

WATER CONSERVATION PLAN

for the

CITY OF WASHINGTON TERRACE



September 2021

prepared by

WASHINGTON TERRACE CITY

with information from

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CITY OF WASHINGTON TERRACE

WATER CONSERVATION PLAN

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1.0 - INTRODUCTION

The City of Washington Terrace, its leaders, and citizens are concerned for the future cost and availability of the water supply. A similar concern has been demonstrated by the state legislature in the Water Conservation Plan Act (House Bill 71) passed and revised (Section 73-10-32 Utah Code Annotated). This Water Conservation Plan is written to address the concerns of leaders and citizens of both the City of Washington Terrace and the State of Utah.

The goal of Washington Terrace City is to go from the current 76 gallons per capita per day to 70 gallons per capita per day or lower by the year 2025 and reduced further to 65 gallons per capita per day by the year 2030.

2.0 - DESCRIPTION OF WASHINGTON TERRACE AND ITS WATER SYSTEM

The City of Washington Terrace system #UTAH 29022 currently provides culinary water to approximately 9,162 people (City estimate) within the corporate boundaries of the City through 3220 connections. This water is intended for indoor or sanitary uses. The water system provides water to approximately 3083 residential and 94 commercial and 43 institutional connections at this time. Secondary water is supplied to the City's residents by Pineview Water for the service area roughly north of 5200 South and Weber Basin Water Conservation District for the service area roughly south of 5200 South. This water is intended for outdoor and/or landscaping needs.

The City of Washington Terrace was founded and developed in 1948 from a war-time housing project and occupies an area of approximately 1.9 square miles. The water system consists of pipes, water storage tanks, and pressure reducing stations. Data collected for the *Culinary Water Master Plan & Impact Fee Study* completed October 2010 by Jones and Associates, Consulting Engineers showed that the City has sufficient water supply for its current needs and has the ability to meet existing water demand on the highest day of peak use (peak day demand). The map labeled Map 1 shows the boundaries of the water distribution system.

2.1 - Inventory of Water Resources

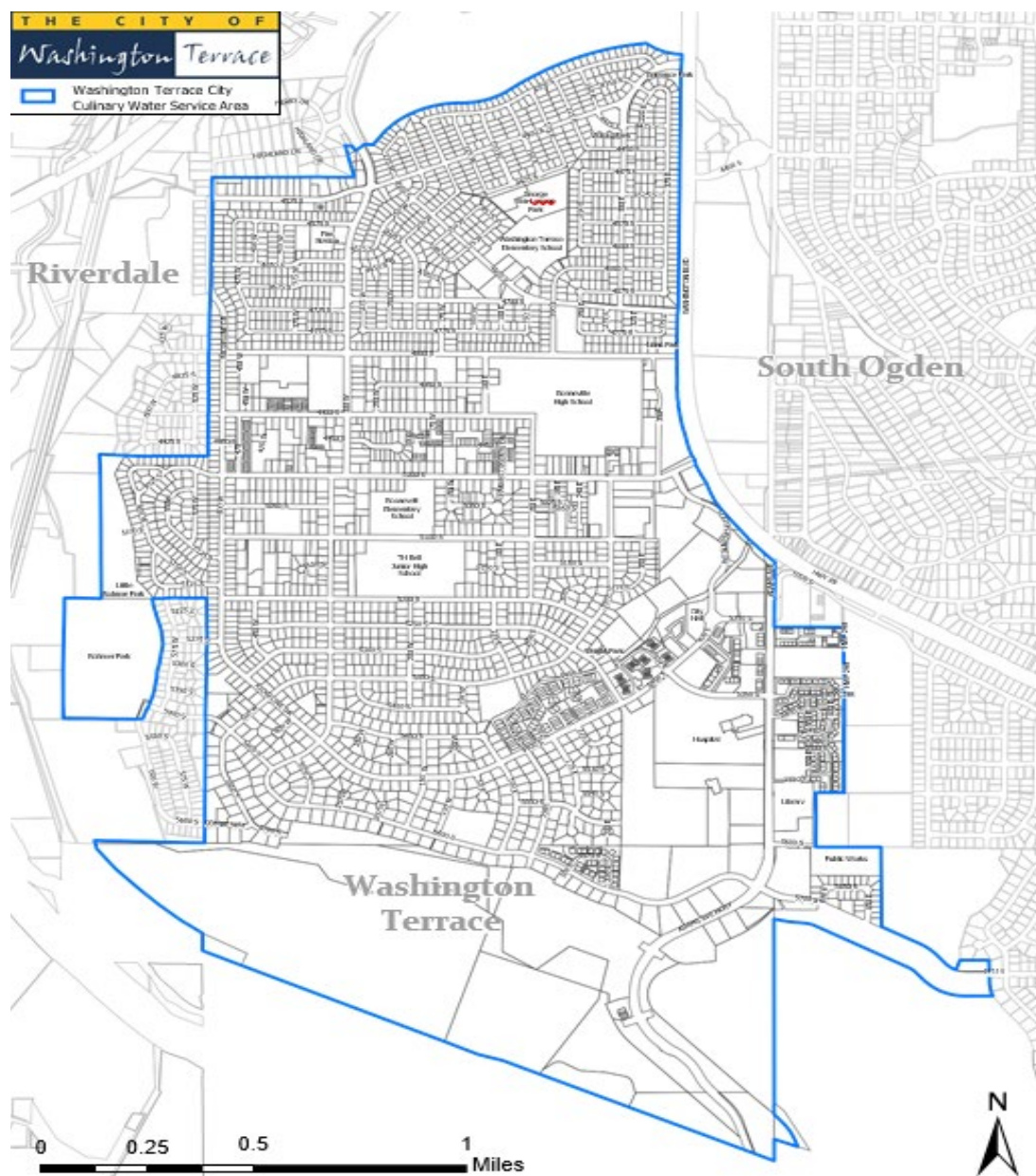
The City of Washington Terrace receives its potable water supply from Weber Basin Water Conservancy District via two separate metering stations. In order to provide the necessary fire flow and pressure to the upper pressure zone, a higher-pressure water connection was needed. South Ogden City provided the needed pressure and fire flow/storage through a wheeling agreement via a third metering station. Currently, Weber Basin provides 1,000 acre-feet per year, a portion of which is wheeled through South Ogden City.

