HURRICANE CITY
UTAH

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Kaden DeMille

Water Board
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John Slack
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Bevin Johnson
Casey Lofthouse
Clark Fawcett- councilman
Gary Cupp
Mike Vercimak
Dayton Hall

Water Board Meeting Agenda

Tuesday, September 30, 2025

7:00 PM

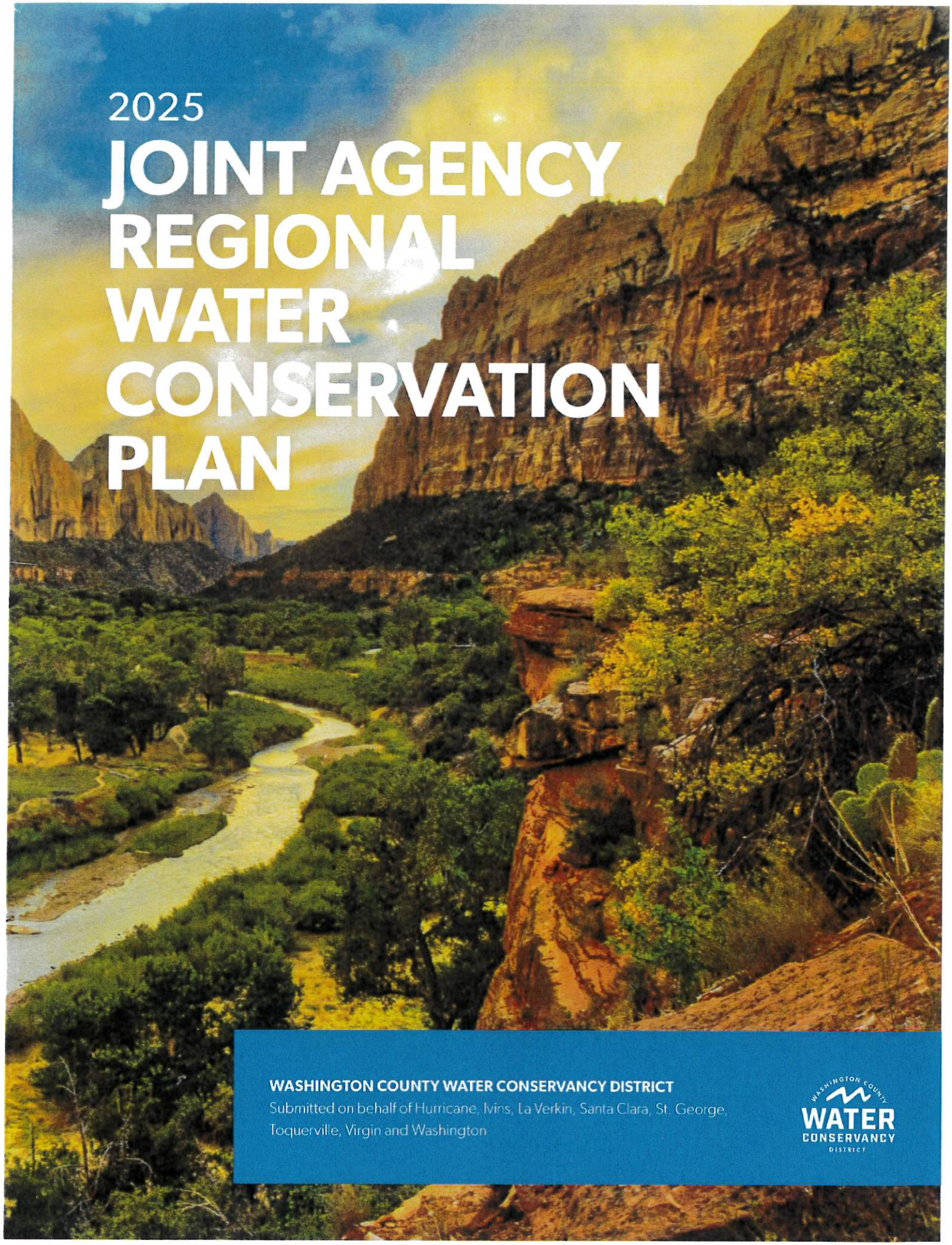
Water Department Meeting Room – 646 W 600 N

Notice is hereby given that the Water Board will hold a Regular Meeting in the Water Department Meeting room located at 646 W 600 N, Hurricane, UT. A silent roll call will be taken, along with prayer by invitation.

AGENDA

1. Call to order, prayer.
2. Approval of Minutes of July 29, 2025
3. Leak adjustment request for Sharon Summers
4. Discussion and possible recommendation to the city council adopting the WCWCD water conservation plan.
5. Report on the irrigation expansion projects.
6. Report on the culinary water tank and pipeline project
7. Report on the progress of the new wells
8. Sand hollow aquifer study.
9. Dixie Springs failing infrastructure update and water rate discussion.
10. New Business
11. Adjourn

REASONABLE ACCOMMODATION: Hurricane City will make efforts to provide reasonable accommodations to disabled members of the public in accessing City programs, please contact the Executive Assistant,435-635-9442x 310, at least 24 hours in advance if you have special needs. WEB: www.cityofhurricane.com/categories/departments/water-irrigation/



2025

JOINT AGENCY REGIONAL WATER CONSERVATION PLAN

WASHINGTON COUNTY WATER CONSERVANCY DISTRICT

Submitted on behalf of Hurricane, Ivins, La Verkin, Santa Clara, St. George, Toquerville, Virgin and Washington

WASHINGTON COUNTY WATER CONSERVANCY DISTRICT

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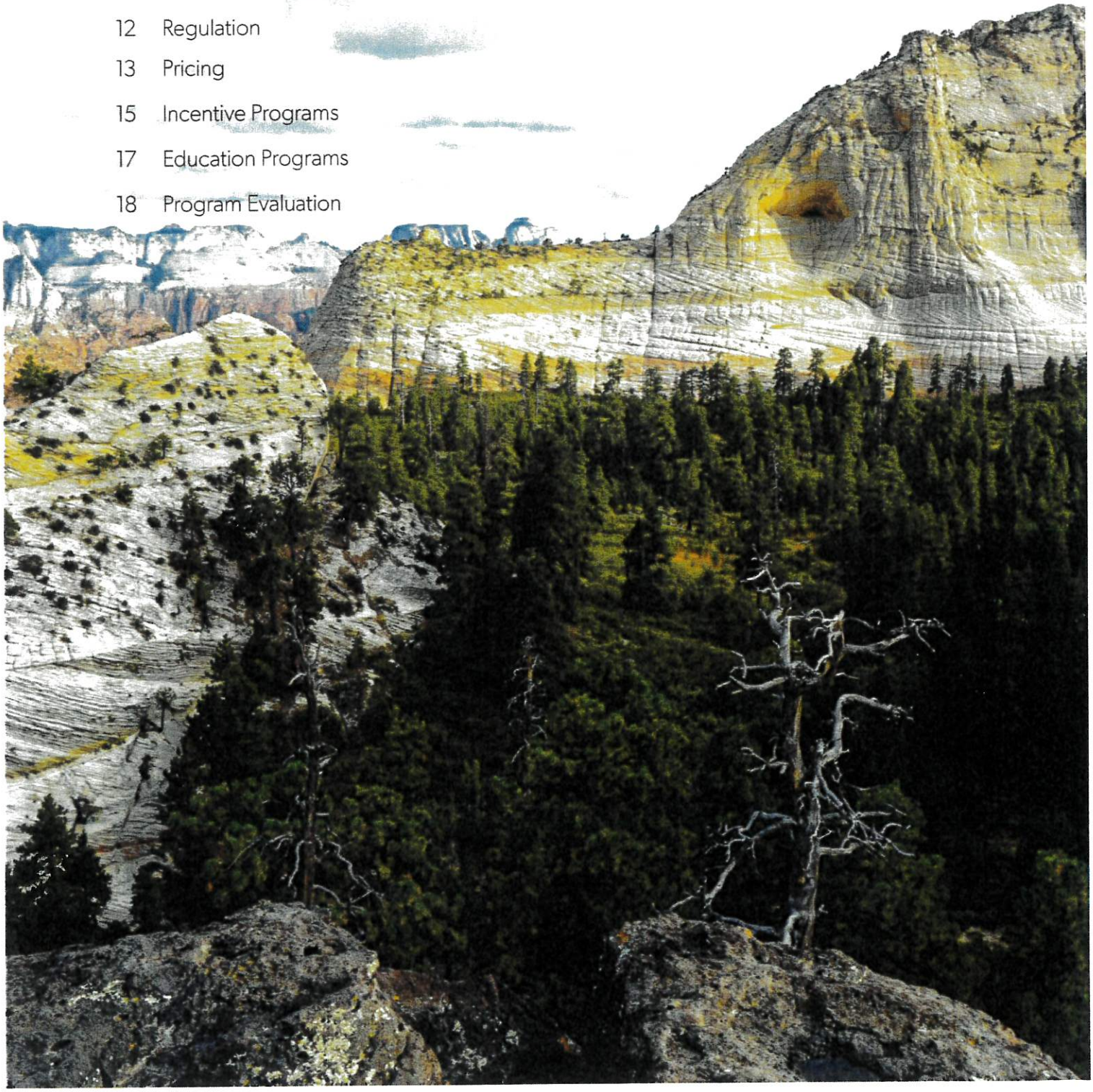


EXECUTIVE SUMMARY

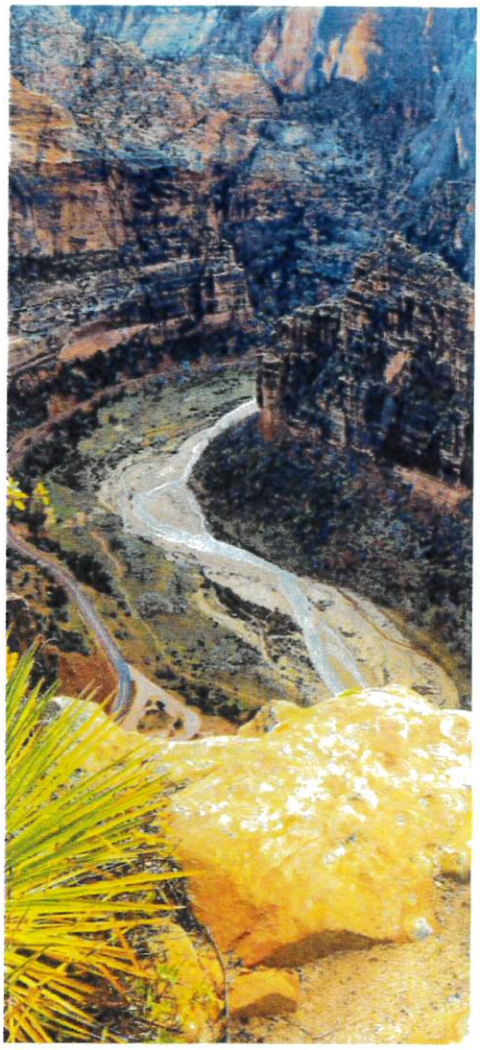
Washington is Utah's most arid county. The region's population is expanding rapidly, and the capacity of the Virgin River watershed to support the growing population and economy is limited without aggressive conservation measures.

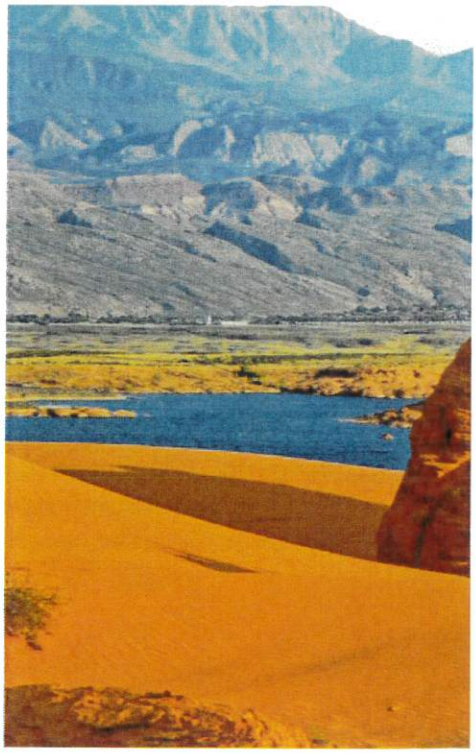
Through the Regional Water Supply Agreement (RWSA), the Washington County Water Conservancy District (district) supplies eight municipalities. The district also operates two retail water systems. This plan applies to all systems within the RWSA as well as to water systems owned and operated by the district.

To meet expanding water needs, the district is developing a regional water reuse system and has implemented robust conservation initiatives. To a lesser extent, the district will develop additional sustainable supplies through groundwater optimization, voluntary conversion of agricultural water resources and expanded infrastructure to capture and store water in periods of abundance.

The district is relying upon four major strategies to reduce per-capita water demand:

- Regulatory requirements
- Retrofit and incentive programs
- Conservation water rate structures
- Education programs





Regulatory Requirements

While each strategy contributes, the most impactful measures are those that ensure all new development is highly efficient. Through a collective effort, the district and its RWSA partners implemented the state's most stringent uniform water efficiency standards for new development. These standards ensure new homes and businesses are designed and equipped to meet the highest efficiency standards in the State of Utah. At the time this report was prepared, Washington is the only conservancy district to achieve full adoption of conservation policies by all municipalities served by the district. These standards have been designed to reduce demand per connection by approximately one-third.

Each community covered by this plan also has a suite of water use regulations. A summary of all regulatory measures can be found in Figure 8.

Retrofit and Incentive Programs

Prior to 2022, the dominant landscape style in the region was irrigated, cool-season lawns. This landscape treatment uses four times as much water as drip irrigated, water wise landscaping. To reduce existing demand, the district collaborates with the State of Utah to provide incentives to transform lawn areas into water efficient landscaping, saving an estimated 43 gallons per square foot per year.

Despite serving just 7 percent of Utah's population, the district's landscape conversion replacement program consistently produces about one-third of Utah's landscape conversions. More than two million square feet of landscaping was retrofitted during 2023 and 2024.

In 2025, the district implemented a program for Ultra-Water-Efficient (UWE) standards. A home built to UWE standards is estimated to use 30 percent less water than homes built to the current water efficiency codes. This is largely achieved by limiting the irrigated area per dwelling and only allowing swimming pools and lawn in common areas.

Conservation Rates

All municipal partners use increasing block tiered rate structures. In addition, all RWSA partners and district service areas implemented a Regional Excess Water Use Surcharge that strengthens pricing signals to customers using excessive amounts of water. These surcharges are in addition to municipal rates and create incentive to reduce demand through both behavioral and structural changes. Two separate surcharge structures are in use; one designed for the lower demands of new homes and businesses, and another for mature, existing homes.

Education

More than 90 percent of the water services subject to this plan are equipped with Automated Metering Infrastructure (AMI) to improve customers' access to water use data, improve their understanding of their demand and swiftly identify customer-side leaks. The remaining services are anticipated to be AMI-equipped during the term of this plan.

In 2023, the district and its municipal partners engaged in the largest unified effort to implement "billing transparency" programs in conjunction with the Utah Division of Water Resources. In conjunction with water billing data, the program provides new avenues for municipalities to efficiently communicate water use messages and data to their customers using modern methods, including text messaging, email and automated telephone calls.

The district and its partners use a variety of mediums to engage the public, including outreach events, classes, printed materials, websites and social media.

The Red Hills Desert Garden is a five-acre garden that provides inspiration and education on the benefits of water efficient landscapes. The garden is the highest-rated and most-visited garden in the State of Utah, hosting more than 150,000 visitors each year.

INTRODUCTION

The Washington County Water Conservancy District (district) is a not-for-profit public agency that manages Washington County's water needs. Through the Regional Water Supply Agreement, the district manages a regional collaborative with the following entities:

- Casa de Oro Water System
- Hurricane City
- Hurricane Valley Water System
- Ivins City
- La Verkin City
- Santa Clara City
- St. George City
- Toquerville City
- Town of Virgin
- Washington City

The St. George metropolitan area is on the northern cusp of the Mojave Desert. With 8.25 inches of average annual precipitation, it is Utah's most arid metropolitan area. The region is wholly reliant upon the Virgin River Basin, which is highly susceptible to drought and climate change influences.

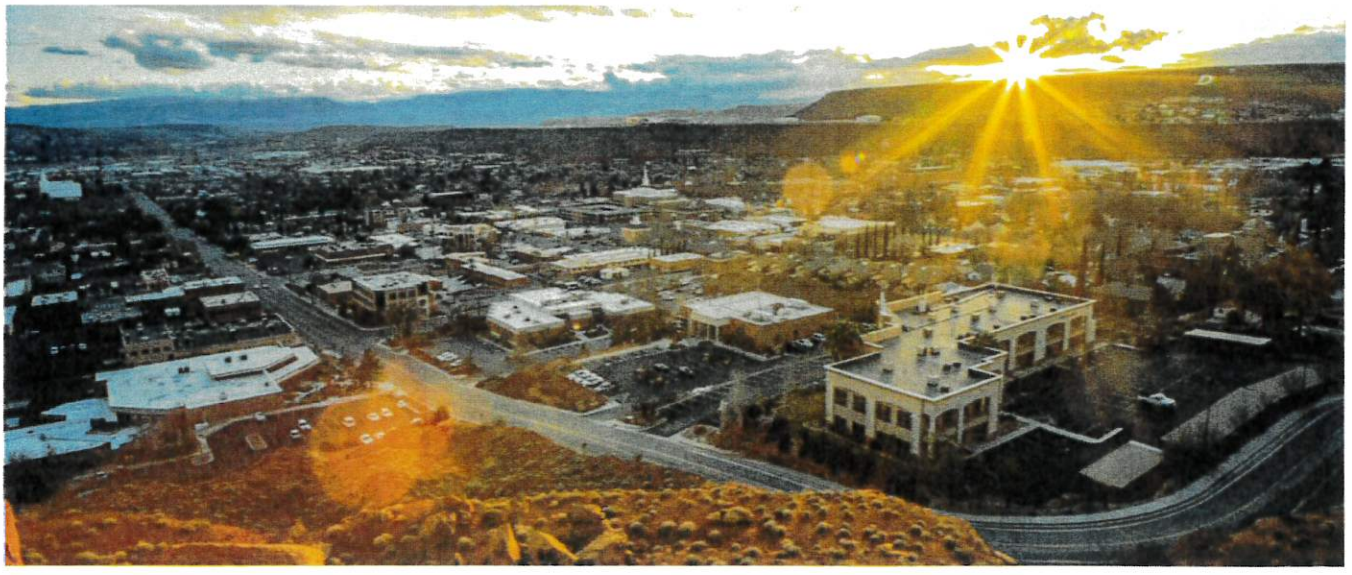
The St. George Metropolitan Statistical Area is one of the fastest-growing urban regions in the United States. According to the Kem C. Gardner (KCG) Policy Institute at the University of Utah, Washington County's population is projected to grow from 214,000 in 2025 to more than 246,000 in 2030. Furthermore, KCG projects that household sizes will trend downward, which could result in demand for more dwelling units per capita, underscoring the need to ensure new development is highly efficient.

