



PREPARED FOR:

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CITY OF NORTH SALT LAKE

May 2023

WATER CONSERVATION PLAN

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ABBREVIATIONS

AMI.....	Advanced Metering Infrastructure
ASR.....	Aquifer Storage and Recovery
CUWCD.....	Central Utah Water Conservancy District
DWRi.....	Division of Water Rights
GPCD.....	Gallons per Capita per Day
WBWCD.....	Weber Basin Water Conservancy District
TAZ.....	Traffic Analysis Zone

UNIT CONVERSIONS

GALLONS = ACRE FEET × 325,850
 ACRE-FEET = GALLONS ÷ 325,850
 MILLION GALLONS = ACRE-FEET ÷ 3.069
 ACRE-FEET = MILLION GALLONS × 3.069
 GPCD = GALLONS ÷ DAYS OF USAGE ÷ POPULATION

INTRODUCTION

Attitudes toward water supplies are changing. Water is no longer seen as a boundless resource, but as a valuable commodity that needs to be managed carefully. With this shift in attitude, conservation is becoming a larger part of water suppliers' plans to meet future water needs. Many water suppliers throughout the country have adopted conservation programs. Benefits of these programs include:

- 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.

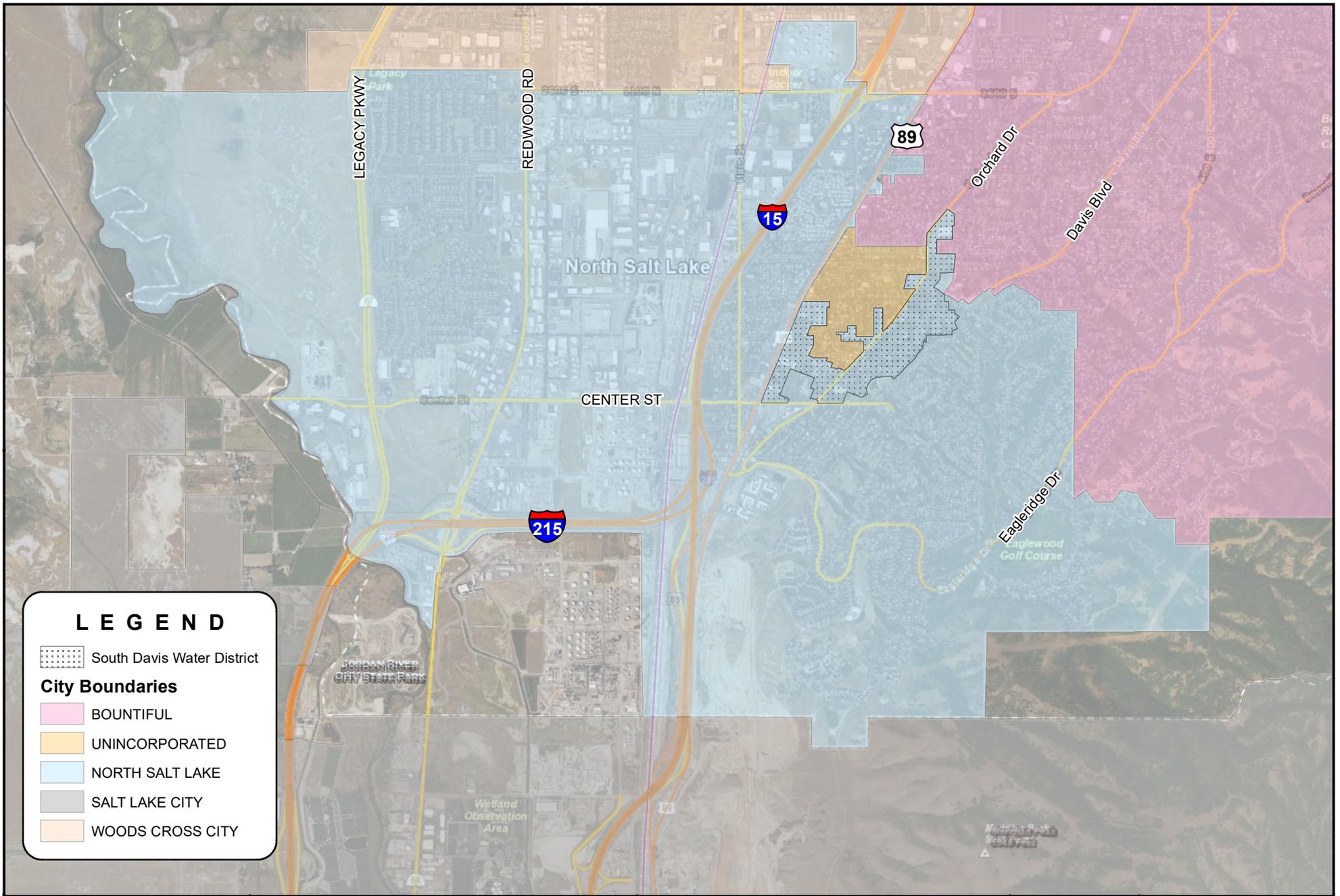
North Salt Lake (NSL or City) recognizes the benefits of conservation programs. The City recognizes that per capita use will be at higher levels without emphasis and a clear plan on conservation. It also recognizes that there are still many benefits of further conservation efforts. Since sustained water conservation efforts will be an important component in the City's plans for future water use, this report will evaluate the City's current conservation program and will discuss additional measures that will allow further conservation of water.

SYSTEM PROFILE

North Salt Lake Water System Service Area

North Salt Lake is located in the south most part of Davis County and has a population of roughly 22,000¹ residents. North Salt Lake has both a culinary and secondary water systems. The existing North Salt Lake culinary system service area is shown in Figure 1. The system serves the City's legal boundaries, being bordered to the west by the Jordan River, to the north by Bountiful and Woods Cross and to the south by Salt Lake City. Limited areas of the City have access to secondary sources throughout the city. Figure 2 shows the service areas that secondary is available to.