Two wells located in Washington Terrace were used to provide the City's water in the past. They were taken off-line due to excessive costs of running the wells versus purchasing water from

Weber Basin. Water quality and quantity in the wells are excellent and the City has negotiated an agreement with Weber Basin for use of the water in their area-wide distribution system.

Culinary water for future City residents will continue to come from the Weber Basin Water Conservancy District. The amount of water contracted from Weber Basin (1,000 acre-feet annually) is a safe yield and in past years the City has not used all the allotment.

Map 1



The following Table 1 shows a summary of the culinary water available to the City.

Table 1

Water Source Summary		
Name of Source	Nature of Use	Acre-Feet per Year
Weber Basin	Yearly Contracted	1,000.00
TOTAL		1,000.00

2.2 - Water Budgets

Table 2 shows how much contracted water was put into the culinary water system for years 2005 through 2020. The City has been very successful in reducing overall water usage while supporting an expanding population. This has been accomplished mainly through public education, meter upgrades and infrastructure replacement.

An analysis of the water budget and the efficiency of the water distribution system show some areas of concern. Water-in verses water-out percentages vary from one season to another. Efficiencies range from 76% to 93% on a monthly basis. The City’s goal of 85-90%, is long-term, and will depend on accurately evaluating the system for leaks. Three main reasons have been identified for the unaccounted system losses: 1) Minor system leaks and losses inevitable in 34+ miles of water mains with attendant laterals, 2) Fire flows, system flushing, and 3) major breaks.

2.3 - Present Water Use and Future Water Needs

With data gathered from the *Culinary Water Master Plan & Impact Fee Study*, the 2010 Census, and current demographic estimates it is calculated that residents living in the City of Washington Terrace in 2020 used approximately 76 gallons of water per capita per day (GPCD), down from 83 GPCD in 2016, and 82 gallons in 2016 is down from 92 gallons in 2005. GPCD was calculated by taking total water use from Weber Basin Water’s input and then dividing it by the population, then dividing it by 365 days in a year. This method does not take in to account the system water losses. This process is repeated for each year in the plan. This is mainly indoor use since secondary water is available. Figure 3 shows the gallons per capita per day use of residents in Washington Terrace.

Table 2

System Inflow (AF)		
Year	Contracted W.B. Water	Metered Inflow Use
2005	1,000	868
2006	1,000	910
2007	1,000	910
2008	1,000	912
2009	1,000	842
2010	1,000	820
2011	1,000	769
2012	1,000	765
2013	1,000	763
2014	1,000	758
2015	1,000	710
2016	1,000	844
2017	1,000	767
2018	1,000	741
2019	1,000	718
2020	1,000	784

The amount includes losses in transmission lines, etc. 67 gallons per capita per day is compared to the statewide average of 238 GPCD and 182 GPCD nationally. The daily water use for Washington Terrace City is well below the state and national averages. Three reasons may account for these discrepancies, even after allowing for unmetered water “uses”. They include:

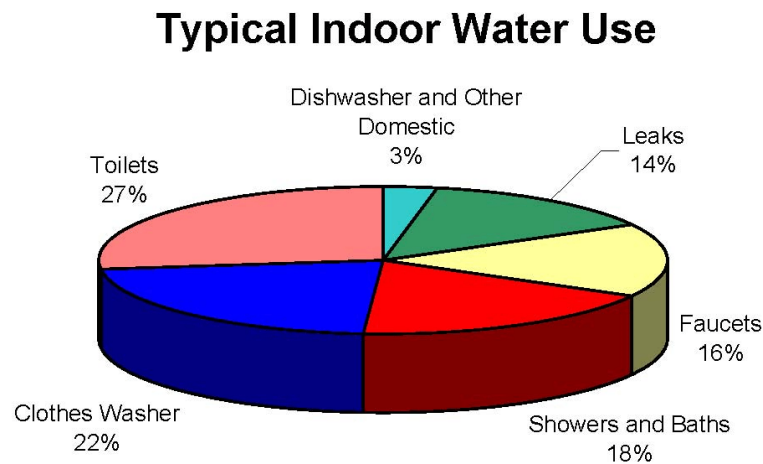
1) State and National numbers consider agricultural, industrial, and commercial water use. Although there are significant institutional uses in Washington Terrace City (regional hospital, area high school, area junior high schools, and two elementary schools) there are few retail and commercial and no industrial facilities in the City,

- 2) Most landscaping irrigation water use is not included in the total use quantities, and
- 3) Agricultural water use is not included in the total use quantities.

