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Notice of Public Hearing of the Board of Trustees of the Metropolitan Water District of Salt Lake & Sandy for the Water Conservation Plan

General Information

Government Type:

Special Service District

Entity:

Metropolitan Water District of Salt Lake & Sandy

Public Body:

Board of Trustees

Notice Information

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Notice Title:

Notice of Public Hearing of the Board of Trustees of the Metropolitan Water District of Salt Lake & Sandy for the Water Conservation Plan

Notice Subject(s):

Business

Notice Type(s):

Hearing

Event Start Date & Time:

February 26, 2024 04:30 PM

Event End Date & Time:

February 26, 2024 06:00 PM

Description/Agenda:

NOTICE OF THE PUBLIC HEARING OF THE BOARD OF TRUSTEES OF THE METROPOLITAN WATER DISTRICT OF SALT LAKE & SANDY, SALT LAKE COUNTY, UTAH FOR THE WATER CONSERVATION PLAN

The Board of Trustees of the Metropolitan Water District of the Salt Lake & Sandy, Salt Lake County, Utah, will hold a public hearing on the Water Conservation Plan on Monday, February 26, 2024, at 4:30 pm at the District Offices, 3430 E Danish Road, Cottonwood Heights, Utah.

Notice of Special Accommodations (ADA):

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Breana Jackson at 801-942-9620.

Notice of Electronic or Telephone Participation:

Electronic participation is not available.

Meeting Information

Meeting Location:

3430 E Danish Road
Cottonwood Heights, UT 84093

Show in Apple Maps

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Contact Name:

Annalee Munsey

Contact Email:

munsey@mwdsls.org

Contact Phone:

(801)942-9623

Notice Posting Details

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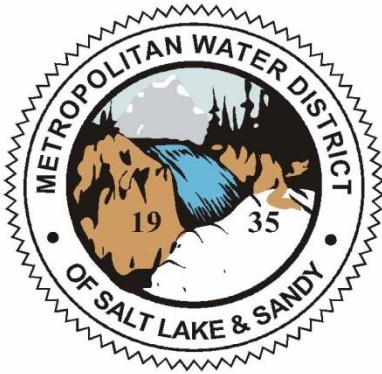
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Water Conservation Plan 2024 Update

Metropolitan Water
District of Salt Lake &
Sandy

January 2024

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STANDARD ACRONYMS/ABBREVIATIONS

Ac-ft	Acre feet
AMI	Advance Metering Infrastructure
ASR	Aquifer Storage and Recovery
AWE	Alliance for Water Efficiency
AWWA	American Water Works Association
BMPs	Best Management Practices
CII	Commercial, Industrial, and Institutional
CUP	Central Utah Project
CUWCD	Central Utah Water Conservancy District
CWEL	Center for Water Efficient Landscaping
District	Metropolitan Water District of Salt Lake & Sandy
EPA	United State Environmental Protection Agency
EWIG	Extension Water Innovation Grants
GIS	Geographic Information Systems
GPCD	Gallons per Capita per Day
JSSD	Jordanelle Special Service District
JVWCD	Jordan Valley Water Conservancy District
JVWTP	Jordan Valley Water Treatment Plant
LCC	Little Cottonwood Creek
LCWTP	Little Cottonwood Water Treatment Plant
LID	Low Impact Design
LIRs	Landscape Irrigation Ratios
M&I	Municipal and Industrial
MAR	Managed Aquifer Recharge
MWDSLS	Metropolitan Water District of Salt Lake & Sandy
MG	Million gallons
Mgd	Million gallons per day
NAICS	North American Industry Classification System
ODT	Ontario Drain Tunnel
POMA	Point of the Mountain Aqueduct
POMWTP	Point of the Mountain Aqueduct
PRA	Provo River Aqueduct
PRP	Provo River Project
PRWUA	Provo River Water Users Association

PUAC	Public Utilities Advisory Committee
SCADA	Supervisory Control and Data Acquisition
SERWTP	Southeast Regional Water Treatment Plant
SLA	Salt Lake Aqueduct
SLC	Salt Lake City
SLCDPU	Salt Lake City Department of Public Utilities
SLC-Golf	Salt Lake City Golf
ULDC	Utah Lake Distributing Company
ULS	Utah Lake System
USBR	United States Bureau of Reclamation
USDA-FRRL	United States Department of Agriculture - Agricultural Research Service Forage and Range Research Laboratory
USU	Utah State University
WBWCD	Weber Basin Water Conservancy District
WCWCD	Washington County Water Conservancy District
WSCP	Water Shortage Contingency Plan

SECTION 1 - INTRODUCTION AND DESCRIPTION OF THE DISTRICT

PURPOSE

The purpose of this document is to provide water conservation information as it relates to the Metropolitan Water District of Salt Lake & Sandy (MWDSL/District) in accordance with the 2023 Water Conservation Act. The District has adopted an overall Master Plan which provides for the development of additional water conveyance facilities and treatment capacity to enable the District to supply water to its member cities to meet their anticipated needs through the year 2060. Water conservation is a key component of the Master Plan. This document summarizes progress toward meeting District water conservation goals, water conservation measures undertaken by the District, and efforts by the District to promote water conservation by its member cities.

