

TOOELE CITY CORPORATION

Water Conservation Plan

Updated—December 2021

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WATER CONSERVATION PLAN

INTRODUCTION

Tooele City is located in the southeast corner of Tooele Valley, and is nestled along the western foothills of the Oquirrh Mountains. The community was settled as an agricultural community which relied upon the sometimes unpredictable flows within Middle Canyon and Settlement Canyon drainages. These flows, supplemented with springs, provided the water needs of the young community. As Tooele grew to accommodate an active mining and smelting industry, an expanding military presence, as well as being a bedroom community for Salt Lake employers, groundwater wells were added. The City has successfully expanded its resources to meet the growing community needs for municipal service.

A general decrease in mining and smelter activity in the adjacent Oquirrh Mountains kept the population of the City between 12,000 and 15,000 persons between 1970 and 1990. Commencing in about 1996, the City began a period of unprecedented growth. The source of this growth was attributed to a combination of the availability of competitive priced houses for first time buyers, low mortgage interest rates, increased congestion along the Wasatch Front, the reconstruction of I-15, upgrades to State Road 36, and quality of life. By the year 2003, the population had swelled to approximately 26,000 and the city corporate boundaries had essentially doubled. The current population is estimated at 37,465. In order to meet these growth demands, the City continues the task of developing new water.

This water conservation plan has been written and updated to address the concerns of leaders and citizens of both Tooele City and the State of Utah. This plan discusses the City's water resources and how the City plans to manage its resources through water conservation measures.

WATER SYSTEM PROFILE

System ID

The system name and address for Tooele City are as follows:

Tooele City Corporation
90 North Main
Tooele, Utah 84074
(435) 843-2130
System Number: 23004

Contact: Jamie Grandpre, Public Works Director

Planning

Tooele City affords the benefits of small city life, while providing the sense of dynamic growth and change. The City's leaders have developed master plans which include broad ranges of diversity. These include large tracts of open space and parks mingled throughout and adjacent to residential neighborhoods, the placement of commercial centers along principal transportation corridors, and the inclusion of an industrial area within the former Tooele Army Depot property, and the development of an education center for secondary, post secondary institutions and trade programs. Each of these uses encourage continued, healthy growth.

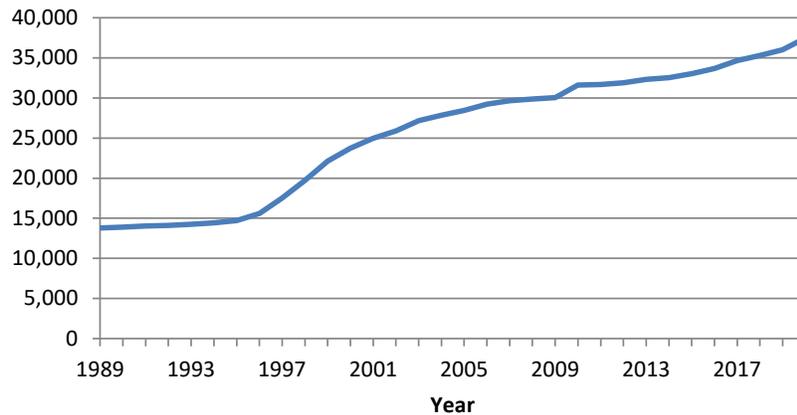
Tooele City continues to receive a significant portion of the county's residential, commercial and industrial growth. This growth causes changes in the way the land within the city limits is currently being utilized and could easily strain the ability of the present water supply and delivery system to meet future demands if left unchecked. Through careful planning and efficient utilization of available water supplies and infrastructure, these increased needs can, and will, be met.

The City's current Culinary Water Master Plan was updated in May 2021 by the engineering firm of Hansen, Allen & Luce. The master plan was developed based upon the premise that the City would one day be fully developed in accordance with present zoning land uses. While the City was shown to have adequate resources for its present and near future development, the message was simply that the City would require significant additional water resources if it planned to continue growing. As a result, the City continues to require that all new development provide culinary water rights to the City as a condition of development and according to their impact. In addition, the City charges water impact fees to new development.

Population

As shown in Figure 1, the City has experienced significant growth demands within the past several years. In the mid 1990's, the City growth rates increased from approximately 3.3% and 7.2%. The growth rate further increased between 1997 and 1999 to approximately 14% per year. Since 2015, the growth rate within the City has averaged 2.7% per year.. The 2020 population estimate of Tooele City is 37,465. Tooele is entering a new hase of rapid, double-digit growth.

FIGURE 1. POPULATION



Based upon information provided by the Governor's Office of Planning and Budget, the City's population growth through the year 2060 is expected to continue to grow annually at approximately 2.5%. At this assumed rate the population of Tooele City would be approximately 100,700 persons by the year 2060, or approximately 2.7 times the existing population. As history has shown, many factors influence this projection and the estimates shown may vary substantially from the actual population experienced. One of the most serious challenges to meet future needs will be the availability of a sufficient quantity and quality of water.

Connections and Use

Table 1 summarizes the current number of Equivalent Residential Connection (ERC's) by customer type. Table 2 summarizes the number of meters by size.

**TABLE 1.
EXISTING ERC's BY CUSTOMER TYPE**

Type	No. of Customers
Church	250
Tooele City	310
Commercial	1,470
Construction Water	5
Industrial	320
Livestock	5
Middle Canyon Irrigation	215
Multi-Unit	925
Residential	9,240
Restaurant	185
School	490
Trailer Park	500
Wholesale (Lincoln)	45
Total	13,960

* Source: Culinary Water Master Plan (HA&L, 2021)

**TABLE 2
SUMMARY OF WATER METER SIZES**

Meter Size	No. of Meters
½" to ¾"	9,879
1"	689
1 ½"	124
2"	136
3"	25
4-8"	24
Total	10,877

Annual Water Supply and Purchases

Tooele City currently provides culinary and secondary water for the community through the Tooele City Water Special Service District. (The City and the District will collectively be referred to herein as the City.) In addition to the City's water system, there are two private companies which deliver irrigation water within the corporate boundaries of the City. These include *Middle Canyon Irrigation Company* and *Settlement Canyon Irrigation Company*. These irrigation companies are working to install meters within their system.

Culinary System

The City's culinary system presently consists of 13 operating wells and various springs. These sources are operated in accordance with regulations of the State Division of Drinking Water and the Office of the State Engineer. For the most part, the City's water rights are not assigned to specific wells, rather they have been assigned to multiple points of diversion from various City wells. While this does not increase the actual capacity of the well or the water right, it does allow the City to better manage its resources to meet demands within the City.

The City owns interests in water rights from a number of general water use areas. These include Tooele City and vicinity, Grantsville, Stockton (identified as Hogan) and Barrick. Collectively these rights allow the beneficial use of approximately 14,930 acre feet, which are all presently classified for municipal use, and are as shown on Exhibit A. It should be noted that this volume includes all types of water rights (Water User Claim, Certification, Proposed Determination, Application, etc.). A summary of these water rights is contained within the Appendix.