¹ United States Census Bureau- Estimated population for April 1, 2020 = 21,907



LEGEND

-  South Davis Water District
- City Boundaries**
-  BOUNTIFUL
-  UNINCORPORATED
-  NORTH SALT LAKE
-  SALT LAKE CITY
-  WOODS CROSS CITY



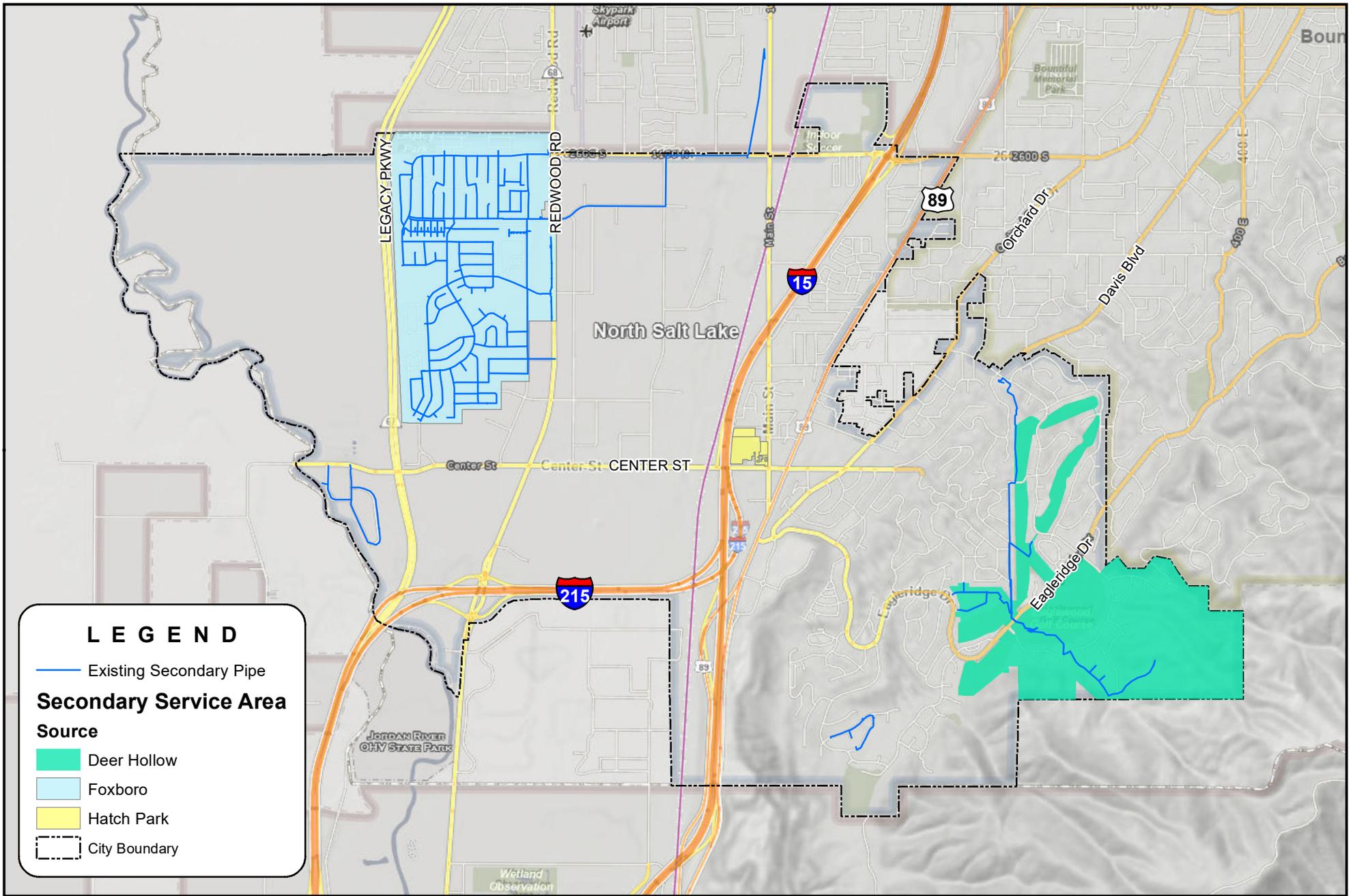
North Salt Lake
**WATER CONSERVATION
 PLAN**

**NORTH SALT LAKE
 SERVICE AREA**



SCALE:
 0 1,500 3,000
 Feet

FIGURE NO.
1



North Salt Lake
**WATER CONSERVATION
 PLAN**

**NORTH SALT LAKE
 SECONDARY WATER
 SERVICE AREA**

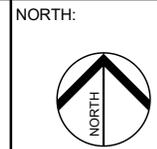


FIGURE NO.
2

System Connections

The North Salt Lake water system includes residential, commercial, industrial, and institutional connections. To help evaluate and quantify the amount of water that can reasonably be conserved in North Salt Lake, an analysis of current water use patterns has been performed. Usage among different classes of customers for the year 2020 is shown in Table 1 and Figure 3. Secondary connections are assumed to be included in the accounts of culinary users, however secondary water usage is summarized below.

**Table 1
FY 2020 Water Usage by Connection Type^a**

Customer Class	Accounts	Percent of Connections	Culinary Annual Water Use (acre-ft)	Secondary Annual Water Use (acre-ft)	Total Water Use (acre-ft)	Percent of Total Water Use
Residential	6,066	89.26%	2,631	444	3,075	57.38%
Commercial	673	9.90%	1,043	195	1,238	23.10%
Industrial	2	0.03%	860	-	860	16.05%
Institutional	55	0.81%	79	107	186	3.47%
TOTAL	6,796	100.00%	4,613	745	5,359	100.00%

^a Water usage by connection type data obtained from the Utah Division of Water Rights Public Water Supplier Information.