The State Rules recommend a source supply of approximately 150 GPCD, excluding landscape irrigation water. This number will be used to be more conservative in making estimates in this report.

Figure 1 shows the breakdown of typical water use inside the home for Utah residents.

Figure 1



From Mayer, Peter W. et. al., Residential End Uses of Water, [AWWA Research Foundation, 1999], xxvi.)

This breakdown is probably very similar to the actual indoor water use for residents in the City of Washington Terrace. However, it is important to realize a large portion of homes in the City were built prior to 1960. Therefore, adjustments to in-home allocations may be needed due to large volume flush toilets, leaks, and inefficient shower heads and faucets, changing the typical percentages shown above.

The expected population growth for Washington Terrace City through the year 2065 is shown in Figure 2. Many factors can influence this projection and the estimates shown may vary substantially from the actual population experienced.

Population projections are based on Wasatch Front Regional Council data. The future growth estimates are shown in figure 2. Growth estimates show the 2050 population of Washington Terrace City will be approximately 9,447 residents.

Figure 2

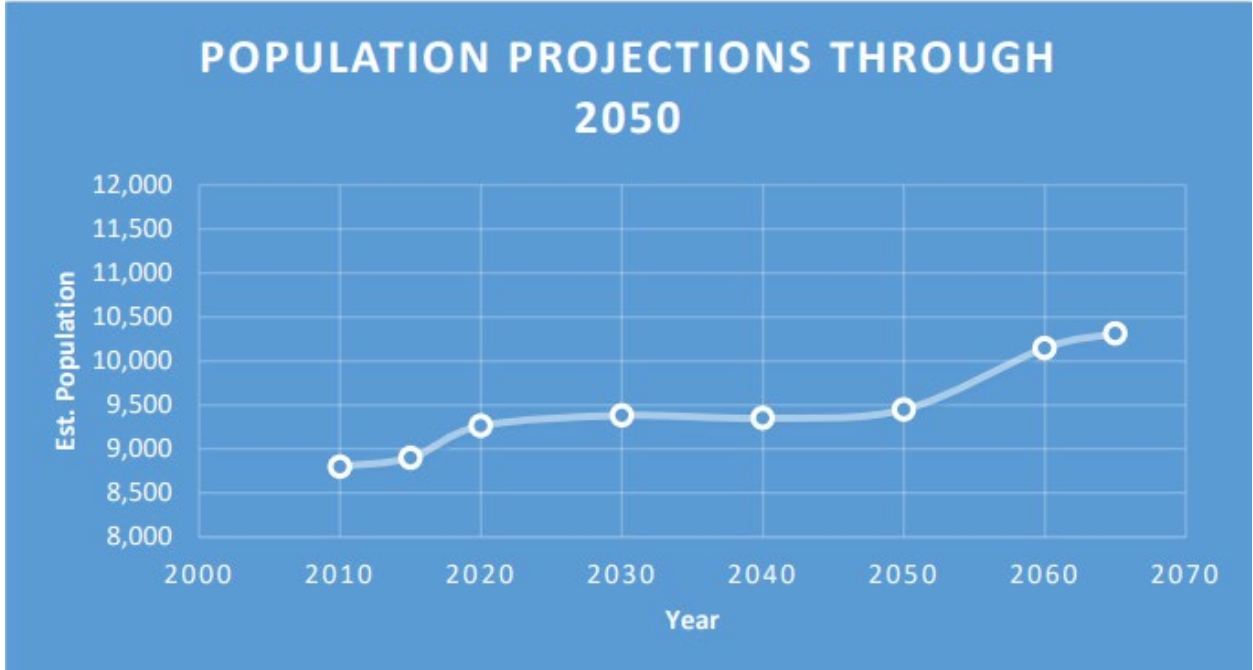


Figure 3

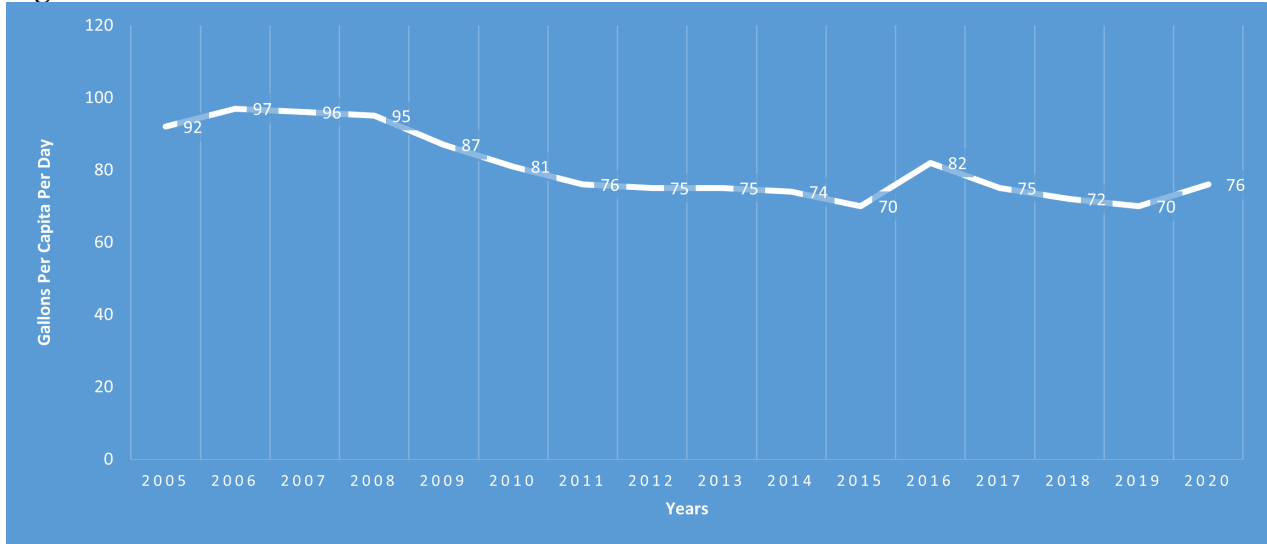