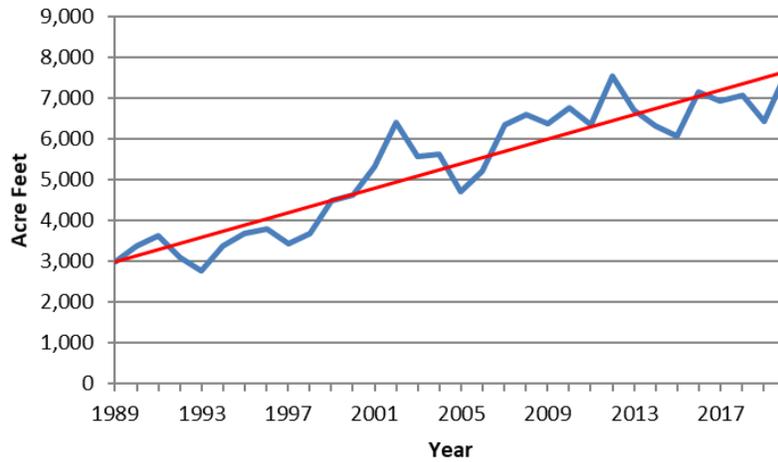
In addition to the water rights referenced above, the City also owns certain rights near Vernon, Utah, which is located approximately 35 miles south of the City. At this point in time, these rights are believed to have a diversion right in excess of 4,300 acre-feet when fully developed. When these rights are converted to municipal use within the City in the future, it is anticipated that the State will limit the irrigation rights to the historic depletion limit, or roughly 55%. Given these assumptions, the actual Vernon rights will be limited to approximately 2,400 acre feet. This value, together with the City's other rights referenced above, total approximately 17,330 acre feet.

In addition to the above referenced water rights, the City also has a water development agreement with Kennecott for the development of approximately 7,487 acre feet of water rights.

The City has developed source capacity for 500 acre feet of the Kennecott water. The water rights held by the City are sufficient to meet current and obligated demands. However, additional water rights, along with increased conservation efforts, will need to be acquired in order to meet the projected demands.

Pumping and discharge records for the City's wells and springs are maintained by the City. A summary of the total water produced by the City through 2020 is as shown in Figure 2.

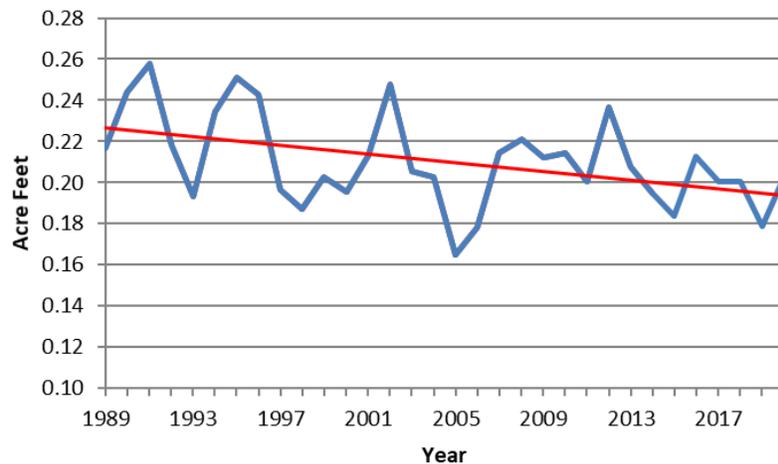
FIGURE 2. WATER PRODUCTION



As shown, the City has been withdrawing increasing amounts of water from the aquifer to meet the demands of new residential, industrial and commercial growth.

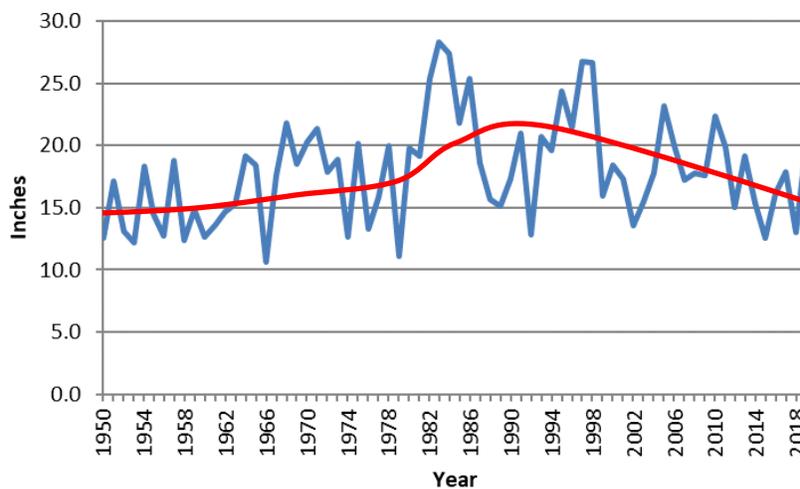
Figure 3 shows the water production per capita over the past 25 years. This figure represents all water used within the service area. Using linear analysis, the per capita demand is calculated to be approximately 0.195 acre-feet per year. This value is 0.005 acre feet less than the value reported in 2015.

FIGURE 3. WATER PRODUCTION PER CAPITA



There are certainly variations in water production year to year, which are attributed to annual and seasonal precipitation, snowpack, temperature, etc. However, as shown in Figure 3 there is a downward trend in the water production requirements per capita over the recent 30 year period. As mentioned above, precipitation plays a role in all aspects of water planning. Figure 4 illustrates the total rainfall received at the Tooele City station for the time period 1950 thru 2020. Over this time period, the variations in annual precipitation depth have ranged from a low of 10.6 inches received in 1966 to a high of 28.3 inches received in 1983. Complete annual precipitation totals prior to 1950 are incomplete. Patterns are cyclical in nature, and suggest that the City should anticipate a further decline in precipitation for at least the next several years.

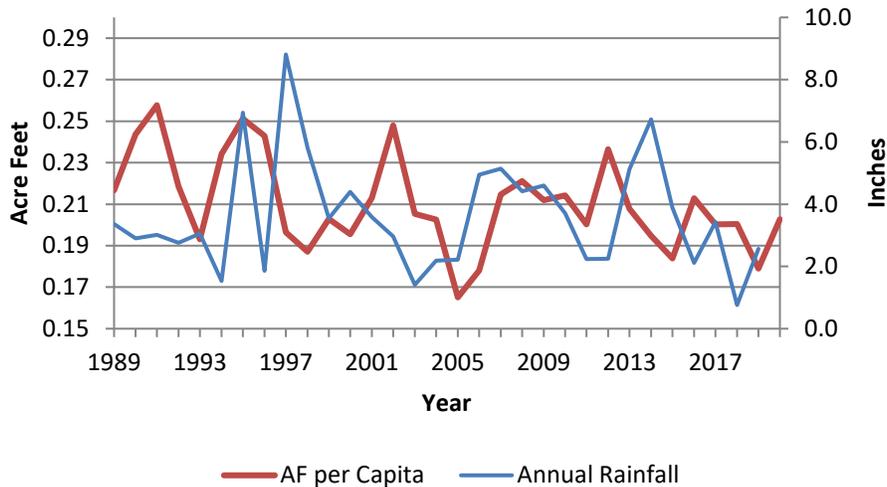
Figure 4. Annual Precipitation (City)



When considered together, Figures 3 and 4 indicate that in spite of the decrease in annual precipitation over the past several years, the City has at the same time been able to progressively reduce water demand per capita, allowing substantial growth.

