Board/Management Strategic Planning Workshop Agenda

Granger-Hunter Improvement District – Board Room

Our Community
Our Team
Our Operations

Tuesday, June 20, 2023: 8:00 a.m.

8:00	Customer Service Strategy *(Liens vs. Shutoffs, Office Hours, Office report)*	Michelle
8:40	Conservation Strategy *(Jordan Valley Contract, Aquifer Status, Storage, Messaging, Volunteer reductions)*	Jason/Todd
9:00	Update/Discussion on Master Plans/Funding and Capital Projects/Bonding/Rates *(Ten-Year Capital Improvement & Financial Plan, Grants, Property Taxes)*	Todd/Austin
10:00	Water Quality and Regulations *(PFAs, Lead and Copper)*	Troy/Dustin/Ryan
10:30	Break	
10:40	Emergency Response Plan/Safety	Troy/Ricky/Linda
11:10	Human Resources Strategies *(Staffing, Training, Compensation, Motivosity)*	Dakota
11:45-12:15	Lunch	

12:15 Department Discussions *(30 min. each)*

- Ricky – Fleet Program Management
- Victor – Engineering Update
- Justin – Cybersecurity
- Dustin – Leak Detection/Water Loss

3:00 Board Meeting

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IMPROVEMENT DISTRICT

ADMINISTRATIVE SERVICES

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SHUT OFFS vs. LIENS

In order to collect from delinquent active accounts, the District's current process is to disconnect service after multiple attempts to notify the customer. Ultimately, we would like to determine the BEST way to accomplish this.

- Background
- GHID Rules & Regulation
  - 5.3.2 Water shut off for non-payment
  - 5.5 Collection of Delinquent Services
  - 5.6 Certification of Lien for Delinquencies
- Pros & Cons
- Implementation Plan

5.3.2 For Non-Payment of Service Fees and Charges

(a) In conformance with the provisions of Section 17B-1-901 and 903 of the Act, in the event of non-payment of Service Fees and/or other fees and charges imposed by the District, the District may initiate proceedings to terminate water service to the delinquent Premises, and the District shall refuse to restore water service unless and until all delinquent Service Fees, together with accrued interest thereon and a resumption of service fee have been paid in full.

(b) Prior to terminating water service to the Premises, the District shall provide written notice of the delinquency to the Customer, pursuant to which the Customer shall be given an opportunity to cure the default. The Customer may request a hearing of the Governing Board regarding any such delinquency, and petition for the resumption of services without payment of any resumption of service charges due and owing as a result of the delinquency. In the event a delinquency is not cured within the period provided for in the notice, the District shall terminate water service to the Premises. The Customer shall be required to pay a resumption of service fee in conformance with the provisions of Section 5 .2.1 (c) in addition to curing the delinquencies as a condition to the resumption of water service to the Premises.

5.6 Certification of Lien for Delinquencies

5.6.1 In addition to and notwithstanding the provisions of Section 5.5, pursuant to the provisions of Section 17B-1-902 of the Act, any unpaid Service Fees and charges, including reasonable attorney's fees incurred through collection, that are delinquent as of June 1 of an year shall be certified by the Clerk of the District to the treasurer of Salt Lake County; whereupon, the amount of delinquent Service Fees and charges, together with accrued interest and penalties thereon, and attorney's fees, shall immediately upon certification become a lien on the delinquent Premises on a parity with and collectible at the same time and in the same manner as general property taxes are a lien on the Premises and are collectible. All methods of enforcement available for the collection of general county property taxes, including sale of the Premises, shall be available for the collection of delinquent Service Fees and charges.

Service Agreement: Termination for Delinquency In the event any bill shall remain delinquent, the District shall discontinue furnishing Service to the Property and shall refuse to restore Service unless and until all past due service Fees and Charges, together with late charges and interest on the delinquent amount plus the District's resumption of service fee have all been paid in full. In addition, pursuant to the provisions of Utah Code Ann. Section 17B-1-901 and 903, (the Statute"), the District may certify the past due Fees and Charges and other amounts for which the Owner is liable, to the treasurer or assessor of Salt Lake County Utah. Upon their certification, the past due Fees and Charges and other amounts for which the Owner is liable for Service rendered by the District shall become a lien upon the Property, on a parity with and collectible at the same time and in the same manner as general county taxes that are a lien on the Property. All methods of enforcement available for the collection of general county taxes, including sale of the Property, shall be available for the collection of said delinquent Fees and Charges and other amounts due. The aforesaid remedies shall be in addition to and not in lieu of any and all other remedies available to the District, at law or in equity, including, without !imitation, a civil action authorized pursuant to the Statute. Prior to terminating Service to the Property, the District shall provide written notice to the Owner pursuant to which the Owner shall be given an opportunity to cure the delinquency. In the event the delinquency is not cured within the period provided in the notice, Service to the Property shall be terminate as provided herein.

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PROS & CONS

Pros

- Safety for service technicians from aggressive customers and animals
- Customers are not out of service
- Time, fuel, and money saved by not sending a technician out 2-3 days a week to turn off and turn on meters.
- Fewer after-hour calls for turn-ons

Cons

- Revenue most likely will not be received until owner pays property taxes
- Landlords will not be able to rely on us to help collect water payments from tenants (pro).
- Parcel verification will need to be done on each account prior to placing the lien and an attempt to notify the property owner; creating additional office workload.

Note: Accounts are currently considered delinquent with a balance over $120 and 50+ days past due.

Estimate: Approximately 800 accounts affected (one account can be certified multiple times a year).

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IMPLEMENTATION PLAN

Proposed Implementation Plan:

- Possible GHID Policy Update
- Investigate and possibly define new terms for qualification
- District-wide notification
- Communicate change of policy to Landlords
- Update forms to generate in Incode 10

We would like to move forward with the implementation plan.

New process target effective January 1, 2024.

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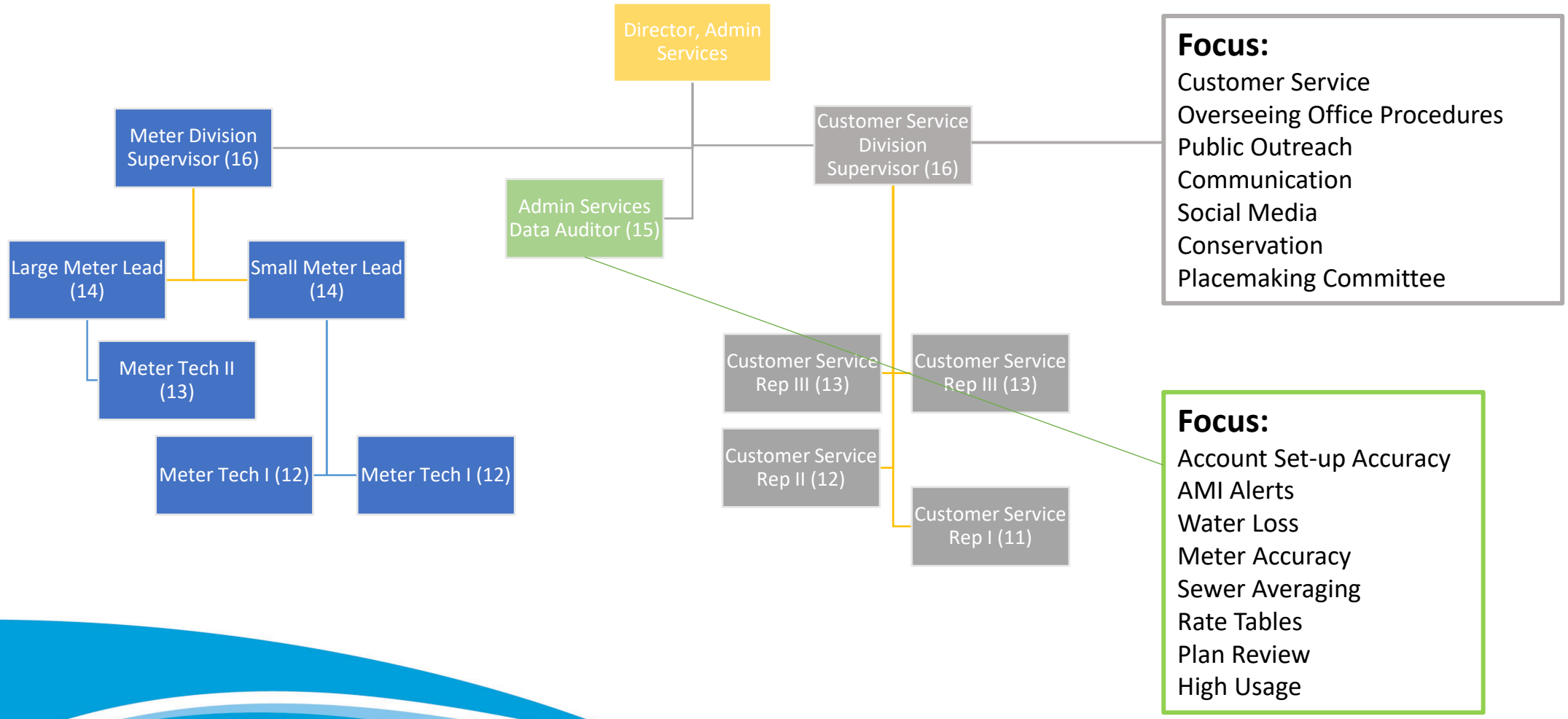
OFFICE HOURS

- Background
- EAB Request
  - Safety
  - Tracking
  - Efficiency Gains
- Benefits
  - Build team unity
  - Time for training

DEPARTMENT RESTUCTURE



Focus:

Customer Service
Overseeing Office Procedures
Public Outreach
Communication
Social Media
Conservation
Placemaking Committee

Focus:

Account Set-up Accuracy
AMI Alerts
Water Loss
Meter Accuracy
Sewer Averaging
Rate Tables
Plan Review
High Usage

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UTAH STATE FLAG

Historical or New?

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Conservation Strategy

Jordan Valley Contract, Aquifer Status, Messaging and Volunteer Reductions

Jordan Valley Contract

GRANGER-HUNTER IMPROVEMENT DISTRICT
AMENDED WATER PURCHASE AGREEMENT AND CLASS B PETITION

This Agreement is made as of March 16, 2005 by and between the Jordan Valley Water Conservancy District, a water conservancy district organized under the laws of the State of Utah ("District"), and the Granger-Hunter Improvement District, a special district organized under the laws of the State of Utah ("Purchaser").

