WATER USE & PRESERVATION

Utah is among the fastest growing and driest states in the nation. According to the Kem C. Gardner Policy Institute at the University of Utah, the statewide population is expected to double by 2065, increasing demand for and stretching finite water resources even further. Utah is the second driest state in the nation and has seen historic drought levels in recent years. Water conservation is an issue that touches everyone. Ensuring we continue to have enough water for the future is a major concern of state and local leaders, water providers, and the public. The use and preservation of water resources has emerged as a major concern on the state level, as indicated by S.B. 110: Water as Part of the General Plan, a law that was adopted in 2022 which requires municipalities and counties to amend their general plan to consider how land use planning impacts water use.

As a community with moderate room to grow over the next 25 years, water use challenges in Smithfield are a function of continued population growth while satisfying the anticipated demands, maintaining and improving the current distribution system, and achieving the city's water conservation goals. This section describes the water system and provides a snapshot of current and future water use in Smithfield. It also outlines existing and proposed water planning goals and strategies and recommends additional goals and policies that will reduce water demands as part of current and future developments.

In 1998, the Utah Legislature passed the Water Conservation Act, amended in 2022, requiring water agencies with more than 500 drinking water connections to submit water conservation plans to the Utah Division of Water Resources and update the plans every five years. The purpose of a water conservation plan is to provide information regarding existing and proposed water conservation measures that will help conserve water in the state so that adequate supplies of water are available for future needs. Water conservation plans include water use reduction goals as well as implementation strategies. The current Smithfield City Water Conservation Plan was updated and adopted in 2023 and outlines the goals below:

- Reduce residential water use in gallons per capita daily (GPCD)
- Increase repair and maintenance to improve system operation
- Increase education and use of water efficient landscaping

Smithfield City Water Profile

Smithfield City acquires its water from a combination of sources. It's oldest and historically largest source has been from a collection of springs up Smithfield Canyon originally developed in the 1920s. These springs have collectively provided over 3,000-acre feet of water to the community. This amount can fluctuate according to regional drought and climate cycles. Smithfield has also developed three wells to accommodate population and industrial growth. The most recent well in Central Park has the potential to secure the community's water supply for the foreseeable future.

In 2020, Smithfield averaged approximately 200 Gallons Per Capita Daily (GPCD), compared to 293 GPCD statewide, and 184 GPCD nationally. This figure includes all metered residential, business, and industrial connections. It does include some residential landscape irrigation since approximately 43% of homes in Smithfield do not have secondary irrigation connection. While the city encourages new development to connect to the secondary irrigation system, there is currently no storage capacity on the east side of the community. Providing secondary water service to that area will require pumping to provide pressure and may not be cost-effective.

Population growth through 2050 will come with an increased demand for water. The average Utah household uses approximately 0.45-acre feet of water

per year. An acre foot of water is approximately 325,852 gallons, or the amount of water needed to cover one acre of ground in one foot of water.

According to the Smithfield Water Conservation Plan, future demand including residential and industrial use could be as high as 5,274-acre feet by 2050 – an increase of up to 70% over current use.

The city provided 3,082-acre feet in 2022, a year of considerable drought. The city Water Conservation Plan from 2023 estimates that approximately 4,800-acre feet of water will be reliably available. The development of the new Central Park Well and additional water rights acquired through annexation and development of agricultural land will increase that amount. However, new major water source acquisition is unlikely in the future. The best alternative to meeting future demand will be through conservation of existing resources.

The Smithfield Water Conservation Plan outlines several Best Management Practices to educate residents and municipal water consumers and encourage the reduction of per capita water consumption. These practices include:

- Use of water wise landscaping and efficient home appliances, etc.
- Provide educational materials from USU Extension
- Develop a community demonstration garden on public property that showcases low-water landscaping plants and materials (Heritage Trail and in city ROW)
- Progressively scale rate pricing based on quantity used; regularly update this scale
- Manage water shortages, such as during emergency events
- Disallow lawn on parking strips or areas less than eight feet in width in new development
- Implement landscaping standards – no more than 50% of front and side yard landscaped area in new residential development is lawn
  - Unless small residential lots with less than 250 sq ft of landscaped area
- Implement landscaping standards – New commercial, industrial, institutional, and multi-family development common area landscapes shall not have more than 20% lawn, outside of active recreation areas
- Seek out and address leaks, theft, or inaccurate meters
- Coordinate with secondary water providers to accurately measure use and bill appropriately for irrigation, especially landscaping
  - Encourage limited outdoor watering during periods of drought