Figure 3 shows a breakdown of the Gallons per Capita per Day for the last 15 years. The over all water use is declining steadily and with further conservation will continue to decrease. If population projections are accurate and the conservative (state directed) water consumption rate of 150 GPCD is used for inside-the-home usage, the City of Washington Terrace will need

approximately 1,571 acre-feet of water by 2050. Assuming the current contracts and agreements with Weber Basin for 1,000 acre-feet remain the same, the City may not have adequate water supply to meet the future needs. For a more detailed look of the City’s current water supply and the future need and use projections see figure 4. Without implementing any water conservation measures the City may be required to develop or purchase additional water supply to serve the City’s culinary water needs. Table 3 shows a breakdown of water GPCD by type. We do not control the secondary water supply in our area and the outdoor use is metered through the same meter as indoor with no way to differentiate between indoor and outdoor use. The institutional outdoor use that we have is from the City’s parks that are all metered.

Figure 4

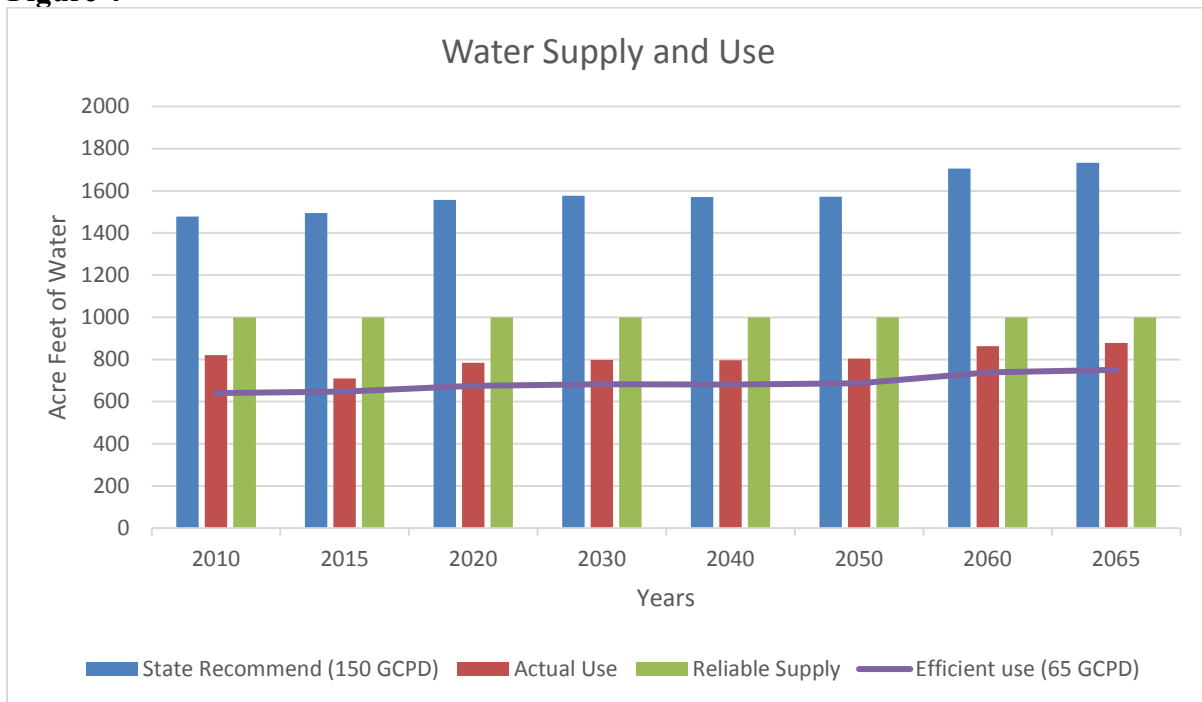


Table 3

	Indoor Use (winter Use)	Potable (outdoor)	Non-Potable (secondary)	Total
Residential	47	0	N/A	47
Comercial	3.5	0	N/A	3.5
Institutional	5.4	6.4	N/A	11.8
Industrial	0	0	N/A	0
Total	55.9	6.4	N/A	62.3

3.0 - WATER PROBLEMS, CONSERVATION MEASURES, AND GOALS

3.1 - Challenges Identified.