As shown in Figure 5, there is a reasonable correlation between annual water production per capita and precipitation received at the Tooele City weather station during the high water demand growing season (June thru September).

FIGURE 5. WATER PRODUCTION PER CAPITA VS. SUMMER PRECIPITATION



Using the available City data, the current average of 177 gallons of culinary water per capita per day (gpcd) is calculated when all uses of culinary grade water are compared with the total number of residents living in Tooele City. Not only is this number significantly lower than the statewide average of 221 gpcd (as reported by the “Draft” 2021 State Water Resources Plan), but is also approximately 10% lower than the per capita value of 197 reported in the City’s 2010 Water Conservation Plan.

Secondary Water

In the year 2000, the City put into use the new Tooele City Water Reclamation Facility, which has the design capacity to treat approximately 3.4 million gallons of effluent per day. The current level of treatment is approximately 2.4 million gallons per day. This water is currently being delivered to, and stored in, 17 storage lakes which the City has constructed, and is used on the adjacent Links at Overlake 18-hole golf course.

In addition to the reuse water, the City also owns irrigation water rightswithin the service area of Tooele City, as well as irrigation rights which are located in the vicinity of the City’s Vernon sod farm.

The City also owns significant shares of stock in both the Middle Canyon and Settlement Canyon Irrigation Companies. Water delivered from these systems is used on the City’s Golf Course, City parks, City cemetery and open space. A summary of the City’s irrigation shares are as shown in Table 3.

**TABLE 3.
IRRIGATION COMPANY SHARES**

Irrigation Company	Water Right	Total Shares	Total Quantity (AF)	Tooele City Shares	AF per Share*	Tooele City Quantity (AF)
Middle Canyon Irrigation Company	15-2184 15-597	1,884	3,121.8	509.5	1.67	850.9
Settlement Canyon Irrigation Company	15-182 15-5021	4,320	4313	711	1.00	709.8

The available acre-foot per share quantity varies depending upon actual flow.

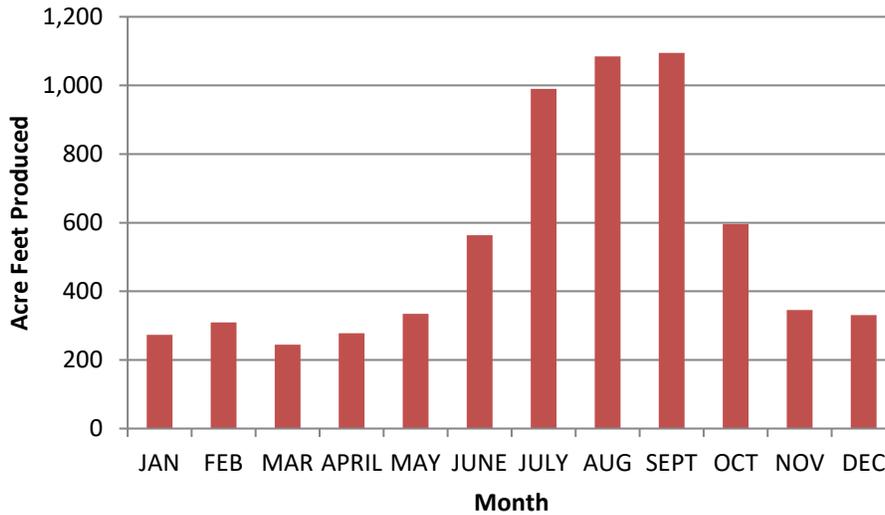
In 1997, the City signed an agreement with Middle Canyon Irrigation Company whereby the City received the rights to the Middle Canyon flow in exchange for allowing shareholders within the City's limits to connect to the City's culinary line and receive pressurized water. This exchange was beneficial to the City in that it allowed the City to construct storage ponds adjacent to Middle Canyon for storage of secondary water, eliminated inefficiencies in the historic ditch distribution system and flood irrigation methods used on private lots throughout the eastern portions of the City, and minimized the need for furnishing culinary grade water for the City's Oquirrh Hills Golf Course and Elton Park. In order to increase efficiency and promote water conservation, the City also replaced the inefficient irrigation system on the Golf Course and Elton Park.

The City plans to expand the secondary water system to public and institutional uses in the City.

Peak Water Demand

The City's current typical water demand distribution throughout the year is as shown in Figure 6. As anticipated, the water production through the summer months of June through September are three to four times the demand of the winter base months. The average culinary water demand increases from approximately 250 acre feet per month in the winter to in excess of 1,000 acre feet per month in the summer.

FIGURE 6. SEASONAL WATER DEMAND



Pricing

The City has adopted a tiered water rate schedule for culinary users as a means of promoting water conservation. The base fee is dependent upon the size of the water meter with an accompanying base rate. A stepped increase fee is then applied based upon water usage. The more water used, the higher the cost per unit of water. The additional water funds generated from the use fees will be used by the City for developing new water sources and for upgrades within the existing system to improve efficiency.

The rate schedule for culinary water is as shown below in Table 4.

**TABLE 4.
TOOELE CITY WATER RATES**

Monthly Base Fee		Monthly Usage in Units* (All Meter Sizes)	Additional Charge per Unit (All Meter Sizes)
3/4" Meter	\$10.00	0-10	\$0.75
1" Meter	\$15.00	11-30	\$1.00
1.5" Meter	\$22.50	31-50	\$1.25
2" Meter	\$30.00	51-70	\$1.50
3" Meter	\$37.50	71-90	\$1.75
4-6" Meter	\$45.00	91+	\$2.00

* One Unit of Water = 750 gallons

Rates Effective June 1, 2003

CURRENT CHALLENGES AND OPPORTUNITIES

The following items have been identified as essential to implementation of an effective water conservation plan:

- The current water pricing was most recently adjusted in the summer of 2003. In general, water demand per ERC is declining, but further reductions are desirable. With the updated water master plan information now available, the City is currently evaluating its culinary water impact and user fees. These fees and pricing may contribute to further reductions in water demand.
- The City has taken several steps to correct areas of low water pressure. However, there remain a very few isolated areas of relatively low water pressure in portions of the City during peak summer demands. Although these low pressure areas exceed minimum State requirements, the City desires to address residential complaints about relatively low pressure.
- Citizens generally lack information and understanding of landscaping water requirements and efficient water-use habits and practices: Few residents know how much water is required to maintain healthy landscaped areas and how to consistently use water efficiently indoors. Most citizens' irrigation and indoor practices are based on convenience (e.g. automatic sprinkler timers, etc.) rather than actual plant needs, water supply considerations, or weather.
- The City has taken major steps to replace old meters. However, there are still several meters which should be replaced due to age and obsolescence. Each year, the City will need to replace meters that have been in service for several years and need to be replaced. One limitation the City is facing at this time is the shortage of water meters due to limited availability of the chips used to monitor and record data. It is hopeful that the supply chain issues are resolved shortly.
- Many trees and shrubs on the city's acceptable plants list are high water users. The list should be evaluated and revised to favor lower water use plantings.
- Many Tooele City families have favored large areas of grass and water intensive landscaping. As shown previously in Figure 6, these irrigation needs usually create a water use peak in July and August, which strains the existing water delivery system and will necessitate upgrades to main delivery lines and reservoir capacities.

CURRENT CONSERVATION PRACTICES

Tooele City's current water management program has the primary focus of managing water resources during times of shortage and/or times of natural disaster such as earthquake, fire, power outages, etc. Existing management measures taken by the City include the following:

- Adoption of an updated Drinking Water Source Protection Contingency Plan.
- Development of reuse water for golf courses, schools, parks and other open spaces.
- Continued operation of the Tooele City Water Reclamation Facility, which provides irrigation water from the City's waste water system.
- Development of distribution system improvements to allow for more effective use of the City's Middle Canyon Irrigation Company shares.
- Continued and more efficient use of Settlement Canyon Irrigation shares on City parks, Cemetery, and other open space.
- Adoption of a revised, graduated culinary water user rate structure to encourage conservation and discourage excessive water usage.
- Instigate voluntary and involuntary public conservation measures.
- Ongoing replacement of aging water meters and water mains.
- Upgrading of Pressure Reducing Vaults with SCADA for earlier detection of pressure problems.
- Information/Education of the Public as to the water supply situation and water efficient landscaping.

In addition, the following tools are available by ordinance for enforcement as necessary:

- Elimination of watering on City owned property during the hottest times of the day.
- Enforce watering restrictions for all portions of the City including watering days and times.
- Encouragement of voluntary watering restrictions between the hours of 10:00 a.m. and 6:00 p.m. and on Sundays.
- Inform the public about water conservation through the City "*90 North Main*" newsletter, social media platforms, and in other ways.
- Instigate emergency water conservation measures:
 - Enforce conservation policies with fines for non-compliance
 - Physically restrict water supplies as needed to meet the essential needs of the public for life, health and safety, in the following order:
 - outside irrigation systems
 - park properties and other non-essential support facilities
 - commercial businesses
 - residential areas

GOALS

In pursuit of solutions to the challenges identified previously, and in light of the variety of conservation measures available to address these challenges, the following goals have been identified:

1. **Maintain a financially viable water system.** The water pricing system should encourage customers to reduce use without creating a revenue shortfall. The system should be evaluated on a regular basis to ensure fiscal viability while furthering the City's water conservation objectives.
2. **Reduce the city's per capita water use rate by 10 percent in five years.** The current calculated average water-use is 177 gallons of culinary water per capita per day (gpcd). The City desires to bring this down to 160 gpcd (177 gpcd x.90) through a combination of the following:

- A. **Meter Replacement and User Leak Detection Program**

Over time, all meters become less accurate in recording actual flows. This leads to lost revenue to the city and inaccurate data to citizens. Meters should also be placed on all parks and open spaces not currently metered. The City is continuing an aggressive program to replace all old meters. While replacing a meter does not by itself decrease water usage it does provide a means whereby excessive users can be identified, and assists in identifying leaks on the users' side of the water meter more readily as well as providing a more accurate picture of water usage in the City. The City is now on a regular schedule for maintenance and replacement.

- B. **Improved Efficiency in Irrigating City Parks and Other Open Spaces**

Since the 2015 update the City has updated the irrigation system at Elton Park, and has added controllers at the Dow James, England Acres, City Park and Rancho parks. However, there remain other park areas where the infrastructure is aging, and are in need of replacement. Efficiencies typically are also decreased due to the need for manual watering requirements and/or limited available staff. Over watering of public spaces beyond the vegetative requirement is not uncommon throughout the State.

The City should also use reuse and other non-culinary water for other parks as systems become available for use. The City Parks and Recreation Department recognizes this fact, and has taken steps to reduce inefficiencies at the City's open spaces. The City continues to evaluate its other parks and open spaces for irrigation efficiency and plan for similar upgrades and replacements, where possible.

C. Information

The City provides informational material to residents and businesses who irrigate landscapes about how to use water more efficiently to improve water conservation. The plan should focus on the needs for water conservation, community challenges, and alternatives which are feasible. The plan should also discuss the rationale behind the actions taken as well as the monetary benefits to the consumer.

D. Identify high water users

Many times high water users are not consciously aware of the fact that they use Residential and commercial users are encouraged to exchange old high water-use toilets and shower heads for ones that are more efficient. The Division of Water Resources has previously estimated that such programs could reduce residential indoor water use by 33 percent

E. Plumbing Fixture Replacement

Residential and commercial users are encouraged to exchange old high water-use toilets and shower heads for new more efficient ones. The Division of Water Resources has previously estimated that such programs could reduce residential indoor water use by 33 percent.

Many of the city's homes and businesses have been built prior to 1992 when plumbing codes were revised to require low water-use toilets and low flow showerheads in new construction. Assuming one-half of the 177 gallons per capita per day (gpcd) is used outdoors, then 89 gpcd is being used indoors. Reducing this by only 20 percent will save 18 gpcd. Using an average occupancy of 3.5 people per connection, this will save approximately 63 gallons per day in each home. If 4,000 of the existing residential equivalent connections in the city have old plumbing, the reduction in water use would be 252,000 gallon per day.

F. Perform Main Line Leak Detection Analysis

Many of the City's culinary pipes are aging, and may be experiencing unknown and/or unidentified leakage. Along with the meter replacement program, there are several different leak detection methods available to the City. These tools will place the City in a better position to be able to evaluate leaks sooner, and implement repairs to stop the loss.

G. Expanded Use of Reclamation Water

The City is currently preparing a Water Use Plan for reclamation water within the northwest quadrant of the City. The information obtained from this ongoing study will be used to guide decisions related to the expansion and most beneficial use of this resource.

3. **Maintain or improve the appearance of street landscapes, open spaces, and yards.** Improved irrigation practices and water efficient landscapes will enhance the beauty of the city. The City will perform an evaluation of park strip planting requirements, including the possibility of eliminating grass and requiring drought tolerant plantings with drip irrigation.

