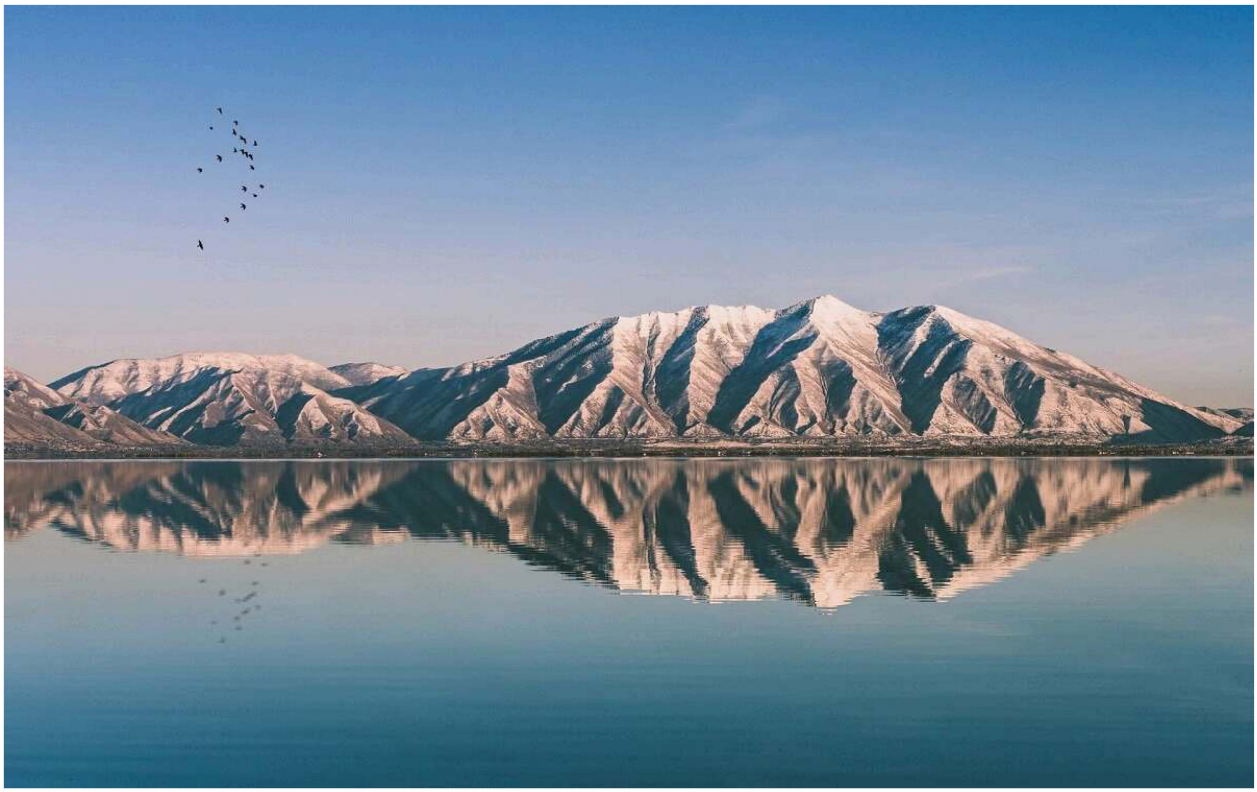
SPANISH FORK
PUBLIC WORKS

2024 WATER CONSERVATION PLAN



Index

List of Figures

List of Tables

1 - Introduction

Since 2004 the Water Conservation Plan for Spanish Fork City has been updated to address concerns about the future water supply in the region given projected growth along the Wasatch Front.

The Utah State Legislature mandates that public water suppliers prepare and periodically update a Water Conservation Plan. This report fulfills that requirement by evaluating water conservation alternatives, setting water conservation goals, and identifying existing and proposed water conservation measures to be implemented by the City.

Submitted to the Division of Water Resources under the requirements of Section 73-10-32 of the Utah Code, this Plan includes an assessment of the water conservation alternatives available to the City.

2 - Water Conservation Goal and Implementation Plan

The overarching objective of Spanish Fork City, as explicitly stated in the report on Utah's M&I Water Conservation Plan 2014, is to sustain and enhance our present GPCPD of 193. This goal is ambitious yet achievable, and it aligns with the broader 2065 Goal for the Provo River Region, which is set at 152.

While we are proud of our current water conservation efforts, we recognize the importance of continued improvement. We understand that responsible water management is not only about meeting current needs but also about ensuring the availability of water for future generations. By aiming for a GPCPD of 152 by 2065, we are demonstrating our commitment to long-term sustainability and responsible stewardship of our water resources.

2.01 Identified Problems

Spanish Fork City is concerned with the potential waste of water from inefficient indoor and outdoor water use and from system-wide losses. The following specific concerns have been identified by the City:

A. Many pipes in the drinking water distribution system are old, undersized, and may be leaking.
B. Municipal Ordinances that use conservation-focused landscaping and water use.
C. Comparison of supplied and metered water indicated that 10.6% of drinking water is unaccounted for and 5.4% of the pressurized irrigation is unaccounted for.

Spanish Fork City has set goals to address the identified problems and to promote conservation. The City is currently promoting water conservation measures similar to the State of Utah water conservation campaign that began in the mid 1990s to early 2000s. Utah's M&I Water Conservation Plan 2014 had a target to reduce the state average of 295 gallons per capita per day to 220 gpcpd or less. This meant that the recommended goal from the state was to reduce the water demands of all public water systems by 25% by 2025.

Because of inconsistencies in the Spanish Fork City metered water use data before 2015, it makes it impossible to estimate an accurate base use in 2001. Given that, the water use of 193 gpcpd in 2015 will therefore be used as the base when calculating data. The estimated 2024 water use is 196 gpcd. This represents a 33% decrease from the 2001 state average of 295 gpcpd.