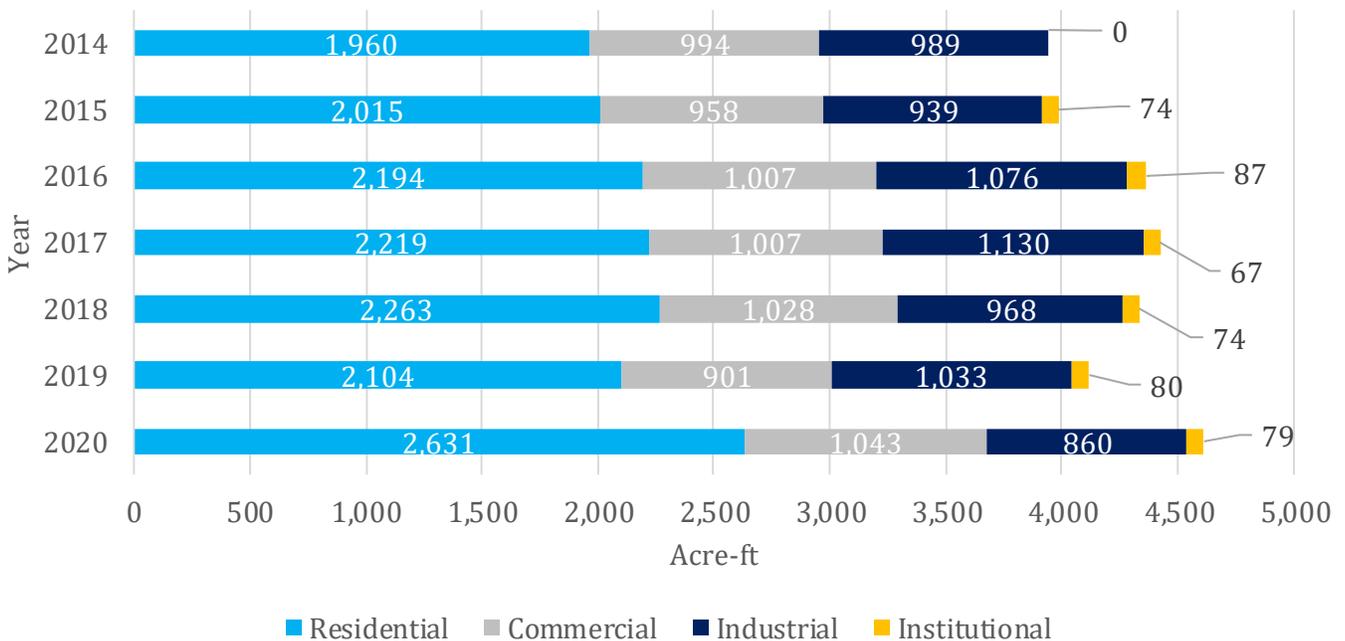


Figure 3 Current Culinary Delivery Type

Roughly 89 percent of the meters in North Salt Lake are residential connections, accounting for 57 percent of the total water use. Hence, residential water use represents the largest single area for potential conservation. However, North Salt Lake also has a significant number of commercial industrial connections. While comprising only about 10 percent of the total number of meters, commercial and industrial customers accounted for more than 39 percent of North Salt Lake water use. Thus, non-residential accounts should not be overlooked as potential contributors to future conservation efforts.

Current Rates

Figure 4 shows the City’s current culinary and secondary water rate structure. North Salt Lake charges different rates based on meter size, customer type, service area and development type. There are two service areas: Foxboro (Service Area 1), a neighborhood in the northwest corner of the city, and Service Area 2, everything else in the city. The City will be preparing a new rate study to identify areas where conservation could be encouraged. Preliminary ideas for water conservation include eliminating the indoor allowance for water use and modifying the tier structures to better encourage conservation.

6.1 Culinary & Secondary Water							
Service Area #2							
Customer Classes		Base Charges		Overage Charges (per 1,000 gallons)			
Rate Description	Customer Type	Base Rate	Gallons included in Base Rate	8,001-30,000	30,001-75,000	75,001-100,000	100,001+
3/4" Above 350 E	Residential	\$25.90	8,000	\$1.59	\$1.88	\$2.98	\$4.11
1" Above 350 E	Residential	\$36.36	8,000	\$1.59	\$1.88	\$2.98	\$4.11
3/4" Below 350 E	Residential	\$25.90	8,000	\$1.27	\$1.59	\$2.52	\$3.42
HOA/PUD Outdoor Only	Residential Common Areas	\$25.90	#Homes x 4,000/#outdoor meters in HOA	Same Tier Structures Related Residential Properties			
Rate Description	Customer Type	Base Rate	Gallons included in Base Rate	10,001-30,000	30,001-75,000	75,001-100,000	100,001+
3/4"	Commercial	\$25.90	10,000	\$1.97	\$1.97	\$1.97	\$1.97
1"	Commercial	\$36.39	10,000	\$1.97	\$1.97	\$1.97	\$1.97
1 1/2"	Commercial	\$72.74	10,000	\$1.97	\$1.97	\$1.97	\$1.97
2"	Commercial	\$104.58	10,000	\$1.97	\$1.97	\$1.97	\$1.97
3"	Commercial	\$155.62	10,000	\$1.97	\$1.97	\$1.97	\$1.97
4"	Commercial	\$209.42	10,000	\$1.97	\$1.97	\$1.97	\$1.97
6"	Commercial	\$520.79	10,000	\$1.97	\$1.97	\$1.97	\$1.97
10"	Commercial	\$1,744.73	10,000	\$1.97	\$1.97	\$1.97	\$1.97

6.2 Culinary Water						
Service Area #1 (Foxboro)						
Culinary Water Indoor Only Rates		Base Charges		Overage Charges (per 1,000 gallons)		
Rate Description	Customer Type	Base Rate	Gallons included in Base Rate	6,001-10,000	10,001-20,000	20,001+
3/4"	Residential	\$17.28	6,000	\$1.01	\$1.65	\$3.28

6.3 Secondary Water						
Service Area #1 (Foxboro)						
Secondary Outdoor Only Rates		Base Charges		Overage Charges (per 1,000 gallons)		
Rate Description	Customer Type	Base Rate	Gallons included in Base Rate	10,001-20,000	20,001-40,000	40,001+
3/4"	Residential	\$14.55	10,000	\$1.02	\$1.16	\$2.43
Rate Description	Customer Type	Base Rate	Gallons included in Base Rate	10,001-20,000	20,001-40,000	40,001+
3/4"	Commercial	\$14.55	10,000	\$1.02	\$1.02	\$1.02
1"	Commercial	\$20.37	10,000	\$1.02	\$1.02	\$1.02
1 1/2"	Commercial	\$40.74	10,000	\$1.02	\$1.02	\$1.02
2"	Commercial	\$58.20	10,000	\$1.02	\$1.02	\$1.02
4"	Commercial	\$120.28	10,000	\$1.02	\$1.02	\$1.02

Figure 4 North Salt Lake Culinary and Secondary Water Rate Structure Cost Per Thousand Gallons

SUPPLY INFORMATION

A summary of North Salt Lake’s current and historical water supply is contained here. For additional information on water supply the reader should refer to North Salt Lake’s Water Master Plan. Approximately half of North Salt Lake’s culinary water is currently purchased from Weber Basin Water Conservancy District (WBWCD) and half comes from the City’s wells. Over 60% of the secondary supply is purchased from WBWCD (for the Foxboro neighborhood), which is supplemented by the Freda Well with the remaining being purchased from South Davis Water District (SDWD) to supply the Eaglewood Golf Course and neighborhood in its vicinity. Figure 5 shows the volume the City has used from each system as reported to the Division of Water Rights (DWRi) website from 2016 to 2020.