Whereas alignment and collaboration are critical to water resource management in the region, the district and its municipal partners have jointly adopted and submitted this conservation plan.

Through collective adoption of a unified plan, the partners ensure consistent messaging and programming. With the consent of the Utah Division of Water Resources, this plan was submitted on behalf of the eight municipalities subscribed to the Regional Water Supply Agreement in lieu of having each municipality create and submit their own plan. A letter documenting the commitment of the district's municipal partners to implement this plan is provided in Appendix A.

"Washington County, Utah's driest and fastest growing region, is leading the state's water conservation initiatives. Securing a safe, reliable water supply to sustain our expanding economy and growing population is a state priority."

Joel Ferry, Executive Director, Utah Department of Natural Resources



The district has a long history of water conservation programming. It is the first in Utah to implement a water conservation plan, meet the former governor's statewide water conservation goal, eliminate traditional "take or pay" municipal water contracts[1] and create a desert demonstration garden.

As the regional wholesale water provider in Washington County, the district manages water resources, builds and operates regional facilities, ensures water meets or exceeds state and federal standards, and coordinates the regional water conservation program.

Despite its breadth of responsibilities, the district does not have authority to regulate water use by end users; set retail water rates; establish and enforce policies, codes or ordinances or manage growth. These responsibilities lie with towns and cities. Where conservation programs overlap these municipal responsibilities, the district works closely among the coalition of agencies to design and adopt effective strategies.

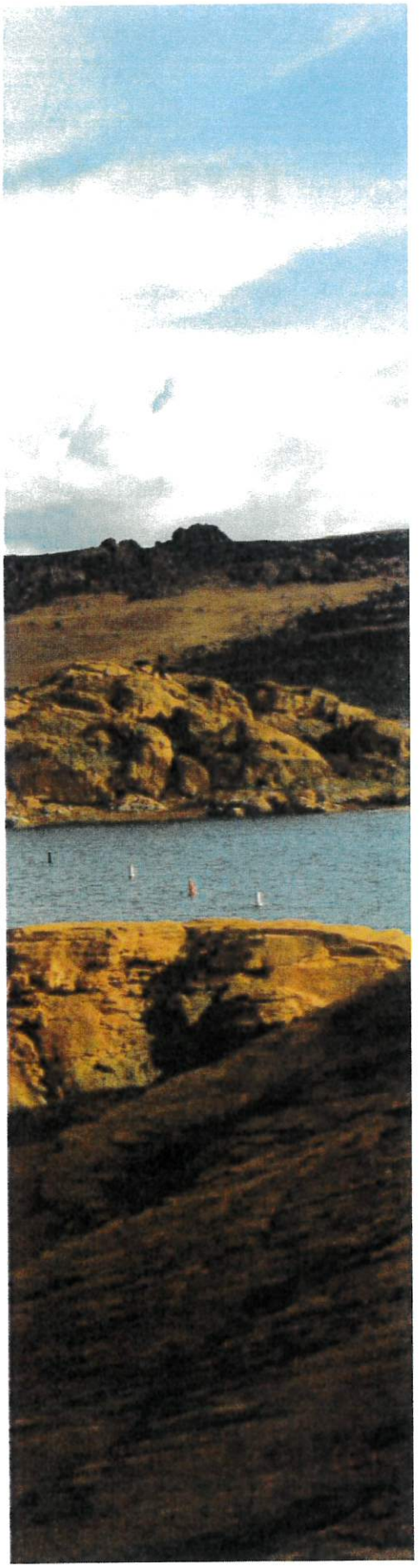
State Requirements

Utah State statute 73-10-32 requires water providers, including water conservancy districts, to submit a water conservation plan to the Utah Division of Water Resources (DWRe) every five years. Upon request to DWRe, the district has been authorized to submit a unified plan on behalf of all municipalities that subscribe to the Regional Water Supply Agreement.

By code, this plan must meet these provisions:

- a clearly stated overall water use reduction goal and an implementation plan for each of the water conservation measures it chooses to use, including a timeline for action and an evaluation process to measure progress;
- a requirement that each water conservancy district and retail water provider devote part of at least one regular meeting every five years of its governing body to a discussion and formal adoption of the water conservation plan, and allow public comment on it;
- 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 conservancy district or retail water provider; and
- a copy of the minutes of the meeting and the notification procedure shall be added as an appendix to the plan.

The district has complied with all statutory requirements in preparing, presenting and distributing this plan. See appendices B and C for documentation.



[1] *Traditional "take or pay" contracts require municipalities to pay for contracted water even if there is no demand for it. Charging municipalities only for water delivered promotes conservation.*

WATER RESOURCE OVERVIEW

Washington County's cities are wholly dependent upon water from the Virgin River Basin. Use of this resource is summarized in Appendix D. Current water supplies come from a combination of groundwater (springs and wells) and surface water (rivers). The reliable yield of these sources is available in Appendix E.

Because most of the available water in the county has been developed, the eight municipalities are dependent upon the district for future water supplies to support expanding economies and populations. Future water supplies will primarily be provided by regional water projects and conservation programs.

Development and management of the region's resources are described in the district's 20-Year Plan to Secure New Water Supplies for Washington County, Utah ("20-year plan"). This document guides development of water supply and infrastructure for the period of 2023 through 2042.

The most significant new resource in the plan is the development of a reuse system projected to recover almost 25,000 acre-feet of water for both potable and non-potable uses. Second only to reuse, the 20-year plan calls for water conservation to reduce demands by 11,400 acre-feet.

Figure 2 shows the quantity and sources of supply needed to meet new demands in accordance with the 20-year plan. Because development of reuse water requires substantial permitting and infrastructure development, reuse supplies are not expected to meaningfully bolster supply until 2030 and beyond. Thus, during the five-year period of this conservation plan, water conservation will be a primary strategy for meeting the needs of our rapidly growing community.

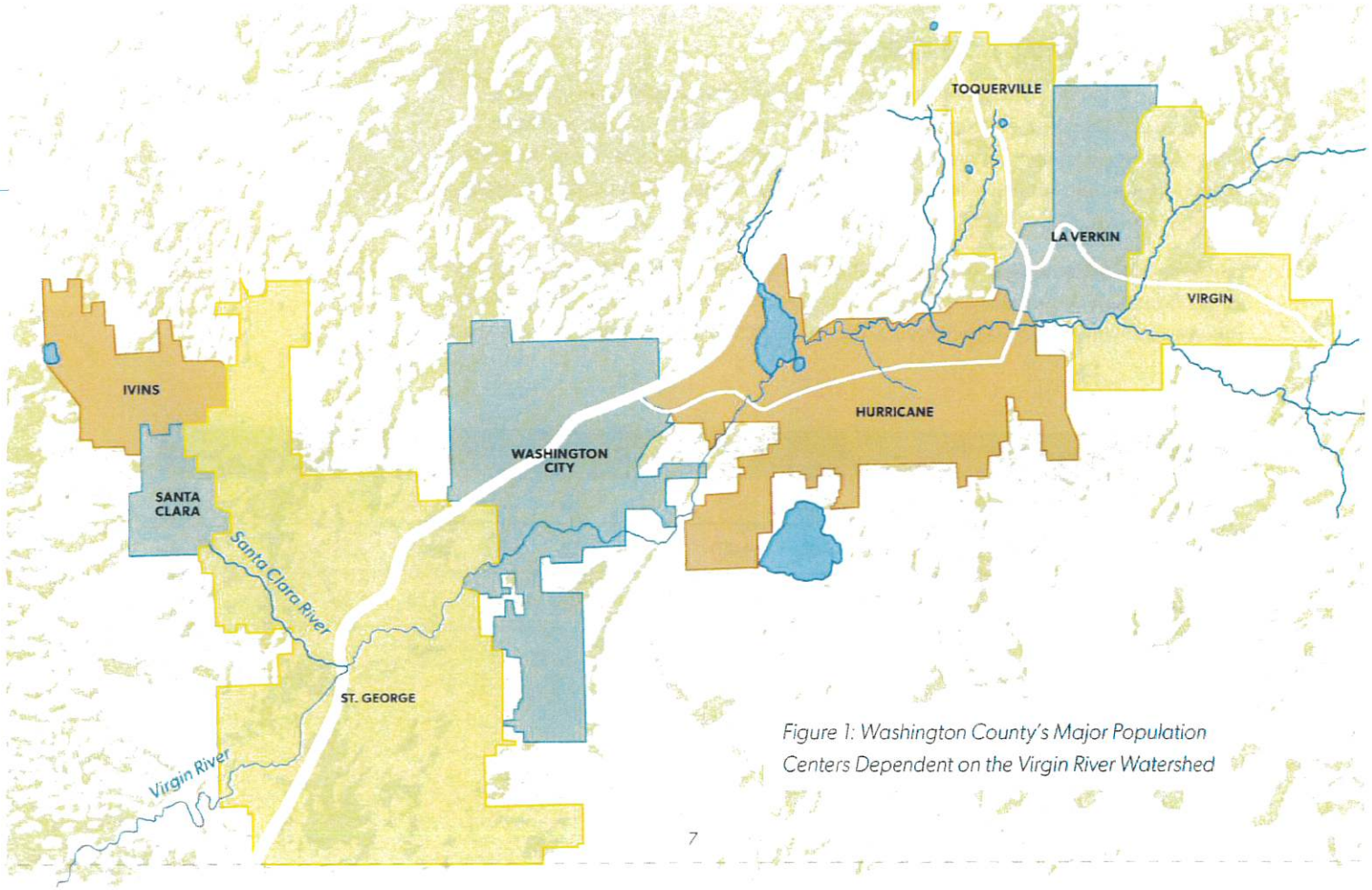
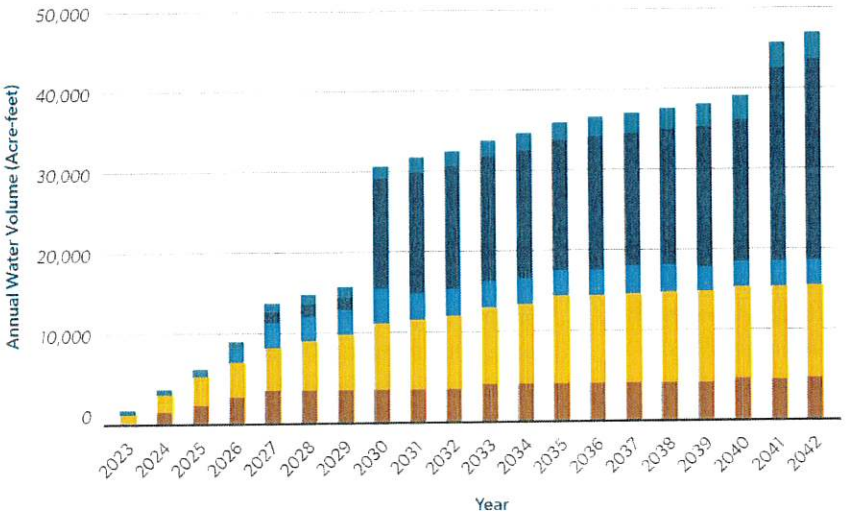


Figure 1: Washington County's Major Population Centers Dependent on the Virgin River Watershed

20-Year Water Supply Plan



New Water Supplies	Estimated Annual Yeild (AFY)
Water Reuse	24,716
Conservation	11,421
New Potable Water Projects	4,787
Groundwater Optimization	3,000
Agriculatural Conversion	3,216
Total New Water	**47,141**
Total Volume Required for 20-Year Growth	**42,746**

Figure 2

Demand Characteristics

Washington County's climate and relatively limited watershed amplify the weather's influence on both supply and demand. For example, precipitation is most abundant when evapotranspiration is lowest, which allows irrigation to largely be suspended from December through February. However, weather patterns are characterized by dry spells that may span from April into July, when evapotranspiration rates are highest.

These climatic patterns mean the region is highly dependent upon snowpack within the Virgin River Basin, which allows the region to fill reservoirs with winter and spring runoff, then rely upon the stored water to meet urban and agricultural needs through peak season.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOT
Precip	1.07	1.02	0.93	0.53	0.39	0.19	0.67	0.76	0.6	0.68	0.64	0.77	8.25
ETo	1.6	2.2	3.92	5.23	7.06	8.47	8.69	7.72	5.83	3.82	2.13	1.37	58.04
Deficit	-0.53	-1.18	-2.99	-4.7	-6.67	-8.28	-8.02	-6.96	-5.23	-3.14	-1.49	-0.6	-49.8

Figure 3

Although demand may vary each year, about 70% of the total urban water supply is consumptively used. Among consumptive uses, landscape irrigation dominates. Lesser consumptive demands include system losses, evaporative cooling and evaporation from water bodies, such as fountains and pools.

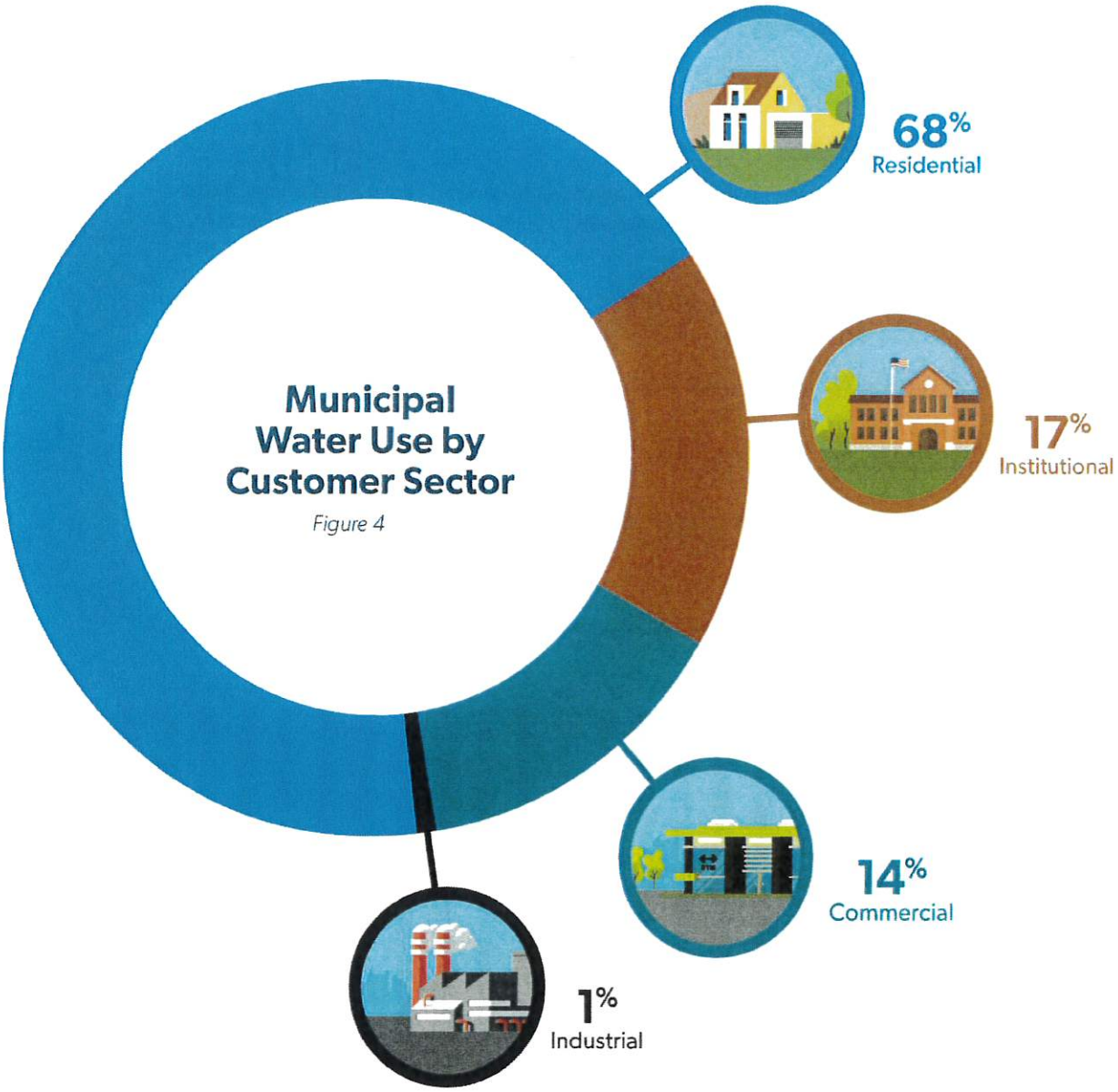


Figure 4

WATER CONSERVATION GOAL AND PROGRAMS

Conservation Goal

The district's 20-year plan projects conservation will reduce water demand of properties connected to the system prior to 2023 by 11,400 acre-feet between 2022 and 2042. This represents a reduction of 18 percent from pre-2022 demand.

During the five-year period covered by this plan (2025-2029), the district aims to achieve approximately 5,200 acre-feet of water use reductions on pre-2023 properties; a reduction of 7.7 percent.

Figure 5 illustrates projected progress timeline for achieving the conservation goals.