COST ANALYSIS

Cost of Reducing Water Consumption by 10%.

Meter replacement is not included herein as it is less of a conservation measure, than a tool to help identify abuses and/or deficiencies of the system.

During this last few years, the City upgraded the irrigation systems at Elton Park and City Park. The costs associated with replacement/upgrade of the remaining irrigation systems in the City's parks will require several years to complete. The Red DelPapa Park and the City Cemetery are perceived as the next most beneficial projects which should be undertaken within the next five years. The cost of the irrigation system for these projects is estimated at approximately **\$400,000**.

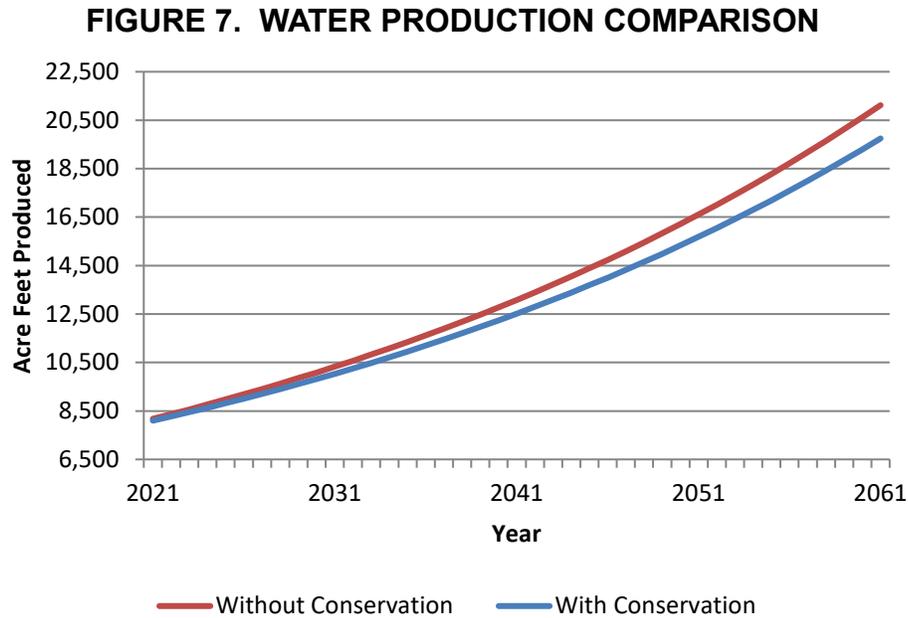
Costs and delivery methods associated with public information will vary significantly depending upon the method utilized for informing the consumer, and have not been analyzed.

The costs associated with identification of high water users are not anticipated to be extreme. Rather, it is anticipated that the existing software utilized by the City may be modified to further enable the City to automatically flag customers who experience unexpected water usage (leaks) and/or those who consistently have higher than average water demands. The cost to administer this program is anticipated to consist of programming costs and some limited administrative time to issue notices to customers. Estimated cost **\$20,000/year**.

Leak detection costs will also vary significantly depending upon conditions encountered. Initial detection is anticipated to occur through use of the City's existing monitoring and record files. Various field detection methods exist, with their cost also varying depending subsurface conditions, time of year and other factors. In addition to underground pipes, the City also inspects each water storage tank periodically for leaks, seepage, or other damage.

Near and Long Term Benefits of Reducing Water Consumption by 10%.

Figure 7 represents a graphical comparison between the culinary water demand requirements for the City Based through the year 2061 without conservation vs. that of a 10% reduction.



The net impact of this comparison over the next twenty-year period is a yearly reduction of 568 acre feet required capacity in the year 2041, and 1,370 acre feet by the year 2061. Based upon this simple analysis, the cost savings which the City could experience within the next twenty years (2041) is as shown below.

**TABLE 5
TWENTY YEAR COST SAVINGS**

Fact	Savings
Pumping Capacity of 568 Acre Feet requires one new well	Drilling and equipping cost for a culinary well is approximately \$2.5 million . This cost does not include transmission piping costs necessary as wells are located further from the service area.
One time purchase of 568 acre feet of water at \$15,000/acre-foot	Net one time cost \$8,520,000
Cost savings by not having to up size culinary distribution, storage and transmission lines	Significant , not calculated

IMPLEMENTATION PROCEDURE

Public Information

The distribution of information to the public is perhaps the most effective measure that the City can undertake at this time. Informational facts which could be forwarded in mailers and other delivery methods, including social media to all residents include the following:

Outdoor Water User:

- Water landscape only as much as required by the type of landscape, and the specific weather patterns of your area.
- Leave lawns longer in height during the summer months and leave lawn clippings on the lawn.
- Aerate lawns in the spring and fall in order to promote healthy lawn root growth.
- Do not water on hot, sunny, and/or windy days. You may actually end up doing more harm than good to your landscape, as well as wasting a significant amount of water.
- A single lawn sprinkler spraying five gallons of water per minute uses 50 percent more water in just one hour than the combination of 10 toilet flushes, two five-minute showers, two dishwasher loads, and one full load of laundry.
- Sweep or blow sidewalks and driveways instead of using the hose to clean them off.
- Visit the Utah Water Savers website for information related to water conservation programs and rebates for *Toilet Replacement*, *Smart Controller Rebates*, *Localscape Rewards* and *“Flip Your Strip”*. This information will be posted to the City’s web page and social media platforms as well as to it’s 90 North Main publication which is distributed to all residents.
- 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 to waste.
- 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 granular soil conditions and the size of the leak.
- 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.

- Visit the Jordan Valley Water Conservancy District website for information related to water efficient landscaping, irrigation, and events and classes all directed towards creating efficient and healthy landscapes.

Indoor Water User

About two-thirds of the total water used in a household is used in the bathroom. Concentrate on reducing your bathroom use. Following are suggestions for this specific area:

- Do not use your toilet as a wastebasket. Place 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.

Opportunities to conserve water also exist in other areas of the home:

- When doing laundry, make sure you always wash a full load or adjust the water level appropriately. Most machines use 40 gallons or more for each load, whether it is two socks or a week's worth of clothes.
- Repair all household leaks. 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 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 only a sink full of water instead of continually running water down the drain.

The City has begun, and will continue to implement the following areas:

- Meter Replacement and Leak Detection
- Improved efficiency in irrigating City Parks and other Open Spaces
- Identification of high water uses and distributing informational packets to high water users
- Support programs which lend to plumbing fixture replacement.
- Continued training for City staff in effective water conservation strategies.

MONITORING AND EVALUATION

Following adoption of this Conservation Plan, the Public Works Director or his designee will be responsible to coordinate the necessary tasks and monitor the impact of water conservation measures. Funding for implementation of this plan is part of the City's budget with funds derived from a combination of general funds, water enterprise funds, and impact fees.

