

A photograph of children playing in a water fountain. The water is splashing around them, creating a dynamic and joyful scene. The children are wearing colorful clothing, and the overall atmosphere is bright and summery.

Water Conservation Plan

December 2024

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1.0 Background

Water is one of Utah’s most precious resources.

In 1998 the Utah state legislature passed the “Water Conservation Plan Act” which requires culinary water providers with 500 or more connections to submit water conservation plan updates to the Utah Division of Water Resources every five years. The City of West Jordan completed its first water conservation plan in 1999. Updates have been submitted in 2004, 2009, 2014, and 2019. West Jordan has demonstrated a commitment to conserving water.

As the City plans for expanded growth on the west side it has an opportunity to further the goal of water conservation through proper planning of best management practices that will decrease the water needs of the City.

This 2024 Water Conservation Plan Update satisfies the requirements of this Act.

A copy of this plan is available on the website of the City of West Jordan as a resource for every customer’s conservation efforts.

This plan was adopted by the West Jordan City Council on _____ 2024.

A copy of Resolution No. 24-039 is included in the appendix.



2.0 System Profile

The City of West Jordan was one of the earliest pioneer settlements after the founding of Salt Lake City. Early settlements formed to the west along the prominent Jordan riverside as early as 1849. Since the City lies on the western banks of the Jordan River, it was named West Jordan. As the years went on the area began to grow at a rapid rate. Farms, mills, and infrastructure were built as a haven for all who wished to settle the area. The residents of West Jordan petitioned the Salt Lake County Commission for incorporation as a town on January 10, 1941. It became a third-class city in 1967 and grew to a first-class city by 2006.

West Jordan is located in the center of the Salt Lake Valley, extending westward from the Jordan River toward the Oquirrh Mountains, where slopes increase significantly, gaining more than 1,000 feet in elevation at its higher points. It shares borders with Taylorsville, Kearns, West Valley City, Copperton, South Jordan, Sandy, Midvale, and Murray. According to the US census bureau, the City has a total area of over 32 square miles, with a small portion (1.7 square miles) served by Kearns Improvement District. A map of the City of West Jordan’s water utility service area is shown in Exhibit 1.

The City of West Jordan is the third largest municipality in the State of Utah and is still growing. Kem C. Gardner Institute estimates that the city currently has over 120,000 residents and provides safe drinking water to over 107,000 customers. The City currently provides water in 6 pressure zones and provides an average of 17.5 million gallons of water every day to consumers. Providing high quality drinking water is a high priority for our leaders and planners.