2.02 Goals

The City will continue to promote water conservation and reduce unaccounted for waste to achieve the Provo River Region goal of 152 gallons per capita per day by 2065. This represents a 22.55% decrease from our current per capita water use of 196. Spanish Fork City's goal for the next Water Conservation Plan in 2029 will be 191 gpcpd. This goal will be tracked annually and reevaluated every five years to determine if this goal has been reached. We will also reevaluate our water conservation practices to determine which are effective and ineffective, allowing us the opportunity to implement or adapt as we learn.

2.03 Implementation Plan

The following specific water conservation goals have been identified by the City:

A. Continue public education efforts including encouraging customers to limit outside watering during high winds and the heat of the day.
B. Determine potential causes for unaccounted water and attempt to reduce these losses through mitigation and maintenance.
C. Move towards adoption of conservation-focused landscaping ordinances.

3 - Water System Profile

Spanish Fork City, located in the south central portion of Utah County, has an estimated population of about 48,095 people (2024) which is calculated by taking the number of drinking water units and multiplying them by the average household size in Spanish Fork of 3.41. This is on par with the projections provided by the Mountainland Association of Governments and the 2020 U.S. Census. Providing safe, clean water to meet the needs of its citizens has always been a top priority of City leaders and planners. A pressurized irrigation system was installed in 2002 to conserve drinking water quality and to provide customers with water at a lower cost. Currently, the Spanish Fork Municipal Water System serves the entire City with some additional homes on the periphery of the City (Figure 1).

The City maintains two separate water systems, a drinking water system that provides gravity feed spring water year round in addition to booster stations and wells that can be activated for supplemental use. The second system is nonpotable for pressurized irrigation which is a combination of river water from the Spanish Fork River, reservoir water from Strawberry Reservoir that is supplied through Central Utah Water Conservation District, and wells that are located around the city which can supplement additional irrigation demands.

The residents and leaders of Spanish Fork City highly value open space. The city currently has around 623 acres of open pervious, grassed areas, which includes about 477 acres of parks, golf courses, cemeteries, stormwater

detention/retention basins, and sports fields. The remaining acreage consists of open space around schools at 116 acres and churches 30 acres.

Spanish Fork City is experiencing above-average residential, commercial, and industrial growth. This will lead to changes in land use and put a strain on the water supply and delivery system. However, these increased demands can be met through careful planning and efficient water use.

Figure 1 shows the Distribution service area of Spanish Fork City with our distribution network spanning from Thistle to the perimeter of the south shore of Utah Lake. The land area in the boundaries of Spanish Fork is approximately 10,835 acres or 16.9 square miles.

Figure 1
Map of Current Service Area

The current distribution of water connections is shown in Table 1. Spanish Fork City has seen an increase of approximately 26% over the last 9 years.

Table 1
Current Water System Connections

Connection Type	Drinking Water System	Pressurized Irrigation System
Residential/Domestic	14,104	10,346
Commercial	603	239
Industrial	70	22
Institutional	182	187
Unmetered	0	0
TOTAL	14,959	10,794

3.01 Supply - Inventory of Water Resources

Before 2002, Spanish Fork City relied on four springs in the Spanish Fork River drainage and wells throughout the city, withdrawing about 9,000 acre-feet of water annually. This met the total demand for the drinking water system, which at the time provided for both indoor and outdoor water uses.
With the installation of a city-wide pressurized irrigation system in 2002, the demand on the drinking water supply was reduced. Along with intentional improvements and significant resources invested, we have seen a decrease in unaccounted-for water loss. As a result of these efforts, in 2024, we have delivered a total of 12,288 acre-feet of water through the drinking water (4,502 acft) and pressurized irrigation (7,786 acft) systems. The population of Spanish Fork City has more than doubled since 2002. Our efforts to conserve water have been successful given that water usage has only increased by about one-third.

The City of Spanish Fork maintains a diverse water portfolio to ensure a reliable water supply for its residents and businesses. This portfolio includes shares of stock in a number of local canal companies, granting the City access to water conveyed through these canal systems. Additionally, the City holds various water rights in the Spanish Fork River, allowing for the diversion and use of surface water from this natural source. Furthermore, the City possesses water rights in Dry Creek, providing access to another surface water source. To supplement surface water supplies, the City also holds water rights in

underground wells, enabling the extraction and utilization of groundwater resources.

Table 2 provides a comparison between the City's recorded water supply from its various sources and the actual water delivered to customers. This data is essential for understanding water usage patterns and trends within the city. By analyzing the differences between water supply and water delivered, the City can identify potential areas of water loss, such as leaks or unaccounted-for water. Additionally, this information is crucial for supporting the City's growth projections. By understanding how water usage has changed over time and comparing it to population growth and development, the City can estimate future water demands and ensure that adequate water resources are available to meet the needs of a growing population. This data can also inform decisions around water infrastructure investments, conservation programs, and drought management strategies.

Table 2
Historical Water Supply to Delivery

Drinking Water System										
Type	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Total DW Supplied (ac ft)	3,853	3,984	4,037	4,099	4,110	4,297	4,463	4,283	4,249	4,502
Total DW Metered (ac ft)	2,913	2,924	3,021	3,087	3,121	3,455	3,529	3,499	3,599	3,859

Pressurized Irrigation System										
Type	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Total PI Supplied (ac ft)	5,480	5,799	6,169	6,367	5,526	7,189	6,065	6,337	6,811	7,787
Total PI Metered (ac ft)	5,003	5,322	5,381	5,618	5,142	6,747	5,895	5,919	6,142	7,331

Table 3 below provides a comprehensive overview of the City’s water sources, specifically for Drinking Water and Pressurized Irrigation. The table details the capacity of each source, indicating the maximum amount of water it can pump annually, and compares this to the current annual water supplied. This

information allows for a clear understanding of the City's water resource capabilities and how they are currently being utilized.