Projected Conservation

Figure 5

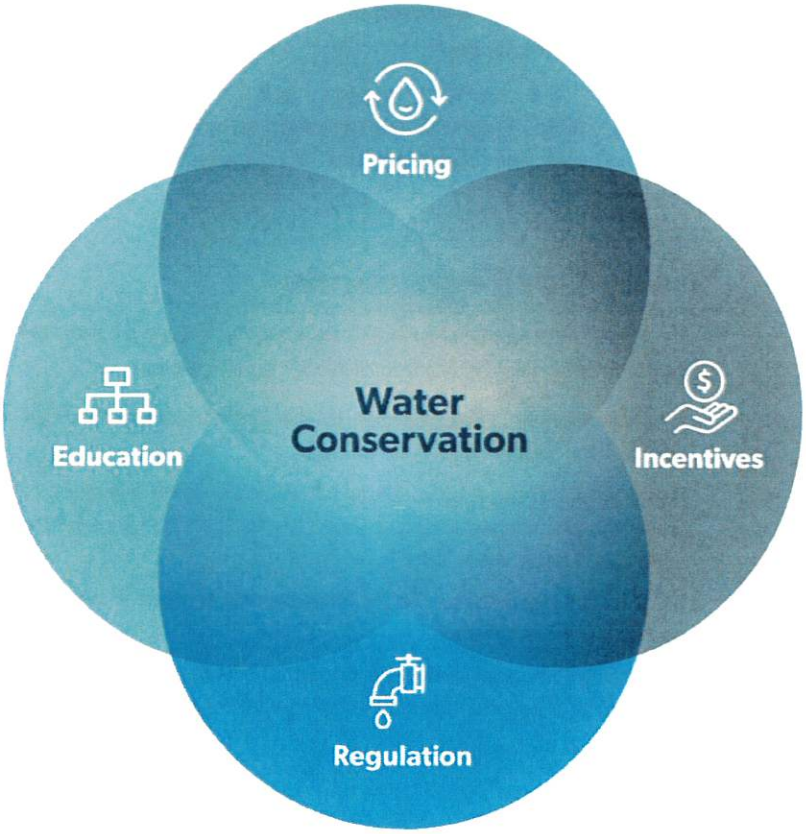
Program Strategies

The four pillars of successful conservation programs are **regulation, pricing, incentives,** and **education.**

Each of these arenas may produce synergy with the others. For example, a customer who incurs excess use surcharges may seek education or incentive programs to decrease their use.

The most powerful of these strategies are pricing and regulation, both of which are largely outside the authority of the district and can only be implemented through consent and action of municipalities. The district, in concert with the municipalities, implements education, outreach and incentive programs.

An additional measure, often outside the realm of traditional conservation programs, is management of non-revenue water. There are two classes of non-revenue water loss: apparent losses and real losses. Apparent losses involve water taken from the system for beneficial use but not metered and billed. Apparent loss can result from unauthorized connections or under-registering meters, for example. Real water losses are most commonly leaks where water is lost from treatment, storage and delivery infrastructure. While real losses are considered most relevant to managing water resources, both types of loss are relevant to water efficiency. For example, apparent losses are disconnected from rate signals, thus the end user is less likely to manage water effectively to reduce their costs.



REGULATION

Modifying community water demand requires social and behavioral change along with alterations to the built environment. While existing developed property may become subject to more stringent water use expectations through water use policy, it is also vital to ensure that newly developed properties are designed and equipped for long-term water efficiency.

Development Standards

The Washington County Water Conservancy District is the only Utah district to achieve unity among its participating municipalities in the adoption of uniform water efficiency standards. These standards, which were originally adopted in 2022 and strengthened in 2023, include the following measures:

- WaterSense plumbing fixtures
- Residential hot water recirculation
- Prohibition on non-functional lawn in all non-residential development
- Limitation on residential lawn area
- Irrigation system design minimum requirements
- WaterSense irrigation controller
- Mulch on planting beds
- Ornamental water feature limitations
- Car wash efficiency standards
- Golf course water efficiency plans
- Prohibition on master metering separate parcels
- Separate meter required on non-residential landscape over 5,000 square feet

In addition to the uniform regional standards, some communities have implemented additional conservation measures. These measures are included in Figure 8.

Water Use Regulations

A comprehensive table of regulatory measures is in Figure 8. All customer types are subject to the following policies in all RWSA municipalities:

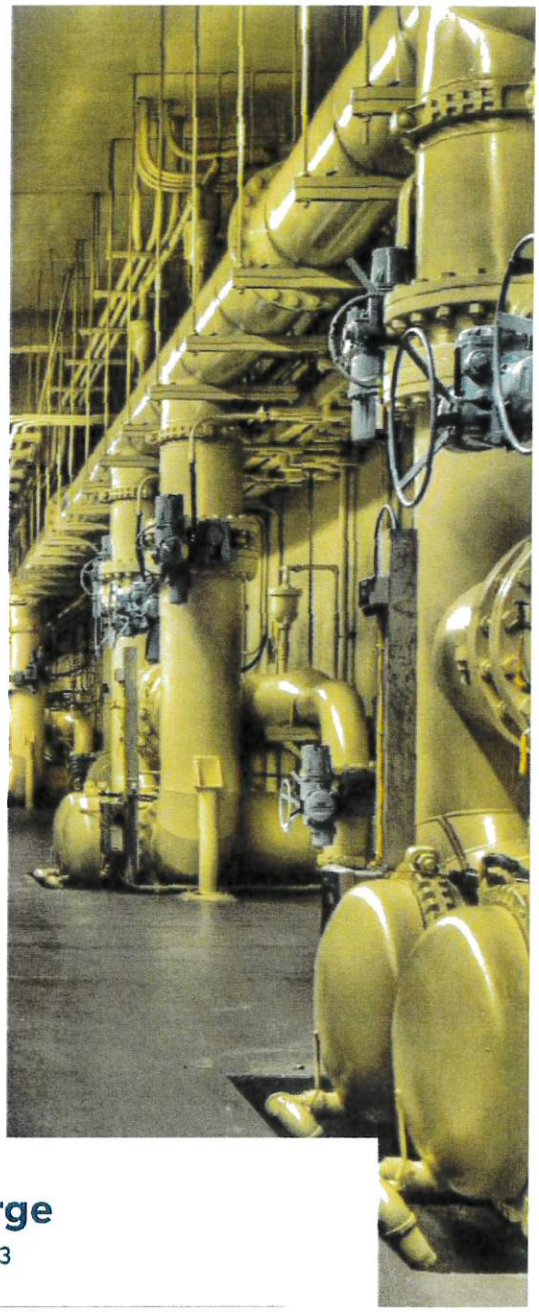
- Prohibition on the waste of water—All jurisdictions have ordinances or water service policies that prohibit the waste of water.
- Requirement to connect to water and sewer systems—This measure provides greater opportunity to manage regional water demand and ensures greater production for the regional water reuse system.
- Mist system regulations—Mist systems are only allowed to be operated in certain seasons and conditions.
- Requirement to repair leaks—All jurisdictions have policies allowing penalties or termination of water service for failure to address significant, known leaks.

WATER PRICING

Because the district's municipal partners are not-for-profit public utilities, they collect revenue only to meet the expense of operations and infrastructure. The municipalities' costs vary based upon their infrastructure, labor costs, debt service expenses and other factors. Furthermore, each municipality is governed by its own board of elected officials, which has the responsibility for adopting rate structures that produce the necessary revenue, provide affordable water for low and moderate users, and send pricing signals to heavy water users to encourage conservation.

All municipal partners use an increasing block tiered rate structure to achieve these objectives, but the tiers and rates may vary by city. See Appendix F to view the 2025 water rate structure of the district's municipal partners.

Effective January 1, 2019, the district and its municipal partners implemented a uniform excess use surcharge for all accounts that established a surcharge threshold for each meter size. For the most common meter, ¾ inch, any water use in excess of 36,000 gallons is charged an additional $1.00 per thousand gallons (Kgal). Revenue collected from this surcharge is used for regional conservation programs. Because the threshold applies in all months, surcharges are predominantly assessed during peak summer irrigation demand. An example of how the surcharge may affect a heavy water user is illustrated in Figure 6.



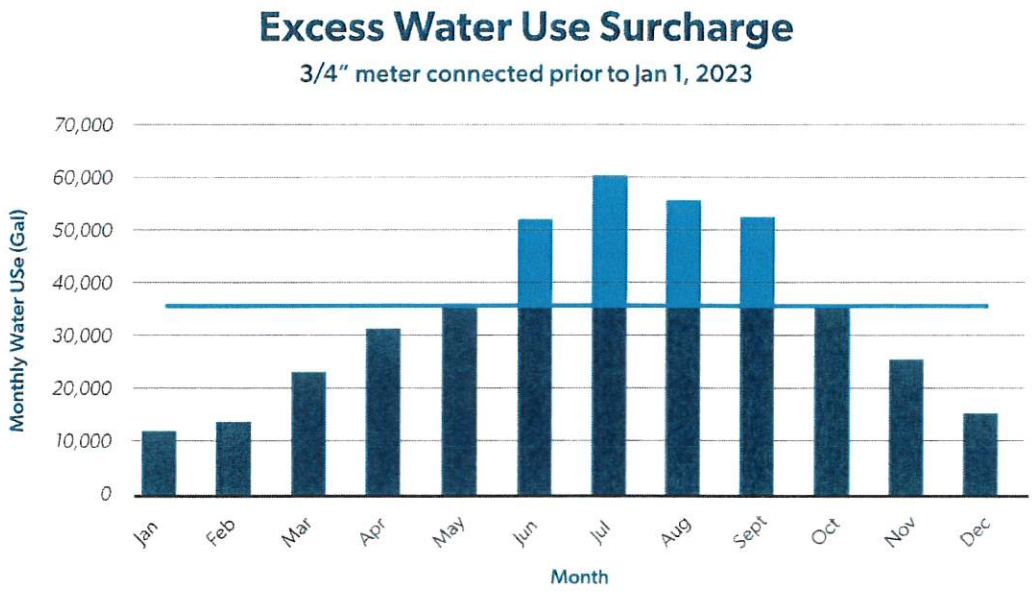


Figure 6

In 2022, RWSA members implemented stringent development standards for new construction. The new homes were projected to use an average of 33 percent less water than existing housing inventory. To ensure new homes meet that potential, the district imposed a unique surcharge structure for facilities connecting to the water system on or after January 1, 2023. These properties are subject to a seasonal surcharge threshold, wherein the threshold is raised and lowered in accordance with historic weather patterns. The surcharge for exceeding the threshold in any month is $10 per 1,000 gallons (kgal), which is among the most impactful conservation pricing signals in the nation. The seasonal surcharge for new development is illustrated in Figure 7.

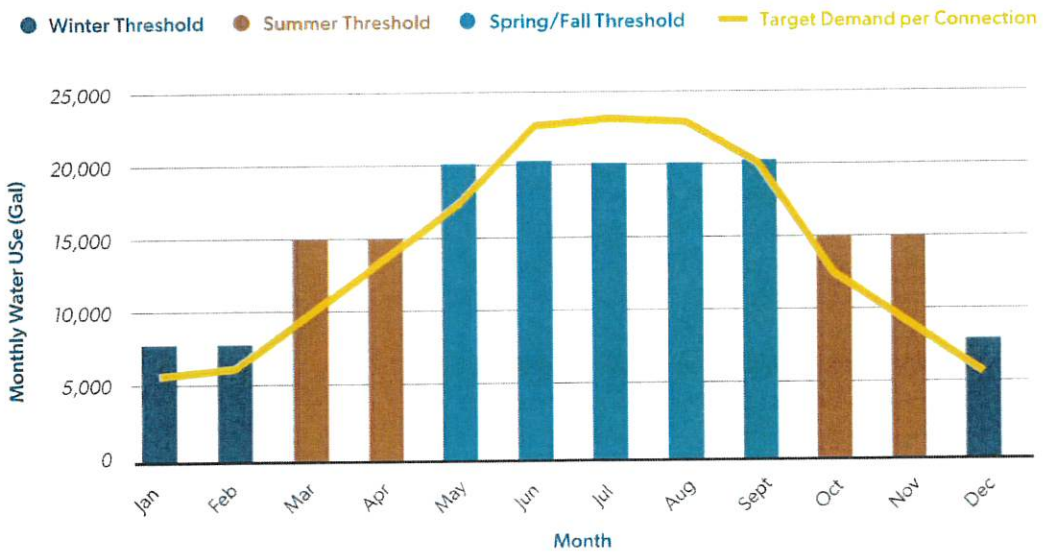


Figure 7

Additional rate increases are anticipated to occur during the five-year plan period, largely as a result of implementing expanded resource and infrastructure initiatives. While it is not possible to predict how future costs will be reflected in rates, municipalities will be encouraged to sustain and strengthen conservation rate structures.

INCENTIVE PROGRAMS

Through uniform, regional adoption of water efficiency standards for new development, the region has effectively limited the number of properties eligible for retrofit incentives. This ensures resources can be focused upon properties constructed prior to 2023.

The following programs are available to provide financial assistance to property owners throughout the region.

Water Efficient Landscapes Program

This program pays applicants $2.00 per square foot for converting irrigated lawns to water efficient landscape. The Utah Department of Natural Resources estimates these conversions save 43 gallons per square foot per year.

Despite comprising just seven percent of Utah's population, Washington County is the state leader accounting for more than one-third of conversions statewide.

As of the close of 2024, the program has incentivized conversion of more than two million square feet of landscape. These conversions are estimated to save almost 100 million gallons annually.

Smart Irrigation Controller Rebates

Weather-based irrigation controllers, commonly called "smart controllers," are rebated through a program funded by the state. Information about the program can be found at SlowTheFlow.org. The district promotes the program and conducts administrative support to ensure applicants qualify for the program. Smart controllers have tremendous potential in the region because they are able to make automatic program changes based upon real-time weather and suspend irrigation during rainfall events.

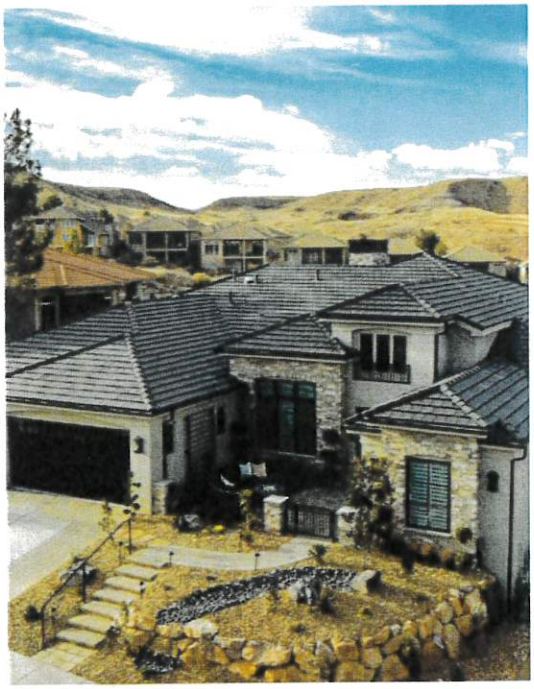
More than 20 percent of Washington County's dwelling units are so-called "secondary residences," where the owners only occupy the home seasonally. Smart irrigation controllers have great potential to improve irrigation efficiency for properties with absentee owners.

High Efficiency Toilet Rebates

Homes with 1.6 gallon per flush (gpf) toilets are eligible for replacement rebates to install 1.28 gpf WaterSense certified fixtures through a program funded by the state. Information about the program can be found at SlowTheFlow.org. The district promotes the program and provides administrative support to ensure applicants are qualified. By replacing older toilets with modern, water efficient fixtures, a home may conserve more than 12,000 gallons annually.

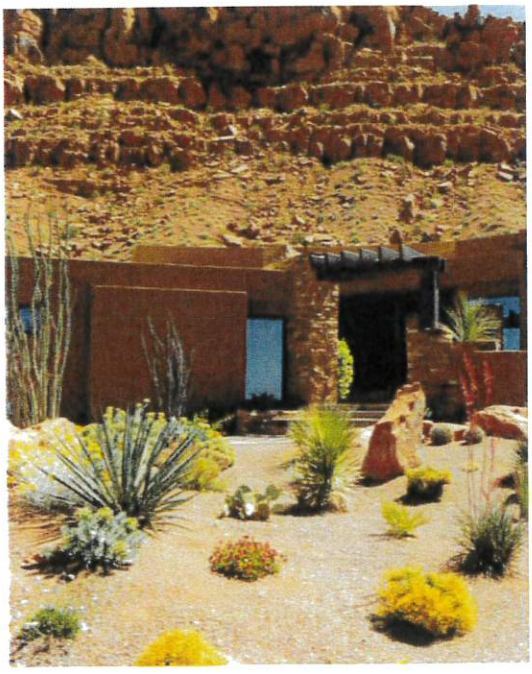
Public Agency Water Efficiency Rebate

In 2024, the district created a program to reinvest excess use surcharge revenue into the communities that implemented surcharges. Any publicly funded agency may submit water conservation proposals to the district for consideration. The program pays $50 per 1,000 gallons of reduction in annual water use ($16,300 per acre-foot), not to exceed 50 percent of the project costs. Subsidized projects must have a lifespan of not less than 10 years.



Ultra-Water-Efficient (UWE) Development

In concert with the Southern Utah Homebuilders Association, the district developed a voluntary standard for ultra-water efficient development. Homes built to the UWE standards are anticipated to require just 0.39 acre-feet of water resources annually. Because the lower water demand will result in reduced impact fees, the district anticipates substantial program growth in 2026.



EDUCATION PROGRAMS

Education programs are primarily delivered at a regional level through the district's conservation department. Citizens from throughout the region receive messaging and are eligible for educational services.

Red Hills Desert Garden

Located adjacent to the district's offices, Red Hills Desert Garden uses passive and active educational programming to advance water efficient landscape and irrigation practices. The five-acre garden typically hosts more than 150,000 visitors annually, making it the most-visited educational garden in the State of Utah, and the highest-rated attraction in the St. George metropolitan area. The garden is open 365 days per year.

The garden also hosts interpretive tours for school classes and other organized groups. The garden hosts many special and seasonal events to increase engagement.