DESCRIPTION OF THE DISTRICT

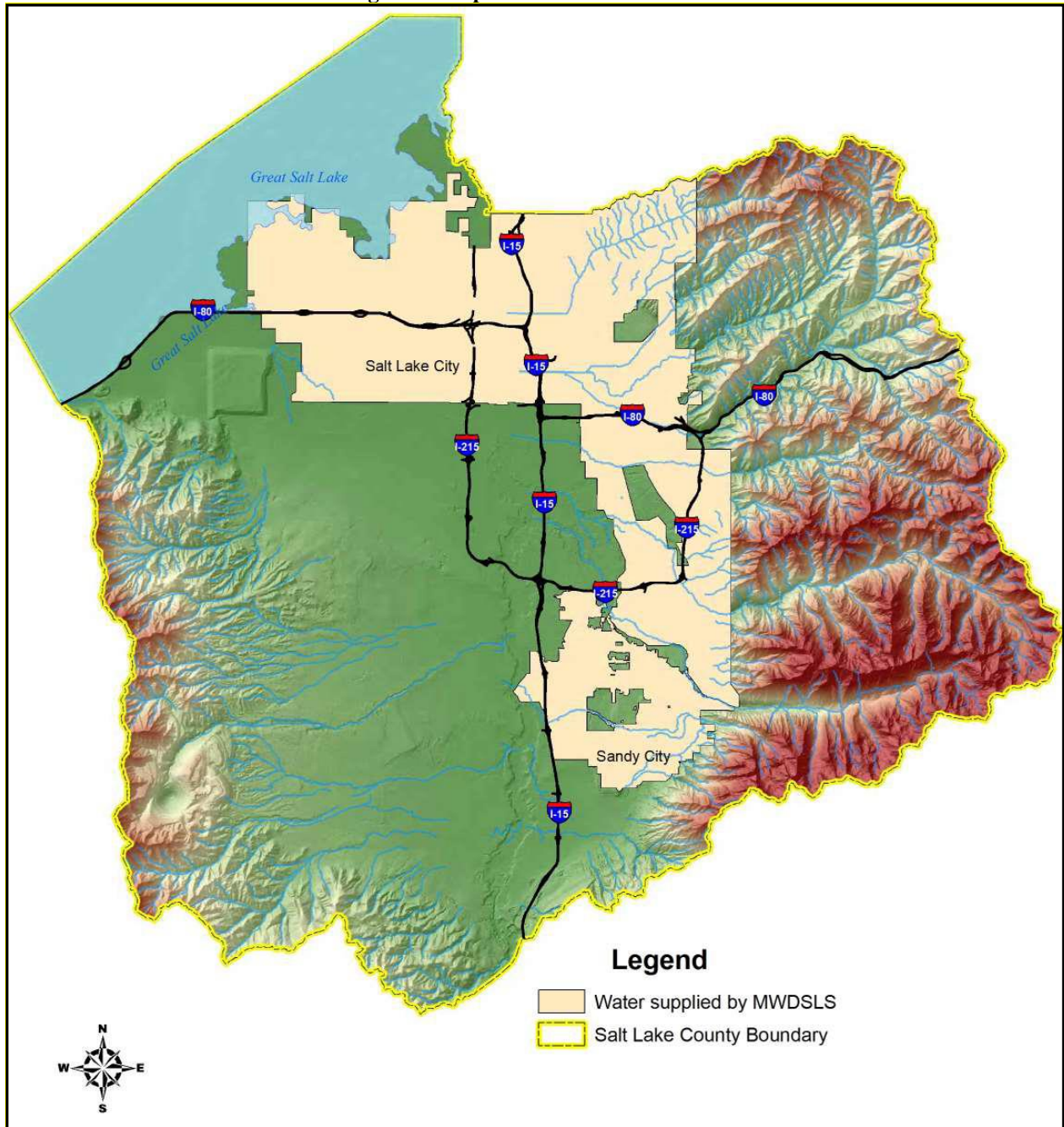
District Background

The District was created on August 30, 1935, pursuant to the provisions of the Metropolitan Water District Act of Utah. The District functions primarily as a wholesale provider of water to Salt Lake City, Utah (Salt Lake City/SLC), and Sandy City, Utah (Sandy City); its two member cities. It also provides water on a surplus basis to various water agencies and irrigation companies. The District and its member cities collectively provide retail service to more than 400,000 people in the Salt Lake Valley. The District supplies approximately 40-60 percent of the water used by Salt Lake City and approximately 50-75 percent of the water used by Sandy City. Salt Lake City and Sandy City, as member cities of the District, have a statutory preferential right to purchase all of the District's water supplies for use within each city.

Both District member cities provide retail water service outside their city boundaries. This is particularly true for SLC, which serves some 135 square miles and about as many connections outside city boundaries as inside. SLC Public Utilities is the largest retail water provider in Utah. With tens of thousands of undeveloped acres in SLC's northwest quadrant, and increasing densification, SLC's water demand will continue to grow. Over the past several decades, the District has established water supplies and infrastructure in preparation for the anticipated growth. Currently, the District has 32 connections used to make wholesale deliveries. The District's service area is shown in Figure 1.

The District provides water on a surplus basis to various water agencies and irrigation companies. The District also treats and transports water for others through the District's system. In addition, the District plays an important role in water resource planning, development and management within SLC and Sandy City service areas in coordination of the area's water distribution systems.

Figure 1. Map of District Service Area



District Administration

The District is governed by a board of seven trustees, five of whom are appointed by the City Council of Salt Lake City and two of whom are appointed by the City Council of Sandy City. All trustees serve for four-year terms. Each trustee must be a resident of the city that appoints them. The Board elects a Chair, Vice-Chair and Secretary from its membership and appoints a General Manager to assist in its duties. Present trustees are:

<u>Board Member</u>	<u>Position</u>	<u>Representing</u>
Tom Godfrey	Chair	Salt Lake City
John Kirkham	Vice-Chair	Sandy City
Patricia Comarell	Secretary	Salt Lake City
Donald Y. Milne	Trustee	Sandy City
John Mabey, Jr.	Trustee	Salt Lake City
Joan Degiorgio	Trustee	Salt Lake City
Cindy Cromer	Trustee	Salt Lake City

The following full-time staff manages the District's day to day activities:

<u>Staff Member</u>	<u>Position</u>
Annalee Munsey	General Manager
Wayne Winsor	Assistant General Manager/Chief Administrative Officer
Gordon Cook	Assistant General Manager/Chief Operating Officer

The District presently has staff located at its main office at the LCWTP. The address and phone number is shown below.