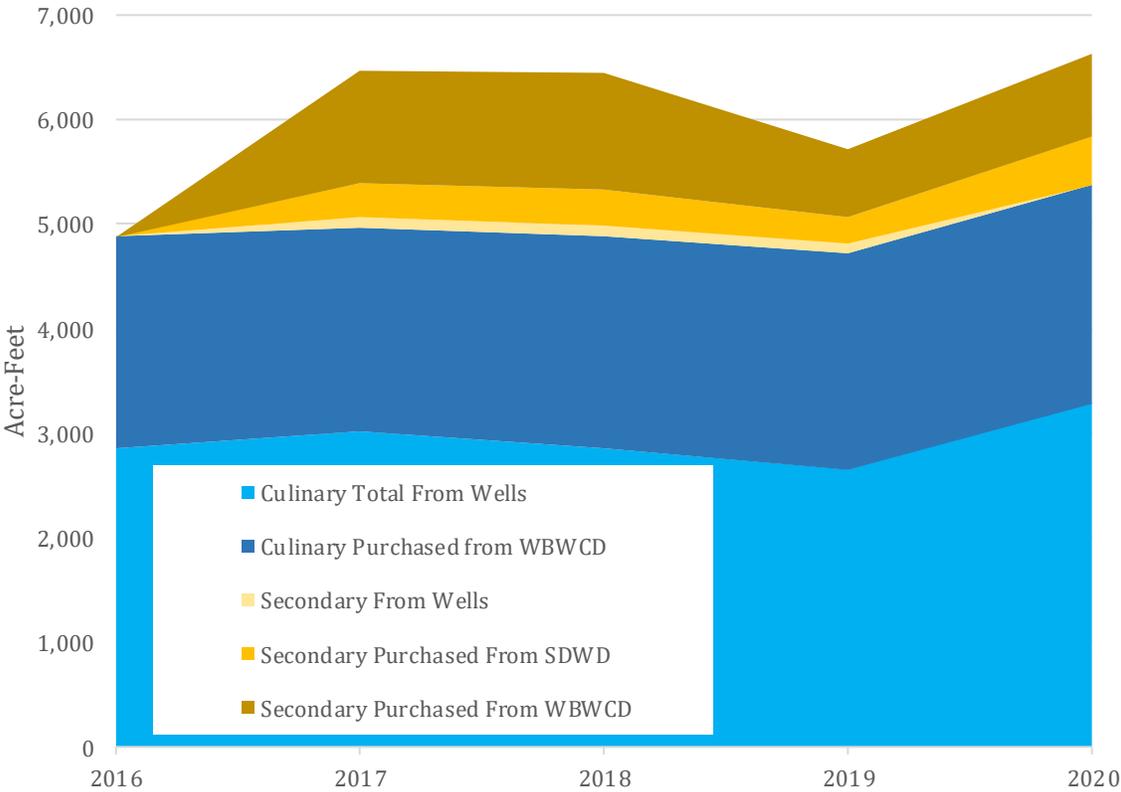


Figure 5 North Salt Lake Culinary and Secondary Water Sources

Table 2 summarizes the City’s current reliable culinary and secondary water supply for both max historic production and estimated reliable annual yield, as well as a summary of the water rights.

**Table 2
Existing Source Annual Capacity Summary**

Culinary Sources	Max Historic Production (acre-ft)	Water Right or Contract Amount^d (acre-ft)	Estimated Reliable Annual Yield (acre-ft)
1100 North Well	1,605.30	2,272	1,605 ^a
Honey Well	1,198.91	4,318	587 ^a
New Well	1,098.40	3088 ^b	1,098 ^a
Weber Basin Connections	2,400.30	2,015	2,015
Tunnel Spring	53.69	69	0
Total	6,356.60	8,674	5,305
Secondary Sources			
Freda Well	104.89	3088 ^b	399 ^c
Weber Basin - Foxboro	788.70	800	800
Weber Basin - Hatch Park	50.03	38	38
South Davis Water - Deer Hollow	463.70	720	720
Total	1,407.32	4,646	1,957

^a Assumes that the annual well production in 2020 is sustainable, See appendix for Well Sustainability Study

^b The water rights of the New Well and Freda Well are consolidated such that the combined withdrawal of both wells cannot exceed 3,088 acre-ft based on water right.

^c Assumes the Freda Well operates at its pumping capacity for 180 days.

^d Contract amounts for Weber Basin or South Davis Water connections are subject to curtailment during drought mitigation periods. NSL consequently enforces restrictions on outdoor watering when this happens.

WATER MEASUREMENT

Currently, all culinary water and secondary connections within North Salt Lake are metered and read on a monthly-basis with some exceptions. The current meter system is an automated meter reading (AMR) system that requires City personnel to drive a meter reading route to collect meter measurements. In limited cases, meter reads may not be read every month (especially in the winter). The City is transitioning to an automated metering infrastructure (AMI). AMI systems automate collection of meter data around the City and can actively measure use, identify leaks, and educate customers on use. Installation requires construction of central towers to collect the data. Generally, AMI technology can help encourage water conservation more for each customer by helping customers proactively monitor water use.

WATER PRODUCTION, SALES, AND SYSTEM LOSS

Historic Water Use

Historic water use from 2010 to 2020 is summarized in Table 3. Table 3 includes both water production (water produced by each source and delivered to the system) and water sales (metered use out of the system) for the culinary system. For both categories, per capita water use has also been

calculated. Data for this table comes from production records and water sales records was provided from the City to the Division of Water Rights, and recent population.

Table 3
Historic Per Capita Water Culinary Production, Sales and System Loss

Year	North Salt Lake Population	Historic Water Production (acre-ft)	Per Capita Production (gpcd)	Historic Water Sales (acre-ft)	Per Capita Water Use (gpcd)	System Loss (acre-ft)	System Loss %
2010	16,300	4,267	234	4,196	235	71	1.7%
2011	15,500	4,165	240	4,089	236	75	1.8%
2012	16,400	5,132	279	4,945	269	187	3.6%
2013	16,400	4,345	237	4,428	241	-83	-1.9%
2014	17,927	5,465	272	4,037	201	1,428	26.1%
2015	19,193	4,432	206	3,985	185	446	10.1%
2016	19,474*	4,876	224	4,365	203	511	10.5%
2017	19,754*	4,963	224	4,422	206	541	10.9%
2018	20,035*	4,892	218	4,334	201	558	11.4%
2019	20,315*	4,721	207	4,118	215	603	12.8%
2020	20,500	5,377	234	4,613	233	764	14.2%

*Reported population for 2016 to 2019 interpolated based on 2015 and 2020 US Census data because original data appeared anomalous.