RECITALS:

A. The District is a water conservancy district organized and existing pursuant to Utah Code Ann. (1953) §§ 17A-2-1401 et seq., as amended, ("Water Conservancy Act"), for the purposes, among others, of making water available to those inhabitants residing within its boundaries and of entering into contracts with public and private entities for the purchase and sale of water and its delivery;

B. Purchaser is a special district organized under the laws of the State of Utah, which provides retail water service to its customers/inhabitants within its boundaries and which desires to purchase for them water from the District; and,

C. The parties desire to enter into a water contract, and Purchaser desires to make a petition, to provide for the purchase and delivery of water to Purchaser to meet a portion of the needs of its customers/inhabitants.

TERMS:

In consideration of good and valuable consideration, the parties agree as follows:

EXHIBIT A

MINIMUM ANNUAL AMOUNT OF WATER
THE GRANGER-HUNTER IMPROVEMENT DISTRICT SHALL TAKE FROM,
OR IN ANY EVENT PAY FOR

YEAR	MINIMUM AMOUNT (AF)
2005	16,500
2006	16,500
2007	16,500
2008	16,500
2009	17,000
2010	17,000
2011	17,500
2012	18,000
2013 AND THEREAFTER	18,500

Water Produced Since 2002

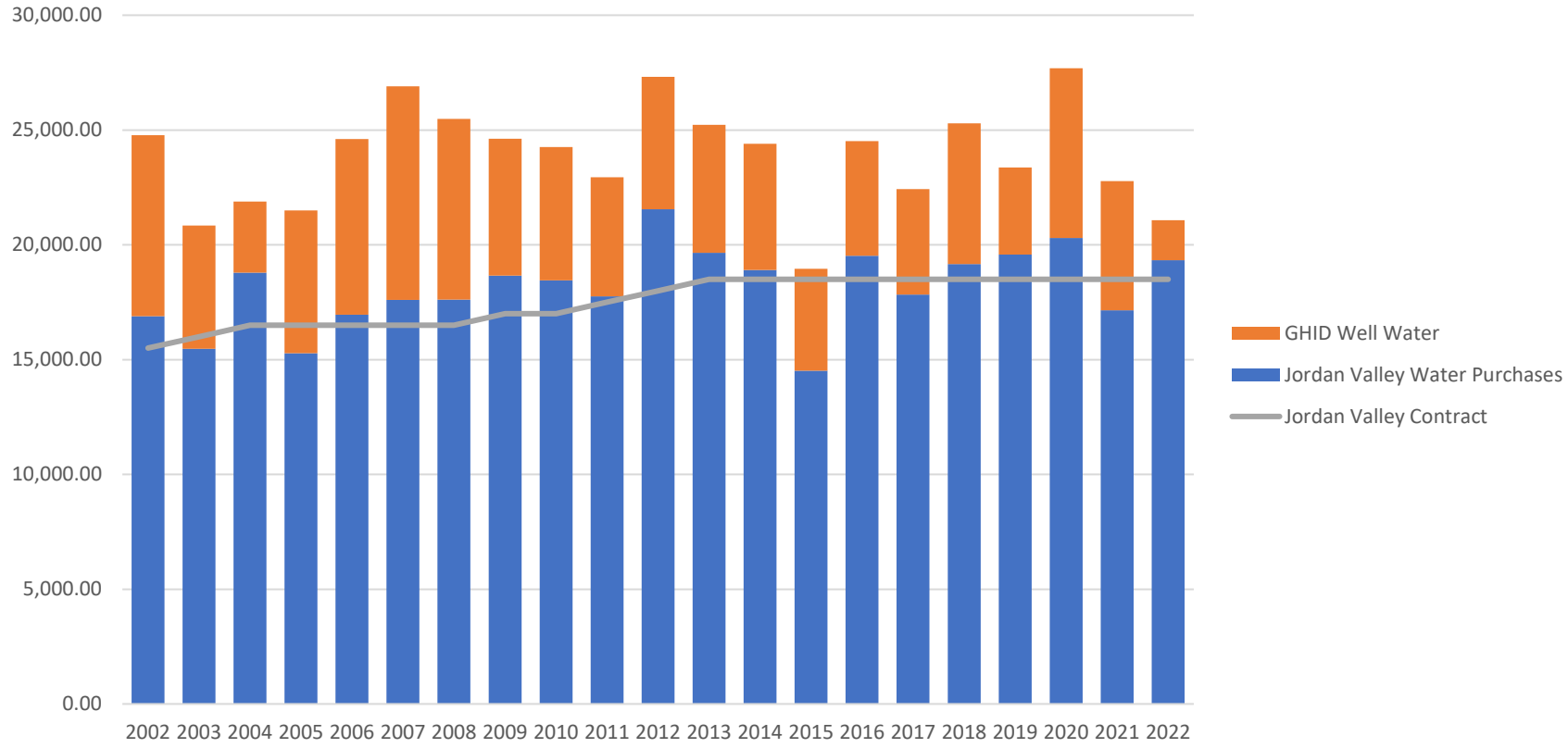
Average JVWCD Purchase:

18,594 ac-ft

Average GHID Production:

4,978 ac-ft

*since 18,500 ac-ft contract



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40-year Plan

House Bill 51 (2003) – exempts from forfeiture water rights held by suppliers for reasonable future needs.

TABLE 1
FLOW VOLUME FOR 40-YEAR PLAN

WATER RIGHT NO.	FLOW RIGHT cfs	FLOW RIGHT VOLUME acre-feet/year
59-1203	3.00	2,171.90
59-1516	5.00	3,619.83
59-3434	3.14	2,273.26
59-3435	2.00	1,447.93
59-1204	1.00	723.97
59-1207	1.86	1,346.58
57-8776	1.78	1,288.66
59-1517	5.00	3,619.83
59-1545	0.9928	222.53
59-1639	0.30	114.00
59-5132	6.00	2,000.00
59-5144	5.00	1,601.09
57-2851	1.30	941.16
Total	36.3728	21,370.74

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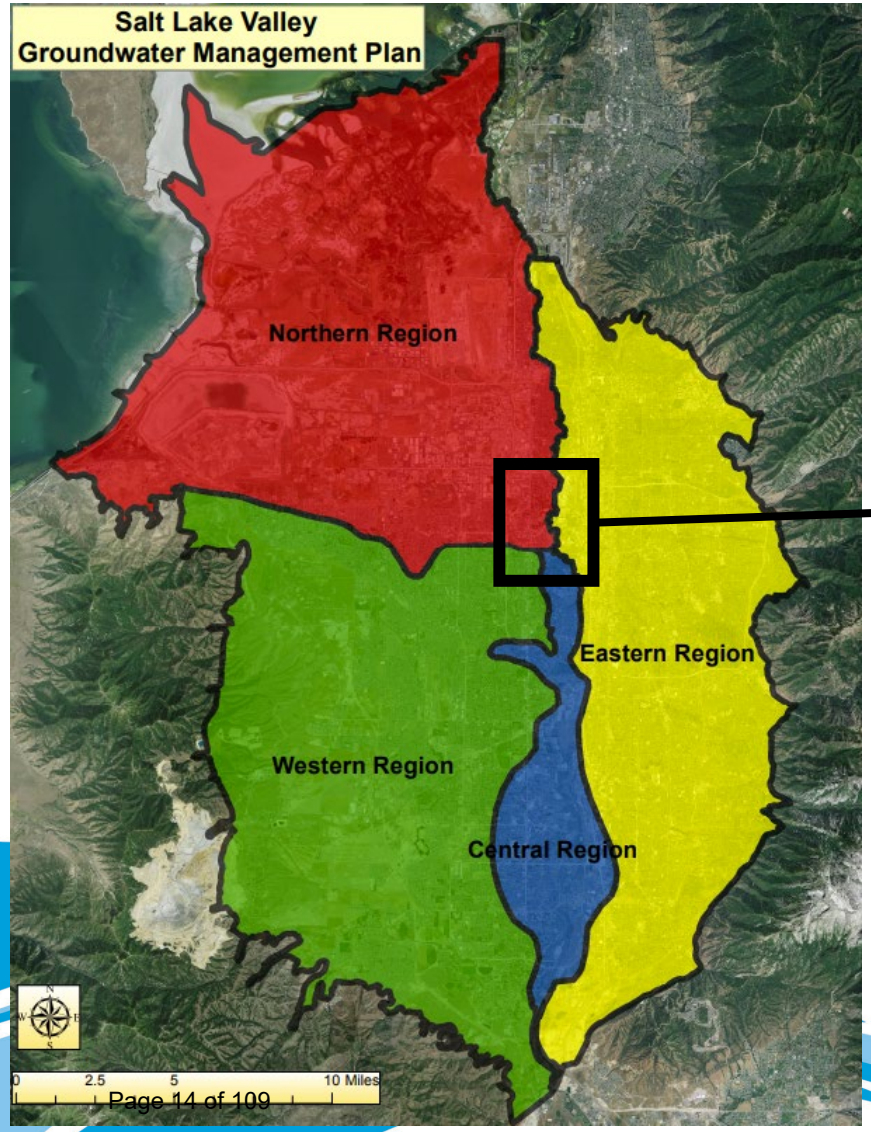
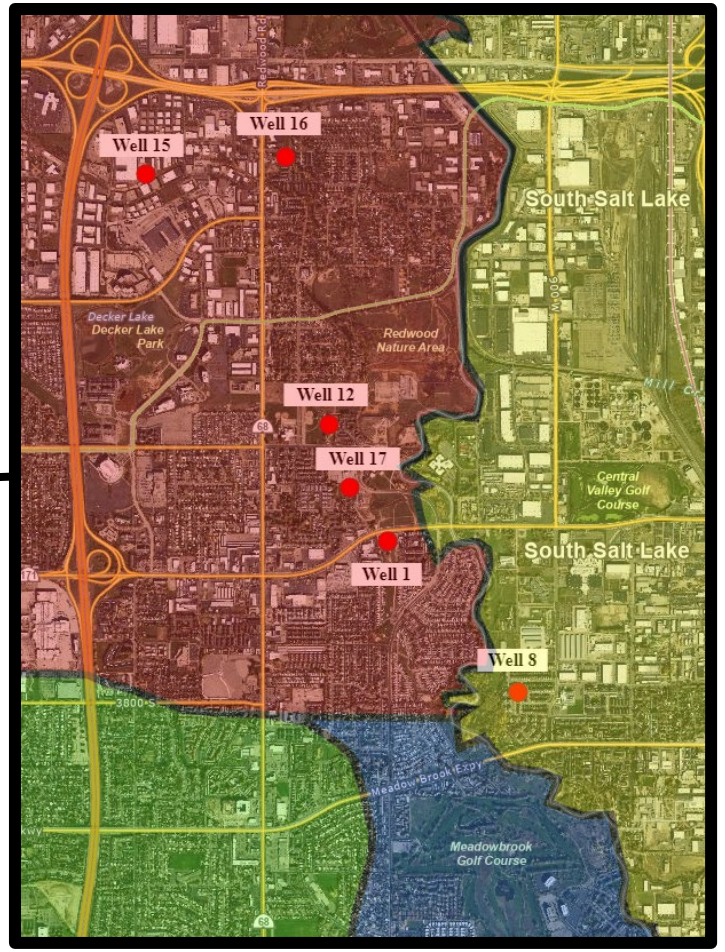
GHID Wells In-use





Most of GHID's high-production wells are in the Northern Region of the Salt Lake Valley Aquifer. Well no. 8 is in the Eastern Region.