Main Office & LCWTP

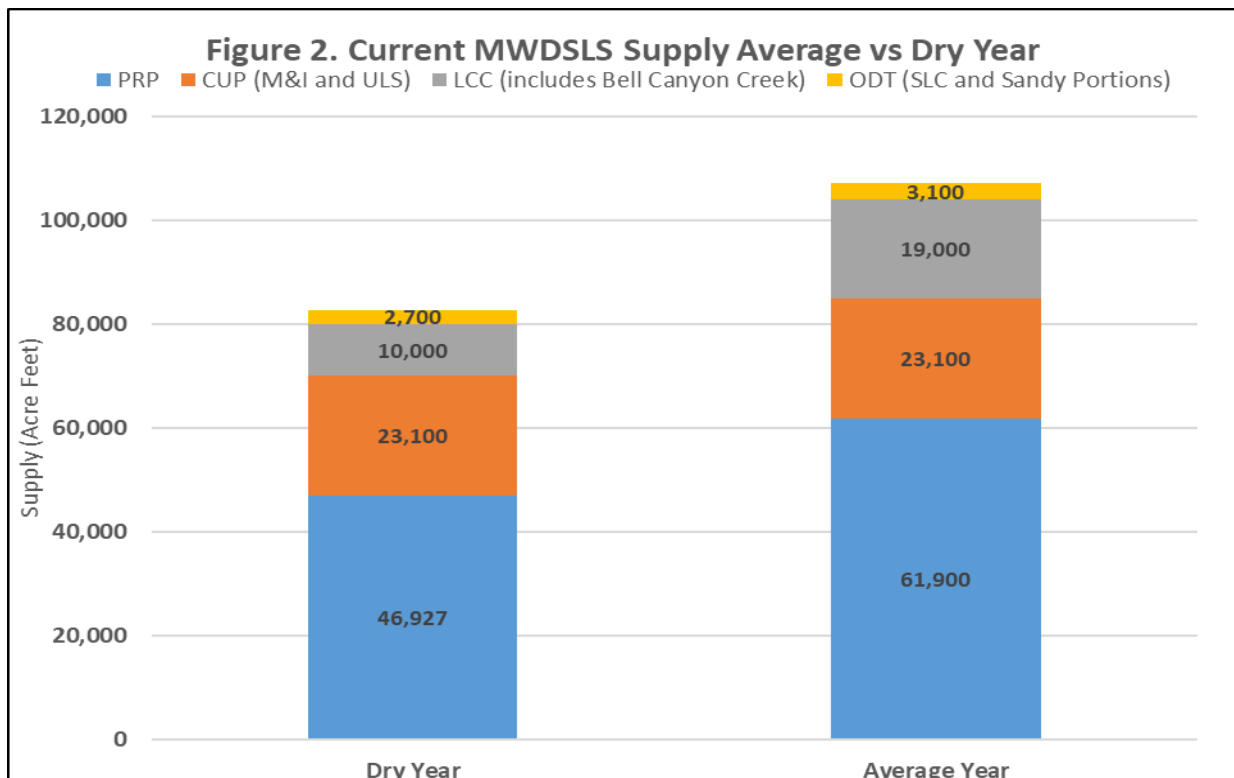
3430 East Danish Road
Cottonwood Heights, Utah 84093
Phone No.: (801) 942-1391
Internet Address: www.mwdsls.gov

SECTION 2 - SOURCES AND WATER DELIVERY FACILITIES

This section contains a description of the District’s water sources and estimates of volumes available from each source in an average year and a dry year.

WATER SOURCES

The District obtains its annual water supply from the water sources described below. Figure 2 shows the estimated supply available to the District from each source in a dry year and an average year.



Provo River Project (PRP)

The District was one of the original petitioners for water from the PRP. This water is stored in Deer Creek Reservoir, which stores a total of 153,445 ac-ft with a 100,000 ac-ft annual delivery. PRWUA shareholders may holdover water from one year to another when there is available capacity in Deer Creek Reservoir. Holdover water remains the water of the shareholder until the reservoir spills. In addition to holdover water, in high runoff years there are periods of extra allotment. Extra allotment occurs when Deer Creek Reservoir is full and PRP water rights continue to yield available flows. During these periods, PRWUA shareholders may take PRP water supplies without it counting towards their current year allocation. Once the extra allotment period ends, the current year allocation begins to be used.

The full District allotment of this storage is 61,900 ac-ft. Dry year production from this source is estimated at 26,927 ac-ft. based on a 43.5% PRP allotment experienced during the most severe recent drought year (2013). The District manages its sources with the goal of maintaining at least 20,000 ac-ft of PRP holdover during a dry year scenario.

Central Utah Project (CUP)

The District has contract rights to CUP M&I water, which is stored in Jordanelle Reservoir. The contract is for 20,000 ac-ft per year. This supply was established by a petition for CUP M&I water in 1986. The intent of the 1986 petition was to meet anticipated needs of SLC's northwest quadrant. This contract allows for a variable demand and the District may be able to take up to 20 percent more than their contracted amount. The amount of additional water allowed, if any, is determined by CUWCD's board. However, their policy also requires that the 5-year average allotment must be the contract amount of 20,000 ac-ft per year. Jordanelle Reservoir was designed to provide water through a multi-year drought (up to six years), but during longer drought periods, it is likely that the full contractual allotment will not be available.

In 2005, on behalf of SLC and Sandy City, the District petitioned CUWCD for ULS water. The amount of the petition is 5,600 ac-ft. This amount is anticipated to be divided between SLC and Sandy City. The original petition for 8,600 ac-ft was reduced by 3,000 ac-ft as part of the Provo Reservoir Canal Enclosure Project. Delivery of the first 3,100 ac-ft of water began in 2021, the remaining 2,500 ac-ft was deferred to 2031.

Little Cottonwood Creek (LCC)

Both SLC and Sandy City own water rights in LCC. This water is treated at Little Cottonwood Water Treatment Plant (LCWTP). The availability of this source, like all surface water sources in the region, is dependent upon annual precipitation (snowpack). The average year yield of LCC is estimated at 30,050 ac-ft and a dry year yield is estimated to be 22,320 ac-ft. This results in an estimated 19,000 ac-ft available to the District in an average year and as low as 10,000 ac-ft available in a dry year.

Utah Lake via Utah Lake Distributing Company (ULDC) Exchange Agreement

Of the 61,900 shares of PRWUA owned by the District, 15,200 shares were acquired via a 1958 exchange agreement between the District and ULDC. The exchange agreement allows for the District to use secondary storage (non-primary storage) in Utah Lake. This supply is used to meet the exchange obligations described in the exchange agreement. The District delivers water to the ULDC by pumping Utah Lake water from the Jordan River or by delivering PRP water through a penstock at the end of the PRA. The District has operational flexibility and discretion to meet the exchange with PRP, Utah Lake, and CUP water supplies combined or with solely Utah Lake water supplies. The District monitors storage supplies when determining operational strategies. Utah Lake storage is an important resource to District water supplies.

Little Dell Project

The District is the local sponsor for the Little Dell project in Parleys Canyon. The federal partner for this project is the United States Army Corps of Engineers. Salt Lake County and SLC are key partners in this water resource. Completed in 1992, the Little Dell project (consisting of a new dam and reservoir on Dell Creek in Salt Lake County) was developed for flood control and municipal water supply purposes. Water rights in the name of the District provide a yield of approximately 3,100 ac-ft annually in a dry year. Average yield is estimated to be 7,940 ac-ft. By agreement, SLC is responsible for operation and maintenance (O&M) of the project.

Ontario Drain Tunnel (ODT)

On behalf of Sandy City, the District acquired water from the ODT in 2005. The ODT is a historic mine drain in the Provo River watershed and can be delivered to LCWTP or Point of the Mountain Water Treatment Plant (POMWTP) via the Provo River System. The availability of this source varies from year-to-year as evidenced in historical flow data. The firm yield of this supply is 2,000 ac-ft annually with the average yield estimated at 3,070 ac-ft.