System Losses

Over the last ten years, average system losses in the North Salt Lake Culinary water system have been approximately 9 percent of annual water production, as shown in Table 3. North Salt Lake will perform an AWWA water loss audit to identify causes. See “Conservation Practices” for further discussion of City efforts to minimize system losses including prevention activities and activities to locate and eliminate existing leaks.

Historic Per Capita Water Use

As summarized in Table 3, the historic per capita water production ranges from a high of 279 gallons per capita per day (gpcd) in 2012 to a low of 206 gpcd in 2015. The change in per capital water sales is shown in Figure 6.

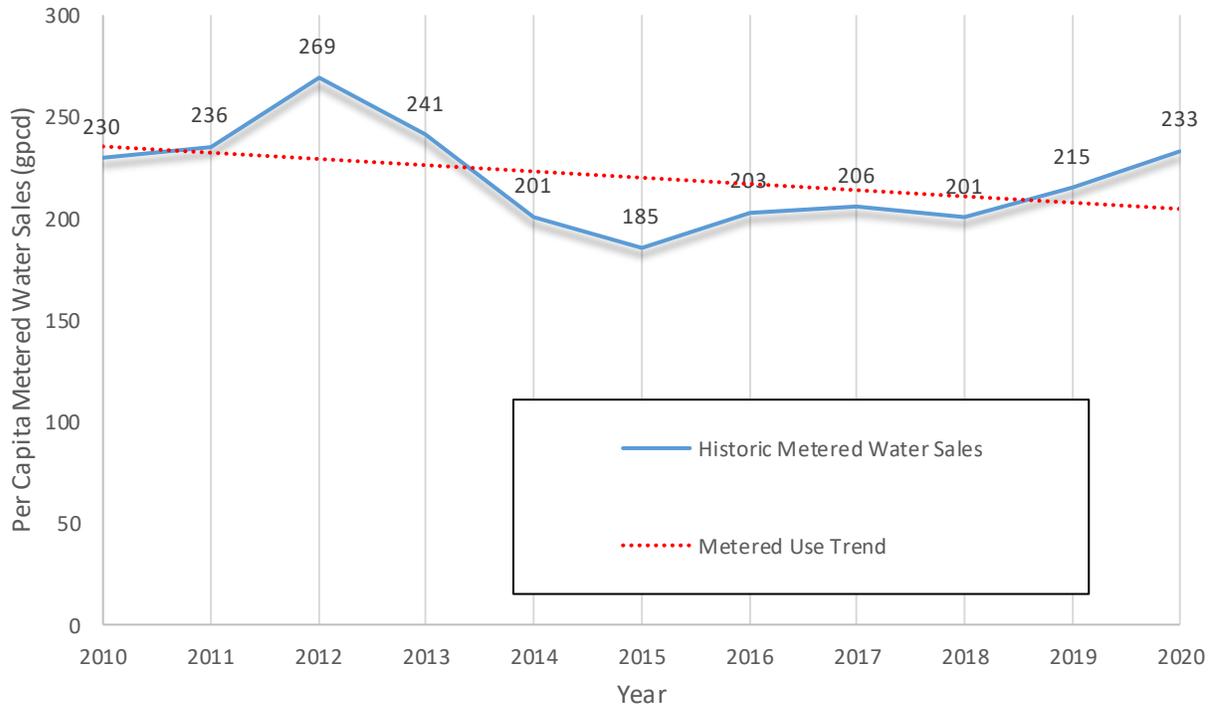


Figure 6 Historic Per Capita Water Use

With the exception of 2012 and 2020, the figure shows the City’s per capita use has a downward trend from the year 2010. The higher per capita water use shown in 2012 and 2020 are likely due to extreme dry weather years. The City’s conservation efforts will need to consider the effect of drought and dry weather on water use demands so that future conservation goals can be achieved, even under dry weather conditions.

Current Per Capita Water Use

An analysis of North Salt Lake’s current culinary and secondary water use was completed. Water use by type for the year 2020 is summarized in Table 4.

**Table 4
Current Per Capita Water Use by Type**

Component	Year 2020
Population	20,500
Annual Culinary Per Capita Production (gpcd)	234.2
Culinary Annual Demand (acre-ft)	5,377
Secondary Annual Demand (acre-ft)	1,407
Total (culinary & secondary) Annual Per Capita Production (gpcd)	295.4

CONSERVATION GOAL WITH MILESTONES

The State of Utah recently adopted regional conservation goals for the State of Utah that focus on regions of water use driven primarily by dominant river drainages. North Salt Lake and Davis County

are part of the Weber River regional area. The adopted goals establish 2015 as the baseline year to compare to for conservation. The regional conservation goals for the Weber River are summarized in Table 5 along with a recommended goal for North Salt Lake.

**Table 5
Conservation Goal With Milestones Through 2065**

Year	Weber River Regional Conservation Goal (gpcd)*	Weber River Percent Reduction	Year	NSL Per Capita Water Use Goal (gpcd)	NSL Percent Reduction Goal
2015	250	0%	2020*	233.4	0%
2030	200	20%	2030	200	14%
2040	184	26%	2040	184	21%
2065	175	30%	2065	175	25%

*2015 sales data did not include secondary sales and appears to be anomalous relative to other years. As a result, 2020 will be used as the City’s starting point for water conservation.

North Salt Lake’s 2015 per capita water use was well below the Weber River Region’s average use for 2015. This would suggest North Salt Lake would have no conservation needed to meet 2030 goals and very little to meet 2040 goals. The City has determined that 2020 is a more reasonable year to set as its baseline for its conservation goal. 2020 was a very warm and dry year and using 2020 for North Salt Lake will result in more applicable conservation targets that will be matched to the per capita conservation goals of the Weber River Region. Figure 7 shows the City’s culinary water projection with and without conservation.