Statistical data will be evaluated on a regular basis, not to exceed 12 month periods, and will consider the following information:

1. Water Production Capacity
2. Population and Number of Connections
3. Total water produced
4. Total water consumed
5. Evaluation of leaks and losses based on production/consumption
6. Water revenue
7. Review education progress
8. Other data contained in water planning and water utility documents.

A yearly summary should be prepared and presented to the Administration and City Council for their information and support.

PLAN UPDATES AND ADOPTION

Updates should be considered by the City based upon the yearly information provided and adopted as needed.

APPENDIX

Water Right Summary

Water Conservation Programs and Web Sites

- Utah Water Savers
- Jordan Valley Water Conservancy District

Summary of Tooele City Water Rights (Excluding Water Rights in Vernon and Kennecott Rights)

Updated 31-Mar-21
(State Division of Water Rights - On-line Data Files)

City / District as Applicant (PART OWNERSHIP)
City / District Fully Own

User Group	Water Right Number	Total Water Right Quantity	City / District Owned Quantity AF	Area of Use	Owner	Status
9809	15-2858	956.2233	956.223	Barrick	TCWSSD	APPROVED
9809	15-2922	1.0 cfs	273.207	Barrick	TCWSSD	APPROVED
9809	15-2880	3.0 cfs or 346.7 af	346.700	Hogan	TCWSSD	APPROVED
630250	15-5519	13.78	13.780	Tooele City	TCWSD	
10615	15-3919	444.5 af	444.500	Tooele City	TCWCD	Pro Deter
624897	15-5024	11 af	11.000	Tooele City	TCWD	CERT
10975	15-5064	6.0 af	5.992	Tooele City	TCWSD	Approved
7959	15-1095	0.134 cfs	20.000	Tooele City	TCWSSD	Approved
7959	15-1096	0.334 cfs	20.000	Tooele City	TCWSSD	Approved
7959	15-1097	0.067 cfs	20.000	Tooele City	TCWSSD	Approved
7959	15-1099	0.078 cfs	20.000	Tooele City	TCWSSD	Approved
8252	15-1419	0.179 cfs OR 129.59 af	129.590	Tooele City	TCWSSD	Approved
8255	15-1420	0.368 cfs OR 266.42 af	266.420	Tooele City	TCWSSD	Approved
8256	15-1421	0.178 cfs OR 128.87 af	128.870	Tooele City	TCWSSD	Approved
638508	15-2154	0.324 af	0.000	Tooele City	TCWSSD	Approved
638509	15-2154	0.324 af	0.000	Tooele City	TCWSSD	Approved
638508	15-2155	0.324 af	0.000	Tooele City	TCWSSD	Approved
638509	15-2155	0.324 af	0.000	Tooele City	TCWSSD	Approved
638508	15-2156	19.994 af	0.000	Tooele City	TCWSSD	Approved
638509	15-2156	19.994 af	0.000	Tooele City	TCWSSD	Approved
9809	15-2178	3.0 cfs or 763.476 af	763.476	Tooele City	TCWSSD	APPROVED
10898	15-4186	0.9 af	0.900	Tooele City	TCWSSD	Approved
9809	15-4192	860.364 af	860.390	Tooele City	TCWSSD	APPROVED
11496	15-4593	15 af	15.000	Tooele City	TCWSSD	
8241	15-6662	4.7 acre feet	4.701	Tooele City	TCWSSD	Approved
11610	15-4670	3.0 af	3.000	Tooele City	TCWSSD	Approved
623350	15-4687	85 af	85.000	Tooele City	TCWSSD	
8224	15-4741	2.87 af	2.870	Tooele City	TCWSSD	Approved
8224	15-4741	2.87 af	2.870	Tooele City	TCWSSD	Approved
8224	15-4742	2.13	2.130	Tooele City	TCWSSD	Approved
10553	15-4751	1.25 af	1.250	Tooele City	TCWSSD	Approved
10553	15-4752	1.25 af	1.250	Tooele City	TCWSSD	Approved
10553	15-4753	1.25 af	1.250	Tooele City	TCWSSD	Approved
10553	15-4754	1.25 af	1.250	Tooele City	TCWSSD	Approved
623856	15-4755	1.25 af	1.250	Tooele City	TCWSSD	Approved
623844	15-4756	1.25 af	1.250	Tooele City	TCWSSD	Approved
623845	15-4757	1.25 af	1.250	Tooele City	TCWSSD	Approved
623846	15-4758	1.25 af	1.250	Tooele City	TCWSSD	Approved
623847	15-4759	1.25 af	1.250	Tooele City	TCWSSD	Approved
623848	15-4760	1.25 af	1.250	Tooele City	TCWSSD	Approved
623849	15-4761	1.25 af	1.250	Tooele City	TCWSSD	Approved
623850	15-4762	1.25 af	1.250	Tooele City	TCWSSD	Approved
623851	15-4763	1.25 af	1.250	Tooele City	TCWSSD	Approved
623852	15-4764	1.25 af	1.250	Tooele City	TCWSSD	Approved
623853	15-4765	1.25 af	1.250	Tooele City	TCWSSD	Approved
623854	15-4766	1.25 af	1.250	Tooele City	TCWSSD	Approved
623855	15-4767	1.25 af	1.250	Tooele City	TCWSSD	Approved
10066	15-4773	3.75 af	3.750	Tooele City	TCWSSD	Approved
638609	15-4789	55 af	55.000	Tooele City	TCWSSD	Approved
624304	15-4813	5.33 af	5.330	Tooele City	TCWSSD	
11333	15-4834	1 af	0.000	Tooele City	TCWSSD	Approved
625022	15-4857	26.038 af	26.038	Tooele City	TCWSSD	WUC
625022	15-4860	1.232 af	1.232	Tooele City	TCWSSD	WUC
11522	15-4862	0.896 af	0.896	Tooele City	TCWSSD	
11522	15-4863	0.896 af	0.896	Tooele City	TCWSSD	
10670	15-4957	7 af	7.000	Tooele City	TCWSSD	CERT
11522	15-5065	0.896 af	0.868	Tooele City	TCWSSD	
627976	15-5086	2 af	2.000	Tooele City	TCWSSD	Approved
