Ballard Water Improvement District

Water Conservation Plan

Introduction:

The Ballard Water Improvement District's (BWID) 2025 Water Conservation Plan has been prepared to comply with the Utah Water Conservation Plan Act (Utah Code Section 73-10-32). The act requires water conservancy districts and water retailers serving more than 500 connections to file a water conservation plan with the Utah Board of Water Resources and ensure that it is updated every five years. This update outlines BWID's water conservation efforts and presents its conservation goals.

Considering recent water shortages and drought in the area, BWID is acutely aware of the need to maintain a supply of water to its customers, both existing and future. The District is committed to joining with the rest of the State of Utah to decrease the per capita water use and ensure they continue to meet the regional goal in Uintah County of 234 GPCD by the year 2030.

System Profile:

Ballard Water Improvement District is located just east of Roosevelt, Utah, in Uintah County. They serve a population of approximately 1,330 residents. The district is committed to providing clean, safe drinking water for its residents and businesses. The system has around 519 active connections, including 465 residential, 44 commercial, 6 institutional, and 4 industrial, as shown in *Table 1* below. Culinary water is purchased from the Ute Tribe Domestic Water System near Fort Duchesne, which treats spring-fed surface water from the Uintah Mountains. See *Figure 1* for a map of the system. Ballard Water Improvement District also has an agreement with Roosevelt City to purchase water in an emergency need through a connection on Lagoon Street.

Table 1 – Water Service Connections (2024)

Connection Type	Number of Connections
Residential	465
Commercial	44
Institutional	6
Industrial	4
Total	519

The system is comprised of 25.5 miles of transmission and distribution water lines and 71 fire hydrants. The district has 1.5 Million gallons of water storage between two separate tanks. See Figure 1 below for a map of the system.