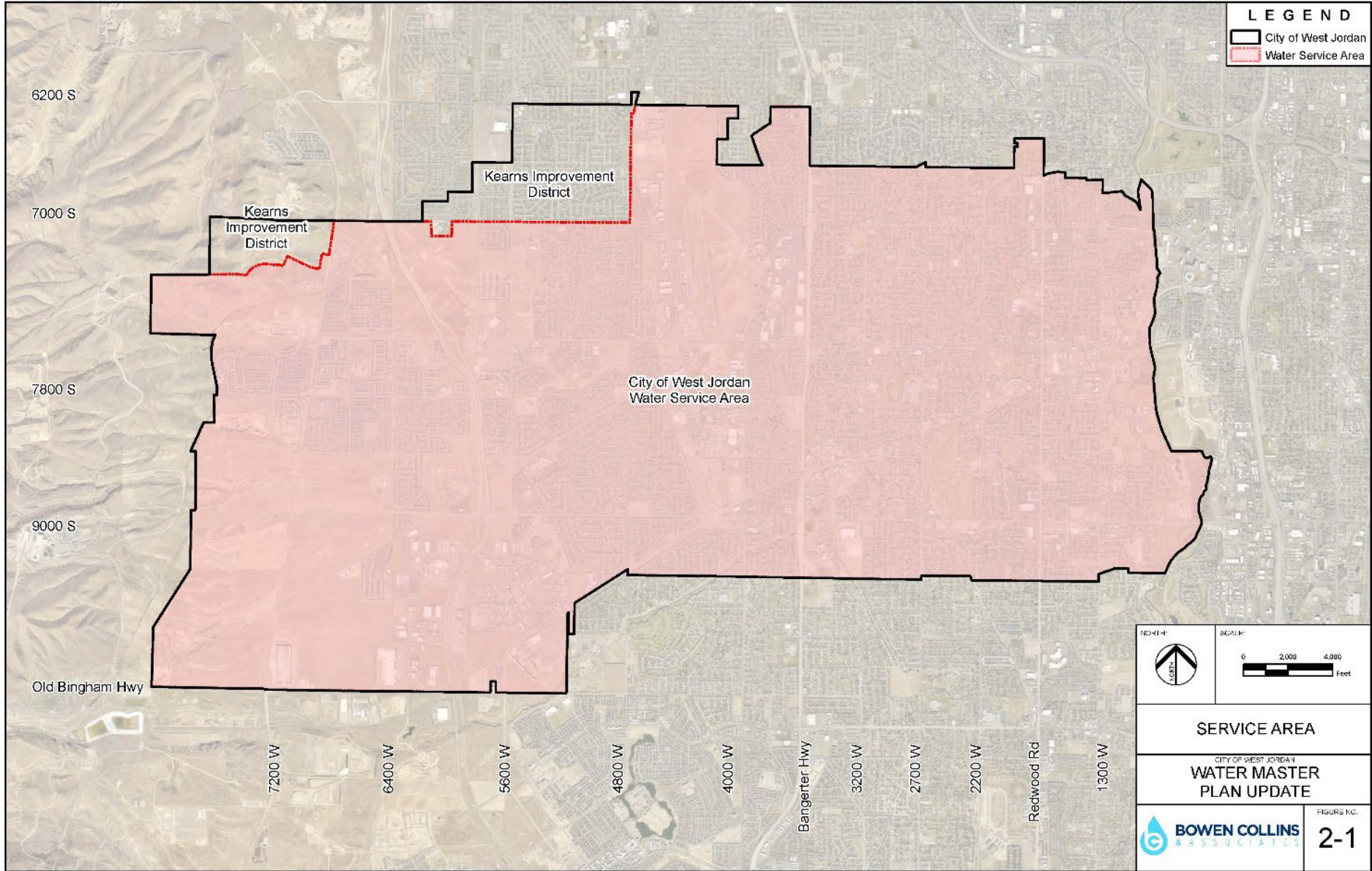


Exhibit 1- Service Area

2.1 Water Connections

The City currently provides water to residential, commercial, industrial, and institutional customers. Commercial and industrial demand is mostly consumed inside facilities and is consistent year-round. Residential and institutional demand see a significant change in the summer as outside watering demands increase. Most of the City’s conservation efforts have been focused on reducing outside watering demands.

Exhibit 2 – Total Water Connections by Type

Year	Residential	Commercial	Institutional	Industrial
2020	27,924	1,345	571	113
2021	28,089	1,377	556	106
2022	28,343	1,380	556	104
2023	28,670	1,408	556	104



2.2 Water Supply

The majority of the water delivered to West Jordan residents is purchased from Jordan Valley Water Conservancy District (JVWCD) through 13 physical connections.

The City updated their annual JVWCD contract in June 2021 bringing the contract volume to 20,000 acre-ft. This contract value is a minimum value, and the City is allowed to take an additional 20% without penalty or change to the contract, bringing the total potential JVWCD supply volume to 24,000 acre-ft.