Trainings and Seminars

The district hosts more than 40 free classes annually on topics such as succulents, landscape conversion, tree selection and care, and other topics relevant to water efficient landscaping.

General Community Outreach

The district and the municipalities conduct ongoing community engagement through messaging. Initiatives include social media posts, e-newsletters, water bill inserts, and community events.

These programs incorporate all the best management practices suggested by the Utah Division of Water Resources.[2]

[2] *https://conservewater.utah.gov/wp-content/uploads/2021/04/Best-Management-Practices.pdf*

Program Evaluation Process

A systematic evaluation process is critical to assessing the effectiveness of the program's conservation strategies and progress toward the regional goal. The district and its municipal partners (the program partners) will use their existing contractual relationship under the Regional Water Supply Agreement to facilitate the evaluation process, which includes regular meetings of a technical advisory committee comprised of water officials from each partner municipality.

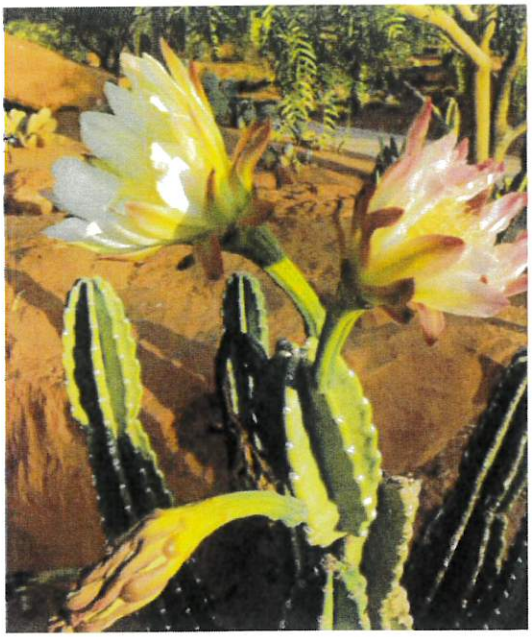
Some of the conservation measures lend themselves to quantitative analysis and some are more subjective. For conservation measures with well-defined independent variables, the program partners will conduct an evaluation at least once during the term of this plan. For example, after new homes have been afforded adequate time to have established landscape, the partners will evaluate the water use characteristics of new homes and compare them to older homes of similar scale. The partners will also conduct pre-post evaluation of landscape conversion programs, or the change in landscape water use at properties that have adopted smart controllers.

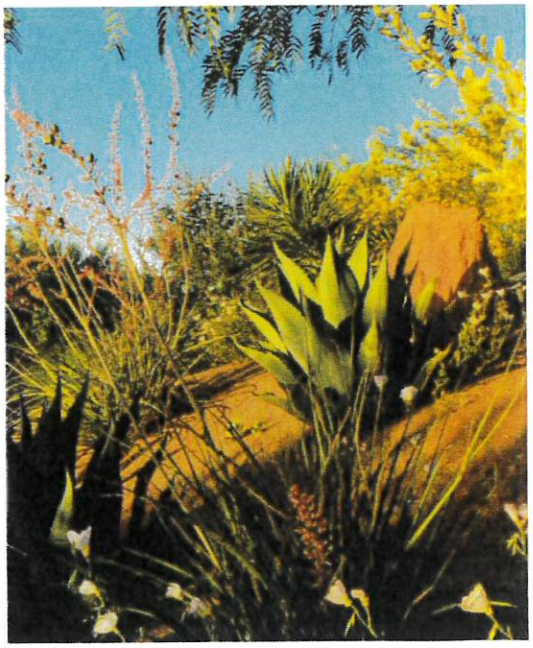
The program partners will conduct the following evaluations within the planning period:

- Demand characteristics of pre-2023 connections
- Demand characteristics of post-2023 connections
- Demand reduction of Water Efficient Landscape Program participants
- Demand characteristics of smart controller adopters

Not all conservation efforts can be evaluated with empirical evidence. For example, it is difficult to measure how many gallons of water are saved because someone visited a garden. Just the same, these engagements are known to influence community members to embrace conservation efforts.

Looking more holistically, the district and the program partners will review the overall impact of the collective conservation program on the community-wide changes in water use on an annual basis.





Conservation Measures

	HURRICANE	IVINS	LA VERKIN	SANTA CLARA	ST. GEORGE	TOQUERVILLE	VIRGIN	WASHINGTON
REGULATORY MEASURES - DEVELOPMENT								
WaterSense Plumbing Fixtures Required	✓	✓	✓	✓	✓	✓	✓	✓
Residential Hot Water Recirculation	✓	✓	✓	✓	✓	✓	✓	✓
Limitation on Residential Lawn Area	✓	✓	✓	✓	✓	✓	✓	✓
Prohibition on non-residential, non-functional lawn areas	✓	✓	✓	✓	✓	✓	✓	✓
Irrigation system design minimum requirements	✓	✓	✓	✓	✓	✓	✓	✓
WaterSense Irrigation Controller Required	✓	✓	✓	✓	✓	✓	✓	✓
Mulch required on planting beds	✓	✓	✓	✓	✓	✓	✓	✓
Ornamental Water Feature Limitations	✓	✓	✓	✓	✓	✓	✓	✓
Car Wash Efficiency Standards	✓	✓	✓	✓	✓	✓	✓	✓
Golf Course water efficiency plans	✓	✓	✓	✓	✓	✓	✓	✓
Municipal water prohibited for irrigation of new golf courses	✓				✓		✓	
Prohibition on master metering separate parcels	✓	✓	✓	✓	✓	✓	✓	✓
Separate meter required on large landscape	✓	✓	✓	✓	✓	✓	✓	✓
Swimming pool size limitations		✓						
REGULATORY MEASURES - WATER USE								
Water waste prohibition	✓	✓	✓	✓	✓	✓	✓	✓
Mist system regulations	✓	✓	✓	✓	✓	✓	✓	✓
Prohibition on HOA requiring lawn grass (2)	✓	✓	✓	✓	✓	✓	✓	✓
Requirement to connect to municipal water & Sewer	✓	✓	✓	✓	✓	✓	✓	✓
Requirement to repair leaks	✓	✓	✓	✓	✓	✓	✓	✓
PRICE SIGNALS								
Increasing block tiered water rates	✓	✓	✓	✓	✓	✓	✓	✓
Excess Use Surcharges	✓	✓	✓	✓	✓	✓	✓	✓
INCENTIVE PROGRAMS								
Lawn Replacement Payments	✓	✓	✓	✓	✓	✓	✓	✓
Toilet Retrofit Rebate	✓	✓	✓	✓	✓	✓	✓	✓
Smart Irrigation Controller	✓	✓	✓	✓	✓	✓	✓	✓
Public Agency Water Efficiency Rebate	✓	✓	✓	✓	✓	✓	✓	✓
EDUCATION PROGRAMS								
Transparent Water Billing Program	✓	✓	✓	✓	✓	✓		✓
AMI - Automated Metering Infrastructure	✓	PENDING	✓	✓	✓	✓		✓
Access to Community Demonstration Gardens	✓	✓	✓	✓	✓	✓	✓	✓
Seasonal Watering Schedules	✓	✓	✓	✓	✓	✓	✓	✓
RELATED EFFORTS								
Non-Revenue Water Management Programs	✓	✓	✓	✓	✓	✓	✓	✓

Figure 8

Appendix A:

Municipal Commitment to Implement the Joint Agency Water Conservation Plan

June 5, 2025

Utah Division of Water Resources
1594 W North Temple #310
Salt Lake City, UT 84116

Subject: Statement of support and commitment to implement the Washington County Water Conservancy District's Joint Agency Regional Water Conservation Plan

Director Hasenyager,

We formally express our collective commitment to the adoption and implementation of the Washington County Water Conservancy District's Joint Agency Regional Water Conservation Plan and acknowledge the updated five-year compliance date.

As elected officials representing rapidly growing communities in the most arid region of the state, we recognize the urgent need to safeguard and efficiently manage our water resources. Having a joint agency plan offers several key benefits, including:

1. Improved public understanding with clear and consistent messaging
2. Simplified report development, data collection, analysis, tracking and enforcement
3. Enhanced equity for all municipal customers of the district

We appreciate the Division of Water Resources and share your commitment to be wise stewards of Utah's water supply.

Sincerely,

Michele Randall
St George City Mayor

Chris Hart
Ivins City Mayor

Kress Staheli
Washington City Mayor

Nanette Billings
Hurricane City Mayor

Rick Rosenberg
Santa Clara City Mayor

Kelly Wilson
La Verkin City Mayor

Justin Sip
Toquerville City Mayor

Jean Krause
Virgin City Mayor

Appendix B:

Notification Procedure

- » Letter transmitting Conservation Plan to media representatives
- » Letter transmitting Conservation Plan to governing bodies of each municipality and county served
- » Copies of notices of public meetings

Washington County Water Conservancy District
Hurricane City
Ivins City
La Verkin City
Santa Clara City
St. George City
Toquerville City
Washington City
Virgin Town

Appendix C:

Minutes of the Washington County Water Conservancy District Board of Trustees Meeting in which the 2025 Water Conservation Plan Was Adopted

Washington County Water Conservancy District

» Resolution Adopting Regional Conservation Plan Minutes

Hurricane City

» Resolution Adopting Regional Conservation Plan Minutes

Ivins City

» Resolution Adopting Regional Conservation Plan Minutes

La Verkin City

» Resolution Adopting Regional Conservation Plan Minutes

Santa Clara City

» Resolution Adopting Regional Conservation Plan Minutes

St. George City

» Resolution Adopting Regional Conservation Plan Minutes

Toquerville City

» Resolution Adopting Regional Conservation Plan Minutes

Washington City

» Resolution Adopting Regional Conservation Plan Minutes

Virgin Town

» Resolution Adopting Regional Conservation Plan Minutes

Sample Resolution Adopting Joint Agency Regional Conservation Plan

Whereas Utah's Water Conservation Act (Utah Code 73-10-32) requires [Municipality] to adopt and file a water conservation plan with the Utah Division of Water Resources (Division); and

Whereas [Municipality] is a participant in the Regional Water Supply Agreement and collaborates with the Washington County Water Conservancy District and other partner municipalities (the program partners) to ensure that adequate supplies of water are available for future needs; and

Whereas [Municipality] and the program partners have developed a Joint Agency Water Conservation Plan (the Regional Conservation Plan) to meet the requirements of the Water Conservation Act; and

Whereas, the Regional Conservation Plan contains a regional conservation goal, a timeline for action, and an evaluation process for assessing progress toward the conservation goal;

NOW THEREFORE, be it resolved that:

[Municipality] hereby adopts the Joint Agency Regional Water Conservation Plan.

Dated this _____ day of _____, 2025.

By:

_____

Mayor

Appendix D:

Potable and Secondary Water Uses by Agency

Potable Water

2024	Population served	Total ERC	City Production	Wholesale Purchases	Total All Sources	Total Retail Sales	Wholesale Sales	Net Potable Sources	Non-Revenue Water	Source Water AF per ERC	Peak Day Demand
Hurricane City	26,105	12466.52	5,515.78	1987.16	7,503	5799.16	245.62	7257.38	19.43%	0.58	22.64
Ivins City	9,910	5467.00	0	2370.00	2370	2037.00	7.84	2362.16	13.71%	0.43	12.43
La Verkin	4,805	2199.00	611	177.88	788.88	659.90	0.00	788.88	16.35%	0.36	3.62
Saint George City	112,800	42904.54	13,748.42	19937.51	33685.94	26666.92	3332.89	30353.05	10.94%	0.71	148.6
Santa Clara City	9,265	4034.08	1,732.64	637.86	2,370.50	1755.39	51.49	2319.01	23.78%	0.57	10.84
Toquerville City	2,633	910.53	277.27	15.18	292.45	253.17	9.15	283.30	10.30%	0.31	1.5
Virgin Town	734	537.44	0	276.46	276.46	239.05	0.00	276.46	13.53%	0.51	1.15
Washington City	45865	19998.51	3,792.59	5,725.26	9,517.85	8835.62	0.00	9517.85	7.17%	0.48	44.65
Total	212,117	88,518	25,678	31,127	56,805	46,246	3,647	53,158	N/A	0.495	NA

Secondary Water

2024	Secondary Water City	Secondary Water Purchases	Secondary Wholesale Sales	Net Secondary Water	Percent non-Agricultural	M&I Secondary
Hurricane City	-	2,590.63	-	2,590.63	0.86	2227.94
Ivins City	-	-	-	-	-	0.00
La Verkin	1,935.00	-	-	1,935.00	0.79	1528.65
Saint George City	646.77	5,922.93	1,977.04	4,592.66	0.99	4536.63
Santa Clara City	-	293.25	-	293.25	1.00	293.25
Toquerville City		1,922.52		1,922.52	0.40	769.01
Virgin Town	-	-	-	-	-	0.00
Washington City	2,124.34	465.63	-	2,589.97	1.00	2589.97
Total	4,706	11,195	1,977	13,924	NA	11,945.45

Secondary water from TSWS system owned by WCWCD

Values as reported to the State of Utah for 2024. https://waterrights.utah.gov/asp_apps/generalWaterUse/WaterUseList.asp

Appendix E:

Reliable Yield of Potable and Secondar Water Sources by Agency

Reliable Annual Yields from District Potable Water Supplies

District Potable Supply	Source Yield Scenario		
	Baseline Reliable Yield (AF)	50th Percentile Yield (AF)	10th Percentile Yield (AF)
Quail Creek/Sand Hollow	27,400	24,920	7,000
Crystal Creek	2,000	1,819	510.9
Sand Hollow Natural Recharge/Recharge and Recovery	7,800	7,256	3,235
Toquerville Springs	1,640	1,590.8	1,180.8
Cottam Well Field	85	82.5	61.2
Total	38,925	35,668.1	11,987.8

Reliable Annual Yields from RWSA Partners' Potable Water Supplies

St. George City Potable Water Supply	Source Yield Scenario		
	Baseline Reliable Annual Yield (AF)	50th Percentile Annual Yield (AF)	10th Percentile Annual Yield (AF)
Mountain Springs	1,230.0	1,230.0	885.6
City Creek Wells, Millcreek Wells, Ledges Wells, Tolman Wells	3,716.0	3,716.0	3,344.5
Gunlock Wells	9,811.0	9,811.0	8,830.0
Snow Canyon Wells	1,152.0	1,152.0	1,036.8
West City Springs	564.0	547.1	406.1
Subtotal	16,473.0	16,456.1	14,503.0
Washington City Potable Water Supplies			
Well #2, Well #3, Well #4, Well #5, Well #6, Grapevine Well #1, Grapevine Well #2	2,666.0	2,585.6	1,919.2
Subtotal	2,666.0	2,585.6	1,919.2
Hurricane City Potable Water Supplies			
Stratton Well #1, Stratton Well #2, West Well	2,100.0	2,100.0[3]	1,512.0
Toquerville Springs & Ash Creek Springs	1,420.4	1,378.0	1,023.0
Subtotal	3,520.4	3,478.0	2,535.0
Ivins City Potable Water Supplies			
Snow Canyon Wells (Snow Canyon Compact)	392.6	380.8	282.6
Gunlock Well Agreement with St. George	614	614	552.6
Subtotal	1,006.6	994.8	835.2
Santa Clara City Potable Water Supplies			
Snow Canyon Wells (Snow Canyon Compact)	1,071.5	1,039.3	771.5
Snow Canyon Wells (Well #6 and #7)	1,479.1	1,434.7	1,065.0
Sheep Spring, Miller Spring, Beecham Spring, Gray Springs	95.2	92.3	68.5
Subtotal	2,645.8	2,566.3	1,905.0
La Verkin City Potable Water Source			
Ash Creek Springs & Upper Ash Creek Springs	473.4	459.1	340.8
Toquerville Springs	241.1	233.8	173.6
Subtotal	714.5	692.9	514.4
Toquerville City Potable Water Supplies			
Toquerville Springs	538.8	522.6	387.9
Ash Creek	18.6	18	13.4
Subtotal	557.4	540.6	401.3
TOTAL	27,583.7	27,314.3	22,613.1

Data in appendix E were derived from the district's January 2023 master plan. For details on methodology, please visit: https://www.wcwcd.gov/wp-content/uploads/2025/07/2023masterplanpublic.pdf

Reliable Annual Yield of District Secondary Irrigation Supplies

District Secondary Irrigation Supply	Source Yield Scenario		
	Baseline Reliable Yield (AF)	50th Percentile Yield (AF)	10th Percentile Yield (AF)
Ence Wells	370.0	359.0	266.0
Toquerville Springs[1]	678.0	632.0	487.0
Total	1,048.0	991.0	753.0

[1]Represents the value available for M&I secondary demand, excluding water used for agriculture or potable use.