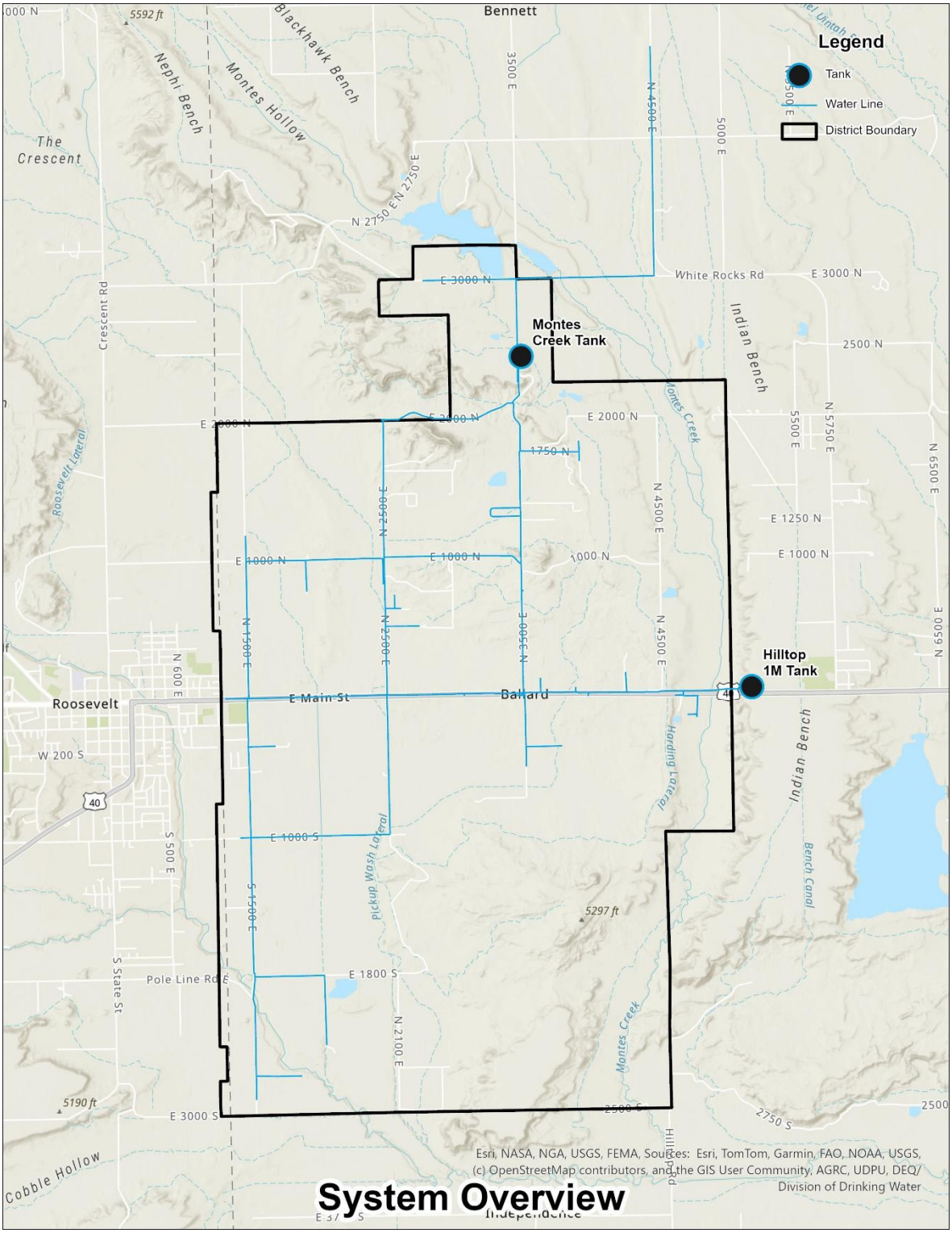

Figure 1: System Map

Supply:

Ballard Water Improvement District receives its entire supply of culinary water from the Ute Tribe Domestic Water System near Fort Duchesne, which treats surface water originating from the Uriah Heeps Springs and ground water from nearby wells. Ballard's drinking water is purchased wholesale through the Ute Tribal Water System. The district maintains a secondary supply connection with Roosevelt City. Through this connection, located on Lagoon Street, Roosevelt City can deliver surplus water to the Ballard system when additional supply is required beyond Roosevelt's own demand.

Water Measurement:

Surface water used in the Ballard Water Improvement District is treated through the Ute Tribe Domestic Water System near Fort Duchesne. This facility treats spring-fed water from the Uintah Mountains before it enters the district's distribution system. Ballard Water does not maintain its own treatment facilities, and all culinary water is purchased from the Ute Tribal System under a wholesale agreement.

Water is measured through master meters at system entry points. The water is measured again at each customer meter. Master meters total continuously, and the data is collected and reviewed monthly, providing record for peak day demand and peak instantaneous demand. Customer meters are read monthly. This information helps the district make educated decisions on water conservation.

BWID has a monitoring program in place for their meters. The meters use radio read technology to monitor consumer usage. When large fluctuations appear in metering, a leak is suspected, and the customer is notified they may have a leak needing repair. Meters suspected of reading inaccurately are tested and replaced as necessary.

Water Loss Control:

Preventing water loss is a top priority for Ballard Water Improvement District. Maintenance on the system is being performed daily. When leaks are discovered, the district personnel correct the water loss immediately. Sometimes leaks are on the customer side of the meter. If a leak is seen on the customer side of the meter, BWID notifies the customer so action can be taken to repair the leak.

The district tracks and reports unaccounted water within the district. Unaccounted water may consist of construction flushing, large leak events, tank leaks and hydrant meters. This tracking helps the district manage the cost of water loss. *Table 2* shows the unaccounted water in the past 5 years.

Table 2 - Unaccounted Water Volumes				
Year	**Total Water Purchased**	**Total water Sold**	**Unaccounted Water**	**% Water Loss**
2024	88,500,766	86,669,491	1,831,275	2.07
2023	75,505,882	73,870,116	1,635,765	2.17
2022	75,268,011	73,788,654	1,479,357	1.97
2021	70,474,763	67,209,749	3,265,014	4.63
2020	82,407,377	80,449,021	1,958,356	2.38

Billing:

Ballard Water uses a tiered billing rate as shown in the table below.