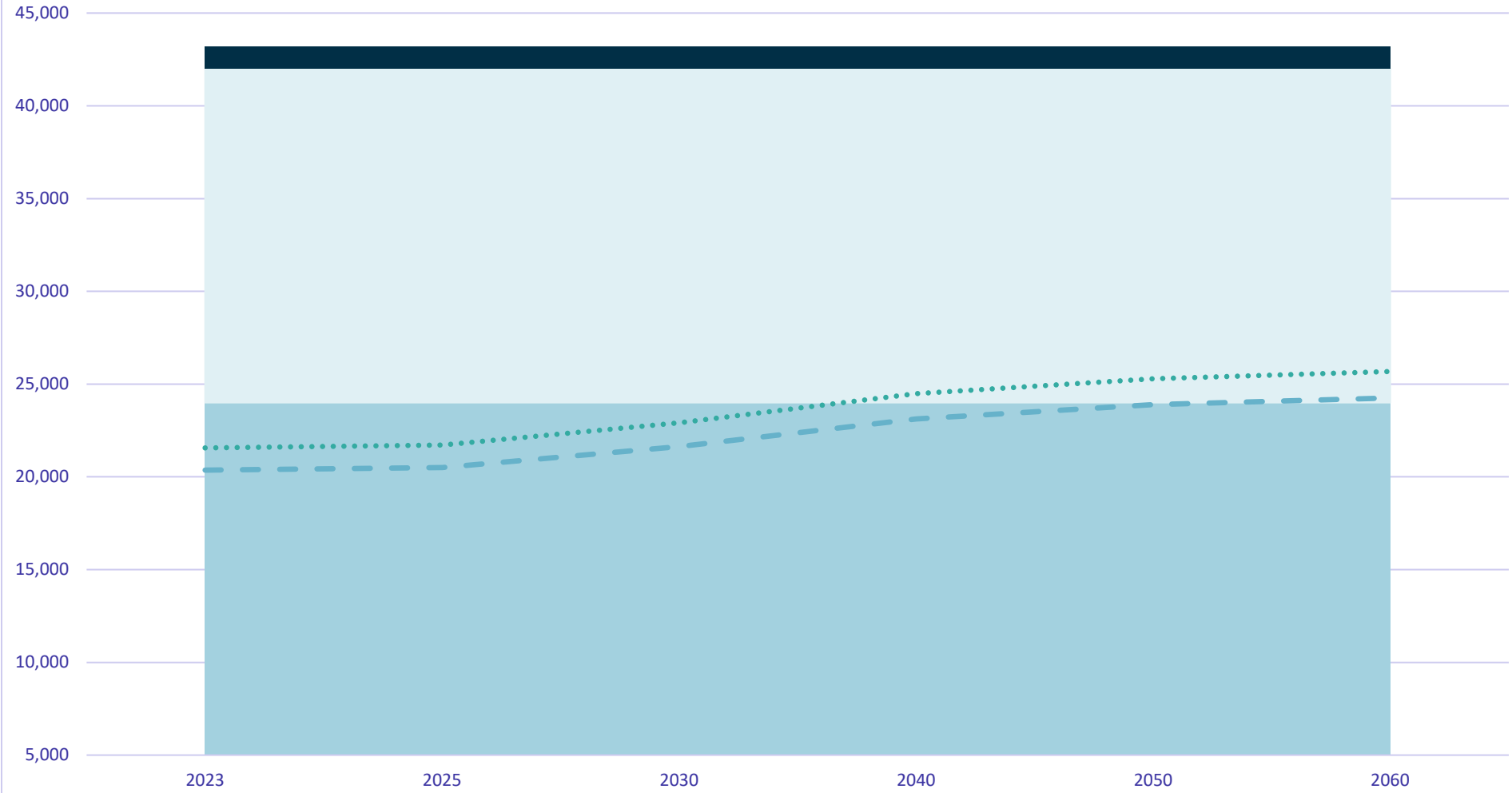
In addition to the JVWCD water, the City has four culinary water wells that can be used to supply water to residents. Wells are mostly used in the summer months to provide culinary water during peak days. Groundwater rights purchased by the City are listed in the table below.

Besides culinary water supply, the City also has canal shares that supply secondary water to large City parks. This water supply is also included in the table below.

Exhibit 3 - Water Supply		
Name of Supplier	Normal Yield (Acre-Ft)	Future Water Supply (Acre Feet)
Jordan Valley Water Conservation District (Annual Contract)	21,000	24,000
Culinary Well Water * (Include water rights)	2,000	18,000
Secondary Water * (Include water rights)	500	1,200
Totals	23,500	43,200

The City currently has enough supply for the proposed increase in population if current conservation goals are met.

Exhibit 4 - Reliable Supply Through 2060



- JWCD (Acre-feet)
- Canal Shares (Acre-feet)
- Wells (Acre-feet)
- Projected Water Use at Current 180 gpcd (Acre-feet)
- Efficient Water Use at 170 gpcd (Acre-feet)

3.0 Water Billing Rate Structure

City water rates are used to cover the cost to operate and maintain 505 miles of pipe and deliver over 8 billion gallons of water annually. Water rates fund the personnel and equipment necessary to deliver safe and reliable water to the residents and businesses. The current billing structure, adopted by West Jordan City Council, is shown below.

Exhibit 5 – Water Billing Structure – Tiered Rate					
Residential Connection Monthly Water Rate (Does not Include Fixed Charge based on Meter Size)		Irrigation Connection Monthly Water Rate (Does not Include Fixed Charge based on Meter Size)		Commercial Connection Monthly Tiered Rate (Does Not Include Fixed Charge based on Meter Size)	
Rate per Thousand Gallons	Volume (Gallons)	Rate per Thousand Gallons	Volume (Gallons)	Rate per Thousand Gallons	Volume (Gallons)
\$2.30	0-7,000	\$2.30	0-7,000	\$2.30	0-7,000
\$3.72	7,001-25,000	\$3.57	7,001-25,000	\$2.60	7,001-25,000
\$3.93	25,001-50,000	\$3.72	25,001-50,000	\$2.75	25,001-50,000
\$4.18	50,001-100,000	\$3.83	50,001-100,000	\$2.91	50,001-100,000
\$4.85	over 100,000	\$4.59	over 100,000	\$3.21	over 100,000

This billing structure also includes a Base Meter Rate as shown below.