Table 3
Existing Water Sources Summary

Drinking Water System			
Source	**Supply Capacity (acre foot per day)**	**Annual Supply Capability (acre feet)**	**Annual Supplied Current (acre-feet)**
Crab Creek	3.27	1,193.55	2,399
Upper Cold Springs	8.83	3,222.95	264
Malcomb Springs	11.93	4,354.45	856
Lower Cold Springs	4.56	1,664.40	2,192
Canyon Elementary Well 1700 East	7.51	2,741.15	14
Canyon Road 2550 Well	5.52	2,014.80	23
DW SUBTOTAL	**41.62**	**15,191.30**	**5,748**

Pressurized Irrigation System			
Source	**Supply Capacity (acre foot per day)**	**Annual Supply Capability (acre feet)**	**Annual Supplied Current (acre-feet)**
Memorial Well	5.52	1,010.16	0
Fairgrounds Shop Well	5.60	1,024.80	0
Cemetery #2 Well	2.46	450.18	0
Cemetery #1 Well	3.91	715.53	73
Canyon Elementary Well 1700 East	7.51	1,374.33	102
Canyon Road 2550 Well	5.52	1,010.16	0
Darger Springs	3.53	645.99	171
Golf Course Booster	16.39	2,999.37	699
ULS/Strawberry Deliveries	89.24	12,404.36	6,508
Ensign-Bickford Well	1.98	362.34	234
PI SUBTOTAL	**141.66**	**21,997.22**	**7,787**

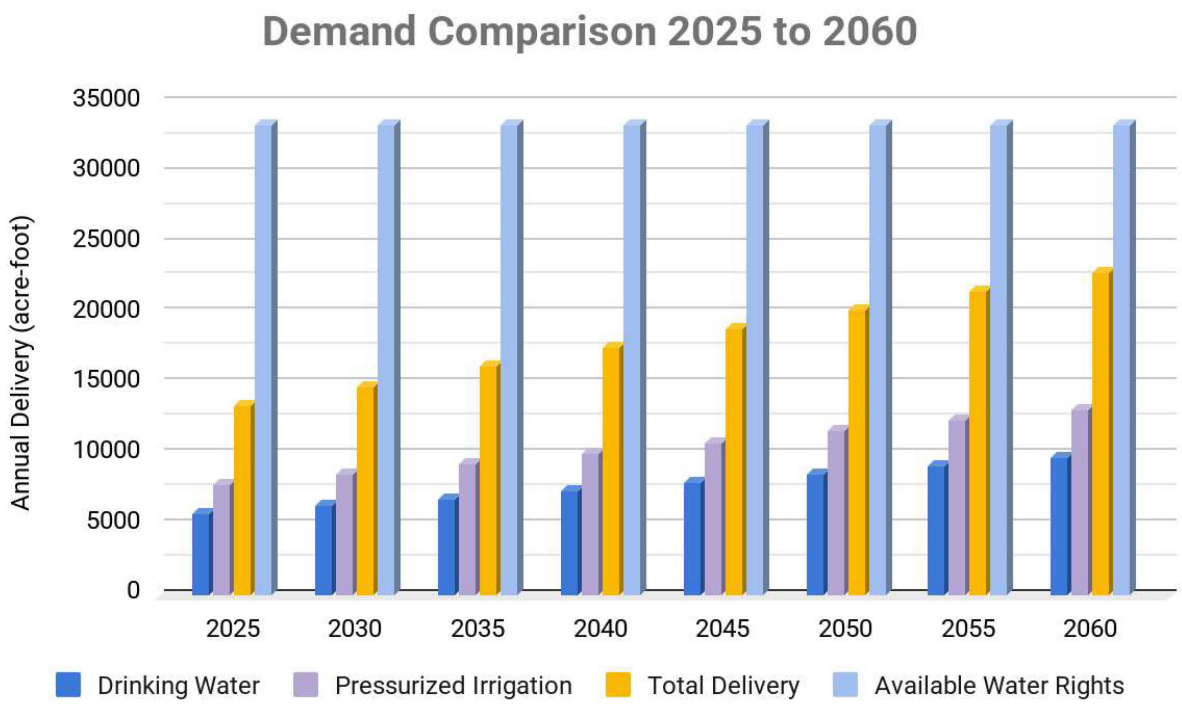
Table 4 presents a detailed outline of the projected water supply necessary to fulfill the anticipated demands of Spanish Fork City's expanding population over the next 35 years, extending to the year 2060. This table incorporates various factors such as projected population growth rates, per capita water consumption, and potential changes in water use efficiency due to technological advancements or conservation efforts. By providing a clear picture of the future water requirements, Table 4 serves as a critical tool for urban planners and water resource managers to ensure the sustainable and adequate provision of water services to the growing community of Spanish Fork City.

Table 4
Projected Water Supply to Delivery

Demand Comparison 2025 to 2060								
Projected Growth of 69.07%	**Annual Supply (acre-foot)**							
	2025	**2030**	**2035**	**2040**	**2045**	**2050**	**2055**	**2060**
Drinking Water	5,748	6,315	6,882	7,449	8,017	8,584	9,151	9,718
Pressurized Irrigation	7,787	8,555	9,324	10,092	10,860	11,629	12,397	13,165
Total Delivery	13,535	14,871	16,206	17,542	18,877	20,213	21,548	22,884
Available Water Rights	33376	33376	33376	33376	33376	33376	33376	33376

The projections illustrated in Figure 2 demonstrate that the currently available and reliable water supply sources are sufficient to meet both the existing water usage demands and the anticipated future water use demands, extending all the way to the year 2060 and beyond. This indicates that the current water supply infrastructure and resources are adequately equipped to handle the projected growth and increased water needs of the community over the next several decades.

