



11 Water Use & Preservation

Conserving Water

The purpose of the Water Use & Preservation Element is to help the City of North Salt Lake achieve the following goals:

- *Determine the effect of permitted development or patterns of development on water demand and water infrastructure.*
- *Identify methods of reducing water demand and per capita consumption for future development.*
- *Identify methods of reducing water demand and per capita consumption for existing development.*
- *Identify opportunities for the City to modify the city operations to eliminate practices or conditions that waste water.*

Introduction

The Water Use & Implementation Chapter delineates the goals, policies, and strategies designed to improve water conservation in the City, and serves as the policy foundation for the City's project review process and as a guidance document for all water conservation related planning efforts. It is meant as a reference for decision-makers, planners, engineers, architects, builders and the general public.



Water availability is a critical component of planning for growth and development in the City of North Salt Lake. In conjunction with the adoption of this Water Use & Preservation Element to the General Plan, the City will also adopt the following updated plans:

1. The North Salt Lake Water Master Plan, which includes the following three elements and purposes:
 - Supply and Demand Master Plan-An examination of water demands expected in the City and the existing and future supplies available to meet those demands.
 - Conveyance and Storage Master Plan-An evaluation of the City's existing conveyance and distribution system and its availability to deliver water when and where it is needed.
 - Implementation and Capital Facilities Plan-A plan for completing the necessary improvements identified in the supply and conveyance master plans.
2. The North Salt Lake Storm Drain Master Plan, which provides recommendations for system improvements to address existing and projected future hydraulic/capacity deficiencies based upon projected land use data from the General Plan.
3. The North Salt Lake Water Conservation Plan, which includes recommendations for the following:
 - Using existing water supplies more efficiently
 - Maximization of existing water conveyance, treatment, and distribution facilities
 - Delaying or deferring the expense of construction or capital improvement projects
 - Reducing the need for additional water supplies

A major objective of this chapter is to enlighten and educate community leaders, citizens and developers on the importance and needs of water conservation efforts that benefit North Salt Lake City.



Background

The Utah State Legislature amended the Utah Land Use Development and Management Act (LUDMA) in 2022 to require cities to include a Water Use & Preservation Element in their General Plan by December 31, 2025. In addition Utah State Code Section 73-10-32 requires the adoption of a water conservation plan. The City will adopt a new Water Conservation Plan and regulations based on water conservation goals identified in the Water Master Plan.

CURRENT CONDITIONS

North Salt Lake has made progress with some conservation programs to reduce water usage, as outlined below.

Conservation Public Awareness Practices

Water Meters – All residential, industrial, and institutional connections to the City’s water system are metered. The City also meters water that is used in public areas such as parks and streetscapes.

Education & Training Practices

Educational Graphic – North Salt Lake features a graphic on its website that recommends five ways to save water.

Rebates, Incentives & Rewards

North Salt Lake participates in some of the rebate programs offered by BWCD. See New Conservation Practices.



Ordinances & Standards

North Salt Lake has adopted regulations intended to encourage water conservation that have been adopted into the City Code:

- *Section 8-1-5: Scarcity of Water* - In time of scarcity of water, whenever it shall in the judgment of the mayor and the governing body be necessary, the mayor shall by proclamation limit the use of water to such extent as may be necessary.
- *Section 8-1-6: Waste of Water* - Users of water from the city water system shall not permit water to continue to run wastefully and without due efforts to conserve water. Additionally Watering outside with city water is prohibited between the hours of ten o'clock (10:00) A.M. and six o'clock (6:00) P.M. Use of sprinkling systems from October 15 through April 15 is prohibited.
- *Section 10-24-7 Landscape Design* - Reasonable effort shall be made to conserve water by utilizing alternative means for maintaining a suitable landscape environment. Low water use and water conservation concepts may be incorporated into the landscape design of each development without compromising the intent to establish significant visual amenities through landscaping.

Water Pricing

Increasing Water Block Schedule – North Salt Lake adopted a water rate structure that incentivizes conservation through block pricing; that is, customers who use less water pay a lower rate than customers who overuse water.

Improvements to Physical System:

- *WeatherTRAK Smart Irrigation System* – For all City-owned properties, North Salt Lake invested in a smart irrigation system that uses precise weather data to maintain the City's grass and landscape health with the least amount of water possible.



- *Line Replacement Program* – The City has a water fund budget for pipeline replacement (beyond capital facility or expansion projects). Funds reserved for this purpose will be used to replace old and failing water lines in the North Salt Lake water system. In addition to maintaining the system in good working order, it is hoped that this effort will reduce the number and severity of water leaks in the system.
- *Pipeline Corrosion Protection* – North Salt Lake requires the installation of corrosion protection on all ductile iron pipes in corrosive soil or the use of PVC pipe. In addition to extending the life of the pipelines, this measure is designed to minimize system losses by reducing leaks in pipelines.

MASTER PLANS

The North Salt Lake Water Master Plan, Storm Drain Master Plan and Water Conservation Plan are hereby incorporated into the General Plan by reference and include the following recommendations.

New Conservation Practices Planned for Implementation

There are several new conservation practices that the City has either recently started to implement or will implement in the next five years. The following sections describe each conservation practice and Table 8 summarizes the implementation schedule, estimated costs, and measurement of progress for each practice.

Conservation Public Awareness Practices

- *Water Shortage & Drought Plan* – Complete a detailed water shortage and drought plan within the next year. This plan will include specific drought stages along with triggers and responses for each. This will help direct the City and its residents conserve water during critical drought seasons.