SLC owns an ODT water right which is a divided 50% interest in an underground water claim. The SLC ODT water right is subject to certain exceptions and reservations, and an automatic right of reversion upon the occurrence of any of the conditions described in the June 21, 1993 Water Exchange Agreement between SLC and Greater Park City Corporation. Currently SLC has no direct access to this water resource. The historical use patterns show that approximately 500-750 ac-ft per year has been diverted for beneficial use within the District and SLC service areas (i.e., this portion of the supply is not used by JSSD).

Bell Canyon Creek

Sandy City owns water rights in Bell Canyon Creek. An aqueduct between Bell Canyon Creek and LCC allows this water to be treated at the LCWTP. The availability of this source is affected by precipitation in the same way as LCC. Water rights currently limit diversions from this source to 980 ac-ft annually although more water is available in average years.

Managed Aquifer Recharge (MAR)

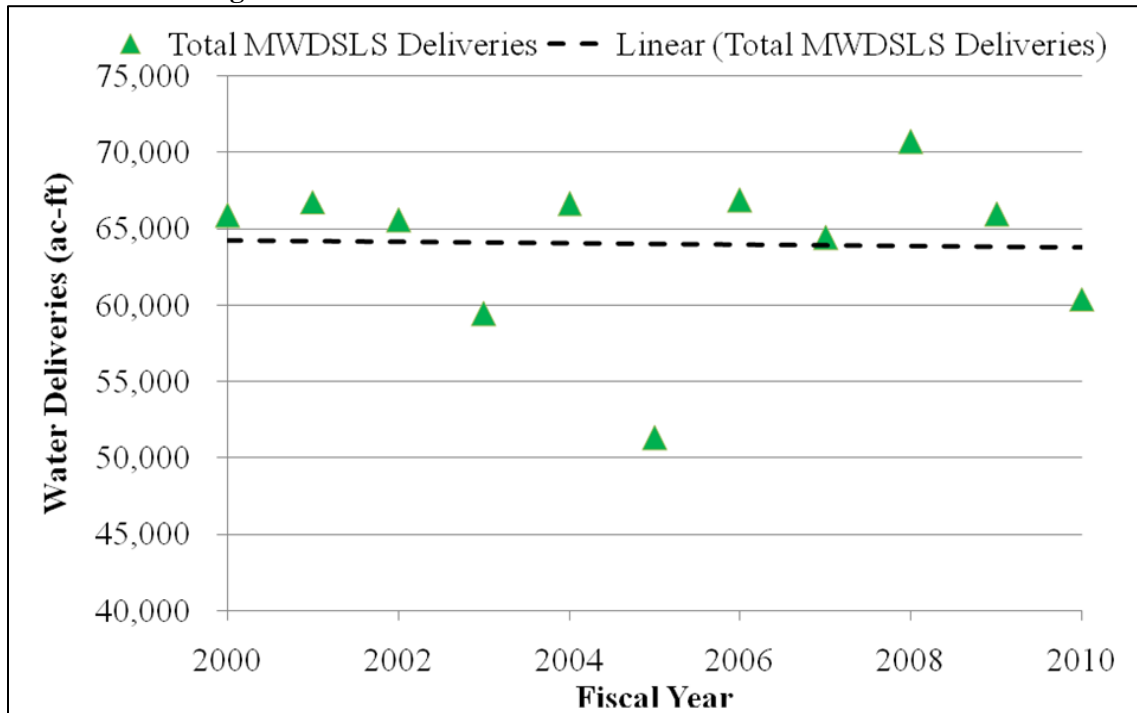
The District, in conjunction with Sandy City and SLC, is in the process of implementing an MAR project to provide a future water source. This option will use high spring runoff in the District's surface water sources that currently provides little benefit to the water system because it arrives during a period when supply is in excess of demand (early spring) and no surface reservoirs exist to store it. This water is primarily available in average and high-water years but can be available even in dry years. Some of the excess water would be injected or infiltrated into the aquifer and documented with the State Engineer. Then, in dry years, this water would be available for extraction through typical groundwater wells. The District has estimated that potential dry year yield of this source will be 8,800 ac-ft once all phases of the project are completed. The primary source for water to recharge the aquifer is LCC.

SECTION 3 - WATER MEASUREMENT, USE, AND CONSERVATION

HISTORIC SOURCE WATER USE AND DELIVERIES

The District delivers water to SLC, Sandy City, and on a surplus basis to others. Between 2000 and 2010 only finished water deliveries were tracked reliably. While there has been variability from year to year, the District’s deliveries between 2000 and 2010 were relatively steady. Figure 3 shows actual District deliveries for fiscal years 2000 through 2010. The figure also shows the trend of deliveries over the same period of time. Total water deliveries between 2000 and 2010 varied from a minimum of 51,338 ac-ft in 2005 to a maximum of 70,707 ac-ft in 2008.

Figure 3. MWDSLS Finished Water Deliveries 2000 to 2010



The District has more reliable water use and delivery data starting in 2010. The District tracks total water deliveries per calendar year for both wholesale culinary and irrigation deliveries. The District also calculates percent loss by comparing supply measurements to delivery amounts. The main source of loss in the system is estimated to be through the treatment process. District activities to reduce system losses are summarized in Section 4.

On average, the District uses 73,321 ac-ft of source water per calendar year to make 70,431 ac-ft of wholesale deliveries to member cities and others (average loss of 4%). The District uses 27,823 ac-ft of source water on average to deliver 28,474 ac-ft of irrigation deliveries (-2% loss on average). Metering differences are thought to be the cause of negative loss seen in irrigation deliveries.

The amount of wholesale water that the District uses and deliveries depends mainly on the demand on the system from its customers. This is influenced by other sources available to the

member cities and their use of other treatment plants and wells. As a result, District deliveries can vary significantly from year to year. Since 2010, the maximum annual wholesale delivery amount made by the District occurred in 2020 when 83,939 ac-ft of water was delivered. The minimum delivery amount, 59,836 ac-ft, occurred in 2014. In 2023, 69,553 ac-ft of wholesale deliveries were made.