627976	15-5086	2.0 af	2.000	Tooele City	TCWSSD	
630250	15-5108	7.27 af	0.900	Tooele City	TCWSSD	
630250	15-5108	7.27 af	7.270	Tooele City	TCWSSD	Approved
8224	15-5172	5	5.000	Tooele City	TCWSSD	Approved
638508	15-5346	3.648 af	3.200	Tooele City	TCWSSD	Approved
638509	15-5346	3.648 af	0.448	Tooele City	TCWSSD	Approved
724632	15-5379	25 af	25.000	Tooele City	TCWSSD	
11554	15-725	18 af	18.000	Tooele City	TCWSSD	Approved
634442	15-726	0.067 cfs	20.000	Tooele City	TCWSSD	Approved
9809	15-2691	0.15 cfs	1.450	Tooele City	Tooele City	Approved
9809	15-321	0.69 cfs or 499.54 af	499.540	Tooele City	Tooele City	Pro Deter
9809	15-378	0.25 cfs or 180.99 af	180.990	Tooele City	Tooele City	Pro Deter
9809	15-379	0.31 cfs or 224.43 af	224.430	Tooele City	Tooele City	Pro Deter
9809	15-380	0.36 cfs or 260.63 af	260.630	Tooele City	Tooele City	Pro Deter
9809	15-385	0.43 cfs or 311.31 af	311.310	Tooele City	Tooele City	Pro Deter
9809	15-404	2.852 cfs or 2064.78 af	2064.780	Tooele City	Tooele City	Pro Deter
9809	15-423	1.137 cfs or 823.16 af	823.160	Tooele City	Tooele City	Pro Deter
11068	15-4343	10 af	10.000	Tooele City	Tooele City	Approved
11117	15-4392	50 af	50.000	Tooele City	Tooele City	Approved
11285	15-4547	1.0 af	1.000	Tooele City	Tooele City	Approved
7882	15-4606	39	39.000	Tooele City	Tooele City	Approved
9809	15-510	3.0 cfs or 402.55 af	402.550	Tooele City	Tooele City	Pro Deter
634456	15-514	1.0 cfs or 89.6	89.600	Tooele City	Tooele City	Pro Deter
634456	15-518	5.0 cfs or 546.68 af	546.680	Tooele City	Tooele City	Pro Deter
9809	15-526	2.4 cfs or 1737.55 af	1737.550	Tooele City	Tooele City	Pro Deter
9809	15-599	1.0 cfs pr 723.98 af	723.980	Tooele City	Tooele City	Pro Deter
630250	15-5272	4.619	0.000	Erda	Bear All LLC	
11610	15-798	35.432 af	1.000	Erda	Tooele City (various others)	WUC
8258	15-1423	0.993 cfs or 512.45 acre feet	46.000	Grantsville	Tooele City, others	Certificate 3/6/1987
9212	15-1423	0.993 cfs or 512.45 acre feet	-	Grantsville	Tooele City, others	Certificate 3/6/1987
9212	15-751	0.45 cfs or 513.5 acre feet	-	Grantsville	Tooele City, others	Certificate 3/6/1987
638608	15-1939	1.5 cfs or 53 af	17.000	Burmeister Road	Tooele City / TCWSSD (various Others)	Approved
9753	15-5051	8 af	2.840	Tooele City	TCWSSD (various others)	DIL
7876	15-5166	16 af	5.000	Tooele City	TCWSSD (various others)	Approved
11610	15-4605	10.364 af	9.364	Tooele City	TCWSSD / Palisade Park Apartments	Approved
623644	15-4700	46.472 af	43.760	Tooele City	TCWSSD / Others	
625077	15-4681	84 af	0.000	Tooele City	TCWSSD / Rulon Harper	
8238	15-1402	0.37 cfs or 31 af	4.000	Tooele City	TCWSSD / Tooele County School Dist	Approved
9259	15-5159	15 af	5.000	Tooele City	TCWSSD / Utah State Univ	Approved
630250	15-5314	0.3 cfs or 107 af	60.200	Tooele City	TCWSSD / Wise Management	DEC
626175	15-4932	5.292 af	1.800	Tooele City	TCWSSD/Mark L. Dickson	
7882	15-4036	200 acre feet	70.200	Tooele City	TCWSSD/Tooele County	
623672	15-4701	37 af	0.000	Tooele City	Irish Creek LLC, TCWSSD	Michael L. Naeger Revocable Living Trust
11318, 638672	15-5274	1.01 af	0.000	Tooele City	Bear All LLC	DEC
11496	15-5275	7.3 af	0.000	Tooele City	Bear All LLC	DEC
15-5520			0.000	Tooele City	Buffalo Ridge LLC, Land Development LLC	
632636	15-4815	13.0 af	0.000	Tooele City	Corporation of the Presiding Bishop of The Church of Jesus Christ of Latter-day Saints	
11010	15-4291	1.0 af	0.000	Tooele City	Ed Dalton	Approved
10089	15-3417	0.015 cfs or 1,130.1 af	0.000	Tooele City	Home Savings Bank	
623804	15-4774	13.6558 af	0.000	Tooele City	John M & Tracy L Harris	Approved
623804	15-4775	7.7088 af	0.000	Tooele City	John M & Tracy L Harris	Approved
623804	15-4882	5.6456 af	0.000	Tooele City	John M & Tracy L Harris	Approved
627976	15-5052	2.0 af	0.000	Tooele City	Mark Dickinson, TCWSSD	WUC
11012	15-5167	1 af	0.000	Tooele City	Marlee Dalton	CERT
	15-4327	5 af	0.000	Tooele City	Michael Naeger	
10670	15-3974	2 af	0.000	Tooele City	Patrick and Crystal Warr	CERT
11496/11497	15-4224	94.93	0.000	Tooele City	Sonyador	Approved
11496 / 11497	15-4224	95 af	0.000	Tooele City	Sonyador	
8638	15-1905	5 af	2.500	Tooele City	Tooele City / Kibbie Company	
638672	15-4599	132.4 af	95.720	Tooele City	Tooele City / Patterson Homes Inc.	Approved
7882	15-4036	200 af	70.200	Tooele City	Tooele City / Tooele County	
9777	15-316	1.281 cfs or 133.99 af	133.990	Tooele City	Tooele City Corporation	Pro Deter
8672	15-4031	300	153.384	Tooele City	Tooele City/TCWSSD/Western Acres	Approved