Figure 2
Comparison Graph of Supply and Delivery



3.02 Future Water Source

Spanish Fork City's potential population growth is a significant factor in planning for future water needs. While current water sources are believed to be sufficient for projected growth, the reality of a potential population doubling by 2060 necessitates careful consideration. Future increases in water demand are anticipated due to development, redevelopment, and population growth. However, per capita water use is expected to remain relatively stable due to ongoing conservation efforts and reduced per capita water demands. Outdoor water use will fluctuate depending on precipitation patterns, with higher use during dry years. As farmland is developed, future water needs will likely be met by transferring irrigation water to municipal use.

The Dry Creek Reclamation Pump House has the potential to supply 3 million gallons of reclaimed wastewater per day, which could serve as a secondary

non potable water source or be used for groundwater/aquifer recharge. This is contingent upon the Wastewater Treatment Plant meeting EPA rules for MCLs and obtaining approval from the Utah Division of Water Resources to divert this water from its current discharge point into Dry Creek.

4 - Water Use & Measurement

4.01 Measurement Methods and Practices

Spanish Fork City currently meters water use at all known connections and records data on a monthly basis. A modern meter reading system is being implemented that is capable of monitoring usage at a 1 gallon resolution. With such accuracy, alarms can be enabled to better alert consumers of spontaneous leaks before they reach a critical point in both the drinking water and pressurized irrigation system.

Spanish Fork City has a current program to replace and/or upsize old or undersized water pipelines along streets that need to be reconstructed. The City also replaces meters and laterals that are found to be leaking or defective. These projects are implemented as the City budget allows. The city currently maintains master plans for both water systems; these documents are updated and maintained on a regular basis to help alleviate deficiencies and inefficiencies.

Spanish Fork City maintains two independent water systems, a drinking water and secondary water, or pressurized irrigation, system. Both systems have been metered since 2001. All of our six drinking water and ten secondary water sources are metered as well. The 14,104 drinking water and 10,346 pressurized irrigation customer connections are all metered. Sources are monitored via SCADA system and customer connections are monitored with an AMI (Advanced Metering Infrastructure) system, maintained by Sensus Analytics. The AMI system collects an hourly usage sample then transmits the meter data every 4 to 6 hours to one of our local towers and then to a cloud database for analysis and storage.

The city actively locates water main and service line leaks using leak detection equipment purchased in 2019, with the goal of inspecting the entire city every four years. This technology is most accurate on continuous iron ductile style pipe, and less effective on newer plastic or PVC pipe. When leaks are located, city crews promptly assess and repair them with quality materials to extend and improve the water system's lifespan. If a leak is found on the customer side of the water meter, the city notifies the utility account holder by mail, phone, or in person.

Through meter equipment improvements and grants, we have a customer portal with many functions to aid in a customer's water conservation habits. These functions include giving residents the ability to monitor their usage daily or setting up alerts that would trigger an automated notification via email or text.

All utility water connections in Spanish Fork (drinking water and secondary water) are required to be metered per the city Municipal Code 13.04.030 Utility Service, stated below:

“Except as otherwise expressly permitted by this Title, all structures, dwelling units, and establishments using metered utilities from City systems must have such number and type of meters connected to the utility systems as are necessary, in the judgment of the City Engineer, to adequately measure use to the respective users.”

Because our maintenance program for meters is ongoing, we run malfunction reports monthly and repair or replace damaged meter equipment. We also track zero usage meters, testing their operational status and replacing them when they show a significant usage reduction or failure. Our current customer connection meters are the Sensus iPerl for all 3/4” and 1” connections and the Sensus Omni meter for 1.5 to 8” connections. We also have a goal of testing and recalibrating source meters and large customer meters, in house, on a regular basis.

4.02 Water Usage

The total yearly water deliveries, in acre-feet, for both drinking water and pressurized irrigation systems are shown in Table 5.

Table 5
Total Water Deliveries by Type

Drinking Water	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Residential DW Metered (ac ft)	2,086	2,158	2,172	2,202	2,227	2,471	2,493	2,530	2,645	2,709
Commercial DW Metered (ac ft)	462	387	354	423	422	465	486	411	404	576
Industrial DW Metered (ac ft)	269	302	275	252	256	306	354	355	355	352
Institutional DW Metered (ac ft)	97	76	219	210	216	213	197	202	195	223
Pressurized Irrigation	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Residential PI Metered (ac ft)	3,449	3,764	3,801	3,960	4,344	5,639	4,901	4,543	4,724	5,009
Commercial PI Metered (ac ft)	1,554	1,558	1,580	1,659	798	199	180	208	219	291
Industrial PI Metered (ac ft)						65	35	33	51	40
Institutional PI Metered (ac ft)						806	621	709	726	1,374

Residential users are the biggest consumers of both drinking and pressurized irrigation water provided by Spanish Fork City, as shown in Figures 3 and 4. This indicates that the residential sector has the highest potential to contribute to the City's water conservation goals.