Irrigation deliveries by the District are primarily composed of deliveries to ULDC with some surplus deliveries to other agencies when surplus supply is available. The maximum annual irrigation delivery was 36,421 ac-ft in 2012. The minimum irrigation delivery was in 2023 at 23,045 ac-ft. The table below summarizes District source use and water deliveries:

Table 1. District Wholesale and Irrigation Deliveries from 2010 to 2023

	Wholesale, Culinary			Irrigation		
	Sources	Deliveries	% Loss	Sources	Deliveries	% Loss
2010	69,704	64,601	7%	30,403	29,919	2%
2011	65,492	58,206	11%	23,542	27,478	-17%
2012	81,091	74,643	8%	34,305	36,421	-6%
2013	78,406	75,819	3%	30,108	30,251	0%
2014	63,632	59,836	6%	28,244	29,775	-5%
2015	68,907	67,680	2%	29,998	29,969	0%
2016	68,572	67,321	2%	28,394	28,396	0%
2017	71,733	69,350	3%	26,914	28,163	-5%
2018	80,912	79,806	1%	28,947	29,051	0%
2019	71,780	68,242	5%	24,345	24,253	0%
2020	85,902	83,939	2%	30,425	31,134	-2%
2021	72,607	72,089	1%	26,878	26,878	0%
2022	79,342	77,670	2%	23,950	23,909	0%
2023	71,547	69,553	3%	23,073	23,045	0%
Average	73,321	70,431	4%	27,823	28,474	-2%

Water use data in the table is consistent with water use data reported to Utah Division of Water Rights starting in 2021. Prior to 2021, water use data is inconsistent due to differences how reports were completed. The District has worked with water rights staff over the past few years to ensure consistent reporting.

FUTURE SOURCE WATER USE AND DELIVERIES

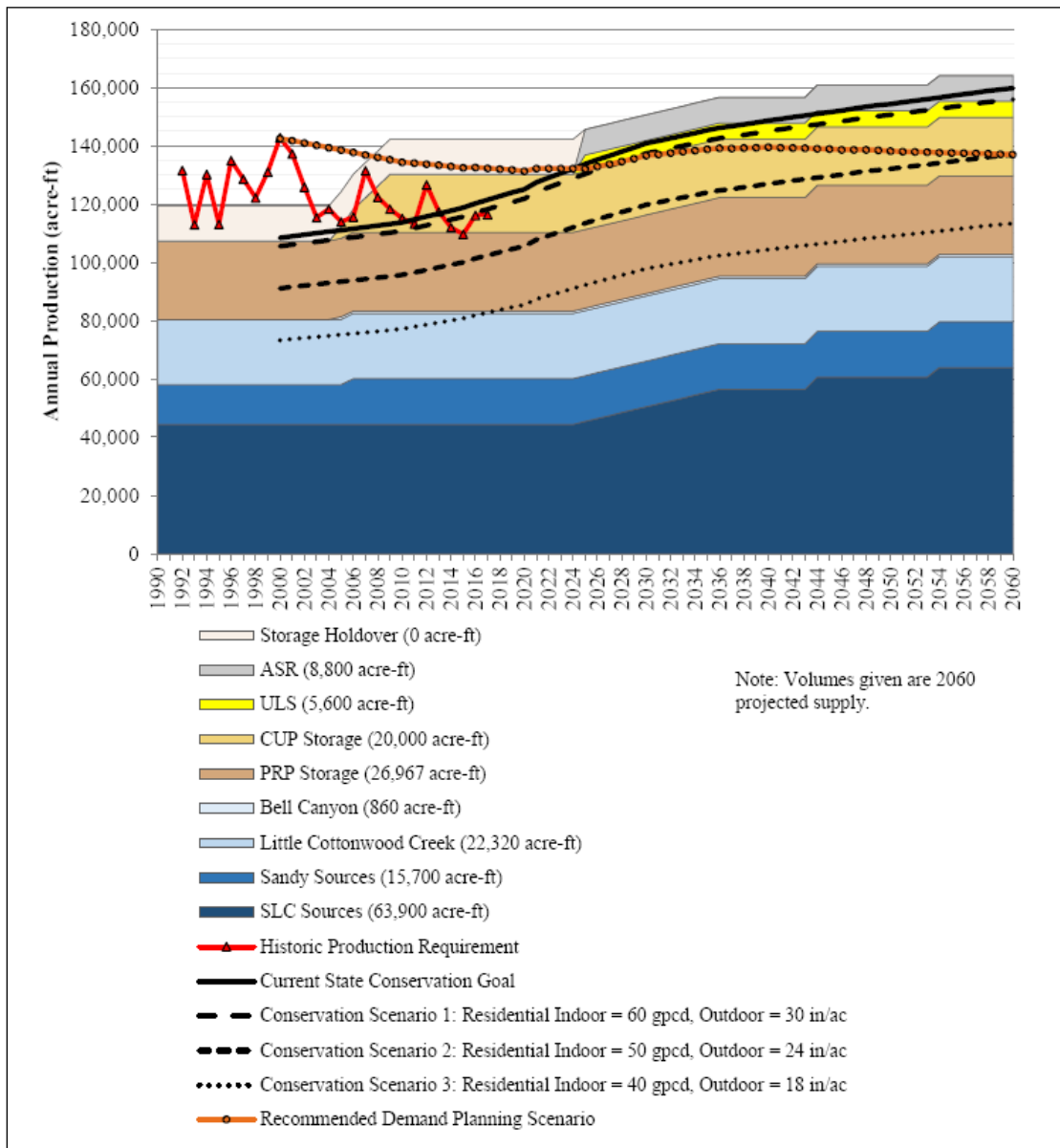
The District updated its Water Supply and Demand Study in 2019. The purpose of the study was to compare the availability of water supplies to existing and future demands on the system from its member agencies. The results of the study were meant to guide the District’s decisions regarding supply management and development, as well as inform the District’s decisions regarding demand management via water conservation.

A key analysis in the plan was to compare average and dry year supply scenarios to four different demand scenarios to determine the level of conservation that would be required to prevent the need to obtain future supplies other than those that are already planned. The demand scenarios that were used are described below:

- Historic State Conservation Goal. The State’s historic water conservation goal was a reduction in year 2000 per capita water demand of 25% by the year 2025. After 2025, no additional conservation was assumed.
- Scenario 1. Scenario 1 can generally be described as focusing on water savings primarily through *improved efficiency* and is based on the potential water savings mostly associated with reducing water use through higher efficiency methods. However, it does not represent any significant changes in lifestyle or development patterns. Water use and development parameters associated with this scenario include:
 - Indoor Use – About 80% conversion of shower heads and faucets to higher efficiency fixtures and about 40% conversion of toilets and washing machines to higher efficiency fixtures.
 - Landscaping Patterns – Traditional residential landscaping, 80% cool season turf and 20% planting beds/hardscaped areas.
 - Irrigation Efficiency – 70% (increase from 50 to 60% historical efficiency)
- Scenario 2. Scenario 2 can be described as *additional conservation efforts* and is based on reducing water use through partial conversion to higher efficiency household fixtures and lower water use landscaping methods.
 - Indoor Use – About 95% conversion of shower heads and faucets to higher efficiency fixtures and about 80% conversion of toilets and washing machines to higher efficiency fixtures.
 - Landscaping Patterns – Partial conversion to waterwise landscaping, 50% cool season turf and 50% planting beds/hardscaped areas.
 - Irrigation Efficiency – 80%
- Scenario 3. Scenario 3 can be described as *maximum likely conservation*. While there will always be ways that more water could be saved, this scenario represents the maximum amount of water that could be saved based on current technologies and landscaping practices. It includes full conversion to higher efficiency household fixtures and low water use landscaping methods.
 - Indoor Use – Nearly 100% conversion to higher efficiency fixtures and appliances, a 60% reduction in residential indoor water leaks, and increased awareness and focus on water conservation.
 - Landscaping Patterns – Full conversion to waterwise landscaping, 20% cool season turf and 80% planting beds/hardscaped areas.
 - Irrigation Efficiency – 80% or more

The study recommends pursuing Demand Scenario 2 to ensure adequate supply is available to meet demands through 2060 without the need for the District to obtain additional sources other than those already planned. The figure below, taken from the study, illustrates the need for this level of conservation.

Figure 4. Projected MWDSLS and Member City Annual Production Requirements vs Supply (Dry Year) Conservation Alternatives



WATER CONSERVATION

Water Conservation Goals

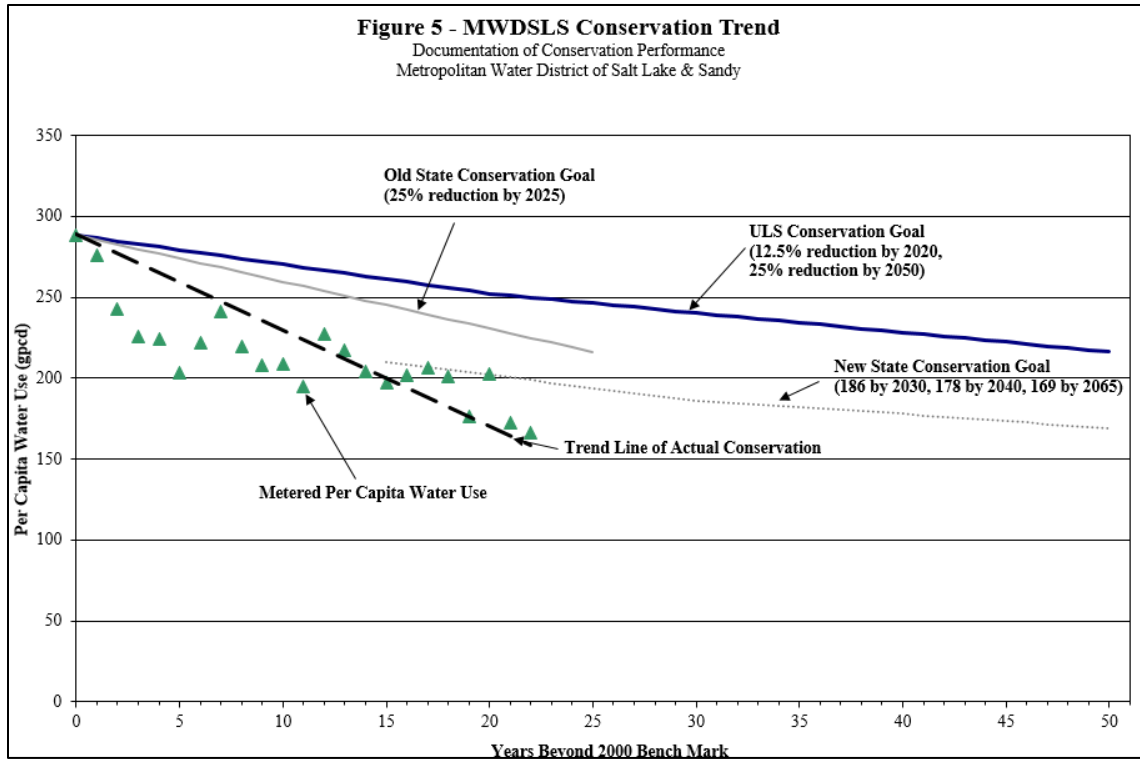
As shown above, water conservation is key to the District meeting future demands. Since 2000, the District has tracked per capita water use which documents conservation performance by the District and its member cities. This information is used to track the District’s progress in meeting the ULS conservation goals of a 25% water use reduction by 2050 and applicable state and regional conservation goals. The District submits an annual conservation report to Central Utah Water Conservancy District each year to meet ULS petition requirements.

In 2019, the Utah Division of Water Resources established regional water conservation goals for Utah's nine municipal and industrial (M&I) areas. The 2030 goals vary by region due to the unique characteristics and needs of Utah's diverse climates and ecosystems. The regional goals constitute a 16% water reduction in per capita use from the new 2015 baseline. The 2015 Salt Lake County baseline is 210 gallons per capital per day (GPCD) and the 2030 Salt Lake County regional goal is 187 GPCD. The regional goals replaced the State's water conservation goals of a 25% reduction by 2025 goal. The District is committed to assisting its member cities in achieving their adopted water conservation goals. It is estimated that regional goals are sufficient for the District to meet demands through 2060 without additional supplies.

Water Conservation Performance

As a wholesaler of water, the District does not sale to a retail population. District deliveries fluctuate depending on the use of other sources by the member cities just as much or more than from per capita use. Therefore, calculating per capita use for District deliveries alone does not provide useful information. Instead, the District calculates its per capita use using population and total metered sales of SLC and Sandy City.

The District began tracking per capita use in 2000. At that time, per capita use was 289 GPCD. By 2015, the baseline year chosen for regional conservation goal setting, the District's per capita use was reduced to 197 GPCD. The 2015 baseline represented a 32% reduction compared to the 2000 baseline and exceeded the previous State water conservation goal of a 25% reduction by 2025. The District's most recent per capita use was 166 GPCD in 2022 which was a 16% reduction from the 2015 baseline and is below the newly established regional goal for Salt Lake County of 187 GPCD. Figure 5 shows the District's conservation trend compared to current and historic water conservation goals.



SECTION 4 - WATER CONSERVATION MEASURES AND PRACTICES

The District has always emphasized the necessity for good water management and practices that enhance water conservation. These water conservation measures are evident in the District's efficient operation. The District is actively involved in water conservation on the supply side of its operation, and encourages its member cities to practice water conservation measures on the demand side. The following paragraphs discuss measures that the District and its member cities are currently practicing to enhance water conservation in order to meet water conservation goals.