Reliable Annual Yield of RWSA Partner Secondary Irrigation Supplies

St. George City Secondary Irrigation Supplies	Source Yield Scenario		
	Reliable Annual Yield (ac-ft)	50th Percentile Yield (ac-ft)	10th Percentile Yield (ac-ft)
Sunbrook Wells, Mathis Well, Moores Well, Sunset Well	2,873.3	2,873.3	2,586.0
West City Springs	550.0	512.7	394.8
East City Springs	480.0	447.5	344.5
SGWRF Reuse Facility[1]	4,400.0	4,400.0	4,400.0
St. George Clara Fields Canal Company	712.0	663.7	511.1
New Santa Clara Water Company	5.0	4.7	3.6
St. George Valley Irrigation Company	1,768.0	1,648.2	1,269.0
Bloomington Water Company	1,247.0	1,162.5	895.1
St. George Washington Fields Canal Company	1,932.0	1,801.1	1,386.7
Millcreek Water Company	670.0	624.6	480.9
Subtotal	14,637.3	14,138.2	12,271.7
Washington City Secondary Irrigation Supplies			
Mill Creek (Tanner Ditch)	306.5	285.8	220.0
Price/Pierce Springs	11.3	10.5	8.1
Prisbrey/Westover/Sproul Spring	206.2	192.2	148.0
Adair Spring, Warm Spring, Unnamed Spring	384.6	358.6	276.1
Green Spring, Calvin Hall Spring	126.5	118.0	90.8
Mascrew, Iron Bush, Cottonwood Spring	4.1	3.9	3.0
Green Stream	2.5	2.3	1.8
Sullivan Well	119.0	115.4	85.7
Well #1[2]	0.0	0.0	0.0
Subtotal	1,160.8	1,086.6	833.5
Hurricane City Secondary Irrigation Supplies			
Virgin River	193.4	180.3	138.8
Hurricane Canal Company	1,561.5	1,455.6	1,120.8
Subtotal	1,754.8	1,635.9	1,259.6
Ivins City Secondary Irrigation Supplies			
St. George Clara Irrigation Company	96.9	90.3	69.6
Ivins Irrigation Company	51.8	48.3	37.2
Santa Clara Irrigation Company	24.8	23.1	17.8
Subtotal	173.5	161.7	124.5
Santa Clara City Secondary Irrigation Supplies			
Rex Jackson Sunbrook Well	95.0	92.2	68.4
Crystal Lakes Sunbrook Well	120.0	116.4	86.4
Ralph Hafen Well	7.6	7.3	5.4
McDermitt Well	150.0	145.5	108.0
J. Ross Hurst Entrada Well	26.2	25.4	18.9
Irrigation Company Shares	53.1	49.5	38.1
Subtotal	451.9	436.3	325.2
La Verkin Secondary Irrigation Supplies			
Virgin River (via Quail Creek Pipeline Diversion)	2,630.2	2,451.9	1,887.9
Subtotal	2,630.2	2,451.9	1,887.9
TOTAL	20,808.6	19,910.8	16,702.5

[1] Availability of wastewater reuse water assumed to be unaffected by climate change scenarios.

City of Hurricane
HDPE Water System Replacement
Summary
September 8, 2025

Hurricane City Pipeline Repair Cost to Date	City Wide Total O&M Cost	Dixie Springs Area HDPE Repar Cost	Percentage of Cost
2008		$ 1,752.10	
2009		$ 1,247.80	
2010		$ 4,551.81	
2011		$ -	
2012		$ 13,318.45	
2013		$ 4,488.98	
2014		$ 8,114.07	
2015		$ 17,232.93	
2016		$ 35,678.29	
2017		$ 51,132.10	
2018	$ 246,486.00	$ 46,784.31	19%
2019	$ 224,563.00	$ 59,246.81	26%
2020	$ 259,615.00	$ 36,145.90	14%
2021	$ 296,037.00	$ 77,716.70	26%
2022	$ 368,553.00	$ 135,078.71	37%
2023	$ 365,914.00	$ 209,688.17	57%
	$ 402,186.00	$ 117,174.75	29%
Total		$ 819,351.88	

Completed Pipeline Replacement Projects	Cost
Dixie Springs Phase 1	$1,289,186.77
Engineering and Construction Management	$154,702.41
Sand Hollow Road	$526,500.00
Engineering and Construction Management	$63,180.00
Total	$2,033,569.18

Proposed Pipeline Replacement Projects	Cost Estimate
Dixie Springs Transmission Line	$1,549,149.90
Sand Hollow Transmission Line	$5,041,723.20
Dixie Springs Phase 2	$4,757,000.82
Sand Hollow Transmission Line	$1,805,972.10
Sand Hollow Subdivsion	$5,370,879.20
Elim Valley Subdivision	$2,462,289.40
Total	$20,987,014.62

Total Repair and Replacement Cost $ 23,839,935.68

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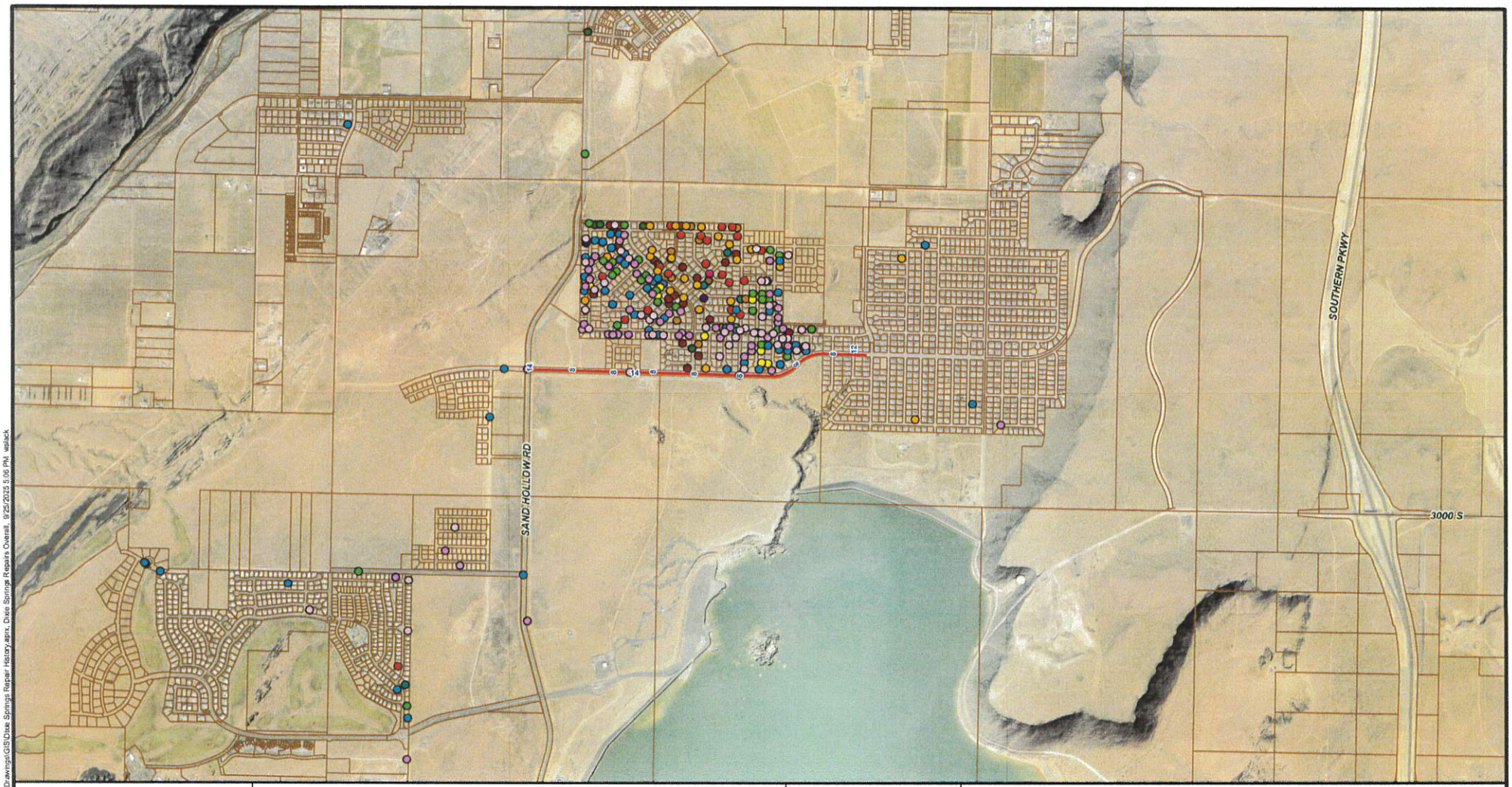

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Feet

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Legend

- Dixie Springs Repairs 2024
- Dixie Springs Repairs 2023
- Dixie Springs Repairs 2022
- Dixie Springs Repairs 2021
- Dixie Springs Repairs 2020
- Dixie Springs Repairs 2019
- Dixie Springs Repairs 2018
- Dixie Springs Repairs 2017
- Dixie Springs Repairs 2016
- Dixie Springs Repairs 2015
- Dixie Springs Repairs 2014
- Dixie Springs Repairs 2013
- Dixie Springs Repairs 2012
- Dixie Springs Repairs 2010
- Dixie Springs Repairs 2009
- Dixie Springs Repairs 2008
- Existing HDPE Transmission Line
- Washington County Parcels

N

1 OF 1

Dixie Springs Repair History

Hurricane City

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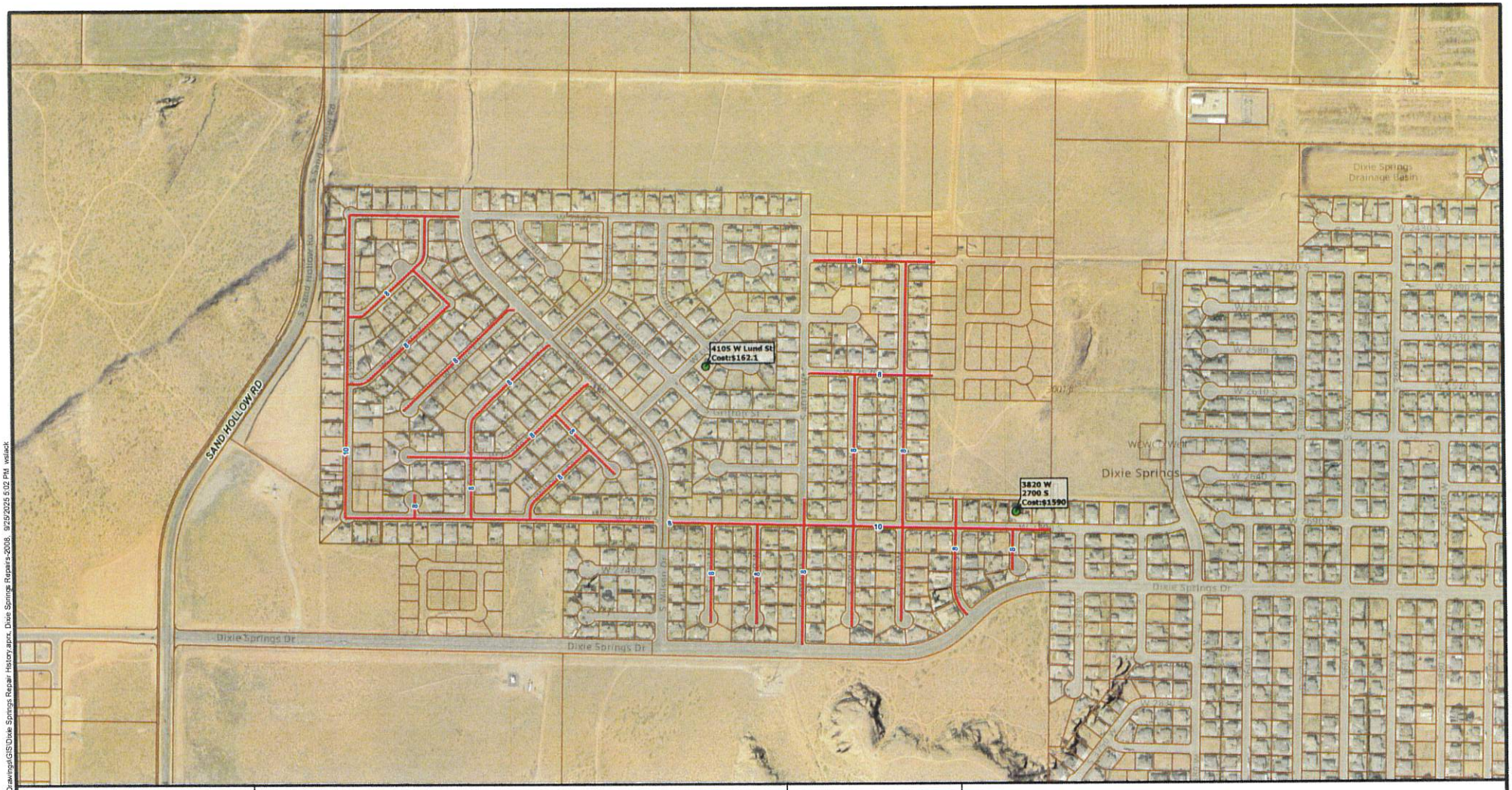
Drawn By:	WSS
Scale:	1" = 1,500 feet
Date:	9-25-2025



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Feet

Legend

- Dixie Springs Repairs 2008
- Washington County Parcels
- Existing HDPE Pipelines

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Dixie Springs Repairs 2008

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
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Date:	9-25-2025

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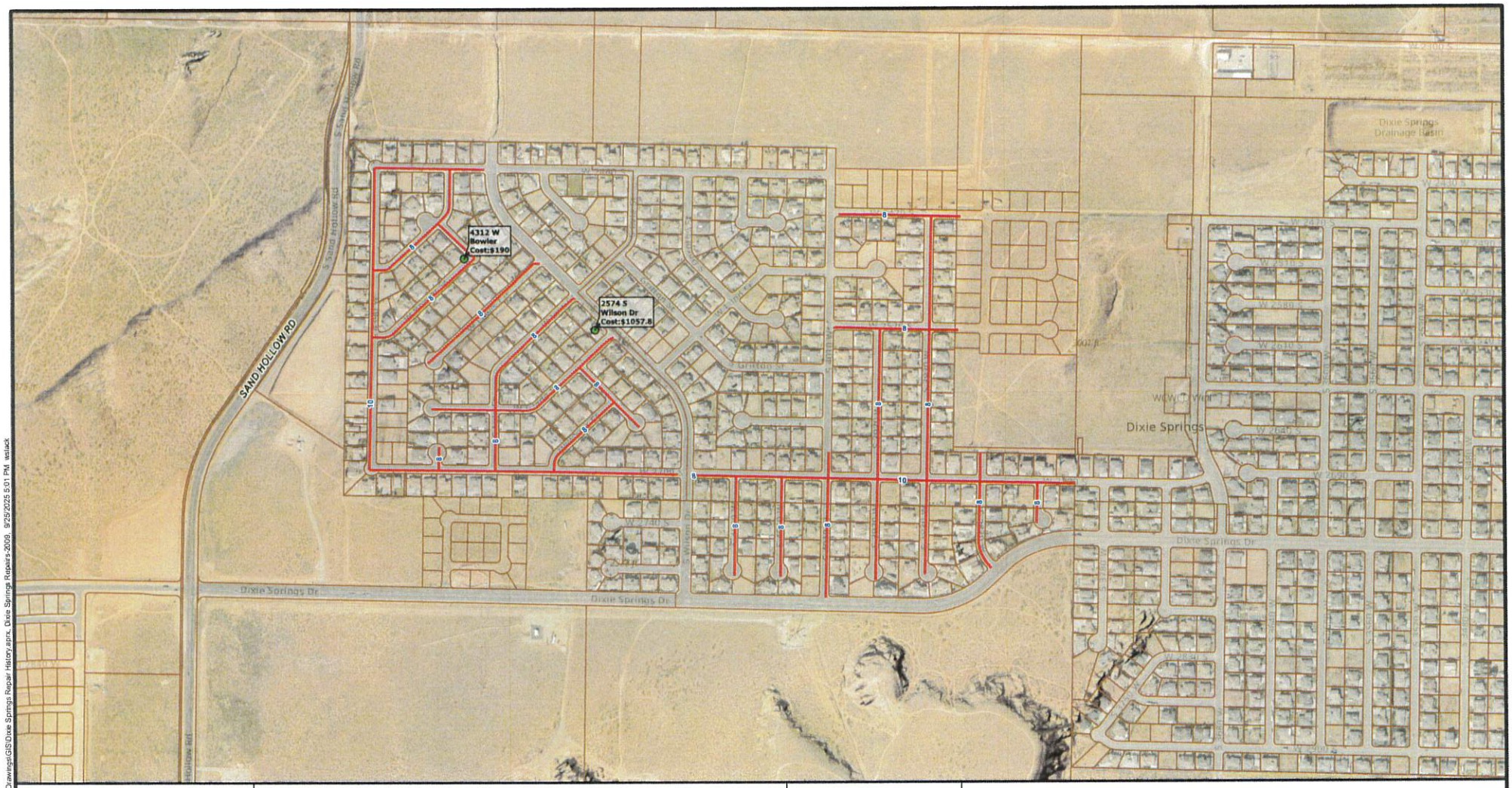

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Legend

- Dixie Springs Repairs 2009
- Washington County Parcels
- Existing HDPE Pipelines

1 OF 1

Dixie Springs Repairs 2009

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
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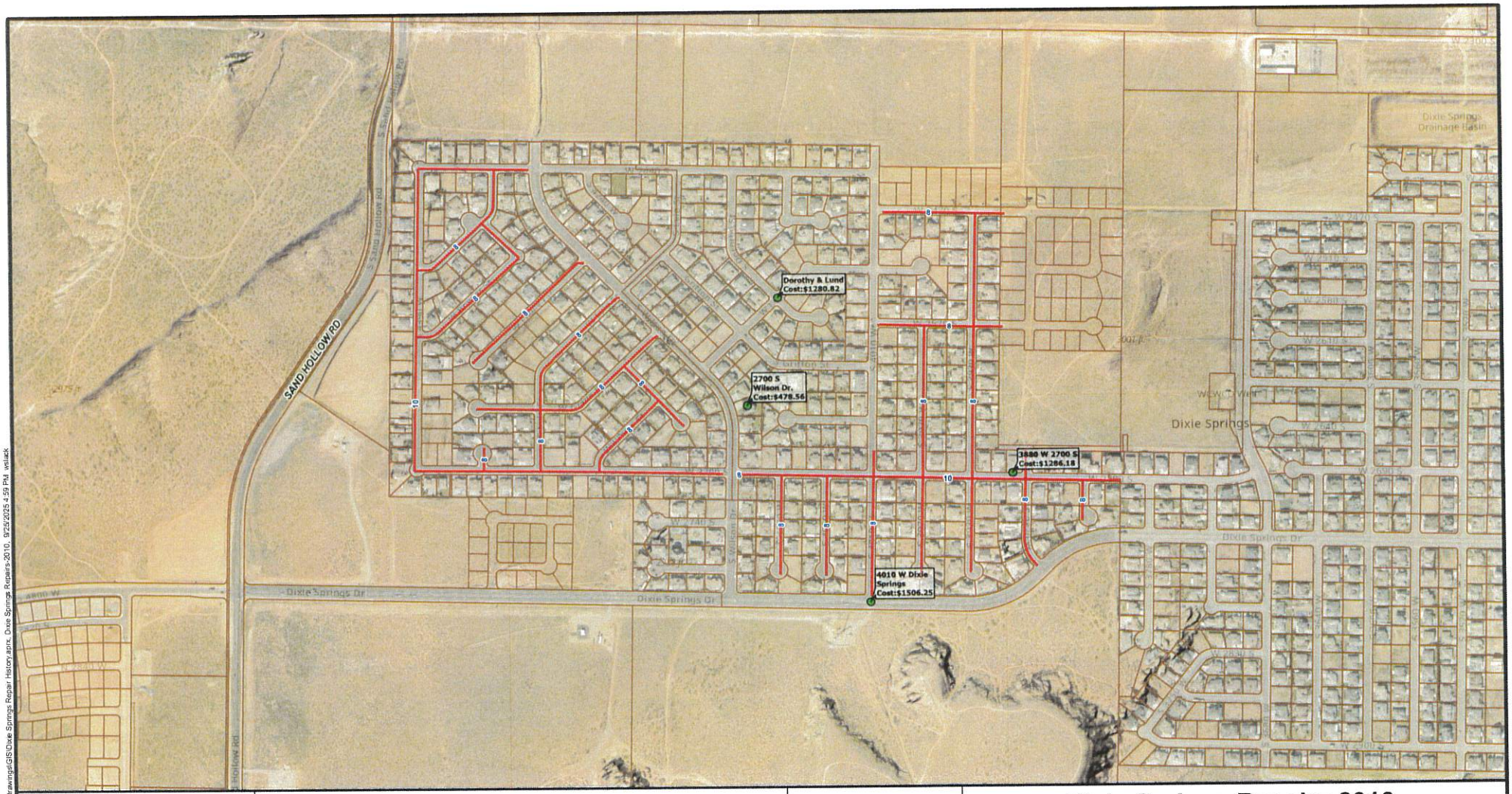