Table 3 – Current Water Usage Rates	
Residential & Institutional Usage Rates	
$65.00	0-5,000 Gallons
$2.10 per Thousand	5,001 to 20,000 Gallons
$3.00 per Thousand	20,001 and above Gallons
Commercial Usage Rates	
$102.00	0-5,000 Gallons
$2.20 per Thousand	5,001 to 30,000 Gallons
$3.50 per Thousand	30,001 and above Gallons
Industrial Usage Rates	
$81.00	0-1,000 Gallons
$4.00 per Thousand	1,001 and above Gallons
Residential Out of District Usage Rates	
$97.50	0-5,000 Gallons
$3.30 per Thousand	5,001 to 20,000 Gallons
$4.50 per Thousand	20,001 and above Gallons

Water Use:

The regional goal for Uintah County is 234 Gallons per Capita per Day (GPCD) by 2030. BWID is currently below that goal and intends to stay below. The GPCD is calculated by the following formula:

$$GPCD = \frac{\frac{Total\ Water\ Delivered}{365\ Days/Year}}{Population} = \frac{\left(\frac{86.67\ x\ 10^6\ Gallons}{365\ Days/Year}\right)}{1330} = 178.53\ Gallons$$

Table 4 – Water Usage		
2024 Population = 1330		
Connection Type	**Total 2024 Use (Million Gallons)**	**GPCD Use (Gallons)**
Residential	72.31	148.95
Commercial	9.24	19.04
Institutional	2.16	4.45
Industrial	2.96	6.09
Total	86.67	178.53

A graphical depiction of the regional goal, charted with the actual GPCD, is shown in *Figure 2* below. Since 2018, the District has been well below the regional conservation goal of 234 GPCD.

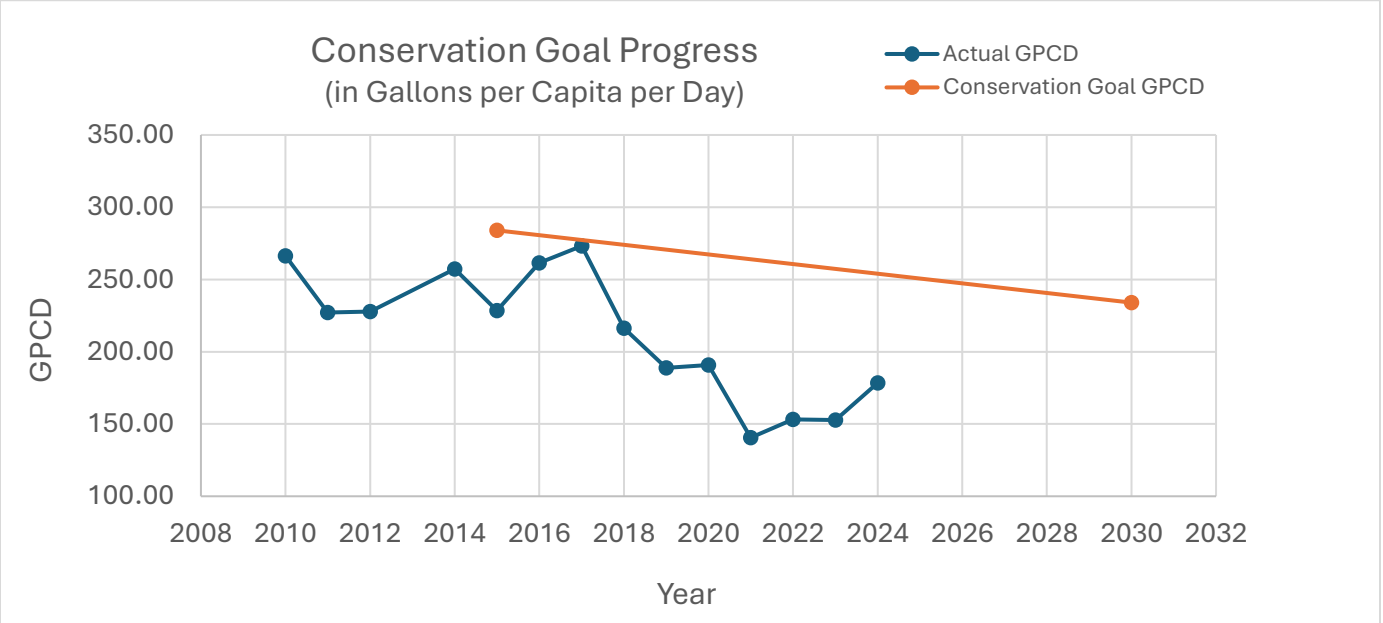

Figure 2: Conservation Goal Progress

Current Conservation Practices:

The district manager coordinates water conservation programs to educate the customers about conservation. Best conservation practices are found on the district website.