Salt Lake Aquifer Safe Yields

Salt Lake Valley Groundwater Management Plan

Salt Lake Valley Ground-Water Management Plan – June 25, 2002

Table 1. Regional Safe Yields

Region	Safe Yield (acre-feet per year)
Western	25,000
Eastern	90,000
Central	20,000
Northern	30,000

USGS - Groundwater Conditions in Utah, 2021

Table 2. Regional Groundwater Withdrawals

Region	Irrigation	Industrial	Public Supply	Total
Western	3109	8624	6998	18731
Eastern	1495	4463	49528	55486
Central	1069	4	6035	7108
Northern	2243	5086	9509	16838

ROUGHLY 6000 - 13,000 ACRE-FEET AVAILABLE

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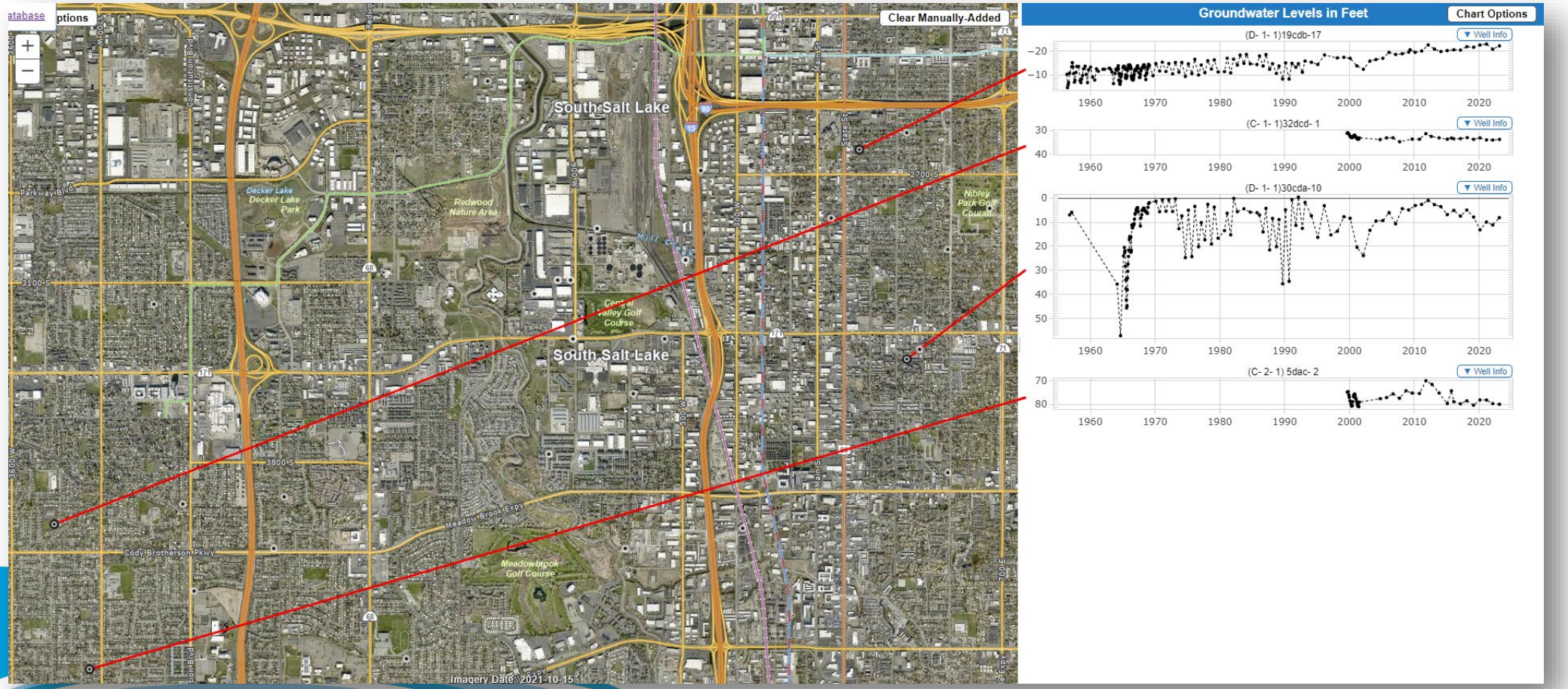
Aquifer Levels



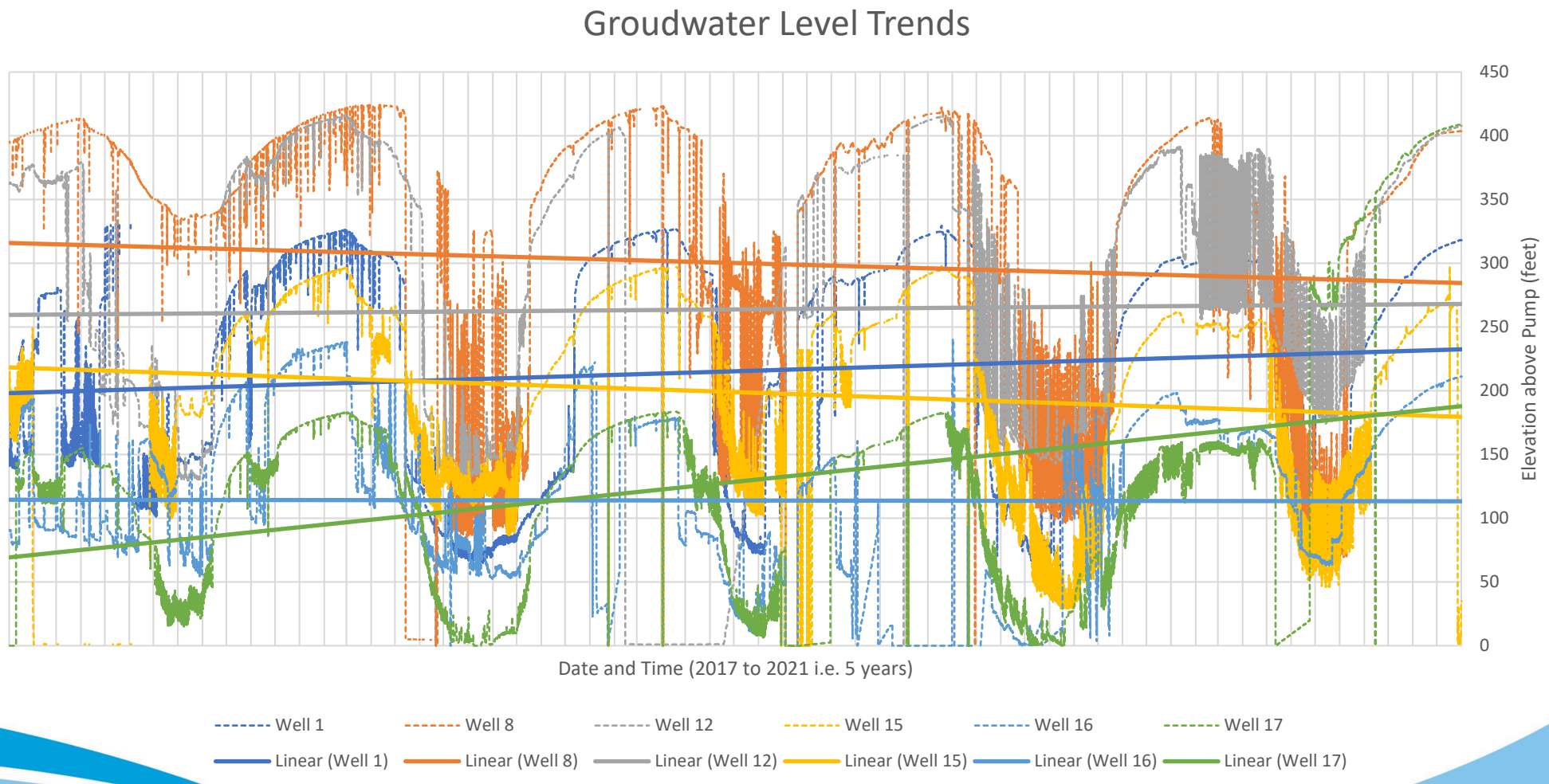
Some recent data shows upward or flat trend in nearby wells.