DISTRICT CONSERVATION MEASURES

Metering Devices

The District's entire water conveyance and distribution system is equipped with various flow metering devices that are read at least monthly and are tested regularly for accuracy. The upper SLA is equipped with meters at the Deer Creek Intake and at the LCWTP to record the volume of water entering and exiting the aqueduct. The District also has metering devices along the upper SLA at locations where water is delivered for irrigation. The lower SLA has sonic flow meters located just downstream of the LCWTP and the 10 MG reservoir. Metering devices are also located along the lower SLA at connections where water is delivered to the JVWCD. The various metering devices allow the District to monitor the amount of water that is delivered to its member cities and others. The metering devices also allow the District to prepare water audits determining the efficiency of the system. Historically, the District has maintained a highly efficient system with minimal water losses.

Regular Inspections and Maintenance of District Facilities

District personnel perform regular inspections on each of the District's facilities. As part of these regular inspections, the Terminal Reservoir is drained, cleaned, and internally inspected. The facilities at the LCWTP receive daily inspections and maintenance from District personnel. Inspections and maintenance have resulted in very minimal downtime for the LCWTP in its 50 years of operation. The SLA is regularly patrolled and monitored by District personnel to check for leaks and needed maintenance. Blow-off valves along the aqueduct are exercised monthly to ensure proper operation. Any detected leaks are repaired and needed maintenance completed as soon as possible.

Efficient Practices

The District continually looks for opportunities to conserve water and to practice efficient water management. This is evident in their exchange agreement with the Utah Lake Distributing Company (discussed in Section 2). The exchange agreement allows the District to utilize high quality water from Deer Creek Reservoir for municipal and industrial purposes rather than for irrigation. In exchange for the Deer Creek Reservoir water, the District provides water from the Jordan River to the Utah Lake Distributing Company for irrigation.

The District has also been proactive in preparing for the future demands for each of its member cities. The District completed the 2020 Master Plan Update that projected the demand requirements for each of its member cities through the year 2060. The Master Plan also recommended improvements that would allow the District to meet these projected demands. This proactive approach has allowed the District to meet the demand requirements of its member cities. In addition, a Supply and Demand Study was conducted in 2019 to update the master plan projections.

Governor’s Water Conservation Team

The District participates in the Governor’s Water Conservation Team with the State of Utah Division of Water Resources, JWCD, CUWCD, WBWCD, WCWCD, and other water agencies in a statewide media campaign to promote water conservation and reduce municipal and industrial water consumption. The program is coordinated jointly by the various agencies and includes a public relations campaign with the slogan “Slow the Flow”. The agencies support conservation through different measures including flip the strip, water audits, localscapes classes, toilet rebates, and WaterSense-smart controllers to customers.

Involvement with Water Conservation Public Relations Programs

- Water Week Open House – During Water Week, typically the first week of May, the District has an open house for the public. Tours are given of District facilities that highlight the importance of conservation in achieving the District’s mission. Information on conservation is also handed out to those who attend.
- Water Audits program - The District has funded water audits conducted by USU Extension services for its member cities customers since 2010.

Environmental Committee

Members of the District’s Board of Trustees and staff participate in Environmental Committee meetings. Conservation measures are regularly discussed in this meeting to ensure that District adequately supports member cities’ conservation. The mission statement of the Environmental Committee includes conservation as a key component. It reads, in part, as follows:

Actively promote the wise, long-term and sustainable use of water resources through the following action items:

- Support our member cities’ implementation of effective conservation measures;
- Implement effective supply-side conservation measures;
- Plan and participate in Aquifer Storage and Recovery efforts;
- Adopt best management practices for energy and water conservation at all District lands, properties and facilities;
- Promote public education regarding water conservation;

WaterSense Membership

The District has been a WaterSense partner since 2009. WaterSense is an EPA sponsored program that promotes water efficiency. The program provides educational material, publications, and media tools to the District to help in efforts to promote water conservation.

Water Audits

The District funds water audits conducted by the USU extension services for its member cities' customers. Landscape irrigation system and irrigation schedule evaluations, otherwise known as Water Checks or audits, are used by MWDSLS to reduce water use in its service area. To date, the District's focus on landscape water conservation through the Water Check Program has resulted in an average annual savings of 64,000 gallons of water and associated financial savings per participant household. From 2005-2023, 3,701 residential Water Checks were conducted in MWDSLS service area, along with 192 CII Checks

Demand-Side Water Conservation

As previously noted, the District primarily functions as a wholesale provider of water to SLC, Sandy City, and others. As such, the District has no authority to mandate water conservation measures of the demand side such as water savings, plumbing fixtures, low-flush toilets, etc. Accordingly, the District's role on the demand side is limited to encouraging its member cities to practice water conservation measures. The 2020 Master Plan Update identified demand-side conservation measures that the District's member cities are currently practicing. Member cities' conservation measures are discussed in detail later in this section.

Water-Wise Landscaping at District Facilities

The District has numerous facilities located throughout its system and many of these have landscaped areas. The District has developed a landscape master plan that calls for conversion of many of these landscape areas at District facilities from turf to low-water use landscape. As part of this plan, several of these landscape areas have been replaced with water wise plantings. Plans are in place to continue this program in the future.

SALT LAKE CITY CONSERVATION EFFORTS

Salt Lake City has been an active leader in implementing changes to promote water conservation. SLC has a long history of water conservation starting with the change to volumetric sewer charges in the 1980's. Water conservation is a major priority for SLC. SLC has implemented, or is in the process of implementing conservation programs in the City's 2020 water conservation plan. These programs are summarized below, organized by major conservation categories. Additional details can be found in Salt Lake City's Water Conservation Plan (<https://www.slc.gov/utilities/water-conservation-plan-2020/>).