The City of Washington Terrace does not have a residents' committee that specifically addresses water conservation issues. However, in order to identify current water problems, conservation measures, and goals; the Public Works Department and the City Engineer have taken this responsibility and have listed items in this section. The following issues are currently being addressed in the water system.

1. From 2001-2002, all the residential manual-read meters were upgraded with new radio-read devices in Washington Terrace City. Those radio-read devices and subsequent upgrades failed, and the original water meters now exceed their expected life (1 MG measured or 10 years usage). Installation of new lead-free Badger Water Meters began in 2013. All the residential meters have been replaced; this was completed in 2017. Approximately 35 of the remaining

commercial water meters were completed in 2019. The meters needed replacement in order to more accurately account for all water used in the system and identify leaks as they occur.

2. The Adams Avenue water tank in Washington Terrace is a floating tank. Weber Basin's single supply line was connected directly into the distribution system and only filled the reservoir occasionally. A new metering station was constructed for direct feed into the Adams Avenue water tank. A SCADA system was also installed to monitor tank water levels and level control equipment is in place. A scheduled SCADA upgrade for the tank will give the ability control levels to meet diurnal water demands, but some system modifications must be installed before the tank can effectively feed the lower pressure zones in the City. The tank no longer wastes water because of overflows. The 500 West tank will go on line in 2021 with the same SCADA controls and will add to the City's water storage capacity, bringing it up from 3 million gallons to 4 million gallons.

3. The City does not have the means to accurately determine the total amount of water loss in the culinary water system. This includes water loss to firefighting use, hydrant flushing, sewer cleaning, and street sweeping. The City is actively pursuing reducing water losses by repair and replacement of failing infrastructure. The City will be metering water that is used for water system flushing and other city utility use starting in April of 2021. Please see the water conservation goals.

4. The current water pricing and updated billing system now have more incentives for residents and businesses to use water more efficiently. Utility rates are generally adjusted annually to cover the cost of operations and maintenance. As the cost of water becomes more expensive and availability more limited, utility rates will need to be adjusted and possibly include reverse-use incentives. The City has a water rate structure that encourages conservation.

5. Information has been distributed to residents through the City [Newsletter](#), the City web site, and social media for better understanding of efficient water-use habits and practices. Tips have also been published to encourage self-evaluation of leaks and reduce waste. In addition, the City has initiated a program to evaluate individual water usage and identify water leaks through the radio read system, personal phone calls, and on-site visits—reducing wasteful water use and water loss. Unfortunately, some water users do not take advantage of the information and services provided and chose to not conserve/save water.

6. While secondary water is provided through the summer months, some residents supplement irrigation needs with culinary water for a variety of reasons, including low pressures. Some residents also supplement irrigation needs with culinary water before secondary water is available in the spring and after it is shut off in the fall.

7. The City does not currently have a low water use landscape ordinance. This will be addressed in the near future with a group effort from the Public Works Department, Community

Development Department, The City Manager, and the Planning Commission.

The above issues represent opportunities to make changes and continue conservation measures.

3.2 - Water Conservation Goals

The following goals to reduce water usage and water losses have been identified:

GOAL #1 – Upgrade the current meter read software.

Upgrading the meter read software will give the City better water usage information. We will be able to get the information on a zone-by-zone basis or even a street-by-street basis. The info can be used to notify customers of potential leaks they may have. New systems also give consumers the ability to see their daily water usage from their home, giving them the information, they may need to help them conserve water.

GOAL #2 - Convert landscape irrigation from culinary to secondary water.

The City identified three (3) parks that were candidates for conversion from culinary water use to secondary irrigation. Negotiations were completed with Weber Basin Water Conservancy District in 2011 to allow secondary water connections at the three parks. Two of the parks were successfully converted. The conversion certainly added to the reduction the City experienced in culinary water use over the past two years. However, conversion of the remaining park has not taken place. The cost is prohibitive and cannot be justified from the standpoint of treated-to-untreated water-use costs.

GOAL #3 - Leak detection program.

Modeling of the City water system was completed in 2013. The dynamic model was successfully calibrated and revealed significant information about the system. No major leaks were identified when the model was run repeatedly.

Goal #3 was not fully met over the past five years; however, we found some chronic system leaks such as valves, mains, and laterals during that period and repaired them. Further analysis and investigation is ongoing. By 2022 the City will finish investigating the feasibility for and implement a system leak detection program. This will include researching technologies/methodologies for detecting system leaks, determining commercial/consultant capabilities, estimating costs, budgeting resources, and contracting for the service where/if

feasible. Identified system leaks would be prioritized and repaired as funding allowed.