To reduce per capita water use in future development, Smithfield recommends the following policies:

- Progressively scale rate pricing based on quantity used; regularly update this scale
- Expedite plan reviews for projects that use water conservation measures and require buildings to improve water efficiency as a condition of renovation/additions
- Where allowed by Utah Code, promote use of captured rainwater, graywater, or recycled water as preferred source of non-potable water needs
- Encourage smaller lot sizes which use less water for landscape irrigation; multi-family housing uses even less water per capita
- Require water wise landscaping design in new developments
- Transfer water rights – new residential and commercial development must offset anticipated water to be used through conservation, or transfer enough water rights to serve the entire development at build-out

Smithfield also recognizes the role that the municipality plays in ensuring that public uses of water are efficient and is always considering new practices to reduce and eliminate inefficient water use:

- Include water-wise building retrofit ideas for public facilities in the General Plan
- Develop water-wise landscaping guide for public facilities
- Meter and bill for authorized contractor use

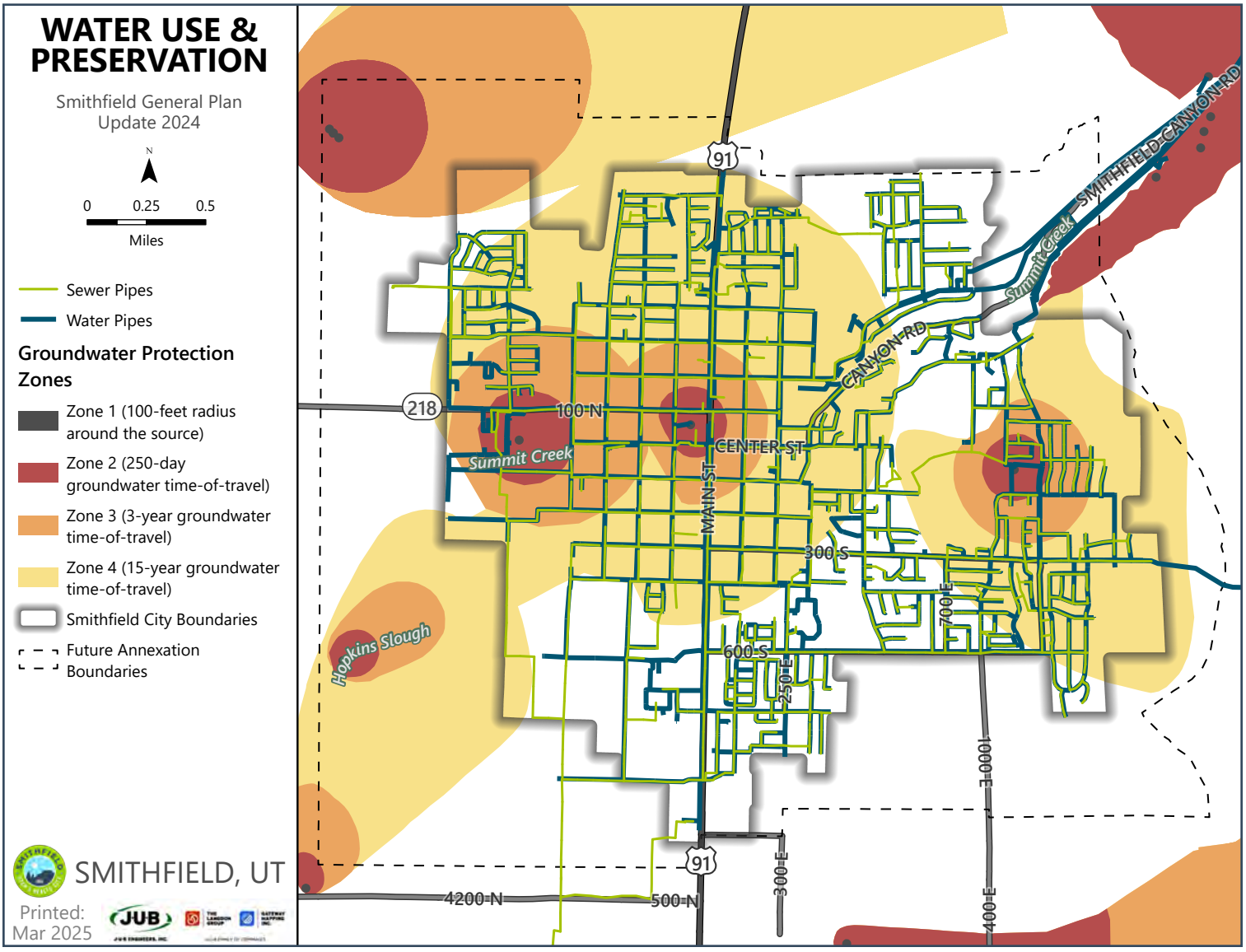
Regional Collaboration

Local water suppliers have the best information regarding their own systems, challenges, and opportunities. Since water exists and flows freely across political boundaries, coordinated planning efforts between local, regional, and state entities is also important. Smithfield City can work with other suppliers and other entities to establish policies and partnerships that allow for a comprehensive regional approach to water-supply management that will promote water-use efficiency programs, ensure that plans provide for adequate water supplies and maximize water conservation and reuse, and communicate with the public the importance of water conservation as it relates to quality of life.

The **Utah Regional Municipal and Industrial (M&I) Water Conservation Goals Report** by the Utah State Department of Natural Resources, Division of Water Resources, presents a suite of regional goals and practices for residential, commercial, institutional, and industrial water use. The purpose of the report is not to provide a detailed water conservation plan for all regions in the state, but to guide the state's water industry in planning future infrastructure, policies, and programs consistent with Utah's semiarid climate and growing demand for water. As cited in the Smithfield Water Conservation Plan, the Regional Conservation Goals propose that the Bear River Region, of which Smithfield is a part, consider a goal of decreasing outdoor water use by 20% and indoor use by 5% by 2030. Local water suppliers, residents of Smithfield, and businesses are encouraged to adopt this target as they implement water conservation efforts and pursue regional water goals.