Figure 3
Drinking Water Delivered by Type

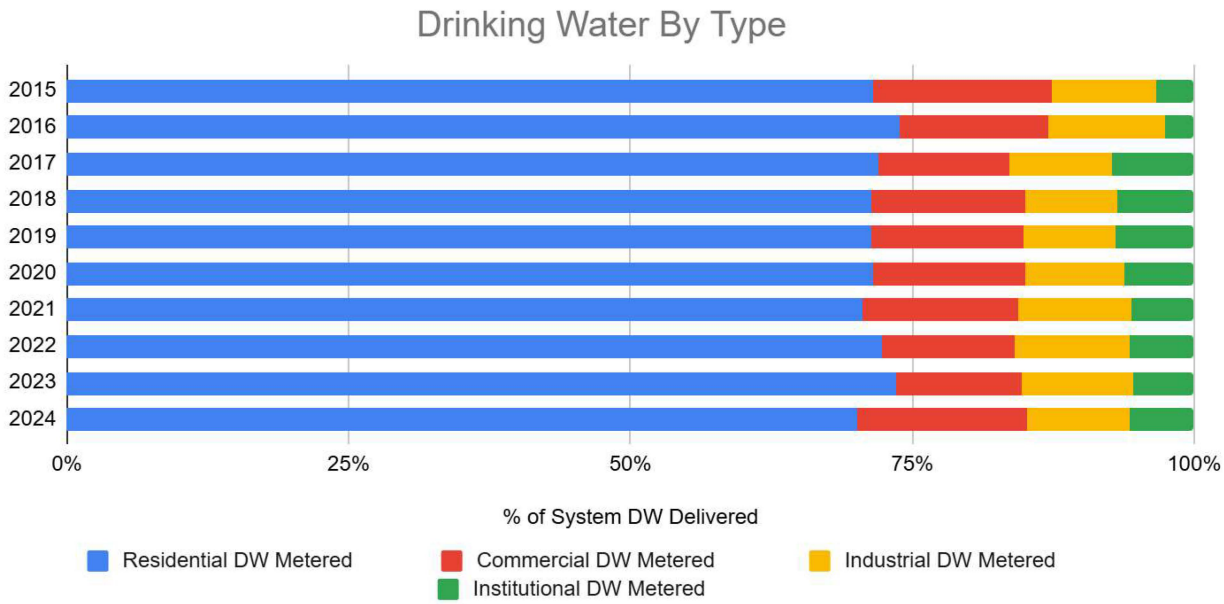
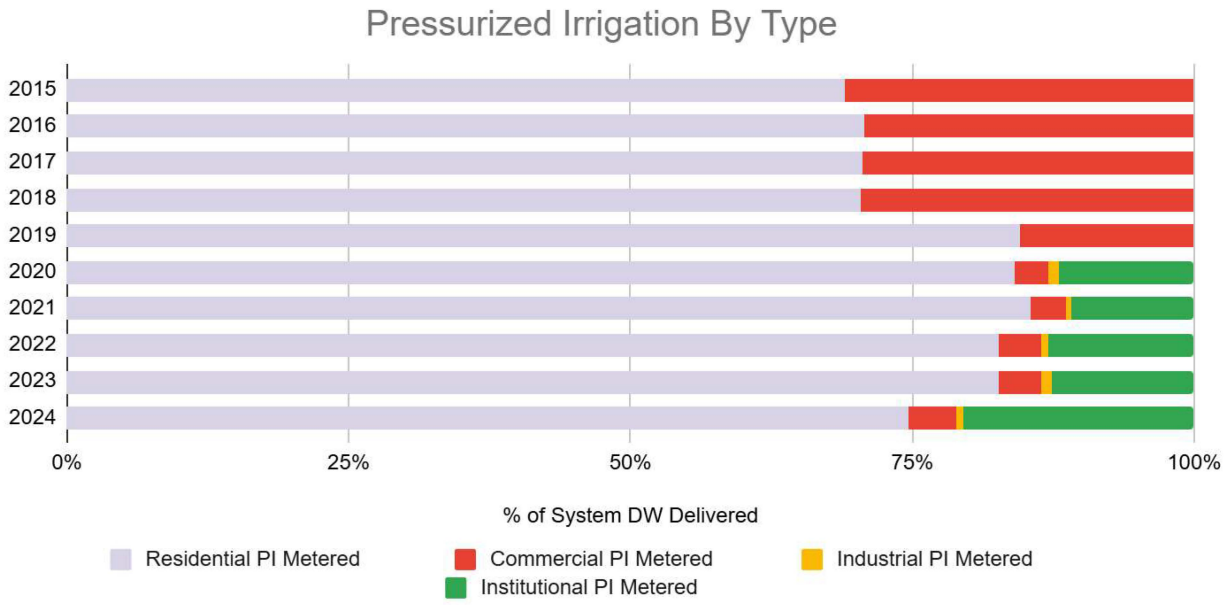


Figure 4
Pressurized Irrigation Delivered by Type



4.03 System Water Loss Control

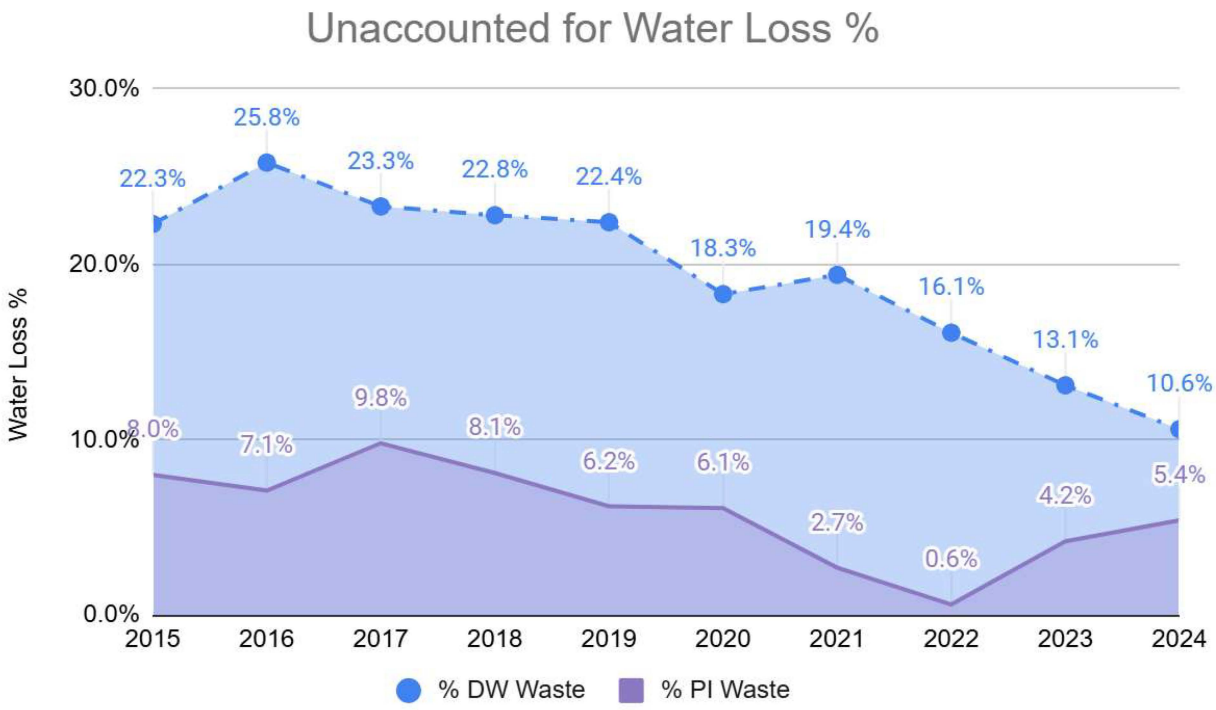
A comparison of supplied and metered water is shown in Table 6. The table shows data for both the drinking water and pressurized irrigation systems for years 2015 through 2024. Note that supplied water always exceeds metered water, indicating unaccounted water (losses) in each system. Unaccounted water decreased during the past ten years. In 2024, the percentage of combined unaccounted water was 16%, much lower than 30.3% in 2015. This suggests that the City's pipe replacement program has been effective in reducing water loss in the both water systems. For both systems, possible explanations for the unaccounted water use include leaks in the distribution system, meter inaccuracies, and miscellaneous unmetered water use (such as pipe line flushing, construction activities, County and City Fire drills, etc.).