The board of trustees has elected to approach the topic of culinary water use and reduction with a conservative point of view. Their goals have been chosen to allow the District to provide water to its customers at a reasonable rate while encouraging smart water usage.

Measure 1: Rates

The first measure of conservation practice is completed by monitoring rates and effectiveness of conservation through using a tiered structure. The tiered structure is used to increase the cost of water based on increased use. The tiered approach encourages water users to use less water by making additional amounts of water increasingly more expensive. *Table 3* above shows the current tiered structure.

Measure 2: Education

To assist water customers in their conservation efforts, each year on the April bill, the District will remind users of the goal to conserve water.

For situations such as dry years when water availability is low, the district has an Emergency Conservation Plan which outlines steps to take to ensure clean drinking water is available for life sustaining needs. The plan outlines graduated steps from self-imposed conservation measures to mandated/enforced measures as the situation worsens.

Measure 3: Water Meter Upgrades

The District has a program in place to continually monitor meters needing replacement every year.

Tracking Progress:

Figure 2 above shows the District is below the average expected per capita use for the Green River region and the trend of per capita use is downward. Conservation efforts will continue with the District.

The District will measure the progress toward the conservation goal by calculating the per capita use of water each year in November and review it with the Board of Trustees. This will provide a sense of whether the education and other conservation efforts are effective. Additionally, it will help maintain focus on the goal. If it is determined adjustments are needed to the plan, they will be discussed at that time.

Rate adjustments will be the subject of public hearings during November each year as it is reflected within the annual budgeting process. Should the need arise for emergency rate adjustments measures, this action will be announced in advance and the public invited to participate in public hearings prior to any change taking effect.

APPENDIX A:

BWID EMERGENCY CONSERVATION PLAN

The emergency water conservation plan is a set of procedures that may be implemented within the Ballard Water Improvement District in times of water shortage to ensure water users can have their life sustaining water needs met. This document provides useful information that will allow water managers and users alike to make logical and meaningful decisions in the event of a reduction in available culinary water. The following topics address various actions that might be necessary in the event of less than normal water availability. The District has tried to organize contingency measures that may be implemented by priority.

In the event that the Ute Tribe cannot deliver a sufficient amount of water to allow for common use, water will be purchased from Roosevelt City and delivered at the Lagoon Street and 1500 East connection. This will serve the two lower zones within the District. The upper zone near Montes Creek cannot be supplied directly by the connection at Roosevelt city and other means of drinking water will need to be made available to them in the event a water shortage from the tribe cannot supply the upper zone.

In the event of a water shortage, customer rates will be increased to cover additional costs of water from Roosevelt city as long as the water source is being used.

Level I – Normal Years (General conservation)

- No restrictions.
- Encourage users to avoid outside watering during the daytime.
- Encourage all water users to conserve wherever possible throughout their daily routine.

Level II – Moderate Drought Conditions

- Inform the public of water supply shortages.
- Restrict outside watering during daylight hours, and reduce watering to not more often than twice weekly.
- Enforce outside watering restrictions including watering times and quantities.

Level III – Drought Conditions

- Initiate mandatory public conservation measures.

1. Alert the public of mandatory restrictions. **See Customer Notification below.**

2. No outside watering. (Customers watering outside will need to show proof of wells or secondary irrigation sources).

Emergency Water Usage Rates	
Usage Rates	
$65.00	8,000 Gallons
$3.50 per Thousand	8,000 to 12,000 Gallons
$4.00 per Thousand	12,000 to 25,000 Gallons
$5.00 per Thousand	25,000 to 50,000 Gallons
$7.00 per Thousand	50,000 + Gallons

3. Limit monthly use to no more than 8,000 gallons.
4. Implement significant charges for use over 8,000 gallons.

- Flat rate/fee of $5.00 per thousand gallons metered for water used over 8,000 gallons.

Level IV – Severe Drought Conditions

- Strictly enforce all conservation policies with significant penalty for non-compliance.

1. Use over 8,000 gallons prohibited.
2. First time violators warned.
3. Second time violators shut off.

- Physically restrict water supplies (in order of priority).