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Feet

Legend

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- Existing HDPE Pipelines

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Dixie Springs Repairs 2010

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
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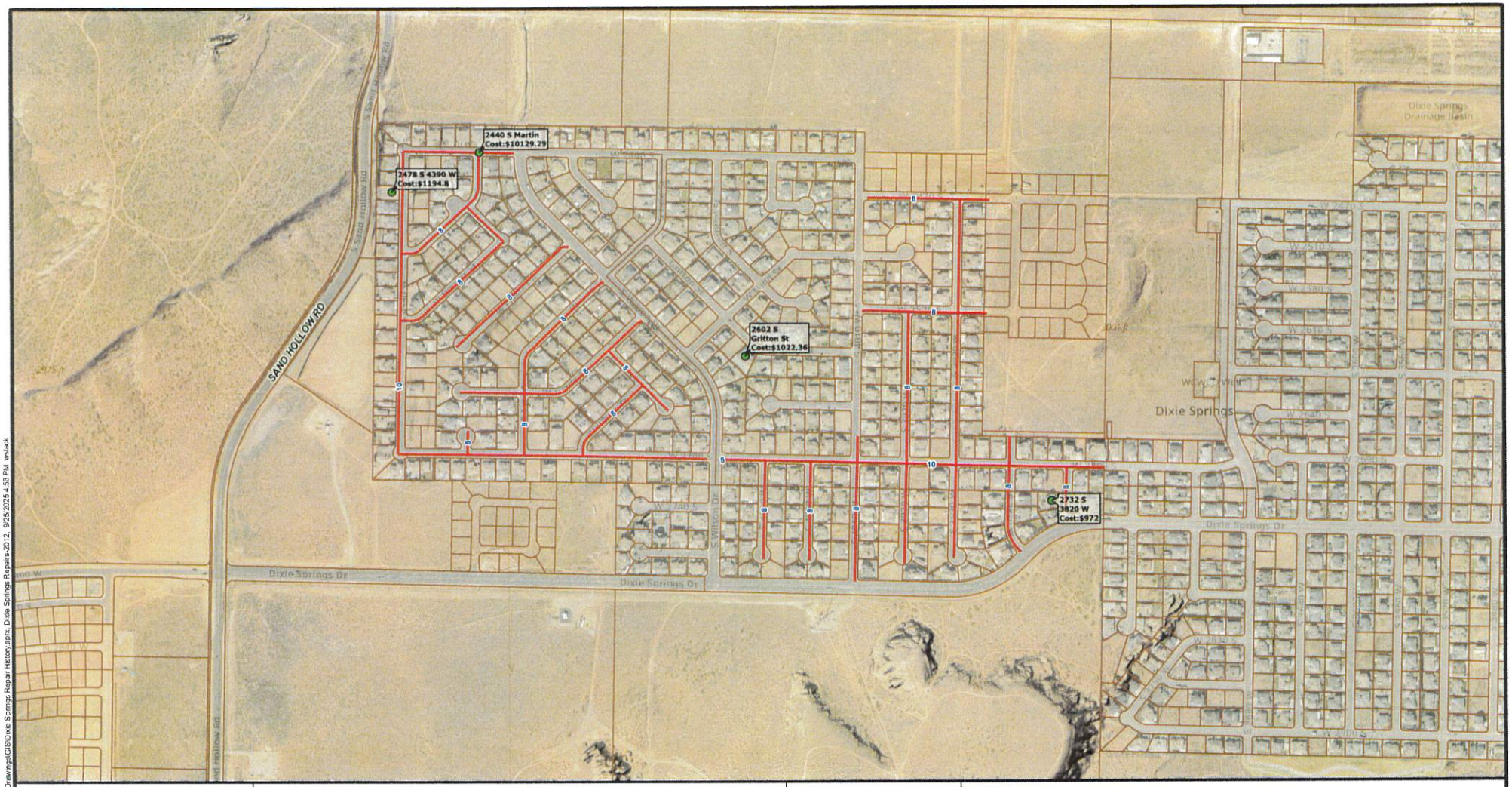

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Feet

Legend

- Dixie Springs Repairs 2012
- Washington County Parcels
- Existing HDPE Pipelines

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Dixie Springs Repairs 2012

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 500 feet
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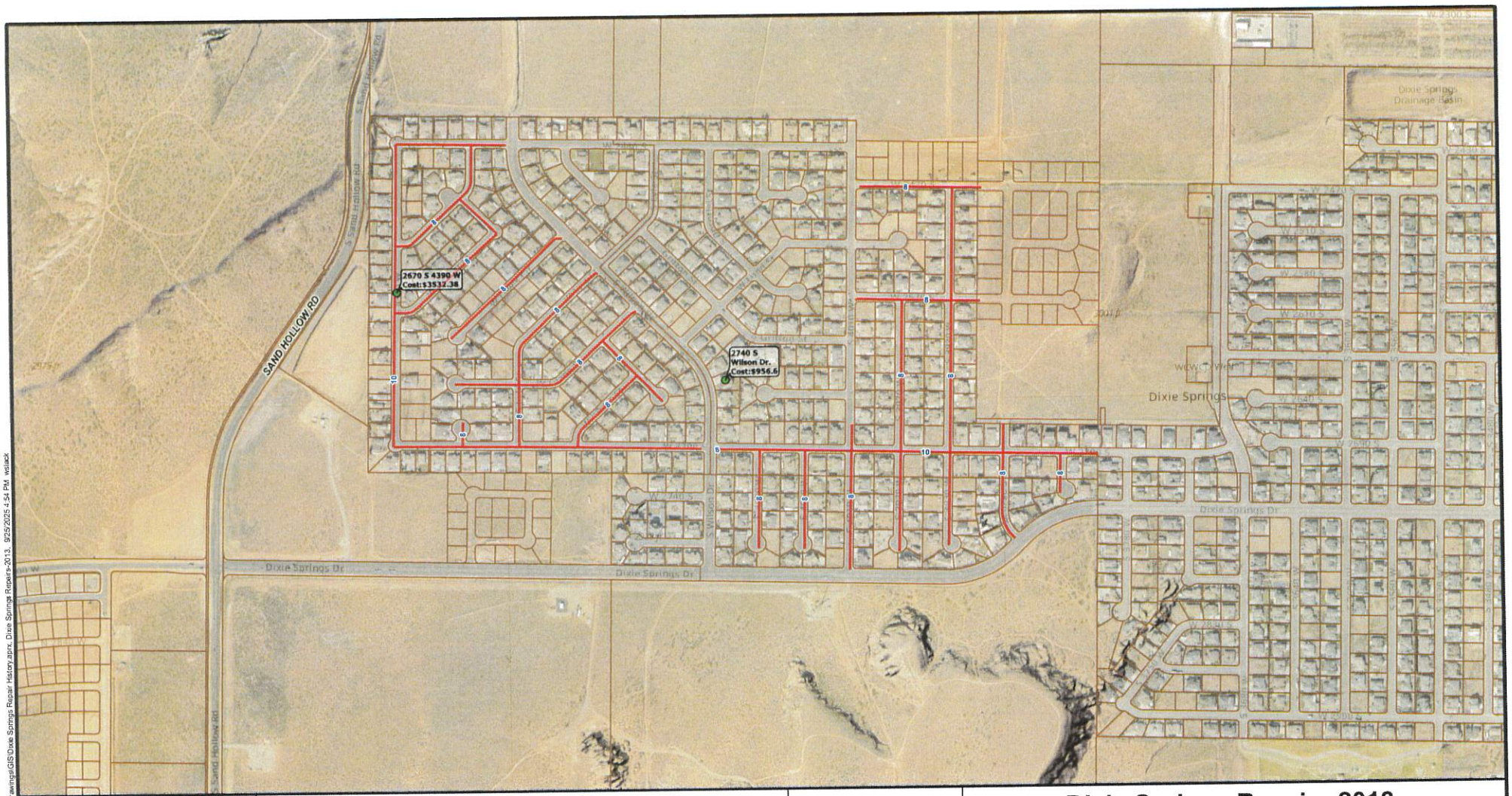

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Feet

Legend
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- Washington County Parcels
- Existing HDPE Pipelines

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Dixie Springs Repairs 2013

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 500 feet
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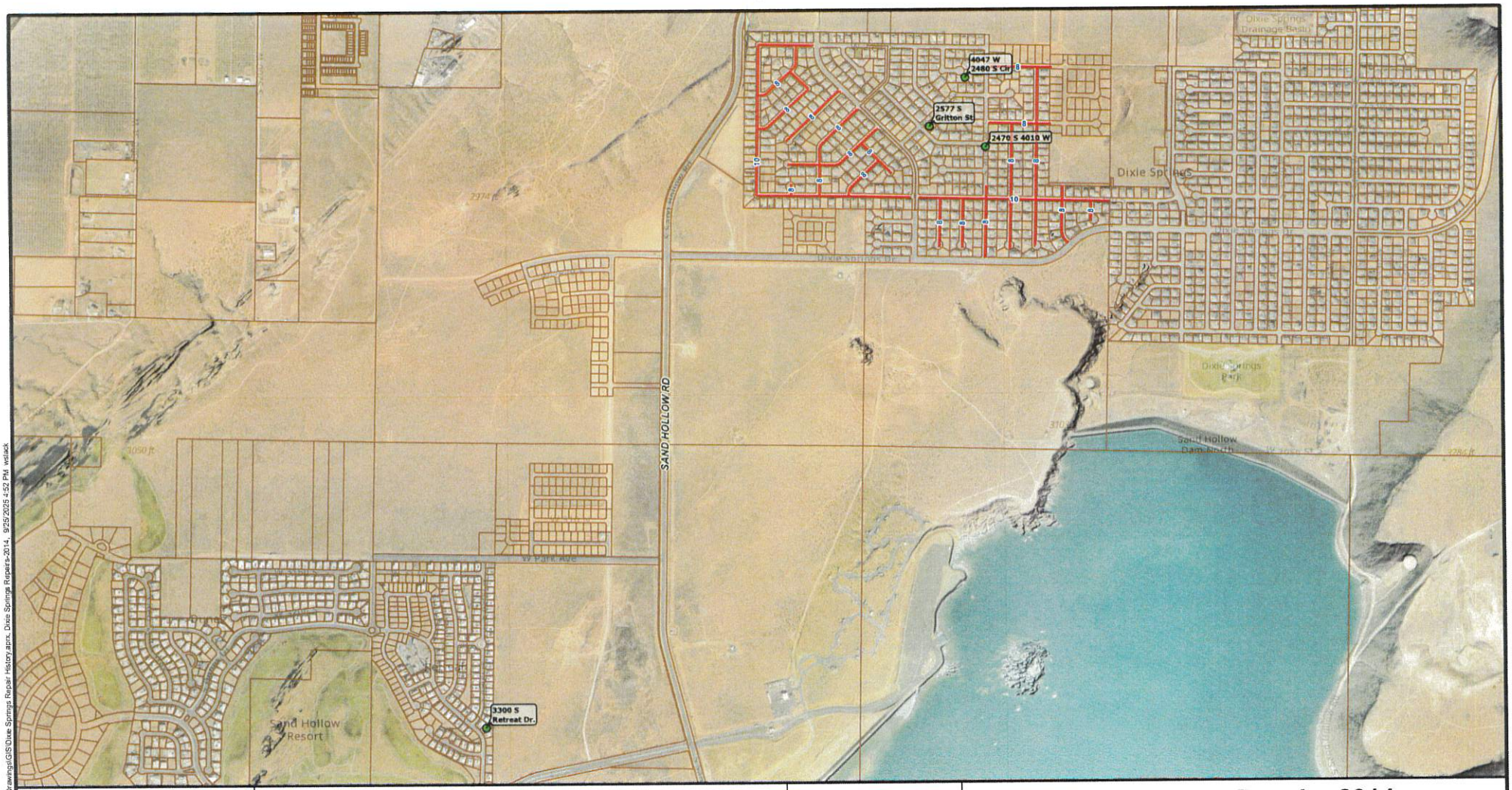

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Feet

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Legend
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- Washington County Parcels
- Existing HDPE Pipelines

1 OF 1

Dixie Springs Repairs 2014

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
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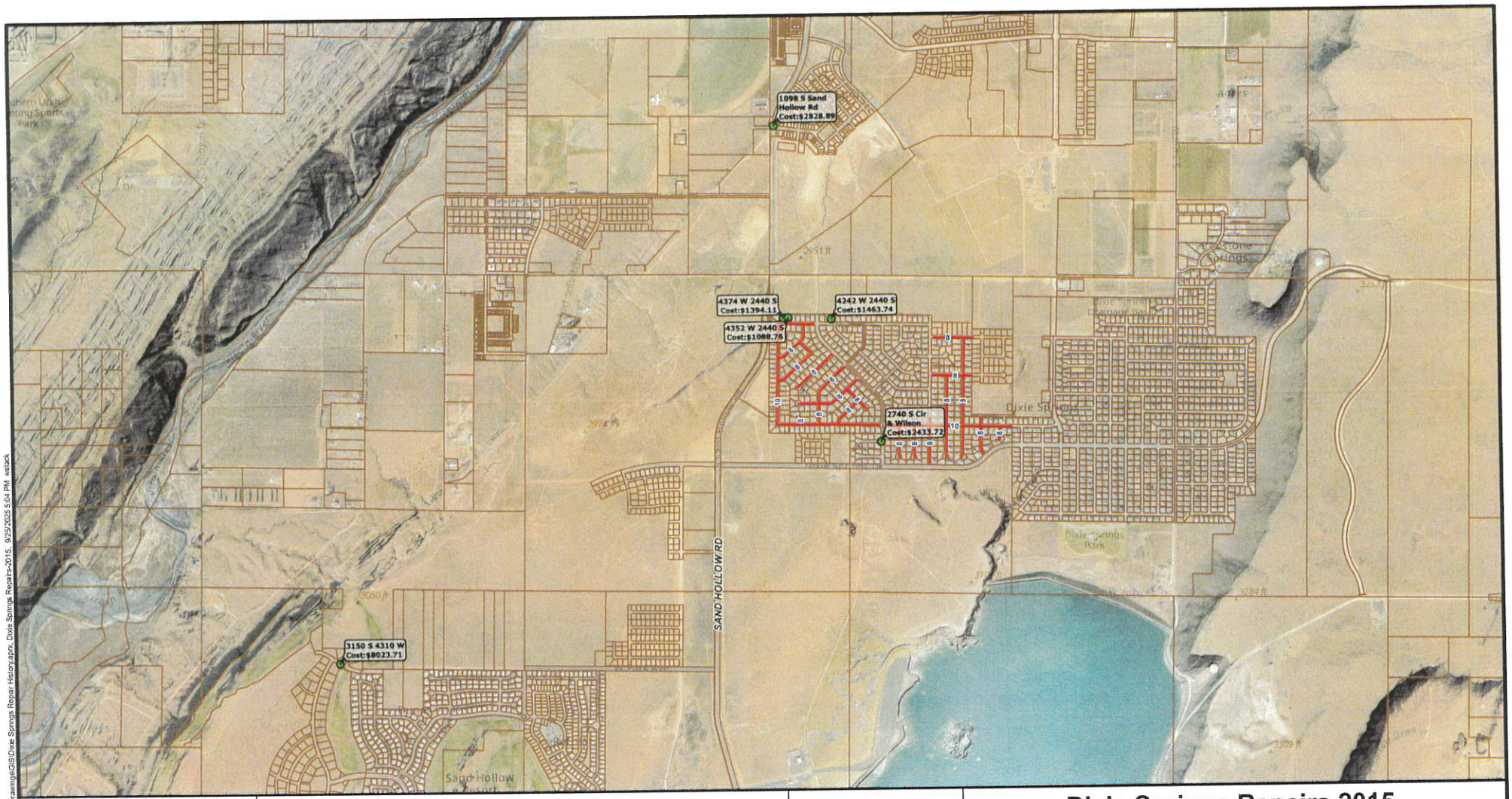

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Feet

Legend
- Washington County Parcels
- Dixie Springs Repairs 2015
- Existing HDPE Pipelines

