a landscape appropriate for the local area.	x	x	x		x
**Excess Water-Use Surcharge					
Implementation of rate increases for the highest water users.	x	x	x	x	x
**Hot Water Recirculation System					
Incentives for the installation of a recirculating hot water system which help to reduce wasted water while waiting for the desired temperature to be reached.	x	x	x	x	

*RSF-Residential Single Family; RMF-Residential Multi-Family, CII-Commercial, Industrial, Institutional

**Measure provided by coordination with the Washington County Water Conservancy District

SECTION 6: CURRENT PRICING STRUCTURE

6.1 Current Rates

Washington City pricing is based on a monthly base rate based on meter size plus an additional rate per 1,000 gallons based on usage tiers. The monthly base rates for each meter size are presented in Table 6.1. Tables 6.2 through 6.8 present the rates for each usage tier based on the different meter sizes.

Table 6.1: Existing Base Rate Structure

Meter Size	Monthly Base Rate
5/8" & 3/4"	\$18.17
1"	\$33.00
1 1/2"	\$73.00
2"	\$130.00
3"	\$291.00
4"	\$517.00
6"	\$1,163.00

Table 6.2: Existing Overage Rate Structure for 5/8" and 3/4" Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 5,000	\$1.50
2	5,001 - 10,000	\$1.62
3	10,001 - 15,000	\$1.74
4	15,001 - 20,000	\$1.86
5	20,001 - 25,000	\$1.98
6	25,001 - 30,000	\$2.10
7	30,001 - 35,000	\$2.27
8	35,001 - 40,000	\$2.44
9	40,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

Table 6.3: Existing Overage Rate Structure for 1" Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 9,000	\$1.50
2	9,001 - 18,000	\$1.62
3	18,001 - 27,000	\$1.74
4	27,001 - 36,000	\$1.86
5	36,001 - 45,000	\$1.98
6	45,001 - 54,000	\$2.10
7	54,001 - 63,000	\$2.27
8	63,001 - 72,000	\$2.44
9	72,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

Table 6.4: Existing Overage Rate Structure for 1-1/2" Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 20,000	\$1.50
2	20,001 - 40,000	\$1.62
3	40,001 - 60,000	\$1.74
4	60,001 - 80,000	\$1.86
5	80,001 - 100,000	\$1.98
6	100,001 - 120,000	\$2.10
7	120,001 - 140,000	\$2.27
8	140,001 - 160,000	\$2.44
9	160,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

Table 6.5: Existing Overage Rate Structure for 2" Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 36,000	\$1.50
2	36,001 - 71,000	\$1.62
3	71,001 - 107,000	\$1.74
4	107,001 - 142,000	\$1.86
5	142,001 - 178,000	\$1.98
6	178,001 - 213,000	\$2.10
7	213,001 - 249,000	\$2.27
8	249,001 - 284,000	\$2.44
9	284,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

Table 6.6: Existing Overage Rate Structure for 3" Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 80,000	\$1.50
2	80,001 - 160,000	\$1.62
3	160,001 - 240,000	\$1.74
4	240,001 - 320,000	\$1.86
5	320,001 - 400,000	\$1.98
6	400,001 - 480,000	\$2.10
7	480,001 - 560,000	\$2.27
8	560,001 - 640,000	\$2.44
9	640,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

Table 6.7: Existing Overage Rate Structure for 4” Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 142,000	\$1.50
2	142,001 - 284,000	\$1.62
3	284,001 - 426,000	\$1.74
4	426,001 - 568,000	\$1.86
5	568,001 - 710,000	\$1.98
6	710,001 - 852,000	\$2.10
7	852,001 - 994,000	\$2.27
8	994,001 – 1,136,000	\$2.44
9	1,136,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

Table 6.8: Existing Overage Rate Structure for 6” Meters

Tier	Threshold (Gallons)	*Rate/1000 gal
1	0 - 320,000	\$1.50
2	320,001 - 640,000	\$1.62
3	640,001 - 960,000	\$1.74
4	960,001 – 1,280,000	\$1.86
5	1,280,001 – 1,600,000	\$1.98
6	1,600,001 – 1,920,000	\$2.10
7	1,920,001 – 2,240,000	\$2.27
8	2,240,001 – 2,560,000	\$2.44
9	2,560,001 - Unlimited	\$2.61