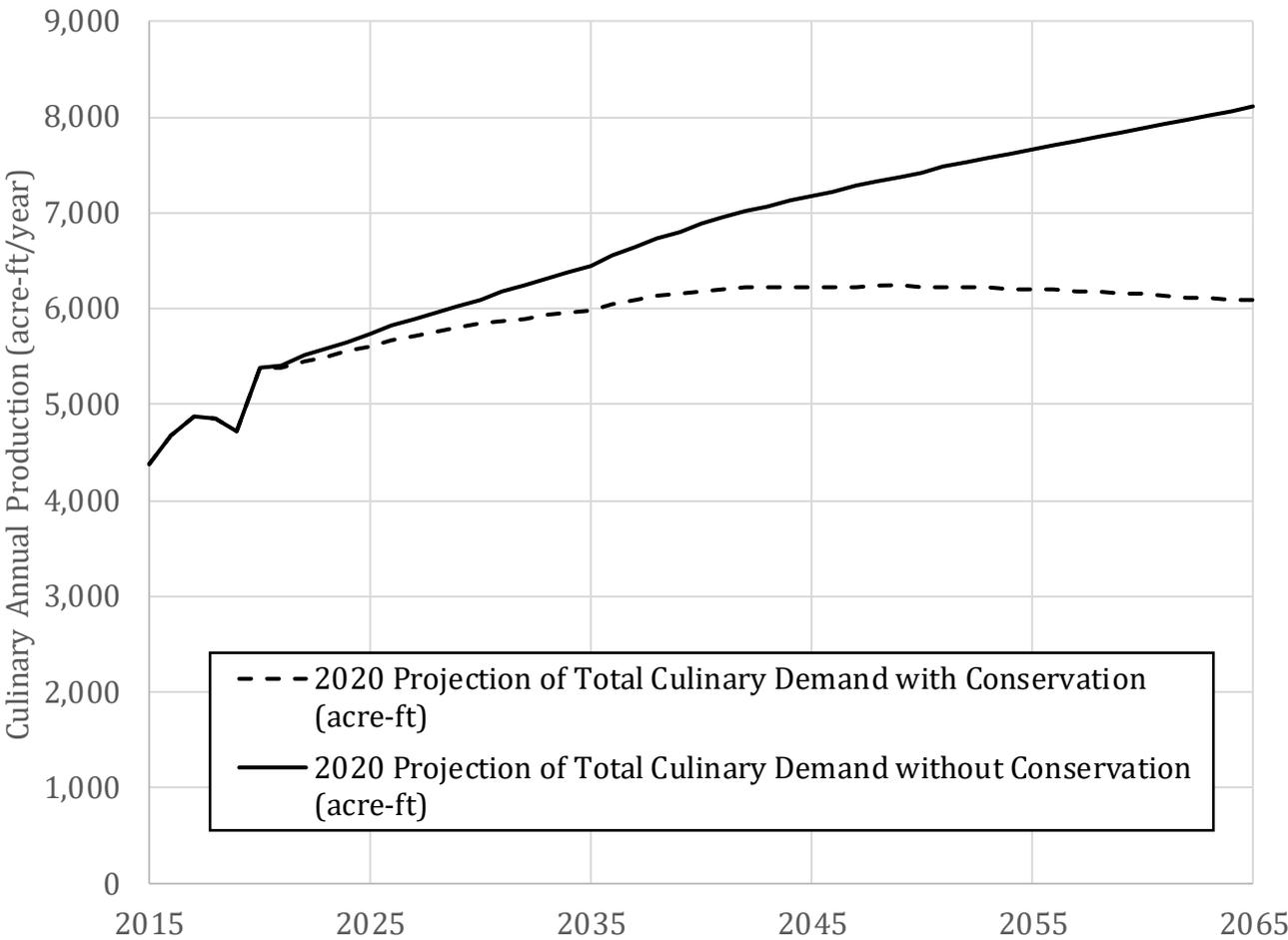


Figure 7 Culinary Demand with and without Conservation

Measuring Savings from Conservation

Figure 8 shows historic culinary water use to date on a per capita basis compared to the historic and proposed City conservation goal. As can be seen, North Salt Lake has done an excellent job in conserving water (aside from the extremely dry year of 2012). To track how well the City is doing in achieving its conservation goal in the future, the City will continue to annually estimate per capita water demands based on yearly metered sales data and an updated population estimate as a function of new system connections.