GHID Well Static Levels

Upward:
- #1, 12, & 17

Downward:
- #8 & 15

Flat:
- #16



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Drought Level Modifications

Water Scheduling Options

TBID: Level 0: Utah lawn watering guide, time of day restrictions

Watering day restrictions start at Level 2

Magna Water: Level 1: Conservation through pricing, time of day restrictions

Watering day restrictions start at Level 2

Kearns ID: Level 1: Watering Times 6:00 PM to 8:00 AM, notify customers of broken sprinkler heads

Watering day restrictions start at Level 2

JVWCD: Level 0: Regular conservation programs, leak detection

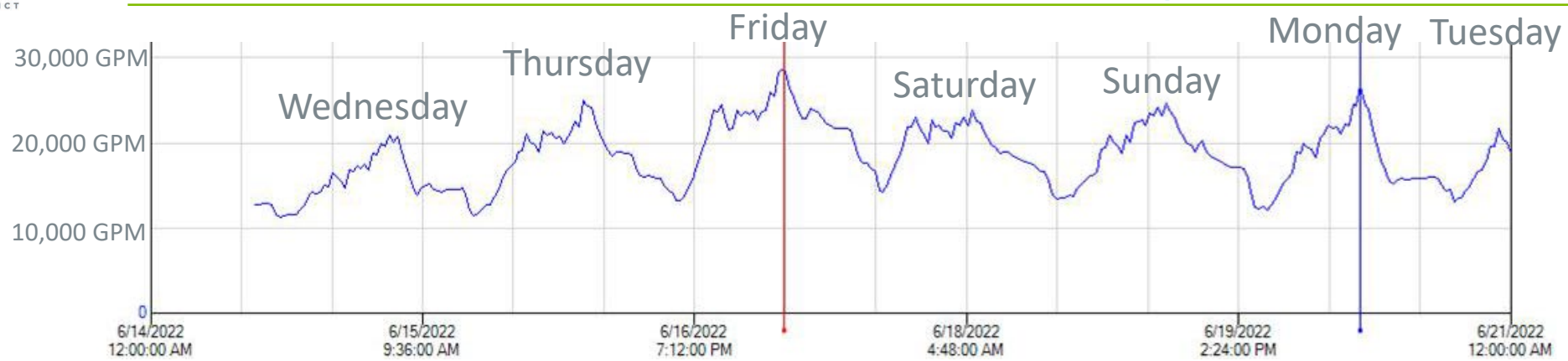
Watering day restrictions start at Level 2

Salt Lake City: Stage 1 (Advisory): Voluntary schedule for lawn watering

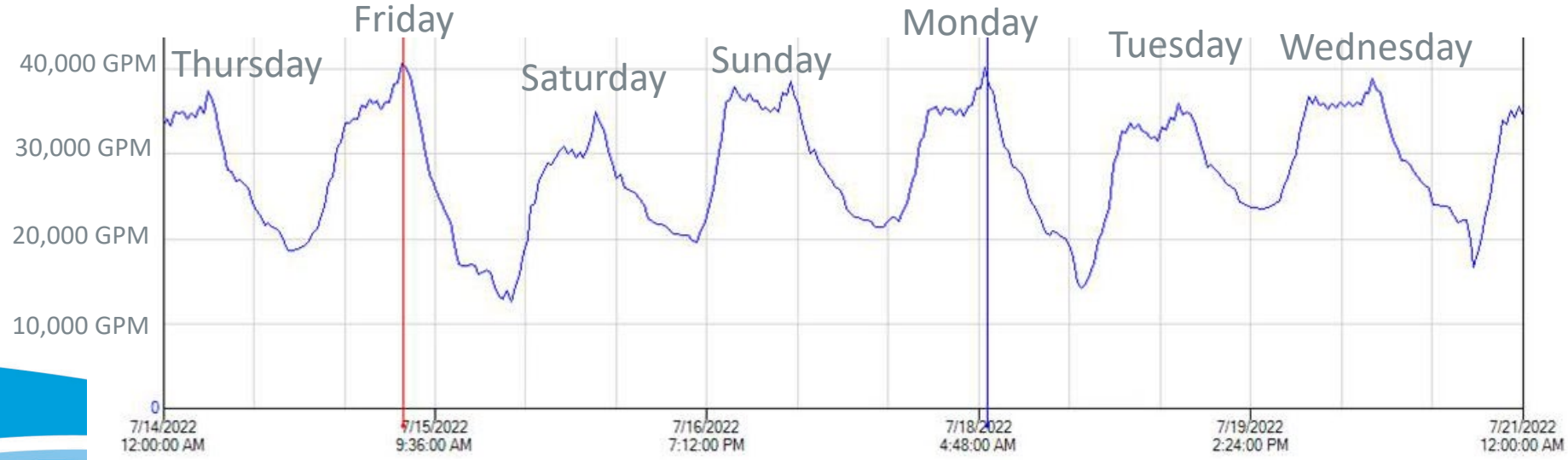
Watering day restrictions begin at Stage 1, mandatory at Stage 4

Daily Use in 2022

June 14-21, 2022



July 14-21, 2022



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QUESTIONS?

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10-Year Capital and Financial Plan Update

2024-2034

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Capital Projects Plan Update

2024-2034

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2022 Master Plan

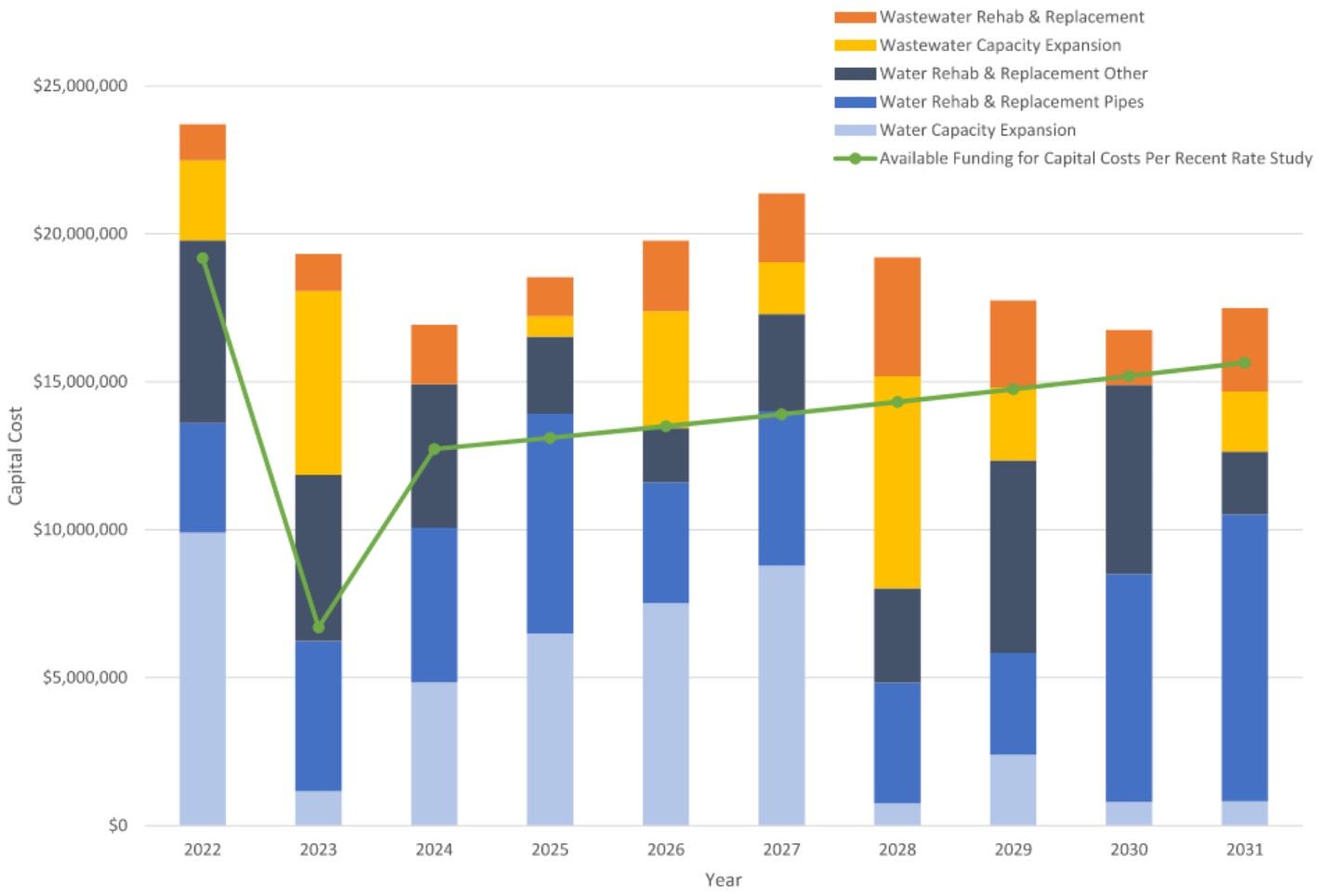

Figure 10-1 10-Year Revenue and Expenditures

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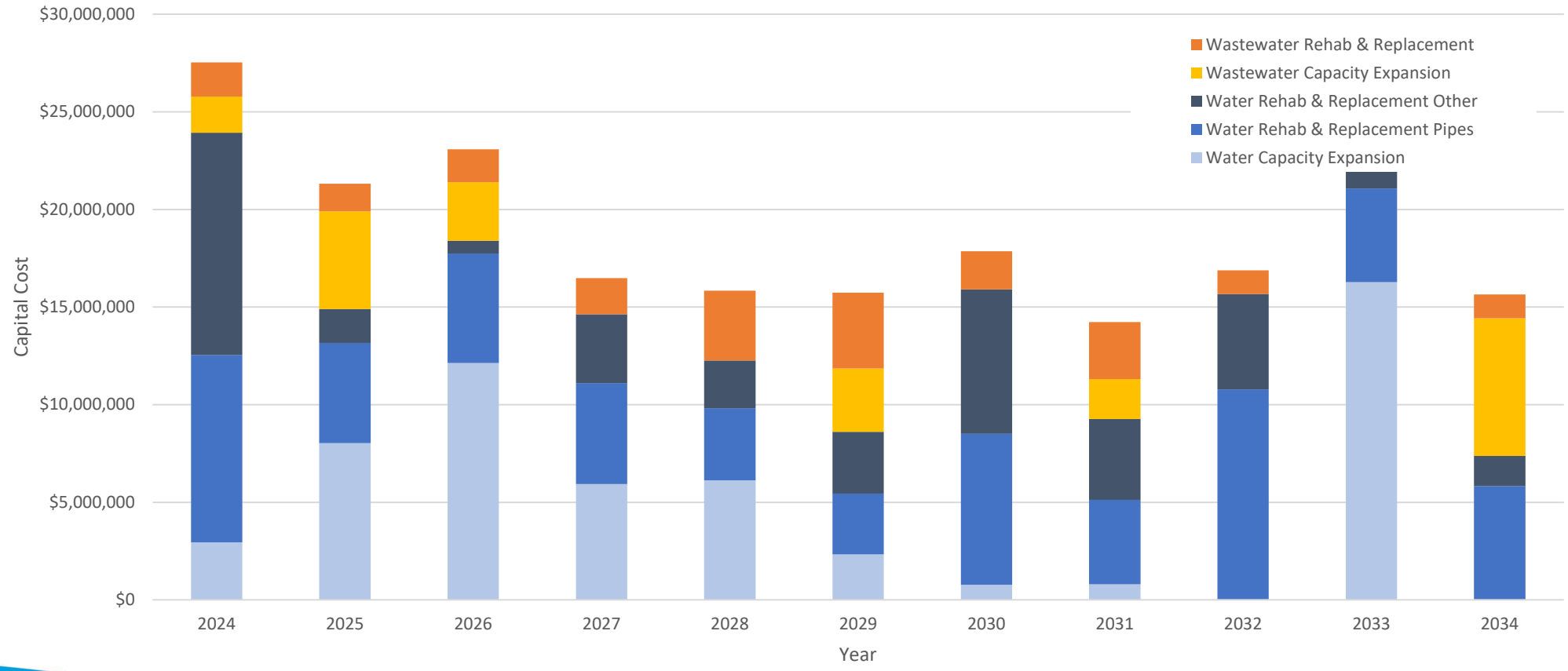
2024 Master Plan Update