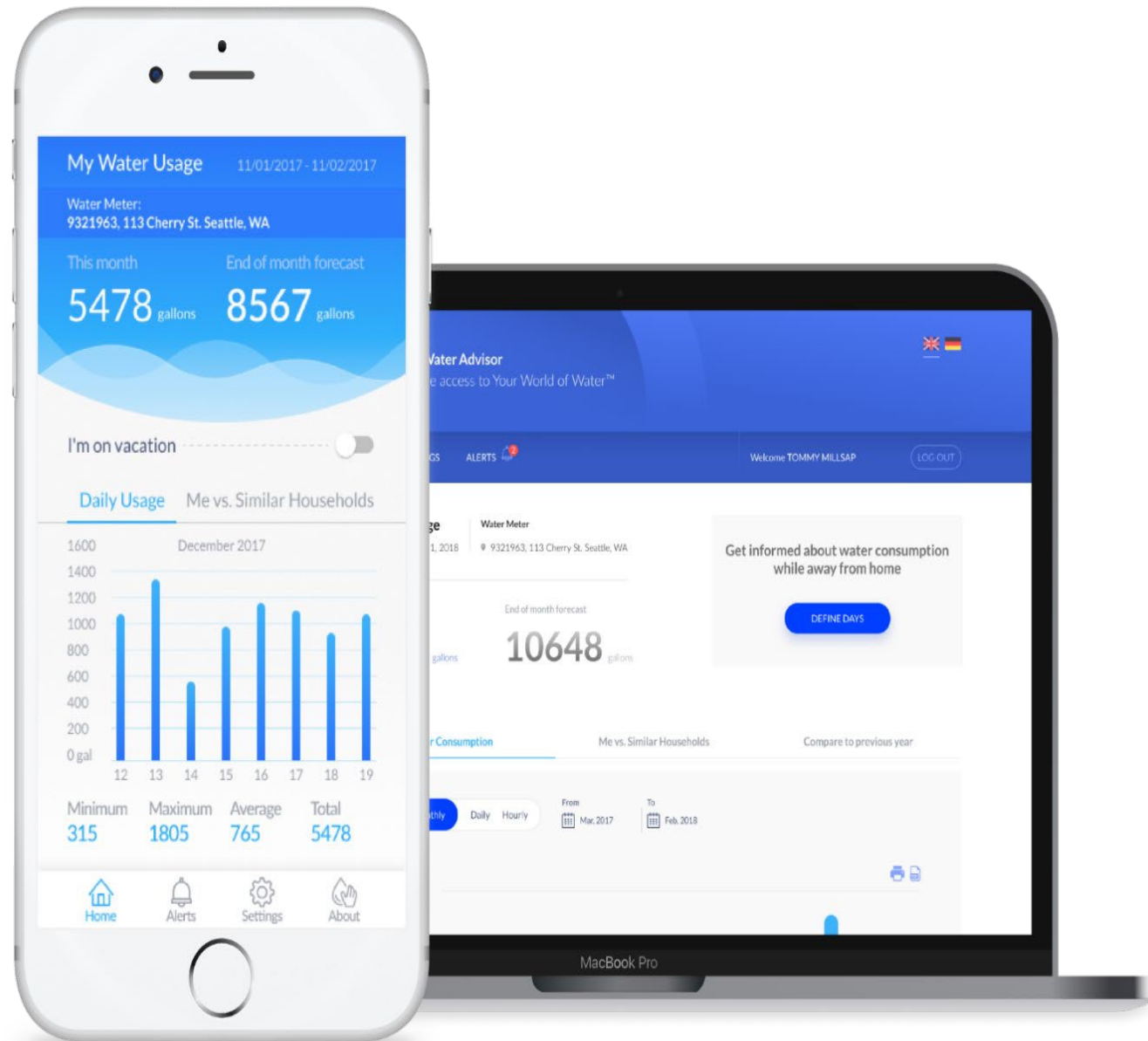
Exhibit 6 – Billing Structure - Monthly Water Meter Charge					
Residential Connection Monthly Water Meter Charge		Irrigation Connection Monthly Water Meter Charge		Commercial Connection Monthly Water Meter Charge	
Meter Size	Rate	Meter Size	Rate	Meter Size	Rate
¾"	\$20.40	¾"	\$20.40	¾"	\$20.40
5/8"	\$20.40			5/8"	\$30.60
1"	\$20.40	1"	\$45.90	1"	\$45.90
1 – ½"		1 – ½"	\$71.40	1 – ½"	\$71.40
2"		2"	\$102.00	2"	\$102.00
3"		3"	\$327.42	3"	\$327.42
4"		4"	\$698.48	4"	\$698.48
6"		6"	\$1,266.00	6"	\$1,266.00
8"		8"	\$1,899.01	8"	\$1,899.01
10"		10"	\$2,772.11	10"	\$2,772.11

The current tiered system based on water use has helped the City to meet its conservation goals by providing a financial incentive to customers to save water. The more water used, the higher the rate charged by the City.