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1 OF 1

Dixie Springs Repairs 2015

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,500 feet
Date:	9-25-2025

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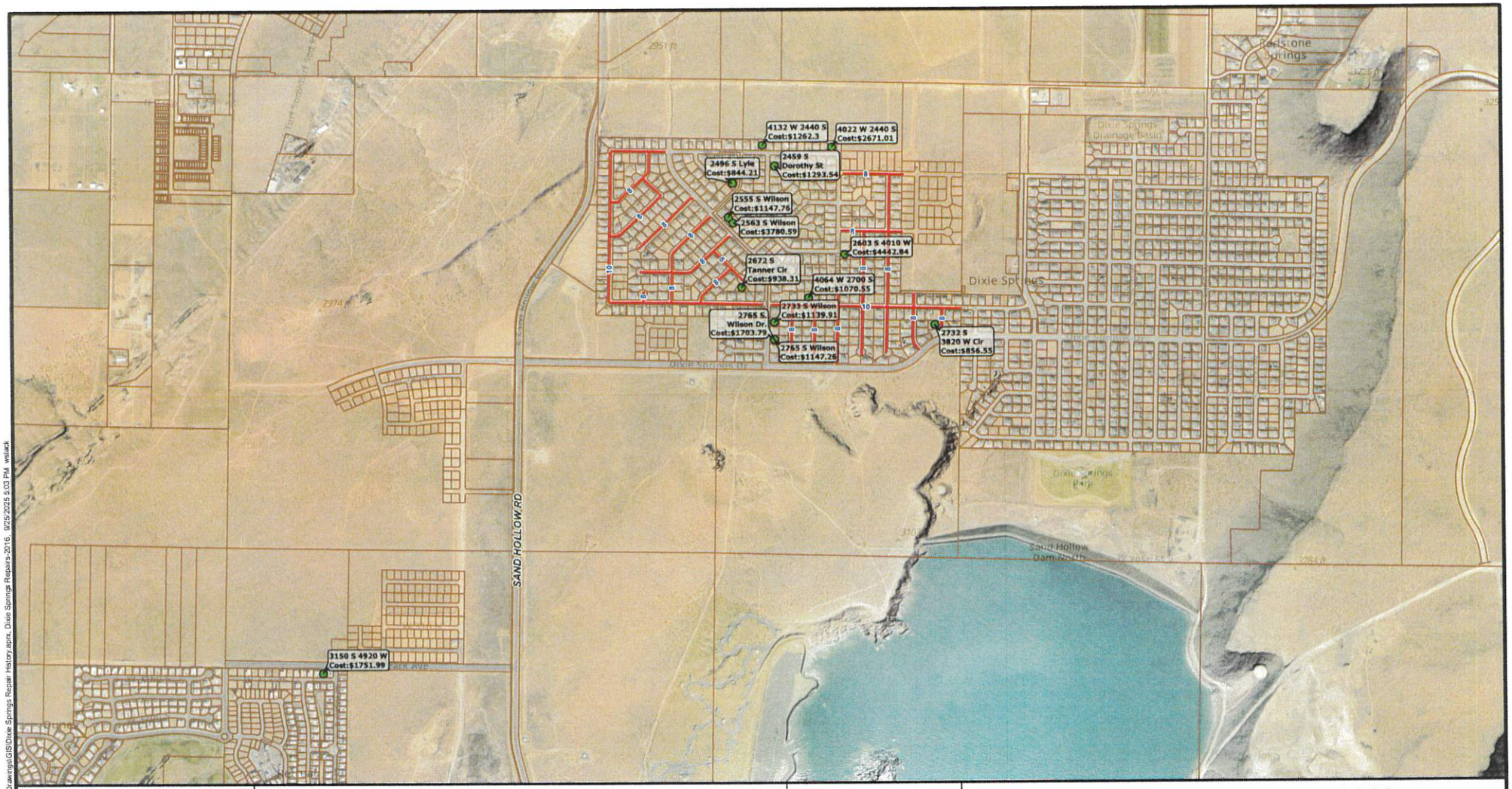

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0 500 1,000 2,000
Feet

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Legend

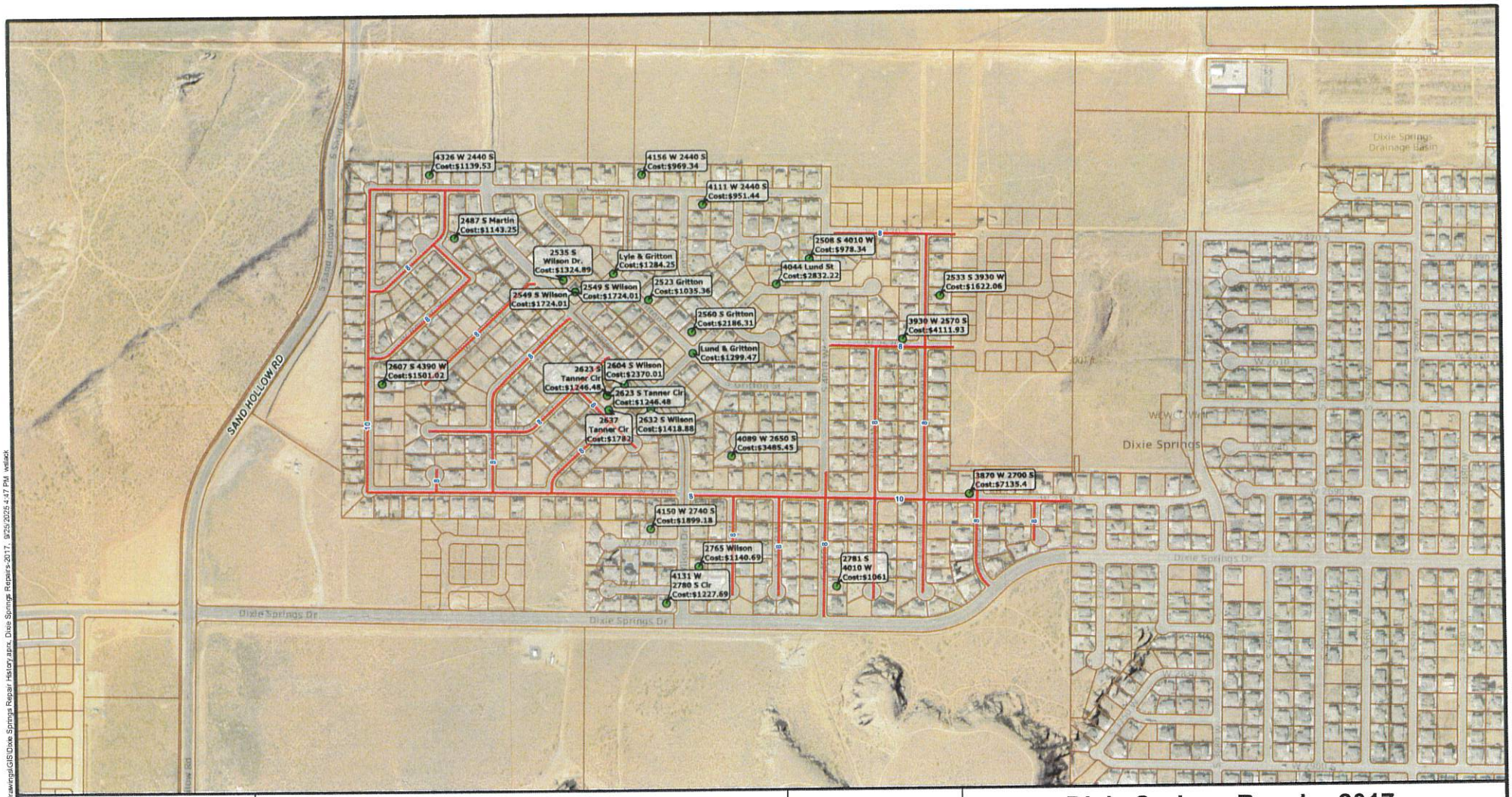
- Washington County Parcels
- Dixie Springs Repairs 2016
- Existing HDPE Pipelines

1 OF 1

Dixie Springs Repairs 2016

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,000 feet
Date:	9-25-2025



0 250 500 1,000
Feet

Legend
- Washington County Parcels
- Dixie Springs Repairs 2017
- Existing HDPE Pipelines

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Dixie Springs Repairs 2017

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 500 feet
Date:	9-25-2025

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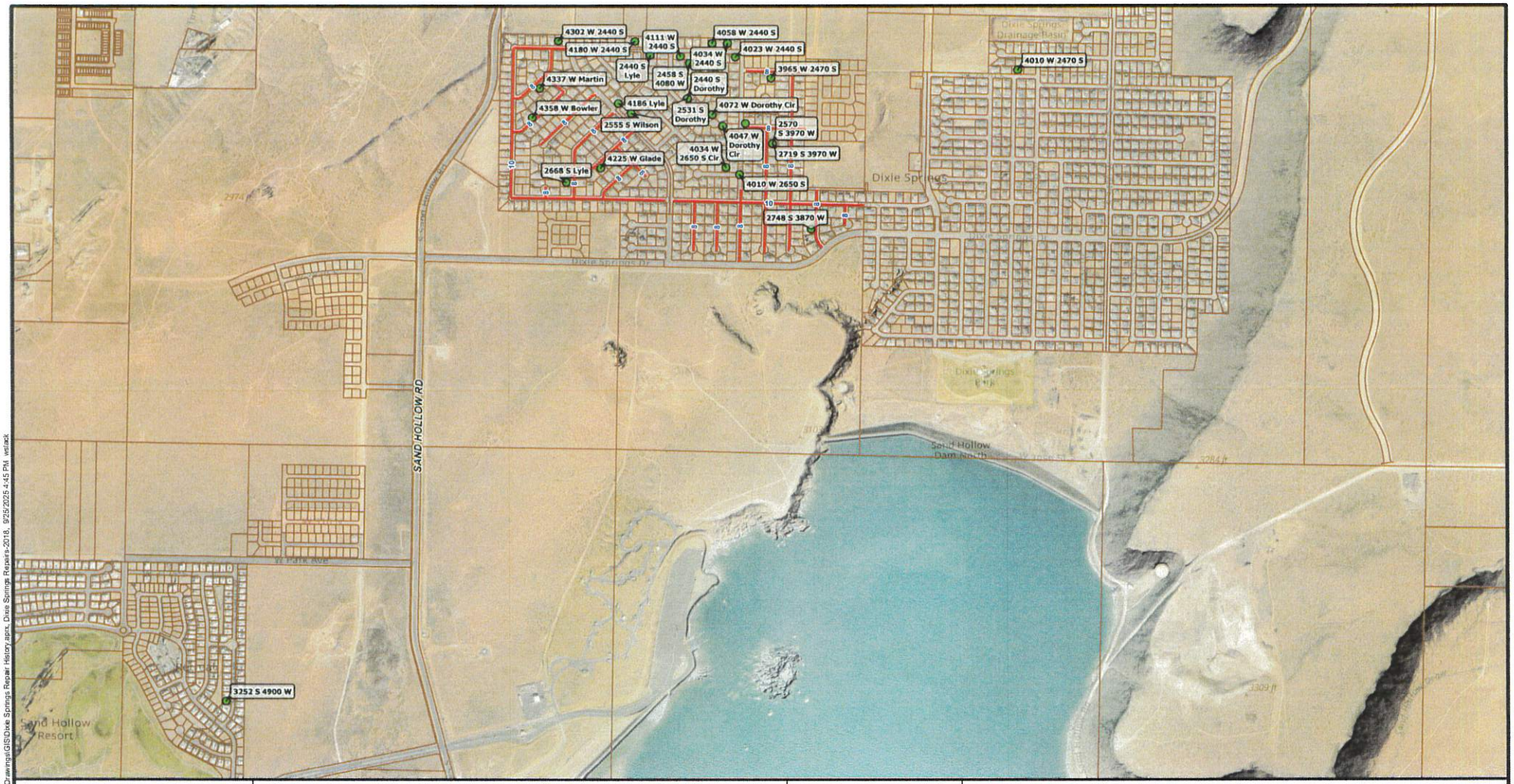

0 500 1,000 2,000
Feet

Legend
- Washington County Parcels
- Dixie Springs Repairs 2018
- Existing HDPE Pipelines

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Dixie Springs Repairs 2018

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,000 feet
Date:	9-25-2025

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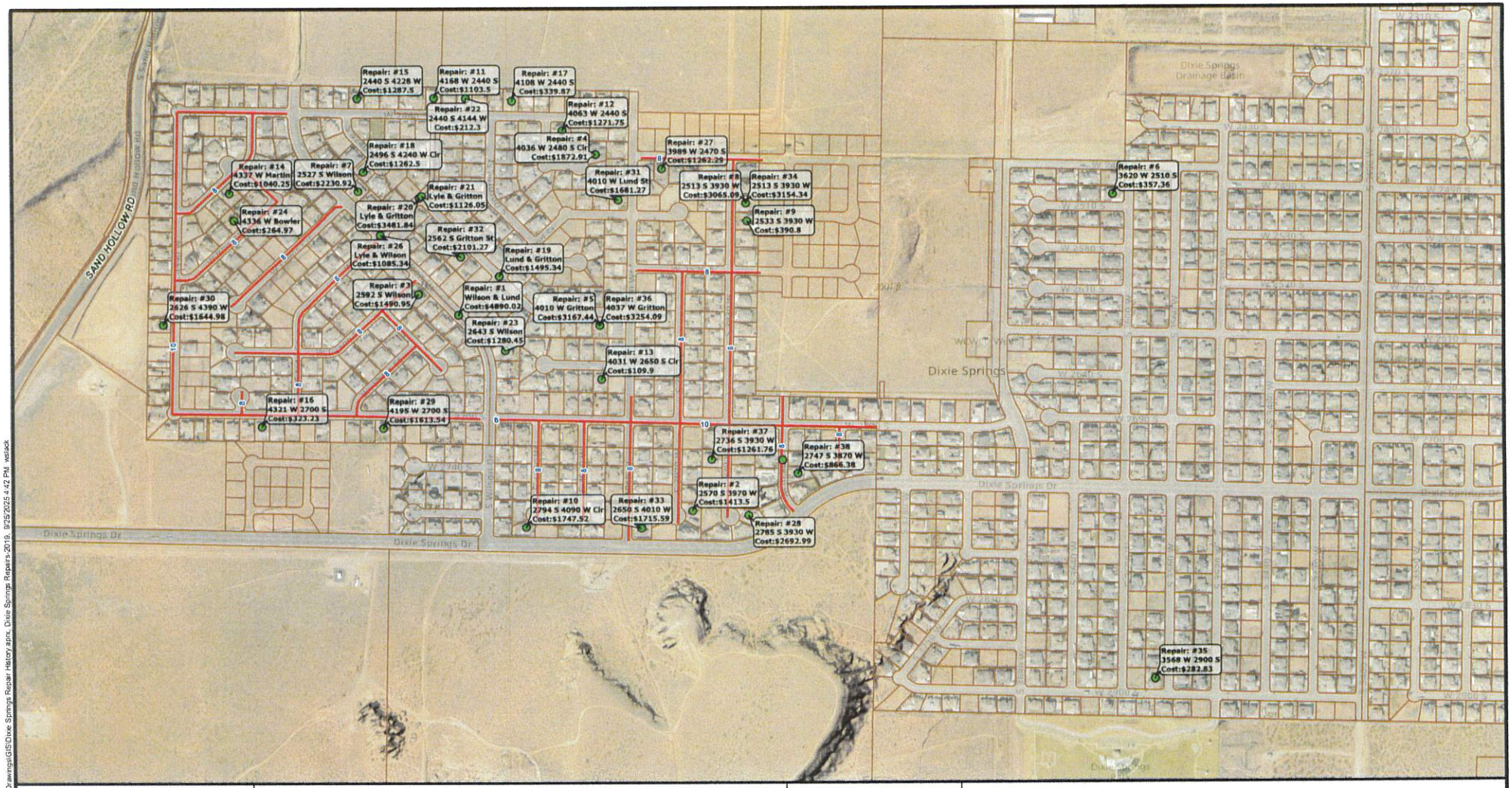

0 250 500 1,000
Feet

Legend

- Washington County Parcels
- Dixie Springs Repairs 2019
- Existing HDPE Pipelines

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Dixie Springs Repairs 2019

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 500 feet
Date:	9-25-2025

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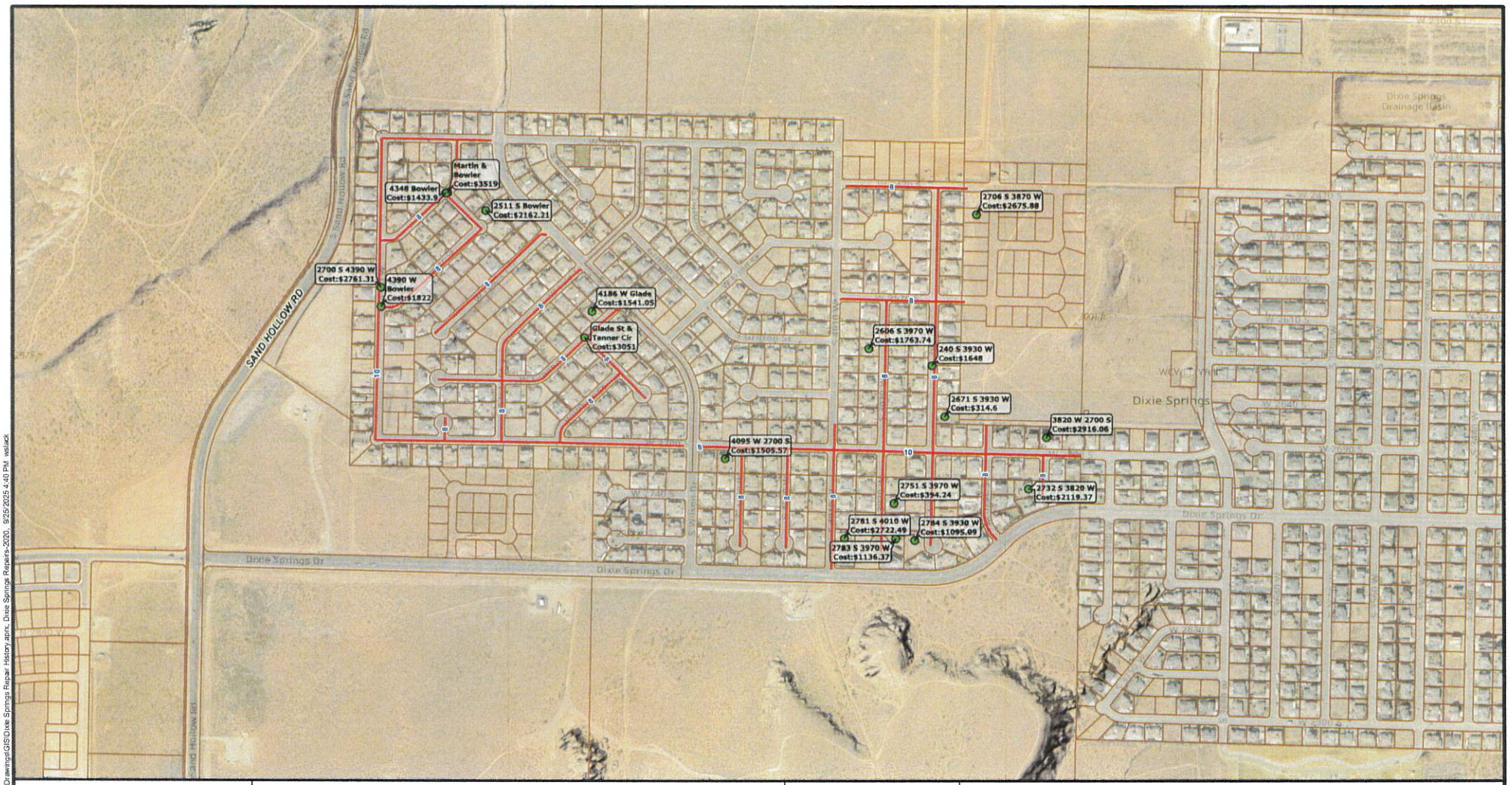