Additional steps will be taken to reduce water losses as they are formulated.

GOAL #4 – Implement a low water use Model Landscape Ordinance

It is a goal and priority of the City to implement a low water use landscape ordinance. This will be in line with what our water supplier Weber Basin Water typical provides a has done and will help with the overall regional goals as well. This will be accomplished with a team effort from the Community Development department, Public Works department, City Manager and the Planning Commission.

GOAL #5 – Periodically update water rates as wholesale rates increase over time.

This goal is being met annually as part of the budget process analysis.

GOAL #6 - Public education.

Continue to publish articles in the City Newsletter concerning water saving tips, in-home leak detection/elimination, and conservative usage of secondary water. Work with water suppliers in educating the public. Continue to teach individual homeowners about water use and conservation.

GOAL #7 – Infrastructure replacement.

The City has updated its Capital Investment Plan in order to address the replacement of leak prone pipes and valves. The Terrace Capital Investment Projects (TCIP) are scheduled to start in 2021 and will continue for the next 5 to 6 years. Other infrastructure will be replaced in the future as funding is available. The Capital Investment Plan is updated on a regular basis and driven by infrastructure condition.

A significant amount of culinary water will, and has been, saved by applying these conservation goals. Gross uses are being monitored on a monthly basis via the water meters supplying the City's culinary water. The data is used for flagging potential education needs.

GOAL #8 – Reduce city green space areas.

During the current drought conditions, it has come to the City's attention that there is room for improvement on our own water use. There are several green spaces that the City owns that are covered with turf and require large amounts of water to be keep green. There are also areas around the City's building that could be changed to more water efficient plant and shrubs and

remove more grass area.

The grass areas the City owns use a significant amount of water to keep green. Changing some of the green areas to different plants or different types of landscaping materials like mulch or rocks can be a big water conservation measure.

4.0 - CURRENT CONSERVATION PRACTICES

The City of Washington Terrace currently has a Water Conservation Plan adopted in 2015. The City is continuing to implement water conservation measures. The City is continuously updating its Capital Investment Plan for culinary water line replacement, making older and leak prone pipes the highest priority. In addition, the City is currently taking an active role in educating residents about efficient water use. Educational newsletters about water conservation are sent out with water bills on a regular basis. This updated Water Conservation Plan will continue to give the City a structured method for the conservation of valuable water.

5.0 - CURRENT WATER RATES

Table 3 outlines the current water rates.

Table 3

Minimum Usage Allowance			
Connection	Base Allotment	\$ Base Rate / Month	\$ Overage Rate /1000 Gallons
3/4"	4,000 gallons	\$21.88	\$5.71
1"	7,500 gallons	\$41.02	\$5.71
1-1/2"	15,000 gallons	\$82.04	\$5.71
2"	22,500 gallons	\$123.06	\$5.71
2-1/2"	N/A	N/A	N/A
3"	37,500 gallons	\$205.10	\$5.71
4"	75,000 gallons	\$410.19	\$5.71
6"	1,000,000 gallons	\$3,823.44	\$4.01

Single	4,000 gallons	\$19.36	\$5.10
Duplex	8,000 gallons	\$38.72	\$5.10
Triplex	12,000 gallons	\$58.08	\$5.10

6.0 - ADDITIONAL CONSERVATION MEASURES

The current Washington Terrace water conservation program is directed primarily at managing the distribution system, accurately measuring usage, encouraging conservation through the rate structure, and providing educational materials to assist residents to use water more efficiently. Additional conservation measures may be needed during aberrant periods. Several measures are listed below.

Water Conservation Contingency Plan

The City will consider implementing a “Water Conservation Contingency Plan”, which spells out climate and political realities related to water use during drought or other water supply shortages. A sample plan follows:

Level 1 - Normal Years

- Initiate voluntary public conservation measures.
- Issue information to all customers on conservation procedures each can accomplish around their homes and properties.
- Eliminate watering on City property from 8 a.m. to 6 p.m. if using culinary water.

Level 2 - 75% of Normal

- Reduce watering of City property.
- Educate the public on the water supply shortages.
- Initiate mandatory public conservation measures.
- Enforce outside watering restrictions, including watering times and non-use of culinary water.

Level 3 - 50% of Normal

- Strictly enforce all conservation policies with significant fines for non-

- compliance.
- Physically restrict water supplies where possible at non-essential areas such as parks.

Additional non-emergency water conservation measures are listed below.

Water Education Program

The following information on efficient outdoor and indoor water use is available to water users within the City through county libraries, the Weber Basin Water Conservancy District, and dissemination in the City Newsletter included with the monthly water bill as appropriate.