4.0 System Leak Prevention / Loss

Every culinary water connection in West Jordan is metered with an Advanced Metering Infrastructure (AMI) system that transmits data every day to a central tower instead of being read once a month. Collecting data every day allows the City to share up to date information with our customers by using application based technology called MY Water Advisor. This application can allow customers to monitor daily usage, set alarms when usage is too high and alert the customer if a leak is detected.

All West Jordan water meters are ultra sonic and do not require moving parts to read the meter. Accuracy is within 98 percent. When customers are concerned about reading and usage, staff is available to check meter accuracy and handle complaints. These meters have a warranty for 20 years and are replaced as needed.



The City employs construction crews that are on call each day to repair water leaks in the City system. The most common leaks occur during winter months and involve a service line connection to a main line or a leak inside the meter box. Main line repairs are less frequent but are still typically fixed by City crews within 4 hours of reporting.

Typical loss rate for the City is under 7 percent annually. In 2023 the City produced or purchased 21,228 acre feet of culinary water. The City sold 19,599 acre feet of culinary water. Cost of this loss is \$951,061.00.



Water Break – 9000 South 1100 West

5.0 Water Use

The City’s drinking water system currently delivers annually about 13,000 ac-ft to 28,700 residential customers and about 7,000 ac-ft to 1,400 commercial, 600 institutional, and 100 industrial customers throughout the City. The majority of the City’s water (88%) comes from Jordan Valley Water Conservancy District (JVWCD) and is distributed throughout the City via multiple City-owned pump stations, storage reservoirs, and transmission pipelines. The City owns and maintains four wells. The water produced from City wells is mixed and blended with other water sources as it enters the water distribution system.

The drinking water system supplies both indoor and outdoor water uses to most of these customers. Secondary water use from canals is limited to less than 7% of the total water in the City. Residential and commercial users are located throughout the City, while Industrial users are in the southwest area.

5.1 Water Deliveries

The table below shows total water use by connection type.

Exhibit 7 - Water Use Information

Year	Population	Residential Use (Acre Ft)	Commercial Use (Acre-Ft)	Institutional Use (Acre-Ft)	Industrial Use (Acre-Ft)	Total Use (Acre-FT)
2020	103,762	15,919	2,611	2,556	1,162	22,248
2021	105,105	13,597	2,682	1,731	1,358	19,368
2022	106,000	12,727	3,642	1,796	1,350	19,515
2023	106,930	12,653	3,679	1,964	1,303	19,599