Outreach:

- Provide information on landscape practices through demonstration gardens and SLCGardenwise.com
- Host cloud based portals for customers to enhance engagement in conservation programming and increase opportunities to achieve conservation goals
- Offer Conservation Learning Labs to educate homeowners on how to implement water efficient practices
- Build current partnerships and develop new partnerships to ensure achievement of conservation goals

Economics:

- Conduct audits to assist CII customers in reducing water waste and water use by providing data regarding common practices and building relationships between CII customers and conservation program staff
- Offer rebates directed at both indoor and outdoor water use to help customers achieve greater levels of efficiency and reduce waste
- Conduct evaluations periodically to ensure water rates support conservation goals and adequate revenue generation while considering affordability, equity, and fairness

Utility Operations:

- Implement AMI Technologies to manage water supplies and convey critical information to water users
- Establish comprehensive practices for landscape and irrigation design and management that address existing properties and to-be-developed properties
- Use state-of-the-art technologies coupled with innovations in data reporting and workflow to identify leaks and reduce repair response times
- Update the *SLC Landscape BMPs for Water Resource Efficiency and Protection Manual*
- Propose new specifications to address conservation best practices in facility design and construction

Law and Policy (Proposed Ordinances):

- Adopt a Squandered Water Ordinance to address those customers that insist on watering daily or won't repair leaks in a timely manner
- Clarify the Irrigation-only Meter Ordinance to address winter use of irrigation-only meters
- Evaluate irrigation-only meter budgets in light of new understanding of actual turf water needs
- Evaluate seasonal rates based on recommendations of the Supply and Demand Study for both indoor and outdoor water use reductions

- Review existing landscape ordinances and policies to ensure appropriate alignment with newly established outdoor water use reduction goals

Research and Metrics:

- Conduct an AWWA M36 Study to improve water resource management, optimize revenue, minimize service interruptions, enhance system integrity, and reduce water waste
- Establish metrics, benchmarks, and goals for conservation programming
- Establish 5- and 10-year budget proposals to facilitate program planning, support partnerships, and enhance grant opportunities
- Use CII Analytics to provide information to conservation program staff about CII sector water use
- Promote the Water Check program provided by USU and CWEL with financial and technical support from conservation staff and MWDSL
- Use USU's WaterMAPS™ to promote urban landscape water conservation (<https://extension.usu.edu/cwel/watermaps/>).

Additional USU/SLCPU Study and Research Collaborations:

- Provide Salt Lake City Golf with solutions that reduce water demand and eliminate water waste
- Work with USU and other partners to increase the use turf grass alternatives that use less water
- Conduct a metastudy on artificial turf to identify potential negative impacts to soil health, landscape health, landscape water demand, and insect populations
- Establish budgets based on square footage of landscaped area and evapotranspiration for properties with irrigation-only meters

SANDY CITY CONSERVATION EFFORTS

Over the last two decades, Sandy City has been aggressive in implementing several conservation measures to reduce water usage. The City has a well maintained and operated water system and has been proactive in implementing and maintaining many programs to ensure that the system operates at an optimal level. Sandy City conservation efforts are summarized below, organized by major conservation categories. Many of the efforts listed have been implemented or are in the process of being implemented. Additional details on these efforts can be found in Sandy City's Water Conservation Plan (<https://sandy.utah.gov/1731/Water-Conservation-Plan>).

Conservation Public Awareness Practices:

- Meter all residential, industrial, and institutional connections to the City's water system with AMI
- Use the Water Watch tool to automatically send text or email updates to customers if water usage exceeds certain thresholds

- Employ a full time Water Education and Public Outreach Coordinator that provides public/stakeholder education and engagement on water conservation
- Devote a page on the Sandy City Public Utilities website to water conservation (<https://sandy.utah.gov/1333/Conservation>)
- Update the Water Conservation Plan every five years and adopt it by ordinance
- Conduct year-round social media campaigns designed to educate the public on water conservation and water use practices
- Post signage at city sports events with QR code links to digital conservation resources

Education & Training Practices:

- Provide financial support to the “Slow the Flow – Save H2O” water education campaign through membership with MWDSL
- Offer free audits to water customers through a partnership between MWDSL and USU
- Support efforts to educate school-aged children about water and the importance of conservation
- Maintain a waterwise demonstration garden to exhibit various water wise plants and irrigation systems
- Use the City newsletter to educate and inform the public regarding conservation and other water issues
- Use Water Watch to monitor water usage among City customers
- Generate and distribute print and visual materials about waterwise landscaping, Sandy City landscape ordinances and water conservation practices, and yard signs for residents to show commitment to waterwise practices
- Hold garden fairs at Sejo Lily Gardens and stay involved with the Utah Water Conservation Forum

Rebates, Incentives & Rewards:

- Work with Utah Water Savers to provide a toilet replacement rebate program
- Work with Utah Water Savers to provide a rebate program for Smart Irrigation Controllers

Ordinances & Standards:

- Adopt a Water Efficient Landscaping Ordinance that requires new commercial and multifamily developments, as well as new City-owned properties, to submit landscape and irrigation plans during the development review process
- Implement a Timing of Landscape Watering Ordinance that permanently restricts sprinkler irrigation between 10:00 a.m. and 6:00 p.m. for all water users
- Adopt a Waste Prohibited Ordinance to allow City staff and City Council to act in the case of excessive or irresponsible water waste

Water Pricing:

- Increase the block rate structure to reduce peak system demands and reduce water waste on outdoor landscaping
- Change billing patterns and use AMI to allow customers access to water use data on an almost real time basis
- Charge true water costs to all water users to promote water conservation

Improvements to Physical System:

- Practice conjunctive use of surface and groundwater by utilizing surface waters when available and using groundwater supplies only during periods of peak demand
- Convert public landscapes to low-water use landscaping
- Install pipeline corrosion protection to extend the life of pipelines and minimize system losses through reduced leaks
- Implement a line replacement program to reduce the number and severity of water leaks in the system
- Equip parks, City buildings, and streetscapes with smart controller systems that monitor daily weather reports and adjust output at each zone to maximize irrigation efficiency
- Improve utilization of the Bell Canyon Creek water right
- Implement Aquifer Storage and Recovery from Bell Canyon Creek and other sources so that the water can be infiltrated into the ground and later withdrawn from well sites
- Expanded use of Little Cottonwood Creek water rights to increase MWDSLs water stored in Deer Creek for use later in the summer season

New Conservation Practices Planned for Implementation:

- Complete a Water Shortage & Drought Plan with specific drought stages along with triggers and responses for each stage
- Improve utility bills to identify opportunities for conservation messaging in each utility bill
- Support continued public education efforts such as the “Slow the Flow” water conservation campaign, the Water Conservation Education Program, and the Water Watch program
- Teach water conservation classes on low-water use landscape design including irrigation systems, varieties of turf, low-water use plants, and native plants
- Offer Locascapes rebate to residents who install a new landscape or renovate an existing one
- Offer Flip Your Strip rebate to residents who replace the lawn in their park strip with a water-efficient design
- Update City ordinances regarding water conservation
- Propose additional city ordinances regarding water conservation to the City Council
- Evaluate the current water rate structure to further incentivize conservation
- Complete the AWWA Water Audit Program to quantify system water and revenue losses