1. All outside irrigation systems.
2. All non-essential facilities.
3. Commercial businesses, restricting largest users first.
4. Residential areas.

- Shut down zones within the system from 8:00 AM to 5:00 PM.
- Number of zones shut down at one time is dependent on availability of water.

CUSTOMER NOTIFICATION: The process of notifying customers will be conducted as quickly as the contact resources available allow. The District's goal will be to make contact with customers in a timely fashion and allow them to make necessary

preparation/adjustments in their daily routine. Any or all of these methods may be employed:

- Local radio public service announcements.
- Published notification in the Uintah Basin Standard newspaper.
- Mailed notices to customers.
- Social Media Outreach
- Information posted on the District website.

Tips, Hints and Other Thoughts:

Water conservation practices may be implemented by users at any time by developing good conservation habits. The following are a few suggestions.

Indoor water use:

- Reduce bathroom water first. It is estimated that about two-thirds of the total water used in a household is used in the bathroom.
- Do not use your toilet as a wastebasket. Place any refuse in the trashcan. Flushing refuse down a toilet requires more water to adequately do the job of keeping the sewer system clean and operational.
- Check the toilet for leaks. Add a few drops of food coloring to the tank, if the bowl water becomes colored without flushing, there is a leak and repairing the leak is essential.
- Take short showers with the water volume minimized. Turning the water off while soaping or shampooing saves water. 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 for shaving or a glass for brushing.
- When doing laundry, make sure you always wash with a full load, adjust the water level appropriately.
- Repair any leaks within the household.
- 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 container of water in the refrigerator for a cold drink instead of running water from the tap until it gets cold.
- Plug the sink when rinsing vegetables, dishes, or anything else use only the water in the sink for rinsing instead of continually running water down the drain.

Outdoor water use:

- Water landscapes only as much as required by the type of landscape, and specific weather patterns of our area, including cutting back on watering times in the spring and fall.
- 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.
- Sweep sidewalks and driveways instead of using the hose to clean them off.
- Wash your car from a bucket of (biodegradable) soapy water and rinse while parked on or near the grass or landscape so that all 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 draining off into storm drains, ditches or traveling outside your property.
- Use mulch around trees shrubs, as well as in your garden to retain as much moisture as possible. Areas with drip systems will use much less water, particularly during hot, dry and windy conditions.

Keep your lawn well trimmed and all other landscaped areas free of weeds to reduce overall water needs in your yard.

APPENDIX B:

RESOLUTION ADOPTING 2025 WATER CONSERVATION PLAN

ORDINANCE NO. 2025-XX

A RESOLUTION ADOPTING THE BALLARD WATER IMPROVEMENT DISTRICT 2025 WATER CONSERVATION PLAN.

WHEREAS, the Utah Water Conservation Plan Act (73-10-32) requires a conservation plan to be submitted to the Utah Division of Water Resources every five years for Water Suppliers serving more than 500 connections; and

WHEREAS, Ballard Water Improvement District has crossed over the 500 connection threshold;

WHEREAS, Ballard Water Improvement District, in coordination with its water providers and planning consultants, has prepared a Water Conservation Plan; and

WHEREAS, the Board of Trustees finds that adopting this conservation plan is essential to ensuring sustainable development, safeguarding water resources, and responsibly planning for future growth.

NOW, THEREFORE, BE IT RESOLVED BY THE BALLARD WATER IMPROVEMENT DISTRICT BOARD, AS FOLLOWS:

SECTION 1. Adoption.

The Water Conservation Plan, dated November 2025, is hereby adopted as an official Bylaw of the Ballard Water Improvement District.

SECTION 2. Incorporation.

This plan will be fully incorporated into the Standard Practices of the Ballard Water Improvement District.

SECTION 3. Implementation.

The Ballard Water Improvement District Board of Trustees is instructed to implement this water conservation plan in all relevant approvals, updates, and capital planning efforts.

SECTION 4. Effective Date.

This Resolution shall take effect immediately upon publication and posting as required by law.

PASSED AND ADOPTED by the Ballard Water Improvement District Board of Trustees, this ___ day of _____, 2025.

_____

Chairman

ATTEST:

_____

Recorder