5.2 Current Water Conservation Goal

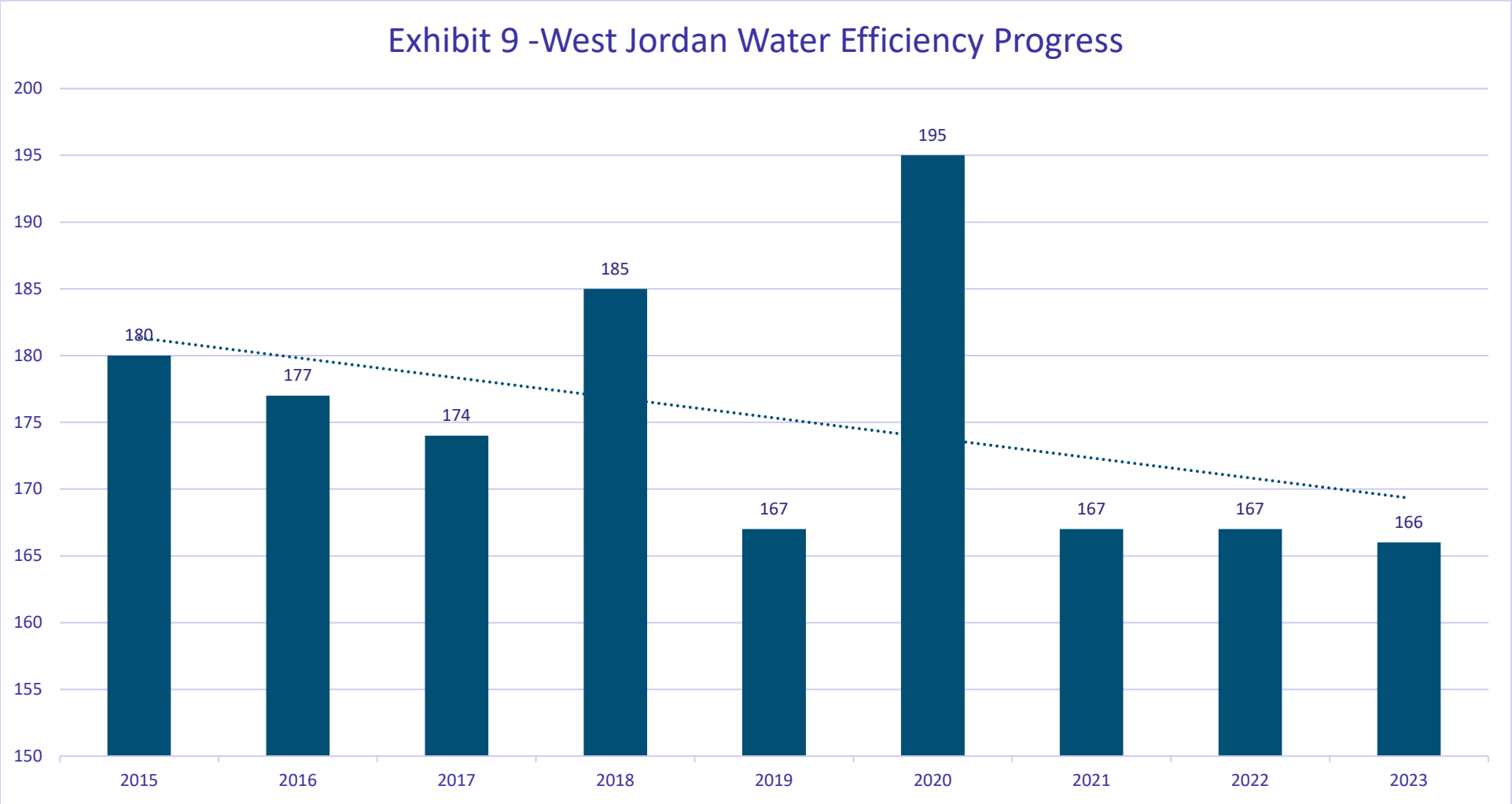
In 2000, West Jordan adopted a water conservation goal of reducing per capita water use by 25 percent by the year 2025. In 2000, an average resident used approximately 227 gallons of water in a day. By 2025, West Jordan desires to keep water demand below 170 gallons per capita day.

In 2023 West Jordan water customers kept demand below 170 gallons per capita day as shown in the table below.

Exhibit 8 - Water Use (GPCD)				
2023 Connections	Indoor Use (gpcd)	Outdoor Use (gpcd)	Secondary Use (gpcd)	Total
28670 Residential	53.0	52.6	NA	105.6
1,408 Commercial	15.4	15.3	NA	30.7
556 Institutional	8.2	8.2	2.7	19.1
104 Industrial	5.5	5.4	NA	10.9
Total	82.1	81.5	2.7	166.3
*Use based on total water sold to retail customers (Does not include loss)				

5.3 Water Efficiency Progress

The City has steadily decreased the amount of water used per capita as shown in the table below.



5.4 2019 Recommendations and Outcomes

A portion of City staff responsibilities include periodic review of water conservation efforts, implementation of conservation efforts and reporting to City administration the progress towards reaching the City’s water conservation goals. The following table highlights efforts the City has taken since the last conservation plan update.

Exhibit 10 - Recommendations / Outcomes	
Recommendations	Outcomes
Encourage JVVCD Water Savers Rebates	These programs are “Flip Your Strip”, “Localscapes Rewards”, “Toilet Rebate Program”, and “Smart Controller Program”. In 2023 West Jordan residents saved over \$44,000 in rebates from these programs.
Water Bill Comparison	West Jordan residents continue to receive 13-month usage comparison on customer water bills with a reminder to conserve water.
Landscape Consultations	Consultations are available through JVVCD.
Irrigation of Public Landscaped Areas	West Jordan has removed over \$200,000 worth of landscaping in public areas. The goal is to remove turf in non-active areas and promote the use of turf active areas.
Secondary Water	The City uses secondary water at several parks instead of culinary water to save this valuable resource.
Conservation Water Rates	Citizens of West Jordan pay for water based on a tiered rate system that encourages residents to conserve. The more water used the higher the rate charged per 1,000 gallons.



Plum Creek Park

6.0 Water Conservation Programs

The City currently uses the following water conservation best management practices:

6.1 Educational Resources

Water conservation information is provided annually to customers within the West Jordan City Water Quality Report. The report informs customers of the City’s water conservation goals, promotes indoor and outdoor conservation strategies, and refers customers to conservewater.utah.gov for real-time watering recommendations.