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Three Year Major Project List

Project List	2024	2025	2026
Kent Pump Station	$6.5m	-	-
Ridgeland Pump Station	$2.4m	-	-
Redwood Road Wtr/Swr	$10.5m	$1.5m	$1.5m
Wtr/Swr Rplcmt Lines	$1.2m	$5.7m	$7.8m
Zone 1 Reservoir	-	-	$5.0m
Well No. 18 Development	$2.3m	$2.5m	-
Anderson Treatment Plant	$0.7m	$5.5m	$5.5m
Swr Lift Station Rplcmt	$0.4m	$3.5m	$1.5m
Other Projects*	$3.5m	$2.6m	$1.8m
Total Est Project Spend	$27.5m	$21.3m	$23.1m

*Other projects include reservoir recoating/repairs, recurring projects, meter vaults, etc…

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2024 Proposed Rates and Fees

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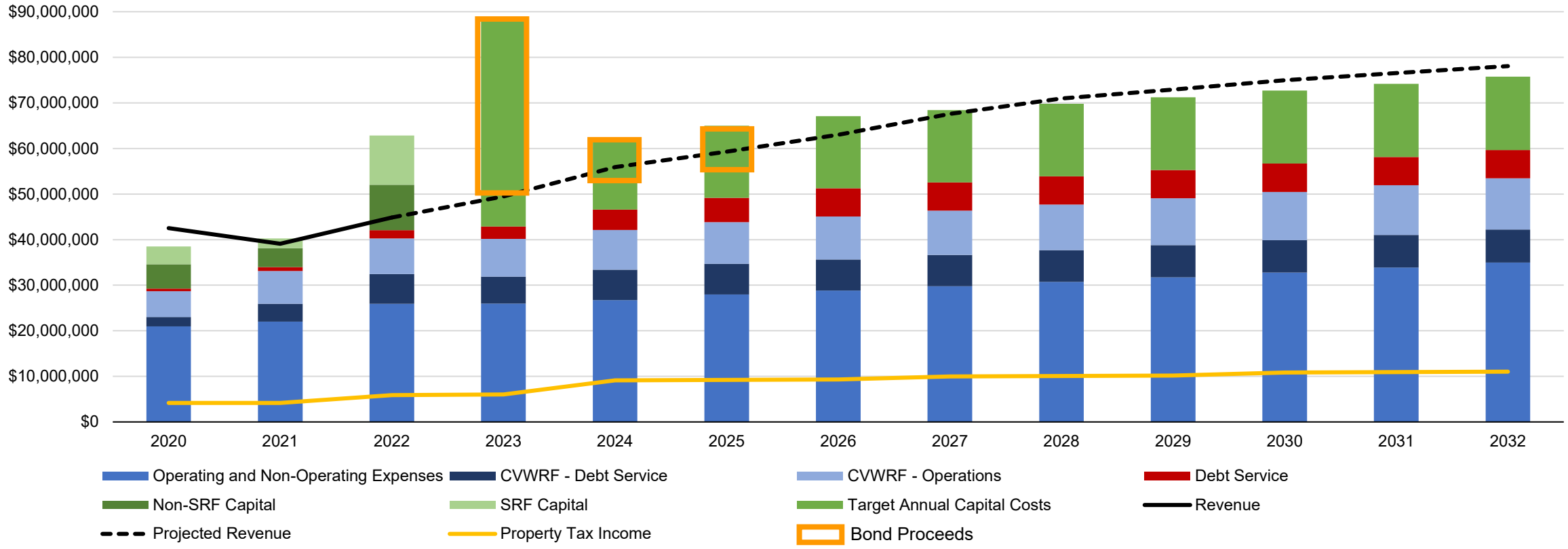
2023 Final 10-Year Plan



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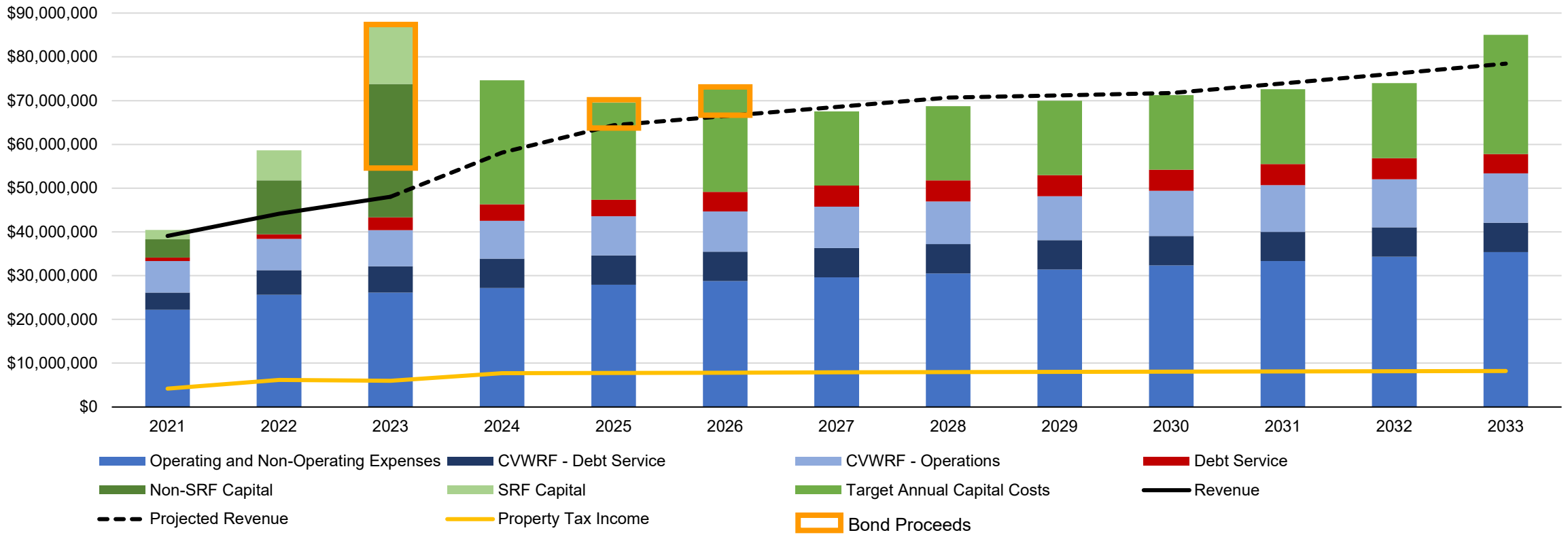
2024 Rate Adjustment

Expenses	2023	2024	2025	2026	2027	2028
Operating Expenditures	$40.4m	$42.5m	$43.6m	$44.7m	$45.8m	$47.0m
Capital Expenditures	$43.9m	$27.5m	$21.3m	$23.0m	$16.0m	$16.0m
% Rate Increases	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Option 1	N/A	15%	15%	3%	3%	3%
Option 2	N/A	10%	8%	6%	6%	6%
Option 3	N/A	3%	8%	8%	10%	10%

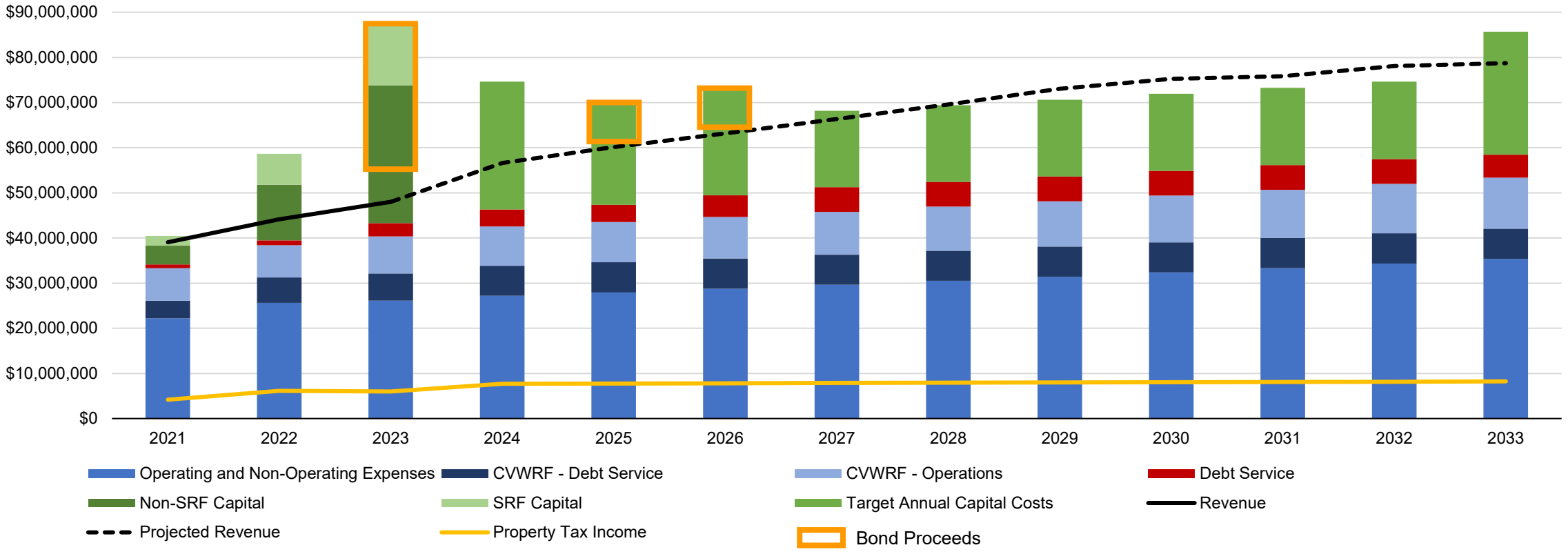
Bonding	2023*	2024	2025	2026	2027	2028	Total
Option 1	$42.8m	-	$5.0m	$5.0m	-	-	$52.8m
Option 2	$42.8m	-	$10.0m	$10.0m	-	-	$62.8m
Option 3	$42.8m	$5.0m	$10.0m	$13.0m	-	-	$70.8m