Table 6
Comparison of Water Supplied to Metered Water Use

Drinking Water System										
Type	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Total DW Supplied (ac ft)	3,853	3,984	4,037	4,099	4,110	4,297	4,463	4,283	4,249	4,502
Total DW Metered (ac ft)	2,913	2,924	3,021	3,087	3,121	3,455	3,529	3,499	3,599	3,859
Unaccounted for DW Waste (ac ft)	860	1,028	942	933	923	787	867	690	555	479
% Unaccounted for DW Waste	22.3%	25.8%	23.3%	22.8%	22.4%	18.3%	19.4%	16.1%	13.1%	10.6%
Pressurized Irrigation System										
Type	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Total PI Supplied (ac ft)	5,480	5,799	6,169	6,367	5,526	7,189	6,065	6,337	6,811	7,787
Total PI Metered (ac ft)	5,003	5,322	5,381	5,618	5,142	6,747	5,895	5,919	6,142	7,331
Unaccounted for PI Waste (ac ft)	441	411	603	518	344	437	163	40	289	423
% Unaccounted for PI Waste	8.0%	7.1%	9.8%	8.1%	6.2%	6.1%	2.7%	0.6%	4.2%	5.4%

Figure 5 shows the overall downward trend of unaccounted for water loss in both the drinking water and pressurized irrigation systems.

Figure 5
Unaccounted For Water Loss



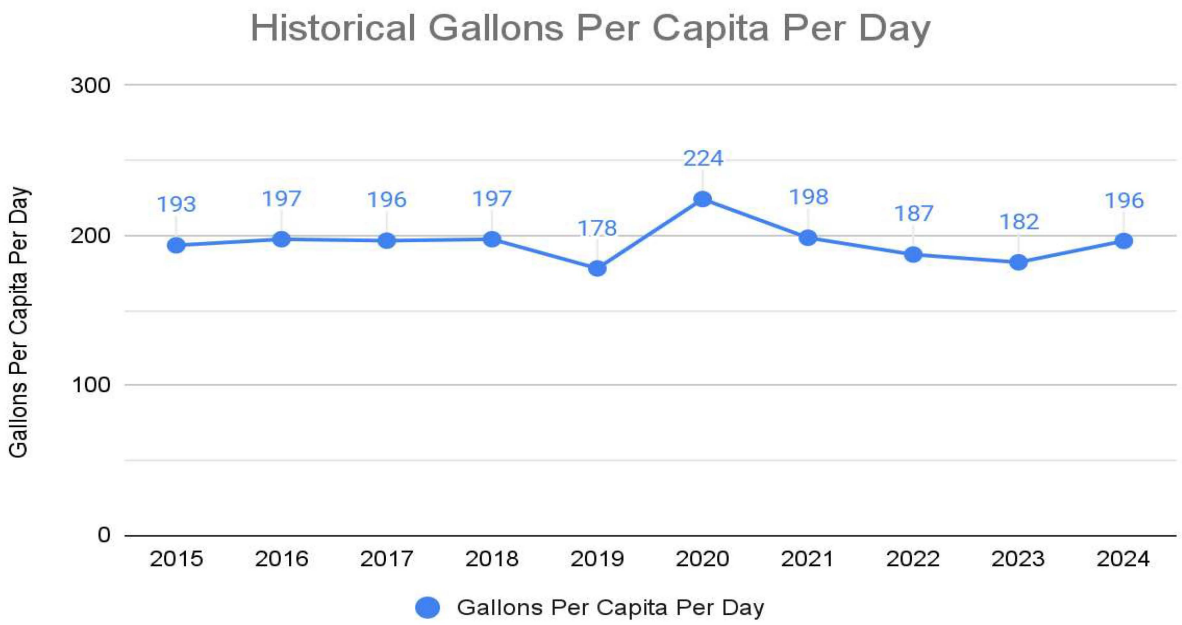
The total water deliveries by type (residential, commercial, industrial and institutional) in acre-feet since 2015 are shown in Table 7, which summarizes the current Gallons Per Capita Per Day for 2024. Based on the 2024 service area population estimate of 48,095, the drinking water use is 68 gallons per capita per day (gpcd) and the pressurized irrigation use is 118 gpcd (note that the drinking water system still irrigates a small portion of the City). The combined per capita water use for Spanish Fork City in 2024 is 193 gpcd. This table further demonstrates that our residential population could play the biggest role in meeting our water conservation goals of reaching 152 gallons per capita per day.