An illustration of existing groundwater protection zones and water and wastewater infrastructure can be found in Figure 6, Water Use & Preservation Map. **(See also Appendix 9)**

FIGURE 6: WATER USE & PRESERVATION MAP



Goals, Objectives, and Actions

WATER USE & PRESERVATIONS GOAL 1

Maintain a clean, safe, drinking water supply and keep Smithfield a water-wise community for generations to come by reducing water demand per capita consumption for future and existing development.

OBJECTIVE

- Provide outreach and education to residents about water conservation, such as encouraging the installation of water efficient fixtures and appliances.
- Continue to implement and annually update a tiered fee structure for metered water to incentivize efficient use and conservation of culinary water.
- Coordinate with irrigation water providers to incentivize efficiency improvements and application schedules for non-metered water use.
- Continue to enforce fines for non-metered water users.
- Develop water distribution system leak repair plan.

ACTION	TIMING	RESPONSIBILITY
Action A: In coordination with the State Department of Environmental Quality, maintain groundwater recharge zones and well and spring source protection zones to restrict development that might encroach on community water sources and negatively impact water quality.	0-3 years	Public Works Staff/State
Action B: Connect residents with USU Extension information on landscaping and infrastructure efficiency.	Every 5 years	Staff/Planning/ City Council
Action C: Develop an annual community water usage report to educate residents on community water needs and availability.	Annually	Staff/Planning/ City Council
Action D: Encourage the installation of water efficient fixtures and appliances.	0-3 years	Staff/Planning/ City Council
Action E: Evaluate municipal facilities and operations to identify wasteful water practices that may be reduced or eliminated.	Annually	Public Works Staff
Action F: Develop and adopt landscaping requirements for public streets that do not require the use of lawn or turf in park strips/ street medians.	1 year	Planning
Action G: Regularly consult with the Utah Division of Water Resources for information and technical resources regarding regional water conservation goals, including how the implementation of the city's land use element and the water use and preservation element may affect the Great Salt Lake and overall Bear River Watershed health.	Annually	Public Works Staff/State