Outdoor Water Use:

- Water landscape only as much as required by the type of landscape and the specific weather patterns of your area, including cutting back on watering times in the spring and fall. We encourage our customers to utilize the weekly lawn watering guide located at www.conservewater.utah.gov.
- Group plants in terms of water need, and zone sprinkler systems accordingly.
- Encourage customers to alter parking strips by allowing more water-wise plantings.
- Do not water on hot, sunny, and/or windy days. You may end up doing more harm than good to your landscape, as well as wasting a significant amount of water.
- Sweep sidewalks and driveways instead of using the hose to clean them off.
- Wash your car from a bucket of soapy (biodegradable) water and rinse while parked on or near the grass or landscape so that all the water running off goes to beneficial use instead of running down the gutter.
- Check for and repair leaks in all pipes, hoses, faucets, couplings, valves, etc. Verify there are no leaks by turning everything off and checking your water meter to see if it is still running. Some underground leaks may not be visible due to draining off into storm drains, ditches, or traveling outside your property.
- Use mulch around trees and shrubs, as well as in your garden to retain as much moisture as possible. Areas with drip systems will use much less water; particularly during hot, dry, and windy conditions.
- Keep your lawn well-trimmed and all other landscaped areas free of weeds to reduce overall water needs of your yard.

Indoor Water Use:

Over half of the total water use in a household is used in the bathroom, as shown in Figure 1. Concentrate on reducing your bathroom use. The following are water conservation suggestions for indoor areas:

- Do not use your toilet as a wastebasket. Put all tissues, wrappers, diapers,

- cigarette butts, etc. in the trash can.
- Check the toilet for leaks. Is the water level too high? Put a few drops of food coloring in the tank. If the bowl water becomes colored without flushing, there is a leak.
- If you do not have a low volume flush toilet, put a plastic bottle full of sand and water to reduce the amount of water used per flush. However, be careful not to over conserve to the point of having to flush twice to make the toilet work. Also, be sure the containers used do not interfere with the flushing mechanism.
- Take short showers with the water turned up only as much as necessary. Turn the shower off while soaping up or shampooing. Install low flow showerheads and/or other flow restriction devices.
- Do not let the water run while shaving or brushing your teeth. Fill the sink or a glass instead.
- When doing laundry, make sure you always wash a full load and/or adjust the water level appropriately if your machine has adjustable water levels. Many machines use 40 gallons or more for each load, whether it is two socks or a week's worth of clothes.
- Repair any leak within the household. Even a minor slow drip can waste up to 15 to 20 gallons of water a day.
- Know where your main shutoff valve is and make sure that it works. Shutting the water off yourself when a pipe breaks or a leak occurs will not only save water but will also eliminate or minimize damage to your personal property.
- Keep a jar of water in the refrigerator for a cold drink instead of running water from the tap until it gets cold. You are putting several glasses of water down the drain for one cold drink.
- Plug the sink when rinsing vegetables, dishes, or anything else. Use a sink full of water instead of continually running water down the drain.

7.0 - COST ANALYSIS

GOAL #1 – Upgrade the current meter read software.

A radio transmitting reading system will give accurate readings every 4 hours. There will also be customer portal available. Customers can log into their account and see their daily use. With this information available to the customers, we can improve water conservation. There will be significant cost saving in the consumer having the ability to see the breakdown of their daily water use, cutting back the need to send public works employees out on meter appointments and less time spent by utility billing on the phone answering customers questions. This project is slotted to be paid for with future grants.

GOAL #2 - Convert landscape irrigation from culinary to secondary water.

The City’s goal of converting park areas from culinary to secondary water irrigation has been met from an economically feasible standpoint. However, the possibility of converting one additional area to 2nd water will continue to be evaluated. At this time, accomplishment of this goal will net a negative savings, in that 1,000 acre-feet of culinary water is paid for each year whether it is used. Secondary water will be charged on an acreage basis. Savings in culinary water use are projected to be approximately 2.1 acre-feet/year if the one remaining park were converted to 2nd irrigation water.

GOAL #3 - Leak detection and elimination.

- Look for inexpensive method to get program up and running - in progress.
- Determine cost effectiveness of a contract or owning equipment. -in progress
- Determine type or brand of equipment – in progress.
- Determine feasibility of contract that examines different parts of the system annually on a rotating basis. (Rural Water?)- in progress.
- Look at possible contract for an outside contractor to test the entire system. -in progress.

There are no projected cost figures for this goal at this time. Implementation steps include cost determination and prioritization.

GOAL #4 – Implement a low water use Landscape Ordinance

Cost projections for completion of this goal are estimated to be the time of staff involved in the development of the ordinances and possible legal analysis.

GOAL #5 - Periodically update water rates as wholesale rates increase over time.

This goal will be cost-neutral. Evaluate and update rates as required for system operations and maintenance. The goal will help conserve water.

GOAL #6 - Public education.

This goal will require minimal funding, in that much of the information will be distributed on the City web site, in the monthly Newsletter, and one-on-one with residents. Even so, this goal is projected to have the greatest impact on water conservation—especially on landscape irrigation water usage.

GOAL #7 – Infrastructure replacement.

The Terrace Infrastructure Replacement Project will include a large number of projects. It is anticipated that some projects will be funded by Community Block Development Grants, like

the Valve Replacement Project, and others will be funded through utility fund capital resources or bonding as needed.

GOAL #8 – Reduce city green space areas.

The City is working on a plan to reduce the size and type of green spaces throughout the city properties. This will be an ongoing process that will ne addressed as funds become available for the project. This will help to reduce the overall water that is being used and will show the City as an example to the residents.