Table 7
Current Water Use (gpcpd)

Total Metered	Drinking Water (gpcpd)	Pressurized Irrigation (gpcpd)	Total
Residential	50	93	143
Commercial	11	5	16
Industrial	7	1	7
Institutional	4	26	30
Total	72	125	**196**

The downward trend in water delivered (gallons per capita per day) over the past few years, as shown in Figure 6, demonstrates the importance of continued and strengthened water conservation efforts. Regardless of precipitation or drought conditions, the comparison between 2020 and 2024 highlights the effectiveness of monitoring water usage and implementing conservation measures in achieving our water conservation goals.

Figure 6
Water Delivered (gpcpd)



5 - Billing

5.01 Increasing Rate Structure

Spanish Fork City's drinking water system rate structure is summarized in Table 8. The pressurized irrigation system rate structure is summarized in Table 9.

Table 8
Drinking Water Rate Structure

Drinking Water Rates		
Schedule 2 rates are for construction completed after July 1, 2024 that is not yet 10 years old		
Drinking Water Rates - Units ***WITH*** Pressurized Irrigation		
Residential Base Rate: (per month per unit)		
.75 - 1 inch	Schedule 1	Schedule 2
	$11.65	$16.35
Metered Residential Usage Rate: (per 1,000 gallons)		
	# of gallons	Per 1,000 gallons
tier 1	0-6,000	$1.16
tier 2	6,001-18,000	$1.41
tier 3	18,001+	$2.18
Commercial Base Rate (per month per unit)		
Meter Size	Schedule 1	Schedule 2
.75 - 1 Inch	$11.65	$16.35
1.5 Inch	$28.49	$36.79
2 Inch	$50.64	$65.40
3 - 4 Inch	155.09	$200.29
Metered Commercial Usage Rate: (per 1,000 gallons)		
	# of gallons	Per 1,000 gallons

tier 1	0-6,000	$1.16
tier 2	6,001+	$1.41
Drinking Water Rates - Units ***WITHOUT*** Pressurized Irrigation		
Residential Base Rate: (per month per unit)		
.75 - 1 inch	Schedule 1	Schedule 2
	$11.65	$16.35
Metered Residential Usage Rate: (per 1,000 gallons)		
	# of gallons	Per 1,000 gallons
tier 1	0-6,000	$1.14
tier 2	6,001+	$1.41
Commercial Base Rate (per month per unit)		
Meter Size	Schedule 1	Schedule 2
.75 - 1 Inch	$10.20	$16.35
1.5 Inch	$22.95	$36.79
2 Inch	$40.80	$65.40
3 - 4 Inch	$124.95	$200.29
Metered Commercial Usage Rate: (per 1,000 gallons)		
	# of gallons	Per 1,000 gallons
tier 1	0-6,000	$1.12
tier 2	6,000+	$1.39

Table 9
Pressurized Irrigation Rate Structure

Pressurized Irrigation Rates		
Pressurized Irrigation Base Rate (per month per unit)		
Meter Size	Schedule 1	Schedule 2
.75 - 1 INCH METER	$11.65	$16.35
1.5 INCH METER	$28.49	$36.79
2 INCH METER	$50.64	$65.40
3 - 4 INCH METER	$155.09	$200.29
Pressurized Irrigation Metered Usage Rate: (per 1,000 gallons)		
	# of gallons	Per 1,000 gallons
tier 1	1,000 - 25,000	$0.87
tier 2	25,001+	$1.03

6 - Best Management Practices

6.01 Existing Conservation Measures

Table 10 identifies water conservation measures the City currently implements. The City will continue these practices. It is not clear if existing conservation measures have been effective given the increase in per capita water use since 2001 and the uncertainties regarding the high loss rates included in those figures.

Table 10
Existing Conservation Measures

Ongoing Conservation Projects	Practice Implementation
WATER CONSERVATION COORDINATOR:	Manages the Water Conservation Program, including the water conservation plan. Stays informed on current water conservation practices, submits recommendations for City improvements, and updates City informational content for public education on the website and social media.
WATER CONSERVATION OUTREACH CAMPAIGN:	Utilize the City's website, newsletter, and social media pages to promote water conservation measures and educational content. This can include links to our water conservation partners and promotion of local landscapers who utilize water-wise training and conservation tips.
BENEFITS OF WATER-EFFICIENT TECHNOLOGY:	The City's public outreach will promote tips and rebates that will assist residents in saving water and money, as well as extend the life of our water infrastructure. This will be accomplished by educating residents about the potential benefits of water saving technology, such as weather based smart timers and water-efficient plumbing fixtures.
SMART CONTROLLER PROJECT:	Spanish Fork City provided Rachio Smart Controllers, including installation, to residents free of charge through a grant. This Smart Controller Project aims to promote water conservation awareness and decrease peak daily demand on the Pressurized Irrigation system.
METER CONSERVATION GRANT	The City received a $50,000 grant from CUWCD to replace outdated water meters with new models that can be reconfigured to a 1-gallon resolution. These older meters are some of the oldest in the system, and the replacements will improve the accuracy of water loss and leak detection on customer lines.
DRINKING WATER TIERED RATES:	The current utility rate structure in Spanish Fork City has three progressive tiers, and the cost per 1,000 gallons of water increases with each tier. There is also a base rate determined by the service line's diameter and its anticipated impact on the system.