0 250 500 1,000
Feet

Legend
- Dixie Springs Repairs 2020
- Washington County Parcels
- Existing HDPE Pipelines

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Dixie Springs Repairs 2020

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 500 feet
Date:	9-25-2025

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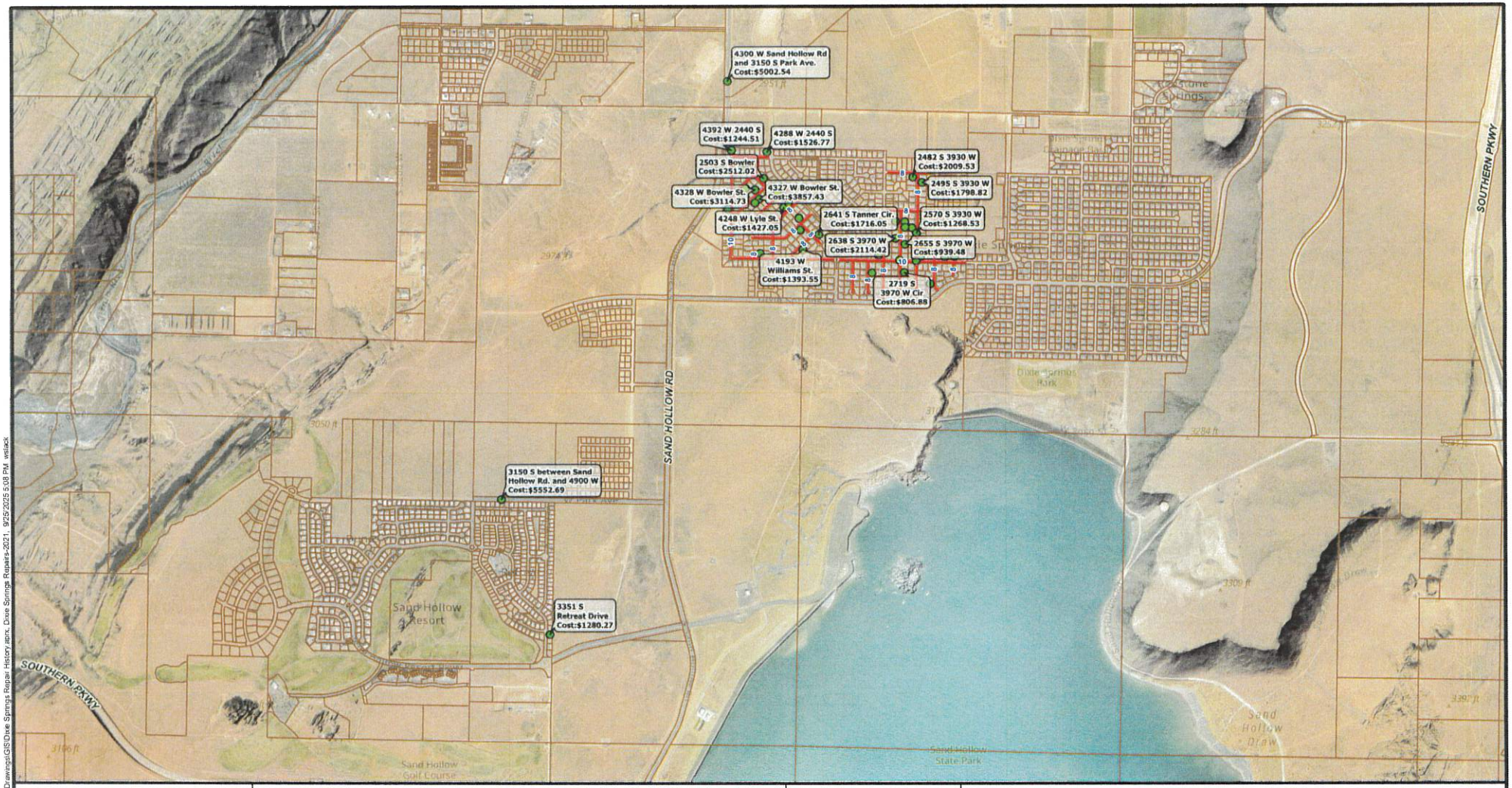

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0 700 1,400 2,800
Feet

Legend
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- Existing HDPE Pipelines

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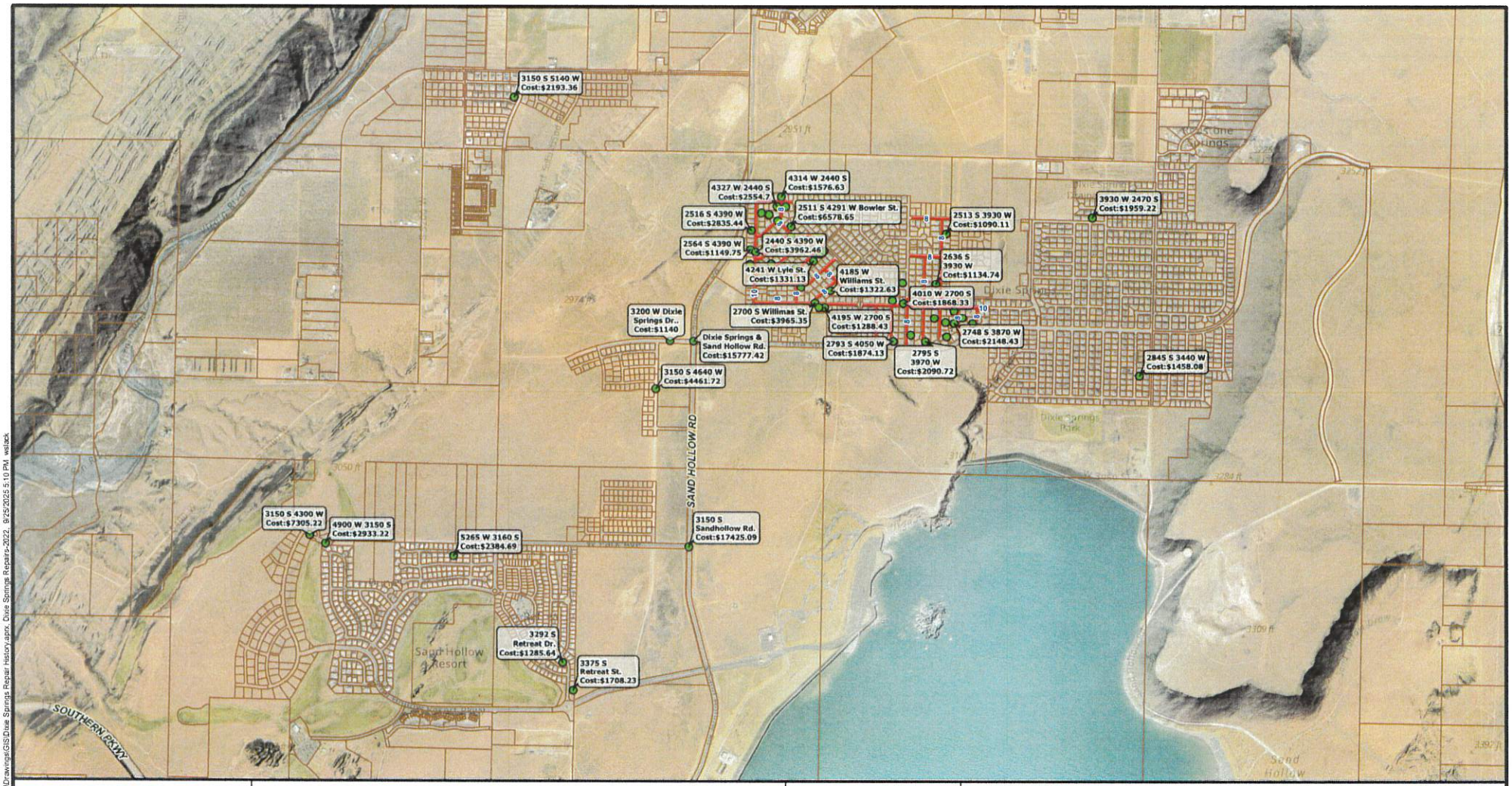
Dixie Springs Repairs 2021

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,500 feet
Date:	9-25-2025



0 700 1,400 2,800
Feet

Legend

- Dixie Springs Repairs 2022
- Washington County Parcels
- Existing HDPE Pipelines

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Dixie Springs Repairs 2022

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,500 feet
Date:	9-25-2025

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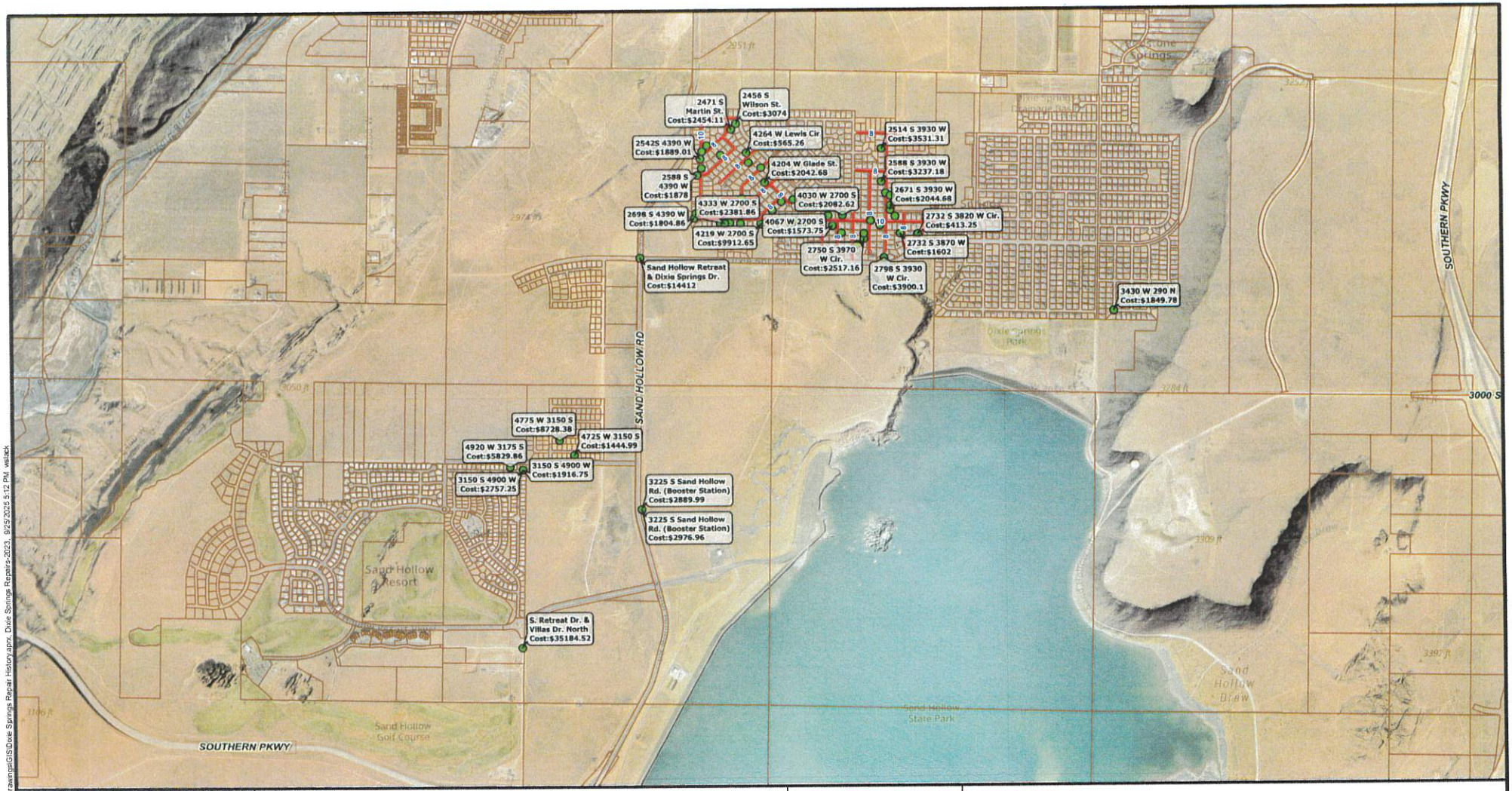

0 700 1,400 2,800
Feet

Legend
- Dixie Springs Repairs 2023
- Washington County Parcels
- Existing HDPE Pipelines

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Dixie Springs Repairs 2023

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,500 feet
Date:	9-25-2025

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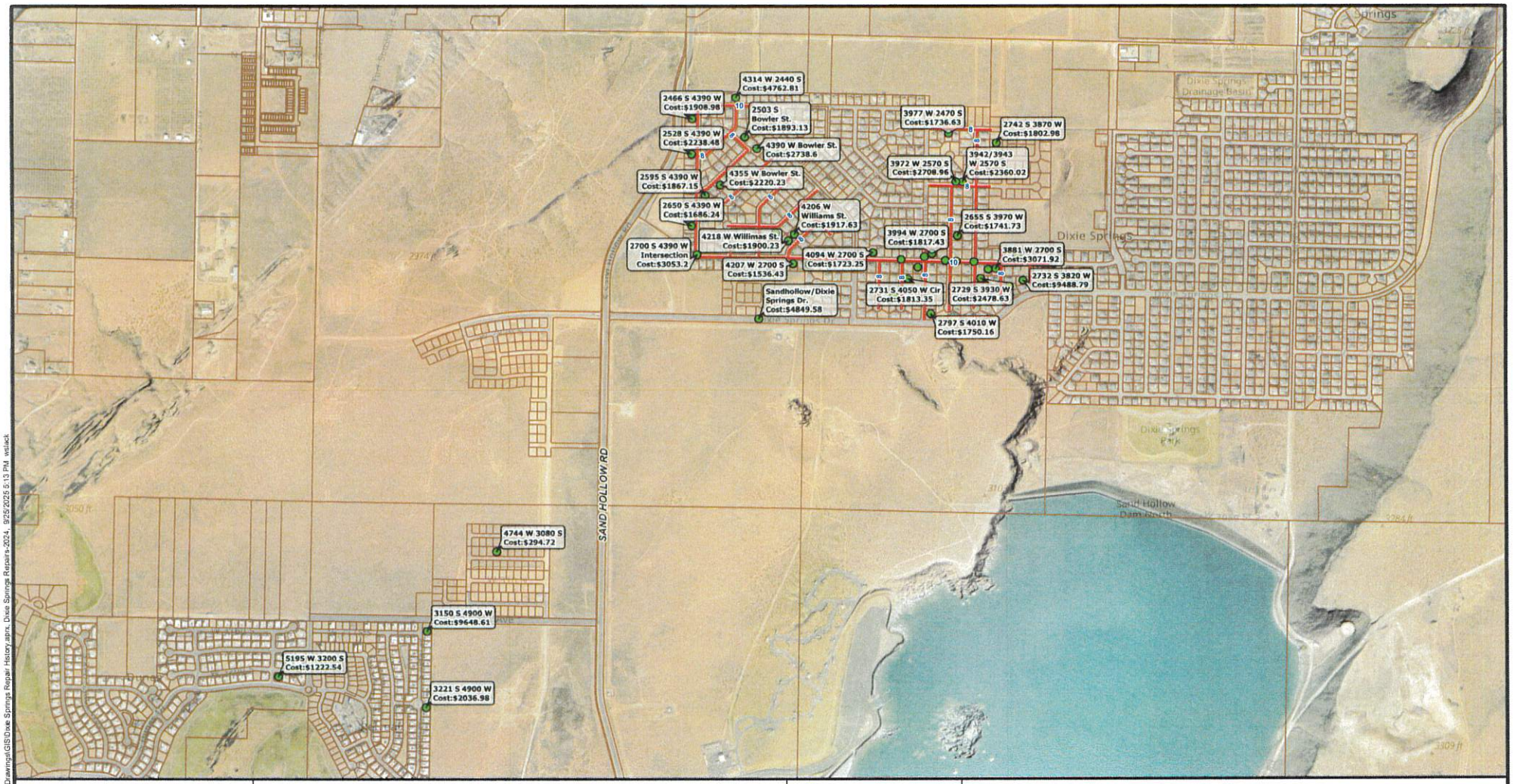

Dixie Springs Repairs 2024

Hurricane City

Spatial Reference:	Utah State Plane NAD 83, feet
Drawn By:	WSS
Scale:	1" = 1,000 feet
Date:	9-25-2025

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