The City also provides a section on each customer’s water bill that compares current usage to the customers’ previous 13 months of usage along with a reminder to conserve water.

Customers also have access to the following Jordan Valley Educational programs and incentives.

1. Slow the Flow:

“Slow the Flow: Save H₂O” is a public information and education campaign launched by JWCD in 1999. In 2001, it was adopted by the Governor's Water Conservation Team (a team which consisted of five of Utah's largest water districts and DWRe) as a statewide initiative to raise awareness and connect Utahns to water conservation tips, tools, and resources. The campaign has continued to evolve over the years. Future adjustments to the campaign may be appropriate to emphasize new water conservation opportunities for Utahns.



2. Localscapes

A recent focus of JWCD has been to educate communities about Localscapes®—a simplified approach to landscaping for Utah. Localscapes use 66 percent less water than typical landscapes while reducing maintenance, increasing curb appeal and providing better landscape functionality.



What sets Localscapes apart from previous approaches to water-efficient landscaping is that it offers a comprehensive solution to major landscape challenges faced by homeowners while also saving water. Education efforts include community outreach, online and in-person classes, a learning exhibit at JWCD’s demonstration garden, and partnerships with industry professionals.

3. Jordan Valley Conservation Garden Park

With more than nine acres of exhibits, pathways and Utah-friendly plants, Conservation Garden Park (Garden) is Salt Lake County’s premier destination for information about water-efficient landscaping. A list of the Garden’s primary activities and programs include:

Community Classes: Garden classes teach Utahns how to design, install, or maintain Utah-friendly landscapes.

Educational Exhibits: More than 40 educational exhibits teach and reinforce principles of water-efficient landscaping.

Work and Learn Workshops: Participants work alongside staff to help maintain the Garden.

Plant Database: JWCWCD maintains a searchable database of Utah-friendly plants on the Garden’s website.



6.2 Existing Incentive Programs:

Locascapes Rewards

Because landscapes that use the Locascapes method are more sustainable and water thrifty, JWCD provides incentives for residents within its service area to install Utah-friendly Locascapes. Applicants apply through [Utahwatersavers.com](https://utahwatersavers.com). West Jordan residents received \$27,912.23 in 2023 from the Locascapes reward program.

Flip Your Strip

Park strips are one of the easiest places to begin the transition to a more Utah-friendly landscape because they require minimal landscape design and are usually on their own sprinkler zone. A rebate of \$1.00 per square foot is available to homeowners who convert their park strips from lawn to a water-efficient design. Only park strips with existing lawn qualify for the program. Finished projects must include 60% plant coverage, drip irrigation, and mulch. The rebate increases to \$1.25 per square foot for participants who attend a free park strip class.



In 2023 West Jordan residents received \$7,761.87 from the Flip your Strip Program.

Toilet Rebates

Toilets use more water than any other indoor fixture and because toilets manufactured before 1994 use more gallons of water per flush, replacing them is an easy way to conserve water.

Through the Toilet Replacement Program, receive up to \$100 for replacing an old toilet with a new, WaterSense-labeled one.

Applications are submitted through Utahwatersavers.com.

In 2023 West Jordan residents received \$1,297.10 in rebates from this program.



Smart Controller Rebates

Smart controllers can turn irrigation systems on and off based on local weather and landscape conditions. A statewide smart controller rebate program, funded by DWRe, rebates Homeowners 50 percent of the cost of a WaterSense labeled smart controller, up to \$150. Applications are submitted through Utahwatersavers.com.

In 2023 West Jordan residents received \$7,411.10 in rebates from this program.

6.3 Existing Physical Improvements

Grass removal and replacement

West Jordan has received multiple grants to remove turf in non-active play areas through the City. These locations include Pioneer Hall, City Hall and Constitution Park.

6.4 Existing Regulations

Water Efficiency Standards

West Jordan has updated its own landscaping regulations two times in the last five years to give residents more flexibility in planning and installing waterwise landscaping. Current regulations are compliant with State and Jordan Valley Water Conservancy District rules.

7.0 Conservation Goals

Water conservation is important to the City of West Jordan. It is proud of City residents who have changed their habits and landscaping to meet its conservation goals. When setting goals for the 2025 Water conservation plan the City considered the following question:

What can the City do to continue to keep water conservation a priority? We hope the following goals answer this question.

Goal 1 - West Jordan desires to keep water demand below 170 gallons per capita day.

Goal 2 - The City would also like to reduce non-functional turf in City owned facilities by 100,000 SF by 2030.

Goal 3 – Encourage reduction of non-functional turf in residential areas by 100,000 SF by 2030.