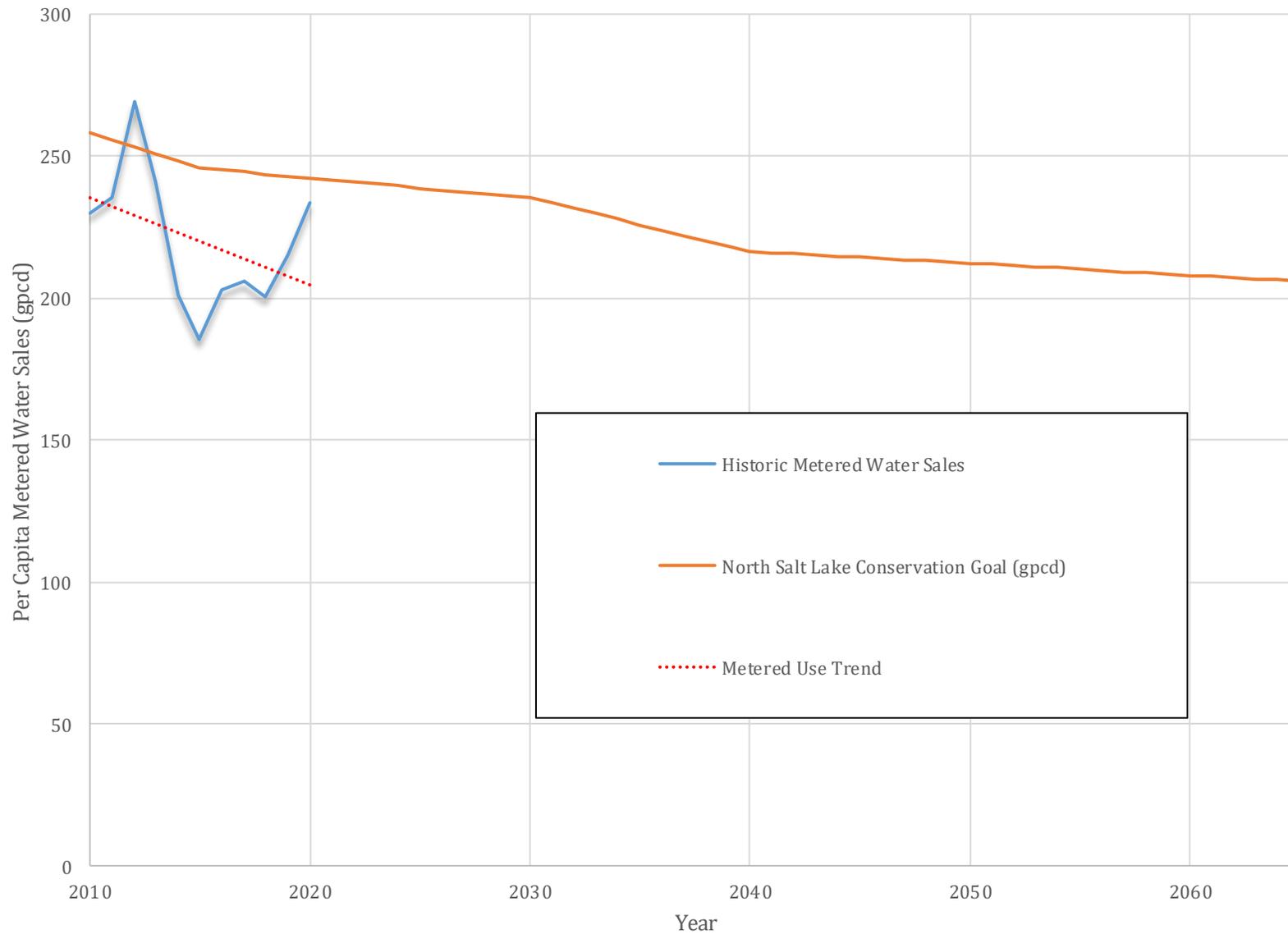


Figure 8 Historic & Future Per Capita Water Use

EFFECT OF CONSERVATION ON FUTURE WATER SUPPLY AND DEMAND

The City has experienced large amounts of growth in the past but opportunities for additional future growth will be more challenging. Future growth is expected to be limited primarily to redevelopment of existing land due to the lack of open land available within the City's limits. The historic and projected population estimates for the North Salt Lake water service area are shown in Table 6.

Table 6
North Salt Lake Historic and Projected Population Estimates

Year	Population
2010	16,300
2011	15,500
2012	16,400
2013	16,400
2014	17,927
2015	19,193
2016	19,193
2017	19,193
2018	19,300
2019	20,315
2020	20,500
2025	21,675
2030	23,094
2040	26,188
2050	27,345
2060	28,258
2065	28,714

Based on this projected growth, it is anticipated that the City's culinary water supplies will be exceeded by demand. The City's secondary supplies and service areas have been optimized to avoid exceeding existing secondary supplies. Table 7 shows both the projected dry year culinary water production requirement (demand) for the City with conservation and the projected production requirement (demand) if no conservation occurs. This table also compares projected demands against the existing available water supply as described previously in this report. This same information is shown graphically in Figure 7.

Included in Figure 7 is a representation of redundant supply needed should existing supply be reduced as a result of climate change, groundwater decline, and other factors. While discussion of supply reliability and the effects of climate change are beyond the scope of this document, the reader should reference the City's Water Master Plan for further explanation of how this level of potential reduction has been estimated.

**Table 7
Projected Culinary Year Total Water Production Requirements**

Year	Projected Production Requirements without Conservation (acre-ft)	Projected Production Requirements At Proposed Conservation Goal (acre-ft)	Existing Supply ¹ (acre-ft)	Estimated Supply Need without Conservation (acre-ft)	Estimated Supply Need with Conservation (acre-ft)	Estimated New Supply Development Which Can Be Delayed Through Conservation (acre-ft)
2015	4,376	4,376	4,706	-330	-330	0
2020	5,377	5,377	4,706	671	671	0
2025	5,727	5,606	4,706	1,022	900	121
2030	6,096	5,838	4,706	1,391	1,133	258
2035	6,442	5,978	4,706	1,736	1,273	464
2045	7,174	6,232	4,706	2,469	1,526	942
2060	7,884	6,147	4,706	3,178	1,441	1,738
2065	8,109	6,081	4,706	3,403	1,375	2,028

¹Reliable supply based on maximum historic well use with WBWCD contract less 600 acre-ft associated with potential loss of the City’s single largest well (1100 North). The City’s other wells could be turned on longer to make up the difference, but the capacity of the other wells is lower than the 1100 North well.

As can be seen in Table 7 and Figure 9, existing City reliably supply would be less than 2020 demands. If the City were to lose the 1100 North well due to mechanical failure or some other reason, the City would need to purchase additional water from WBWCD to meet the projected demand. With conservation, the City will only need to secure approximately 1,400 more acre-ft per year to meet demands by 2065. Without conservation, over 2,800 acre-ft of supply would need to be purchased.

Conservation will help the City be better prepared for potential supply reductions associated with climate change, groundwater depletion, and/or drought years. Figure 9 illustrates why water conservation is essential to North Salt Lake’s long-term water supply plan.