*WCWCD has a planned increase of \$0.10 per year until 2026

6.2 Drought Management Rates

In 2009, Washington City adopted a drought management ordinance to promote conservation during times of water shortages. Stage 1 is normal usage and normal culinary water rates apply. In stage 2, rates increase 10 percent for a reduction goal of 5%-10% of peak use. The stage 3 reduction goal is 10-25% and rates increase 25%. Stage 4 is a 50% rate increase for a reduction goal of 25%-60%. Figure 6.1 illustrates the increases for each drought stage and Table 6.9 summarizes the rate increases and goals for each drought stage.

Figure 6.1: Drought Management Stage Rate Increases

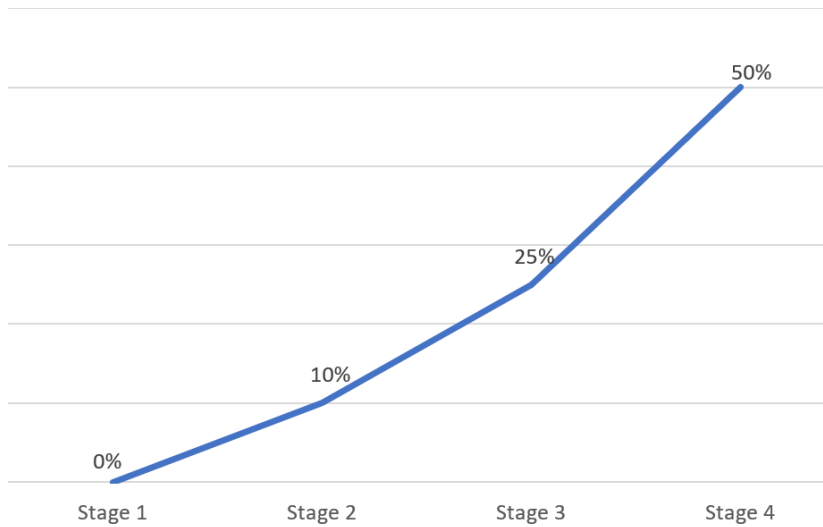


Table 6.9: Drought Management Plan Staging

Drought Stage	Rate Increase	Reduction Goal
1	-	Normal usage
2	10%	Reduction is 5-10% of peak use
3	25%	Reduction is 10-25% of peak use
4	50%	Reduction is 25-60% of peak use

6.3 Anticipated Rate Changes

The Washington County Water Conservancy District has planned a yearly increase to wholesale water rates of \$0.10 per 1,000 gallons which are ongoing and expected to finish in the year 2026. Currently those increase go into effect at the beginning of each July. Other than the \$0.10 annual increase, no additional rate changes are anticipated at this time; however, Washington City conducts yearly reviews to assess the necessity of annual adjustments.

SECTION 7: IMPLEMENTING AND UPDATING THE WATER CONSERVATION PLAN

7.1 Implementation of the Water Conservation Plan

The Washington City Water Superintendent will be responsible for implementation of the Water Conservation Plan. Responsibilities will include projecting and incorporating anticipated program costs into the Water Department's budget.

7.2 Monitoring and Evaluation

Data for monitoring and evaluating the Water Conservation Plan will be gathered monthly by the water billing department and reviewed by the Water Superintendent. This data and other program data will be evaluated for overall per capita usage reduction targets at semi-annual meetings by the Water Superintendent and Public Works Director.

7.3 Updating the Water Conservation Plan

Prior to the second semi-annual meeting of the Water Superintendent and Public Works Director, the Water Conservation Plan monitoring data will be incorporated into a memorandum of findings. This and prior memorandums will be reviewed at the meeting and appropriate updates to the Conservation Plan will be authorized.

7.4 Public Involvement

A public hearing will be held to solicit public involvement in the Water Conservation Plan prior to its adoption by the Washington City Council.

APPENDIX A: RESOLUTION ADOPTING THE WATER MANAGEMENT AND CONSERVATION PLAN