PRESSURIZED IRRIGATION SYSTEM TIERED RATES:	As of January 1, 2020, Spanish Fork City implemented a 2-tiered rate system for our Pressurized Irrigation system. The cost per 1,000 gallons of water increases with each tier; additionally, there is a base rate determined by the size of the service line.
CUSTOMER LEAK AND HIGH USAGE NOTIFICATION:	Our Utility Billing department notifies customers when their water usage shows a significant increase, which could indicate a leak. With the improved accuracy from the METER RESOLUTION RECONFIGURATION, we expect these leak notifications to be more precise.
WATER USE FOR CITY OWNED LANDSCAPED AREAS:	To conserve water on City-owned properties, sprinkler irrigation systems for public landscaped areas will be adjusted seasonally to run during the coolest and least windy times of day, using water-efficient practices whenever possible.
WATER LOSS IDENTIFICATION:	The City's proactive daily leak detection program and annual water loss reporting initiatives will provide critical data for updating the Drinking Water and Pressurized Irrigation Master Plans. Our Capital Improvement Plan prioritizes mitigating water loss and leaks, with the objective of reducing total water loss in both systems to a combined 10%.
LEAK DETECTION PROGRAM:	Spanish Fork City purchased Gutermann leak detection and correlation equipment that was implemented in the spring of 2019 on the Drinking Water system
REPLACEMENT OF AGING WATER MAINS:	As part of our regular maintenance program, the City will replace aging and undersized water mains based on the Water Master Plan and the Water Division's Capital Improvement Program. This proactive approach will help maintain our water systems, locate and repair leaks, and minimize the potential for costly repairs due to major water main breaks.
METER MAINTENANCE PROGRAM:	We maintain an ongoing meter maintenance program to track and diagnose meter malfunctions, repairing or replacing faulty meters as needed. Upgrading large customer meters to a more maintenance-friendly model allows for easier testing and reconfiguration, leading to improved accuracy.
AMI METER TECHNICIAN:	Manages the AMI meter system by troubleshooting and replacing faulty equipment and software, monitoring and testing meters with no usage, staying informed on current manufacturer information and technologies, and providing training to support staff.

SECONDARY SYSTEM FOR IRRIGATION:	The City aims to conserve drinking water by providing a separate pressurized irrigation system. Maintaining this system and implementing metering encourages water conservation, as customers are billed based on their actual water usage instead of a flat rate.
WATER METERS ON THE DW & PI SYSTEM:	Since both our Drinking Water and Pressurized Irrigation systems are metered, any unmetered service lines that are discovered will be fitted with a meter within a reasonable timeframe.
METER RESOLUTION RECONFIGURATION:	To enhance water usage analytics and leak detection, in 2018 the City initiated a project to reconfigure existing water meters to a 1-gallon resolution.
UPGRADED METER READING SYSTEM:	The city upgraded to a Sensus 4.x AMI System software and hardware upgrade to streamline usage data storage and analysis using Sensus Analytics. In 2024 one of two base stations were upgraded with new hardware to improve read data, with plans to replace the second and add a third.
ULS-STRAWBERRY CONNECTION:	In the summer of 2019, Spanish Fork City established a direct pipeline connection to the Central Utah Water Conservation District's - Strawberry Reservoir to supply water for the Secondary/Pressurized Irrigation system.

7 - Ordinances

The following Ordinances and Standards are currently being implemented in Spanish Fork City:

Spanish Fork City prohibits wasteful use of water in our Municipal Code 13.28.020 General.

A. Rates. All users of the drinking water system shall pay a monthly base rate and a usage rate. All users of the pressurized irrigation system shall pay a monthly base rate and a usage rate. The City may, under normal circumstances, make adjustments to ensure equitable service charges.
B. Waste. No water user may waste water or allow water to be wasted by imperfect stops, taps, valves, leaky joints or pipes, to allow tanks or watering troughs to leak or overflow, to wastefully run water from hydrants, faucets or stops, through basins, toilets, urinals, sinks or other apparatus, sprinklers or anything related to a sprinkler system.

C. Scarcity. In time of scarcity of water, as determined by the Mayor and the City Council, the Mayor shall, by proclamation, limit the use of water to such extent as may be necessary to protect the health and safety of the residents of the City. It is an infraction for any person by themselves, or by family members, servants or agents, to violate any proclamation made by the Mayor pursuant to this section.
D. Model Landscape Ordinance - 15.4.16.130 Landscaping, Buffering Walls, And Fences

An update to City Policy (Construction Standards - Policy 4.39) regarding conservation requires all new development and redevelopment projects to install low impact development (LID) infrastructure that will retain and infiltrate a 25-year minimum storm which exceeds the 90th percentile storm minimum required. This policy meets our MS4 permit from the State and EPA. LID recharges the groundwater while reducing volume and pollutants from entering surface waters.

7.01 Contact Information
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Public Works Director, Cory Pierce - cpierce@spanishfork.gov
Water Division Manager, John Waters- jwaters@spanishfork.gov
Assistant Water Division Manager, Paul Taylor- ptaylor@spanishfork.gov
Water Conservation Coordinator, Jed Ottesen- jedottesen@spanishfork.gov

7.02 Adoption of Plan
Pursuant to Subsection 73-10-32(2)(a) of the Utah Code

(2)(a) A water conservation plan shall contain:
(i) (A) a clearly stated overall water use reduction goal that is consistent with Subsection (2)(d); and
(B) an implementation plan for each water conservation measure a water provider chooses to use, including a timeline for action and an evaluation process to measure progress;

(ii) a requirement that a notification procedure be implemented that includes the delivery of the water conservation plan to the media and to the governing body of each municipality and county served by the water provider;

(iii) a copy of the minutes of the meeting regarding a water conservation plan and the notification procedure required in Subsection (2)(a)(ii) that shall be added as an appendix to the water conservation plan; and

(iv) for a retail water supplier, as defined in Section 19-4-102, the retail water supplier's rate structure that is:

(A) adopted by the retail water supplier's governing body in accordance with Section 73-10-32.5; and

(B) current as of the day the retail water supplier files a water conservation plan.

References

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