It Pays to Save

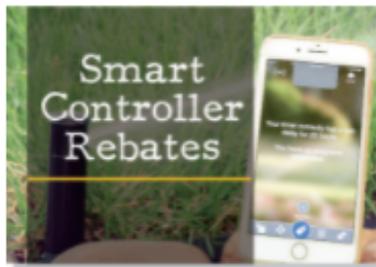
Ready to start saving water on your landscape or in your home? Create a Utah Water Savers account to view cash rebates and programs available in your area.

Programs and Rebates



AVAILABLE FOR:
ALL OF UTAH!

Old toilets are a leading cause of wasted water in Utah homes. Rebates will only be given for replacing toilets that use more than 1.6 gallons per flush and were installed in homes built before 1994.



AVAILABLE FOR:
ALL OF UTAH!

Smart controllers can help save water by automatically adjusting watering schedules based on local weather and landscape needs. Ready to stop worrying about turning your sprinklers off after it rains? Rebates for smart controllers are available throughout the state.



AVAILABLE FOR:
AREAS OF NORTHERN UTAH

LocalScapes Rewards makes getting a landscape that thrives in Utah easier than ever. If you are looking to install or renovate a landscape, you may qualify for cash rewards and a free review of your landscape plan!



AVAILABLE FOR:
MOST OF SALT LAKE COUNTY

Want to improve your existing landscape? Sign up for a free consultation to get expert advice about your watering practices, landscape, and sprinkler system.



AVAILABLE FOR:
AREAS OF NORTHERN UTAH

Park strips are one of the most difficult places for grass to thrive and for us to maintain. This program offers cash rebates to "flip" your park strip to be water efficient and beautiful.

Toilets

[PROGRAM OVERVIEW](#)

[HOW TO APPLY](#)

[ELIGIBILITY](#)

[FREQUENTLY ASKED QUESTIONS](#)

[HELPFUL RESOURCES](#)



Receive up to \$100 when you replace your old toilet with a WaterSense-labeled toilet! Toilets use more water than any other indoor fixture. Because toilets manufactured before 1994 use more gallons of water per flush, replacing them is an easy way to conserve water.

[Click here to sign in and see program availability.](#)

<https://utahwatersavers.com/Program/4/toilet>

Smart Controller

[PROGRAM OVERVIEW](#)

[HOW TO APPLY](#)

[ELIGIBILITY](#)

[FREQUENTLY ASKED QUESTIONS](#)

[HELPFUL RESOURCES](#)



Receive a rebate for up to \$75 when you purchase an eligible WaterSense-labeled smart controller. Smart controllers reduce water waste by automatically adjusting how often and how long a landscape is watered based on local weather and landscape conditions.

[Click here to sign in and see program availability.](#)

<https://utahwatersavers.com/Program/6/smart-controller>

Localscapes Rewards

[PROGRAM OVERVIEW](#)

[ELIGIBILITY](#)

[HOW TO APPLY](#)

[FREQUENTLY ASKED QUESTIONS](#)

[HELPFUL RESOURCES](#)



Localscapes is an approach to landscaping designed specifically for Utah. Whether you're installing a new landscape or renovating an existing one, following the Localscapes five-step approach will give you a landscape that thrives! Cash rewards and plan reviews will be given for landscaping projects that meet program requirements. Check the eligibility tab to see if you qualify.

[Click here to sign in and see program availability.](#)

<https://utahwatersavers.com/Program/1/localscapes-reward>

Flip Your Strip

[PROGRAM OVERVIEW](#)

[ELIGIBILITY](#)

[HOW TO APPLY](#)

[FREQUENTLY ASKED QUESTIONS](#)

[HELPFUL RESOURCES](#)



Increase your curb appeal, reduce water use, and get money back when you participate in the Flip Your Strip rebate program. Removing lawn from your park strip will save an estimated 5,000-8,000 gallons of water each year—and you can get cash for doing it. Receive up to \$1.25 per square foot for replacing the lawn in your park strip with a water-efficient design.

[Click here to sign in and see program availability.](#)

<https://utahwatersavers.com/Program/2/flip-your-strip>

JORDAN VALLEY CONSERVANCY DISTRICT

(<https://jvwcd.org/public/conservation>)

Conservation Programs

These conservation programs are designed to ensure a sustainable water supply.



Conservation Garden Park



Upcoming Events & Classes



Utah Water Savers



Localscapes

Water Conservation

Water is the driving force for healthy and sustainable economies, and conserving water conserves energy. By using this precious resource more wisely, we will provide for future needs while allowing for healthier, more sustainable living.

[See our plan](#)

[See our progress](#)

Utah Water Savers



From rebates to free landscape consultations, utahwatersavers.com is helping Utahns save both money and water. Visit utahwatersavers.com today to create a free account and start saving! Most of the programs listed on this page are available.

Localscapes Rewards



Become a part of the landscaping movement spreading throughout Utah. If you're localizing your landscape, you may be eligible for some rewards! Create an account on utahwatersavers.com to see if you qualify.

JORDAN VALLEY CONSERVANCY DISTRICT

(<https://jvwcd.org/public/conservation>)

Toilet Replacement



Old toilets are a leading waster of water in Utah homes. If your toilet was installed before 1994 or uses more than 1.6 gallons of water per flush, you could be eligible for a toilet replacement rebate. Create an account on utahwatersavers.com to see if you qualify.

Flip Your Strip



Jordan Valley Water offers rebates of up to \$1.25/sq ft to customers who convert their park strip from lawn to a water efficient design. Removing lawn from your park strip will save an estimated 5,000-8,000 gallons of water every year—for more information, free park strip designs, and to apply for a rebate, visit UtahWaterSavers.com.

Landscape Consultations



Want to improve your existing landscape? Sign up for a free consultation on UtahWaterSavers.com to get expert advice about your watering practices, landscape, and sprinkler system. Consultations are available from participating water providers from May through October.

Strategic Water Management



Rebates and custom incentives are available for commercial, industrial, and institutional water users located in JVWCD's service area. Qualifying projects include implementation of water saving processes or updating water using equipment and fixtures. Need help finding a qualifying project? Request a free water use assessment. For more information, [click here](#).

Landscape Leadership Grants



Jordan Valley Water is offering grants to businesses, institutions, builders, developers, and HOAs with highly visible landscaping projects that have potential for significant water savings. Projects must be located within the JVWCD service area, provide quantifiable water savings, and have high promotional appeal. For more information or to apply, [click here](#).

Conservation Garden Park



Conservation Garden Park models the best use of water in Utah landscapes and empowers communities to make the most of our shared water resources. Jordan Valley Water's Conservation Garden Park showcases landscapes suited for Utah's unique climate that are not only beautiful and easier to maintain but are also designed to efficiently use water. Here you learn how simple changes can result in big water savings.

JORDAN VALLEY CONSERVANCY DISTRICT

(<https://jvwcd.org/public/conservation>)

Free Classes



A variety of community classes are held at the Conservation Garden Park ranging in topic from irrigation to vegetable gardening. These classes will teach you how to conserve water in a beautiful and lush landscape. Most are free but seating is limited. For a schedule of upcoming classes and to register online go to Conservation Garden Park Events.

School Field Trips



801-256-4400.

Conservation Garden Park offers free field trips for all grades in Salt Lake County. Field trips last about an hour and involve moving through various garden exhibits about waterwise plant adaptations, soil properties, the water cycle, irrigation methods, and water in Utah. School bus reimbursement is available to schools within Salt Lake County. Schedule a field trip by calling

Slow The Flow



conservation.

Slow the Flow is an education campaign funded by Jordan Valley Water Conservancy District and several other water agencies from around the state. The campaign is designed to raise awareness of state conservation goals, empower people to make water-saving changes to homes and landscapes, and to connect Utahns to available tools and resources for water

QWEL Workshops for Landscape Professionals



after which an exam must be passed. The program is currently offered in Salt Lake and Iron Counties.

The Qualified Water Efficient Landscaper program (QWEL) offers training for local landscape professionals and provides graduates with knowledge in water efficient and sustainable landscape practices including water management and preservation of other valuable resources. To become QWEL certified, 20 hours of training in QWEL classes must be completed,

QWEL Utah Website