*Includes $2.8m principal forgiveness

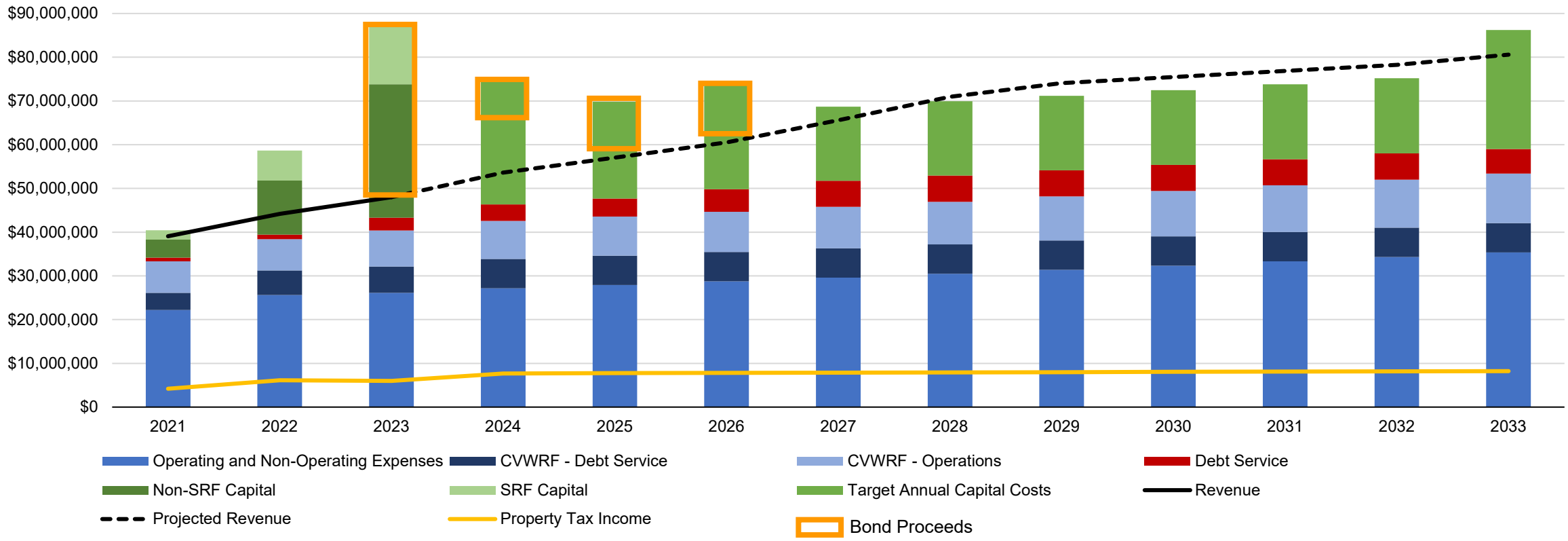
2024 10-Year Plan – Option 1



2024 10-Year Plan – Option 2



2024 10-Year Plan – Option 3



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2024 Property Tax Rates

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Property Tax Analysis

2022 Year-end Property Tax Analysis

- In 2021 Board adopted policy that property tax revenue should be 17% of operating expenses
- 2022 year-end analysis showed property tax revenue will be 15.9% of operating expenses based on 2023 expected tax rate of 0.000494
- With addition of the Series 2023A and 2023B bonds the year-end analysis shows that property tax revenue should be 18.5% of operating expenses
- To achieve revenue amount of 18.5% of operating expenses property tax rates would need to increase 13.6% from 2023 rate which would generate additional revenue of about $758k
- Max property tax rate of 0.000800 would increase property tax rates about 62% or a revenue increase of about $3.4m.

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Property Tax Analysis

Ongoing Utah Legislation

- Recapture lost revenue (approx. $5.6M)
  - Payment in lieu of property tax
  - Water and wastewater base rates
  - Additional revenue from tax exempt entities
- Spreads revenue collection throughout the year rather than October through December
- Customer bills potentially could increase as much as 50%
  - Increase O&M costs from Jordan Valley and recouping GHID property tax revenues
- How to equitably allocate “Public Good” services across revenue base

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QUESTIONS?

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Appendix

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Option 1

	Existing	2024	2025	2026	2027	2028
Water						
Rate Increase	N/A	15%	15%	3%	3%	3%
Base Rate ($/month)	$16.50	$18.98	$21.83	$22.48	$23.15	$23.84
Single Family – Tier 1 ($/kgal)	$1.50	$1.73	$1.98	$2.04	$2.10	$2.16
Single Family – Tier 2 ($/kgal)	$2.10	$2.42	$2.78	$2.86	$2.95	$3.04
Single Family – Tier 3 ($/kgal)*	$3.00	$3.45	$3.97	$4.09	$4.21	$4.34
Single Family – Tier 4 ($/kgal)*	$4.00	$4.60	$5.29	$5.45	$5.61	$5.78
Other Users – All Use ($/kgal)	$2.30	$2.65	$3.04	$3.13	$3.22	$3.32
Sewer						
Base Rate ($/month)**	$15.50	$17.80	$20.47	$21.08	$21.71	$22.36
Volume Rate ($/kgal)	$1.50	$1.70	$1.96	$2.02	$2.08	$2.14

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Option 2

	Existing	2024	2025	2026	2027	2028
Water						
Rate Increase	N/A	10%	8%	6%	6%	6%
Base Rate ($/month)	$16.50	$18.15	$19.60	$20.78	$22.03	$22.35
Single Family – Tier 1 ($/kgal)	$1.50	$1.65	$1.78	$1.89	$2.00	$2.12
Single Family – Tier 2 ($/kgal)	$2.10	$2.31	$2.49	$2.64	$2.80	$2.97
Single Family – Tier 3 ($/kgal)*	$3.00	$3.30	$3.56	$3.77	$4.00	$4.24
Single Family – Tier 4 ($/kgal)*	$4.00	$4.40	$4.75	$5.04	$5.34	$5.66
Other Users – All Use ($/kgal)	$2.30	$2.53	$2.73	$2.89	$3.06	$3.24
Sewer						
Base Rate ($/month)**	$15.50	$17.05	$18.41	$19.51	$20.68	$21.92
Volume Rate ($/kgal)	$1.50	$1.70	$1.84	$1.95	$2.07	$2.19

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Option 3

	Existing	2024	2025	2026	2027	2028
Water						
Rate Increase	N/A	3%	8%	8%	10%	10%
Base Rate ($/month)	$16.50	$17.00	$18.36	$19.83	$21.81	$23.99
Single Family – Tier 1 ($/kgal)	$1.50	$1.55	$1.67	$1.80	$1.98	$2.18
Single Family – Tier 2 ($/kgal)	$2.10	$2.16	$2.34	$2.53	$2.78	$3.06
Single Family – Tier 3 ($/kgal)*	$3.00	$3.09	$3.34	$3.61	$3.97	$4.37
Single Family – Tier 4 ($/kgal)*	$4.00	$4.12	$4.45	$4.81	$5.29	$5.82
Other Users – All Use ($/kgal)	$2.30	$2.37	$2.56	$2.76	$3.04	$3.34
Sewer						
Base Rate ($/month)**	$15.50	$15.96	$17.24	$18.62	$20.48	$22.53
Volume Rate ($/kgal)	$1.50	$1.55	$1.67	$1.80	$1.98	$2.18

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Water Quality

Progress & Updates

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Projects/Concerns

- Unregulated Contaminant Monitoring Rule (UCMR5)
- Forever Chemicals PFAS/PFOA
- Lead & Copper Rule Revision

The Safe Drinking Water Act (SDWA)

- Enacted in 1974, SDWA authorized the Environmental Protection Agency (EPA) to set enforceable health standards for contaminants in drinking water National Primary Drinking Water Regulations (NPDWRs)
- The 1986 SDWA amendments were the basis for the original “UCM” program State drinking water programs managed the original UCM program
- The 1996 SDWA amendments changed the process of developing and reviewing NPDWRs

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UCMR5 Contaminants: 29 PFAS + Lithium

EPA Method 533 (PFAS monitored under UCMR 3 are in bold)			
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	Perfluorohexanoic acid (PFHxA)
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	Perfluorobutanoic acid (PFBA)	Hexafluoropropylene oxide dimer acid (HFPO-DA) ("GenX chemical")	**Perfluorohexanesulfonic acid (PFHxS)**
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	Perfluoroheptanesulfonic acid (PFHpS)	**Perfluorobutanesulfonic acid (PFBS)**	**Perfluorononanoic acid (PFNA)**
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorodecanoic acid (PFDA)	**Perfluorooctanesulfonic acid (PFOS)**
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	Perfluoropentanoic acid (PFPeA)	Perfluorododecanoic acid (PFDoA)	**Perfluorooctanoic acid (PFOA)**
Perfluoro-3-methoxypropanoic acid (PFMPA)	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	**Perfluoroheptanoic acid (PFHpA)**	Perfluoroundecanoic acid (PFUnA)
Perfluoro-4-methoxybutanoic acid (PFMBA)			
PFAS Analytes Unique to EPA Method 537.1			
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	Perfluorotetradecanoic acid (PFTA)	Perfluorotridecanoic acid (PFTrDA)
EPA Method 200.7 or Alternate SM 3120 B or ASTM D1976-20			
Lithium			

DEQ TAKES AIM at PFAS

PFAS are a group of man-made chemicals used in a wide variety of applications and industries. They are characterized by their persistence in groundwater, surface water, soil, and can be ingested by and build up inside animals and humans.

Through monitoring, DEQ has found a low risk for PFAS in Utah's drinking water.

HEALTH EFFECTS

Exposure to PFAS has been linked to health concerns including cancer, hormone disruption, liver and kidney toxicity, harm to the immune system, and reproductive and developmental toxicity.

SOURCES of CONTAMINATION

Many products are made with PFAS including food packaging; stain repellent; non-stick cookware; water repellent clothing; aerospace, medical, and auto-motive components; and specialty items such as fire fighting foams and ski wax.

DRINKING WATER

All test results from Utah drinking water fell well below Environmental Protection Agency advisory limits for the PFAS measured, indicating a low risk for human exposure to PFAS through Utah's drinking water.