- *Water Conservation Staff Member* – Assign or hire a City staff member to act as a Water Education and Public Outreach Coordinator that provides public/stakeholder education and engagement on water conservation. The coordinator will focus on public outreach and conservation initiatives on a monthly basis. The duties of the water conservation staff include developing and presenting conservation education material. Examples of conservation practices they can implement are below:
 - *Water Conservation Web Site* – On the City’s website, provide links to an educational website that provides information on droughts, water wise landscapes, incentives and rebates, links to other water conservation related sites, and conservation tips for both indoor and outdoor water use. Include educational website links in utility billing.
 - *Water Conservation Materials* – In addition to the website, generate and distribute a variety of print and visual materials, including, for instance, informational pamphlets about waterwise landscaping and door hangers to inform customers about landscape ordinances and water conservation practices, and yard signs for residents to show their neighbors their commitment to waterwise practices.
 - *Water Conservation Classes* – Water conservation classes can be offered virtually. Topics to be discussed at the classes could include low-water use landscape design, irrigation systems, varieties of turf, low-water use plants, and native plants. This program could be conducted in coordination with WBWCD classes or other virtual classes hosted by other agencies (e.g. Jordan Valley Water Conservancy District). Plan to review and update conservation class materials used previously and hold a class session twice per year for the next five years.
 - *Social Media Campaigns* – Conservation staff works with communications Department on year-round social media campaigns designed to educate the public on water conservation and water use practices.



- *Direct Customer Outreach* – Directly reach out to high use customers to educate and inform customers about water saving options available.
- *Other Conservation Programs and Forums* – Become actively involved with building awareness around Water Week and Earth Day.
- *Water Conservation Plan* – Update the Water Conservation Plan every five years and adopt it by Ordinance.

Education & Training Practices

Public Education Efforts. Public education efforts will potentially include:

- Increasing outreach to classrooms and expand resources for teachers through our website.
- Offering community education classes (see water conservation staff member).
- Creating a conservation calendar with social media outreach.
- Water Conservation Open House
- Educate consumers about WBWCD resources including free audits.
- Educate consumers regarding the city’s partnership with the EPA’s WaterSense program and encourage residents, businesses and contractors to choose products labeled with the WaterSense certification.

Rebates, Incentives & Rewards

Potential Rebates – The City has adopted revisions to its landscaping ordinances in order to qualify for the Localscapes and Flip Your Strip Rebate Program through WBWCD.

- *Localscapes* – Cash rewards and plan reviews will be given for landscaping projects that meet program requirements. Applicants must take a Localscapes class before submitting a plan for review. All projects must use a Localscapes design, sign an agreement form, and install their project within 12 months. Rewards will be based on project size



and estimated water savings. On average, the reward for a typical $\frac{1}{4}$ acre lot will be around \$2,000.

- *Flip Your Strip* - offer a rebate program to residents who replace the lawn in their park strip with a water-efficient design. Participating residents must meet all program requirements to be considered eligible for the rebate. Eligible participants can receive \$1.00 per square foot or \$1.25 per square foot if they attend a free park strip class.

Ordinances & Standards

Adopt Water Efficient Landscape Ordinance. During the next year, the City will adopt a water efficient landscape standard to encourage conservation. Some components of this standard will include:

- *Residential Developments:* The maximum amount of open space area consisting of plant material in mass requiring overhead spray irrigation shall not exceed 25% of the lot or 6,500 sq. ft., whichever is less.
- *Park Strips:* Park strips and other landscaped areas less than eight (8) feet wide may not be landscaped with sod/turf. Only water-conserving plants, which do not have a mass planting of any type of plant material which requires uniform overhead spray irrigation, may be used in a park strip
- *Commercial, Industrial, Institutional:*
 - Turf area shall not exceed 5% of the total lot or 5,000 sq. ft., whichever is less.
- *Mixed use and Multi-family:*
 - Turf area shall not exceed 10% of the lot or 5,000 sq. ft., except within bona fide recreation areas designated and approved by the Planning Commission during site plan approval.
- *Low Impact Development:* Review and update the land use ordinances for the reuse of stormwater runoff on



development sites and require new or redeveloped sites to incorporate stormwater reuse on site.

- Preservation and use of Healthy Trees: Review and update the city tree ordinance for the preservation and planting of trees which have low or reasonable water requirements and are resistant to dry soil conditions.
- Ponds and pools. Consider adoption of ordinances that limit the construction of private ponds and require measures on private pools that limit the amount of evaporation, such as pool covers.
- Water efficient landscape irrigation. Review and update ordinances related irrigation design standards that utilize drip emitters or bubblers, smart irrigation controls or other new water conservation technologies.

Water Pricing:

- *Monitor Current Water Rate Structure to Further Incentivize Conservation* – In 2022, North Salt Lake adopted a rate structure that aggressively encourages low water use. Prior to adopting the new rate structure, the City completed a rate structure and created tiers or blocks of rates that reward low water use and charge significantly higher rates for overuse. The City will annually monitor water usage and its rate structure and make adjustments as needed.
- *Maintain the Block Rate Structure* –The block rate structure includes four tiers with the highest tier charging more than double for water than water used in the lowest tier. Primary goals of the increasing block structure are to reduce peak system demands and reduce the waste of water on outdoor landscaping uses.

Improvements to Physical System

- *AWWA Water Audit Program* – Participate in the AWWA Water Audit Program. This program helps water suppliers quantify system water loss and associated revenue losses. The



City will participate in at least one additional water audit by 2025.

- *Conversion of Public Landscapes* – The City will begin converting some of its streetscapes to bark and/or low-water use trees and plants in 2022. Include drip irrigation for water-saving perennials, trees, and shrubs. The City will start with City Hall and identify areas that will have the most benefit.
- *Automatic Metering Infrastructure* – The City is currently transitioning their Automated Meter Reading (AMR) system to an Automatic Metering Infrastructure (AMI) that can provide real-time usage data. Completion of this project is assumed to be complete by 2025.