Goal 4 - The City would like to keep system demands within currently secured water rights.

8.0 Implementation and Monitoring Plan

Exhibit 11 - Proposed 2025 Implementation Plan		
Best Management Practice	Plan of Implementation	Timeline / Performance Measure
Water Conservation Committee	<p>City sustainability committee will have regular meetings to evaluate progress in reduced water conservation efforts and provide guidance to City Council.</p> <p>Report will include information on water use, water demand, breakdown of indoor and outdoor use, and effectiveness of conservation efforts.</p>	<p>Committee to discuss each year the water conservation efforts of the City and report to City Council with suggestions for improvements.</p>
Public Educational Outreach	<p>City to post the water conservation plan on the City website when adopted. City to create a water conservation web page that will include a provides a lawn watering guide that promotes conservation. Plant selection for drought tolerant plants available in the area.</p> <p>City provides links to Jordan Valley web site. This site provides adult efficient water use education and training like Localscapes and invites them to tour the demonstration garden located in West Jordan.</p> <p>Use JVVCD grant money to fund a water conservation specialist.</p>	<p>Review each year the number of visitors looking at the site and downloading the plan.</p> <p>Coordinate yearly with Jordan Valley to find the number of residents that attended classes.</p> <p>Apply for grant for water conservation specialist.</p>
Promote Rebates	<p>Provide links to rebates, incentives, and rewards offered by Jordan Valley Water Conservancy (West Jordan Water wholesaler)</p>	<p>Coordinate yearly with Jordan Valley to find the number of residents that qualified for incentives and rewards.</p>
Water Bill Comparison	<p>Provide a section on each customer’s bill that compares current usage to customer’s previous 13 months of usage with a reminder to conserve water.</p>	

Water Efficient Landscaping Ordinance	<p>West Jordan encourages residents to install water efficient landscaping through thoughtful landscape ordinances.</p> <p>Assign City Staff to update ordinances as state law changes.</p>	<p>Coordinate yearly with Building Department to See permits issued adhering to landscape code prior to occupancy.</p> <p>Coordinate yearly prior to Sustainability meeting on water conservation to verify ordinances are up to date.</p>
Drought Management Plan	<p>West Jordan will continue to monitor and improve currently adopted drought management plan. (City Code 9-6)</p>	<p>Meet with Jordan Valley yearly to set drought management level.</p> <p>Coordinate with City council yearly in response to Jordan Valley drought level.</p>
Water Pricing		
Tiered Water Rates based on use.	<p>West Jordan will continue to charge tiered rates based on use. Higher charges for greater use.</p>	<p>Meet yearly with City Council to determine effectiveness of tiered rate pricing system. Receive approval for continued use.</p>
Physical System		
Utilize waterwise landscaping at City owned facilities.	<p>Install & maintain efficient irrigation, utilize water-wise landscaping & smart controller technology at new and existing agency facilities.</p> <p>Apply for grants to remove park landscaping in non-active areas that is not waterwise.</p>	<p>Review existing park properties that do not utilize waterwise landscaping. Report to Sustainability committee each year status of City owned landscaping.</p> <p>Apply yearly for grants that would reduce irrigation demands for existing city facilities.</p>
Leak Mitigation	<p>Purchase leak mitigation measures and programs</p>	<p>Coordinate yearly prior to Sustainability meeting on leak mitigation.</p>

8.1 Evaluation Process

City of West Jordan Council and staff will perform an annual assessment of its conservation goal progress based on the following criteria:

1. Determine annual water use and GPCD
 - a. Collect data (supply, demand, and population)
 - b. Adjust projections and estimate water demand for the following year
2. Assess conservation need
 - a. Determine water savings gap using latest projections (ex. demand, population, and density)
 - b. Set needed conservation program participation levels to overcome identified gap (either maintain plan trajectory or escalate resource allocation)
3. Prepare and analyze water use and participation analytics
 - a. Breakdown progress in residential, Commercial, Industrial, Institutional, indoor, outdoor use
 - b. Assess effectiveness of classes, advertising, marketing, and program participation
4. Prioritize and plan for the next year
 - a. Prioritize advertising and marketing budgets using water use stats for targeting users and areas
 - b. Track progress through year based on program level participation

West Jordan Water Conservation Team

West Jordan Public Information Officer – Marie Magers

Utility Director – Greg Davenport

Public Services Director – Cory Fralick

Utility Engineering Manager – David Murphy

Water Superintendent – Travis Martin

Grants Coordinator – Jeremy Olsen

Appendix

Appendix A: Resolution, City Council Minutes

Appendix B: Water Efficiency Landscape Ordinance