0

Water samples measured with PFAS concentrations above health advisory levels

68%

Percent of Utahns served by a water system sampled for PFAS since 2020

4 years

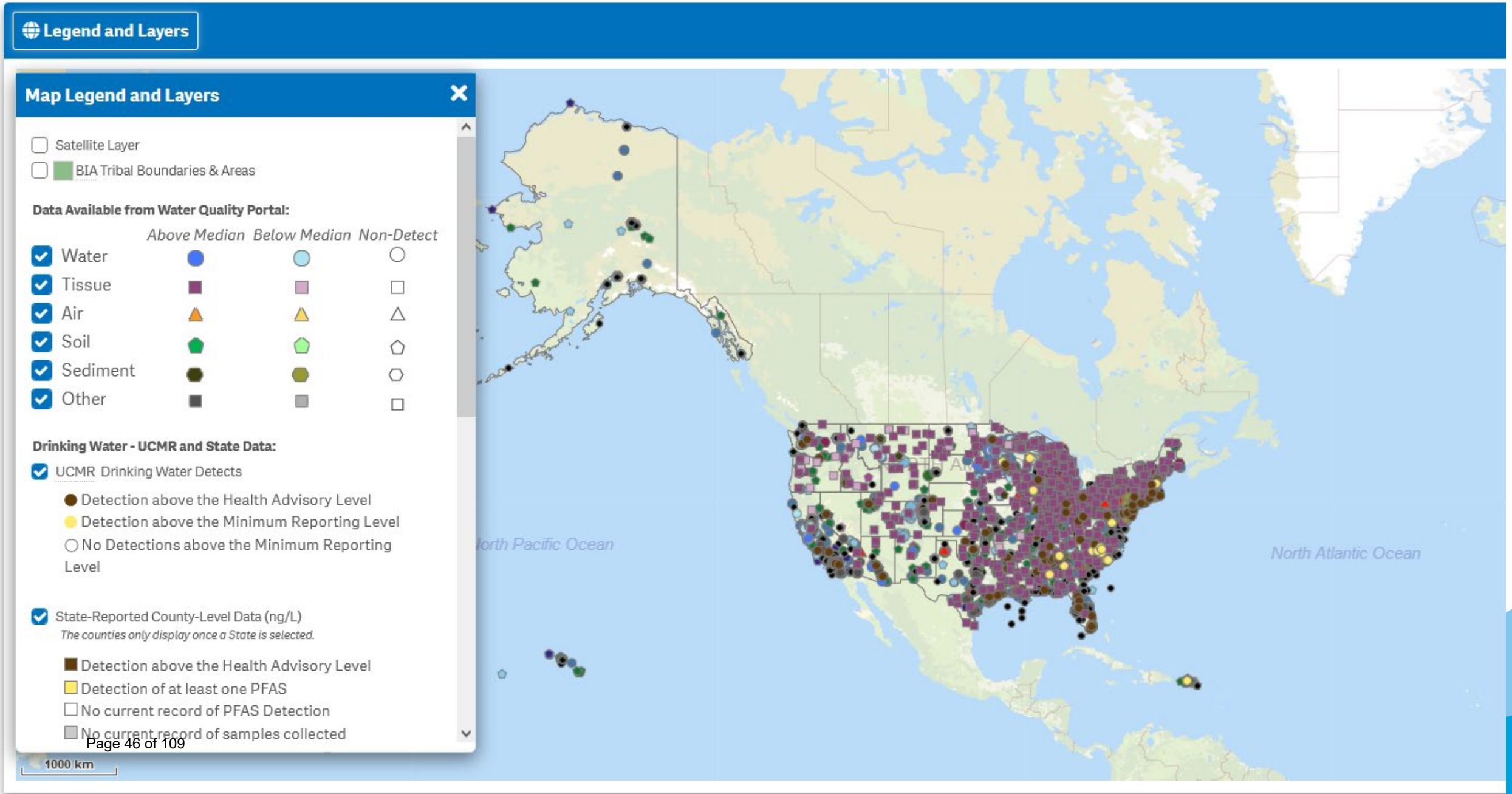
Time it will take for the level of certain types of PFAS in the body to go down by half

6,000

Synthetic chemicals in the PFAS family

DEPARTMENT of ENVIRONMENTAL QUALITY | DIVISION of DRINKING WATER

PFAS Analytic Tools



GRANGER-HUNTER
IMPROVEMENT DISTRICT

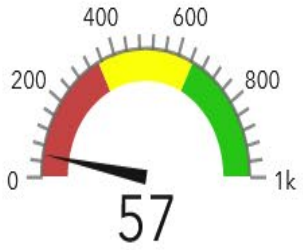
Let's get the Lead Out!

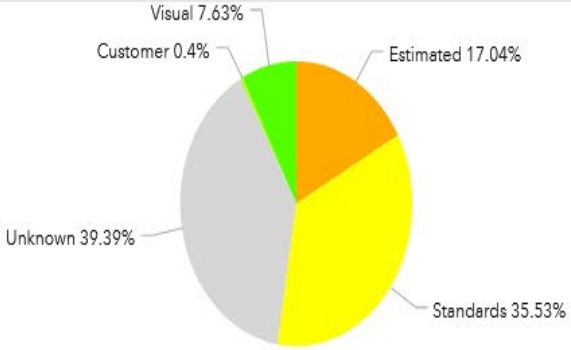
Water crew identifying water line material.

Water crew identifying water line material using a valve maintenance vehicle.

Lead and Copper Inventory

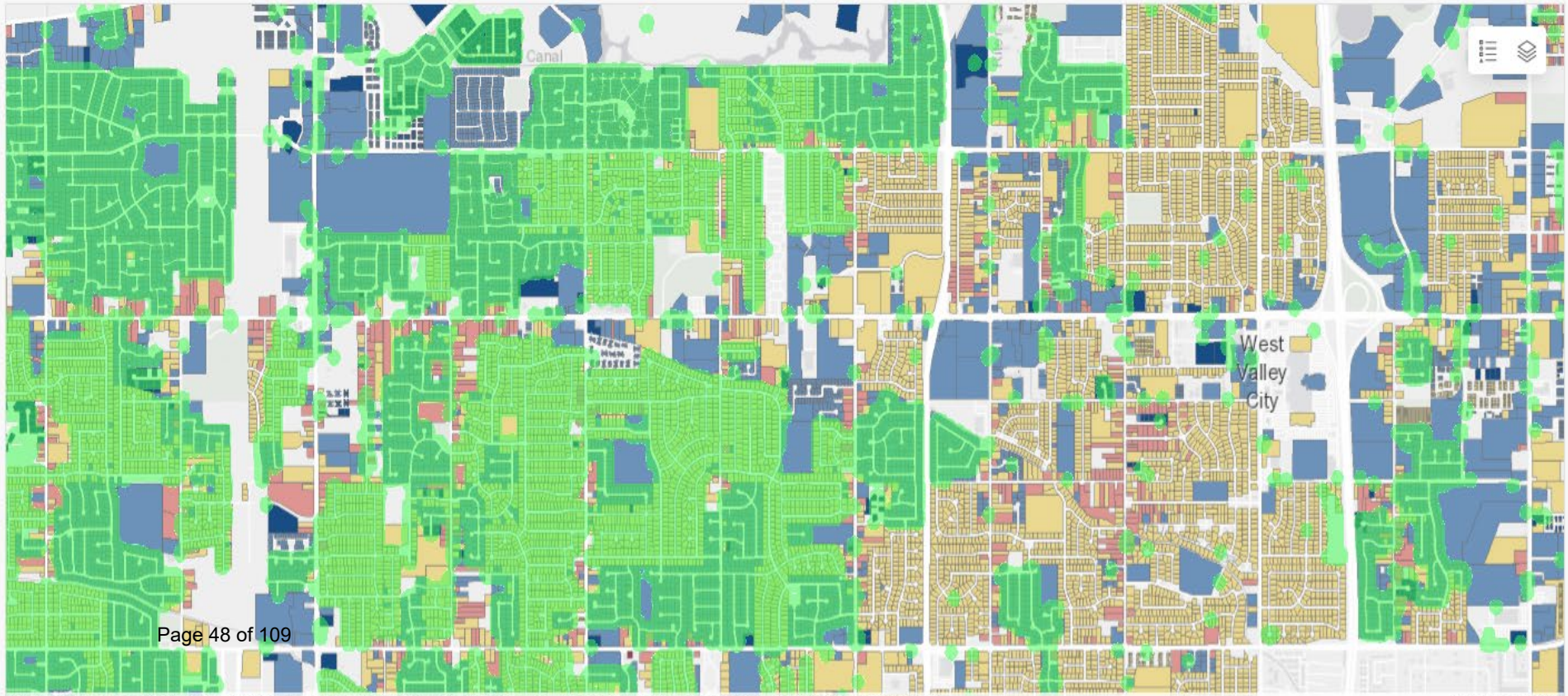
Verified connections last month





This Month | Last Month

Lateral Materials | Verified Type | Verified Connection Totals



Unverified Connections

11,010

out of 27,233 connections

*The number of meters connected to our system where the customer or public side of the pipe is an unknown material.

Unknown Connections | GHID | Private

Galvanized Laterals

63

The drinking water in many Utah schools and childcare centers may be contaminated with lead, a toxin that causes serious, lifelong damage to children. The Division of Drinking Water is partnering with schools and childcare centers to test every tap and work towards our shared goal of lead-free learning.

Sampling Resources

Save time by filling out the School Fixture Inventory Form to receive pre-labeled sampling bottles and pre-filled sampling sheets.