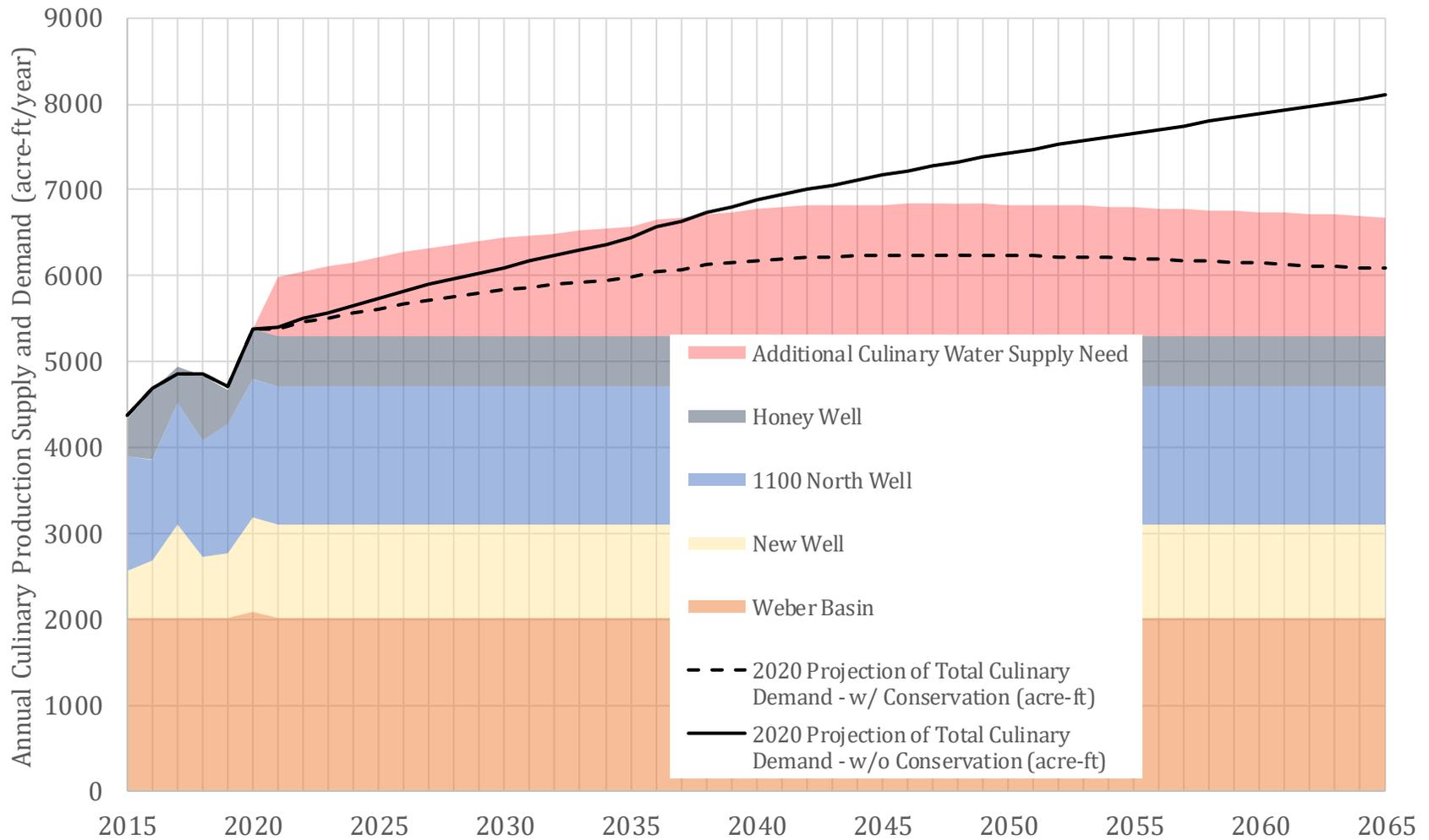


Figure 9 Projected North Salt Lake Culinary Annual Production Requirements vs. Supply

WATER CONSERVATION PRACTICES

The following sections document both existing and proposed water conservation practices in the City. To organize the information, each section groups conservation practices by the following major conservation categories:

- Conservation Public Awareness Practices
- Education and Training Practices
- Rebates, Incentives, and Rewards
- Ordinances and Standards
- Water Pricing
- Improvements to Physical System

Current Conservation Practices

North Salt Lake has yet to build out its conservation programs to reduce water usage. However, some efforts have been made. Each of these programs is discussed in detail below (organized by major conservation categories):

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 some existing ordinances intended to encourage water conservation:

- **Ordinance 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.
- **Ordinance 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.
- **Ordinance 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 currently structures its Water Rate schedule that customers that have higher water usage pay more for water.

Improvements to Physical System:

- **WeatherTRAK Smart Irrigation System** – 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.

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 the 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.
 - Hosting a Water Conservation Open House.
 - Educate consumers about WBWCD resources including free audits.

Rebates, Incentives & Rewards:

- **Potential Rebates** – City Staff is presenting to City Council for consideration to revise landscaping ordinances 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 ¼ 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: 1) 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:
1) Turf area shall not exceed 5% of the total lot or 5,000 sq. ft, whichever is less.
- Mixed use and Multi-family:
1) 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.

Water Pricing:

- **Evaluate Current Water Rate Structure to Further Incentivize Conservation** – North Salt Lake currently has a rate structure that does not adequately promote conservation. North Salt Lake is reworking their rate structure to adopt a conservation-oriented water rate structure in. Within the next year, the City will complete a rate study to identify potential modifications to its current rates structure that encourage reductions in excessive water use and further incentivize conservation. Results of the review will be presented to City Council for consideration.
- **Increase Block Rate Structure** – North Salt Lake is currently completing a water rate study to adjust its block rate structure. The key element of the rate structure is an increasing rate based on monthly water use. The 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) system. Completion of this project is assumed to be complete by 2025.

**Table 8
Implementation Schedule, Estimated Costs & Measurement of Progress**

New Conservation Practices	Implementation Timeline	Estimated Cost	Measurement of Progress
Water Shortage and Drought Plan	Complete by 2022	\$20,000	Completion of report with associated recommendations
Water Conservation Staff Member	Begin in 2022	\$15,000	Complete any of the associated tasks recommended (See New Conservation Practices)
Water Conservation Plan	Complete by 2022	\$6,200	Completion of report
Public Education Efforts	Ongoing	Varies	Complete any of the associated tasks recommended (See New Conservation Practices)
Promote WBWCD Rebates	Begin in 2022	Funded by WBWCD	Promotional information on City websites and other City correspondence
Water Efficient Landscaping Ordinance	2022	\$0	Ordinance adopted
Propose Additional City Ordinances Regarding Water Conservation to City Council	Complete by 2025	Varies	Present results to City Council through next five years
Evaluation of Current Water Rate Structure to Further Incentivize Conservation	Complete in 2022	\$15,000	Completion of report with associated recommendations
Increase Block Rate Structure	Complete in 2022	\$0	Present to City Council in 2022
AWWA Water Audit Program	Complete by 2022	\$5,000/year	Completed audit score and record
Conversion of Public Landscapes	Begin in 2023	Varies	Convert landscape strips to low water plants
Automatic Metering Infrastructure	Ongoing	Varies	Complete the conversion of AMR to AMI

WATER CONSERVATION COORDINATOR

The City has appointed Water Conservation Manager(s) Dave Frandsen and Linda Horrocks. They are responsible for overseeing, coordinating and documenting all City conservation efforts.

WATER CONSERVATION PLAN AUTHOR(S)

This plan was prepared by Bowen Collins & Associates at the Draper office with feedback from City staff:

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