8.0 - IMPLEMENTING AND UPDATING THE WATER CONSERVATION PLAN

To ensure the goals outlined above are reached, appropriate tasks must be determined, responsibility fixed with the logical person or department, and a timeline set for completion of each task. In order to do this the Public Works Department and/or City Engineer will review and update the Water Conservation Plan every five years. The Public Works Department and City Engineer will ensure that the measures listed in this updated plan are addressed.

8.1 - Notification Procedure

The adopted Water Conservation Plan will be on record at the City of Washington Terrace offices and available to anyone who desires to have a copy for the cost of production. All residents will be notified of the newly adopted plan with their water bill and the plan will be posted on the City’s website at: www.washingtonterracecity.com.

8.2 - Implementation

The following are items that will be addressed, and a plan established to accomplish the goals stated in Section 3.2.

Goal #1 - Upgrade the current meter read software to the radio reading system.

- Explore meter read update option – accomplished.
- Identify update option to be made. - accomplished.
- Estimate costs for upgrade – accomplished.
- Have automated customer information up and running. – 2022.

Goal #2- Convert landscape irrigation from culinary to secondary water.

- Identify park areas to be converted - accomplished.
- Estimate costs for conversion - accomplished.
- Secure secondary water source - accomplished.

- Identify sources of funding and budget for piping, pumps, electrical power, filters, pumps, etc. - accomplished.
- Schedule installation – accomplished, summer 2013.
- Wright Park will be converted when the cost of culinary water is more than the 1000 acre feet we pay for, which projections show may happen in the future.

Goal #3 - Leak detection, reduction, and elimination.

- Research technologies/methodologies for detecting system leaks - accomplished.
- Identify capable firms for project completion – fall 2021.
- Obtain rough cost estimates -fall 2021.
- Identify sources of funding project -2022 budget cycle.
- Develop RFP, advertise, award contract -2022
- Buy testing equipment for staff use-2022 or 2023 budget cycle.
- Identify leaks sites and prioritize repairs. Make repairs – as funding allows.

GOAL #4 – Implement a low water use Model Landscape Ordinance

- Estimate costs for project – Employee time.
- Craft City ordinance- fall 2021
- Bring before the Planning Commission for approval.
- Approval by legal and City Council

Goal #5 - Up-date water billing rates as water suppliers increase rates.

- Determine funds needed to cover all costs associated with water distribution system operations and maintenance – ongoing budget cycle.
- Budget for capital improvements and acquisitions – ongoing budget cycle.

Goal #6 - Public education.

- Continue present program – ongoing process.
- Stress secondary water conservation - periodic Newsletter articles.
- Coordinate effort for water conservation with water suppliers – ongoing process.

Goal #7 –. Infrastructure replacement.

- Determine funds needed for project – accomplished.
- Schedule Terrace Capital Investment Projects (TCIP) for the next 5 years
- Schedule future projects in the Capital Investment Plan – ongoing as prioritized.
- Budget for project – ongoing process.
- Design, bid, build project – as funding allows.

Goal #8 – Reduce city green space areas.

- Determine the areas to be reduced or replaced.
- Change the type or irrigation to match the changes.
- Continue to identify future ways to save water on city greenspaces.

8.3 – Updating.

As the implementation of this Water Conservation Plan progresses there will be some measures that will work well and others that may not. The Public Works Department and/or City Engineer will have the assignment of evaluating the success and effectiveness of the measures taken and documenting the results. When the time comes to again update the Water Conservation Plan the results will be assessed and reported. This will be done every five years and an up-dated Water Conservation Plan will then be created.

APPENDIX A

WASHINGTON TERRACE CITY PARK/LANDSCAPE INVENTORY

**Yearly Potable Water Usage*
Washington Terrace City Parks**

	Park/Property Name	Type	Park Size (Acres)	City Water	Gallons/Year (Million)
1	Rohmer Park	Park	19.15		
2	Van Leeuwen Park	Park	5.33	X	3.31
3	Victory Park	Park	1.53	X	1.26
4	Recreation Center Park	Park	1.38	X	1.96
5	Lions Park	Park	1.44		Secondary
6	Wright Park	Park	0.71	X	0.81
7	Detention Basin Park (5405 S 300 W)	Park	0.77		Secondary
8	Johnson Entrance (300 West)	Open Space	0.30		Secondary
9	East Entrance (Washington Blvd)	Open Space	1.19	X	1.86
10	5000 South 300 West Detention Basin	Storm Drain	0.44	X	0.43**
11	Old Fire Station	Storm Drain	0.75	X	1.18
12	500 West Water Storage Tank	Water Tank	1.55		Secondary
13	Adams Ave. Water Storage Tank	Water Tank	1.26		Secondary
14	City Hall	City Building	0.60		Secondary
15	5600 South Adams Ave.	Library Lot	0.73		Secondary
16	4700 South 150 East Garden Area	Garden	0.01		Secondary
	Total		37.14		10.11

* Assumes 36 inches/year application rate estimate.

This is estimated other parks are actual. Meter reading

** not available.

Note: 10.11 Million gallons = 31.03 acre-feet

APPENDIX B

WATER CONSERVATION PLAN RESOLUTION