School Fixture Inventory Form

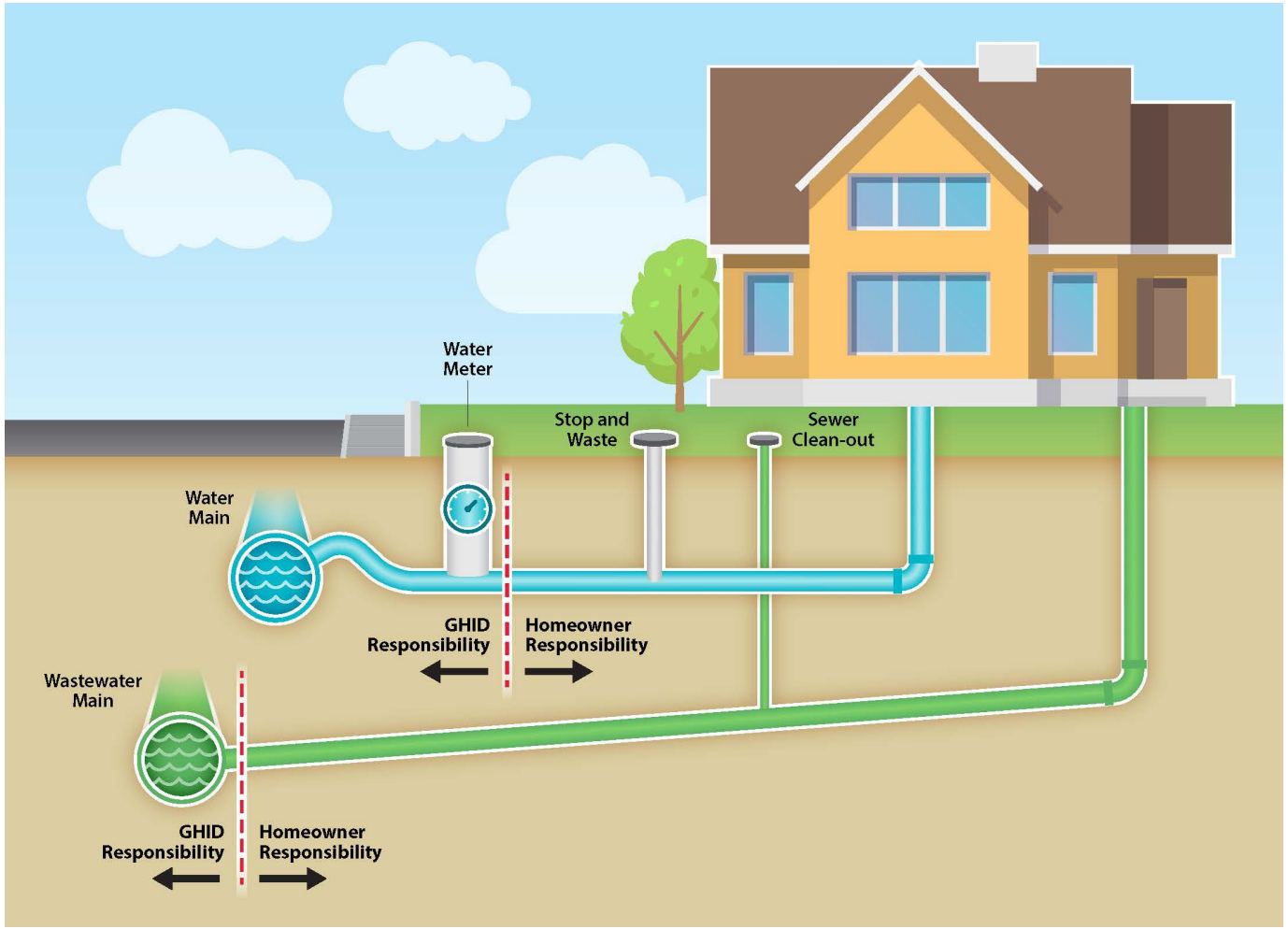
Water Sampling Guide

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
DRINKING WATER

Questions? Contact:
LeadFreeSchools@utah.gov

Outreach

- Graphic
- Website
- Consumer Confidence Report



PFAS Analytic Tools

Legend and Layers

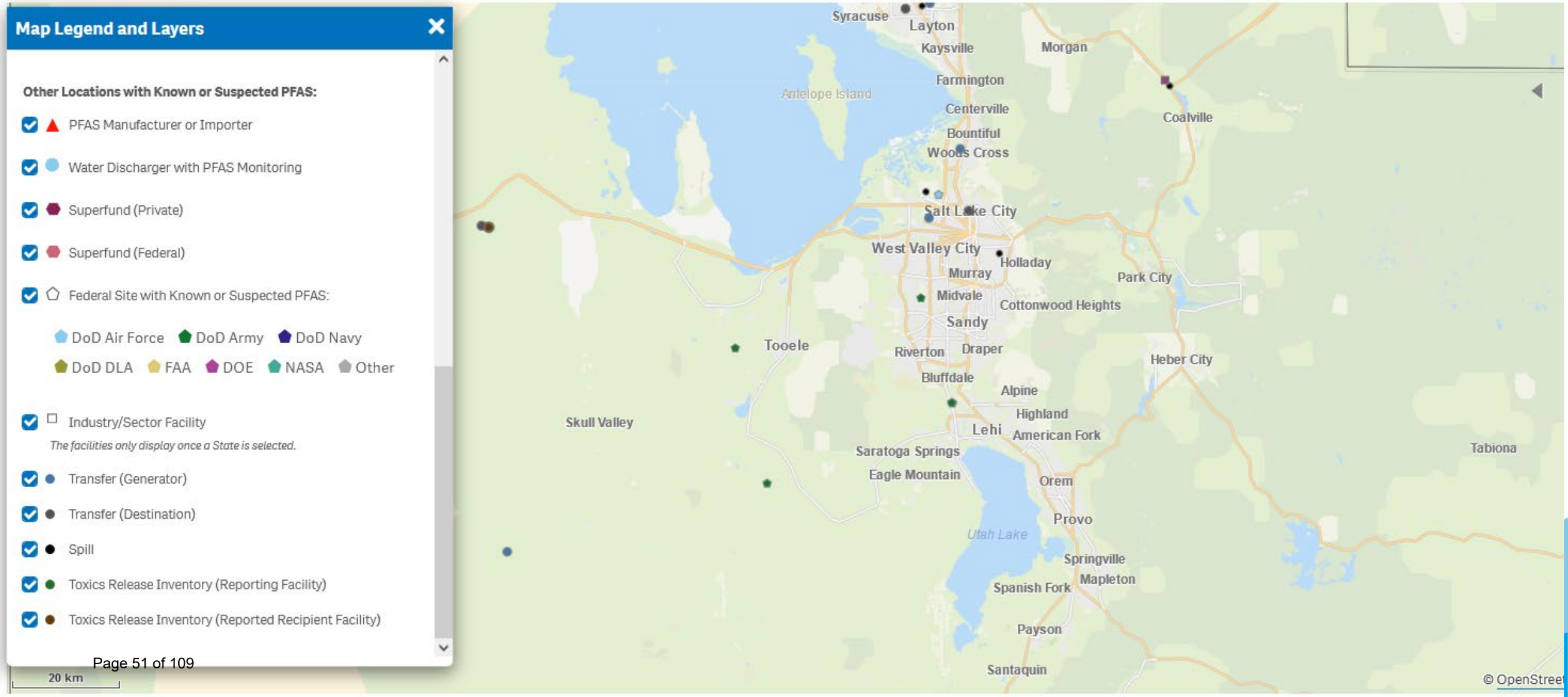
Map Legend and Layers

Other Locations with Known or Suspected PFAS:

- PFAS Manufacturer or Importer
- Water Discharger with PFAS Monitoring
- Superfund (Private)
- Superfund (Federal)
- Federal Site with Known or Suspected PFAS:
  - DoD Air Force
  - DoD Army
  - DoD Navy
  - DoD DLA
  - FAA
  - DOE
  - NASA
  - Other
- Industry/Sector Facility

The facilities only display once a State is selected.

- Transfer (Generator)
- Transfer (Destination)
- Spill
- Toxics Release Inventory (Reporting Facility)
- Toxics Release Inventory (Reported Recipient Facility)



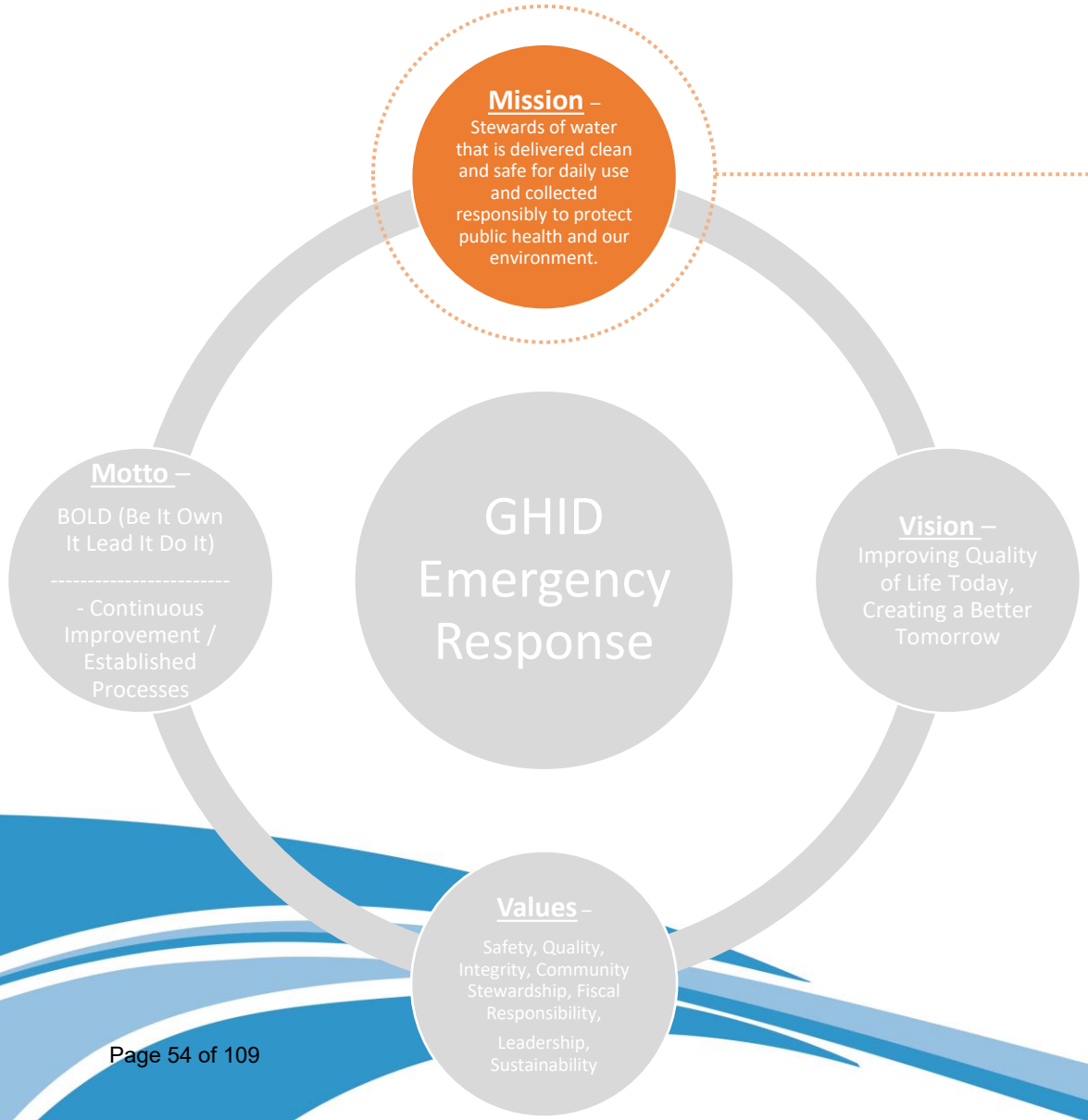
GRANGER-HUNTER
IMPROVEMENT DISTRICT

Emergency Response Plan Update

June 20, 2023

Introduction

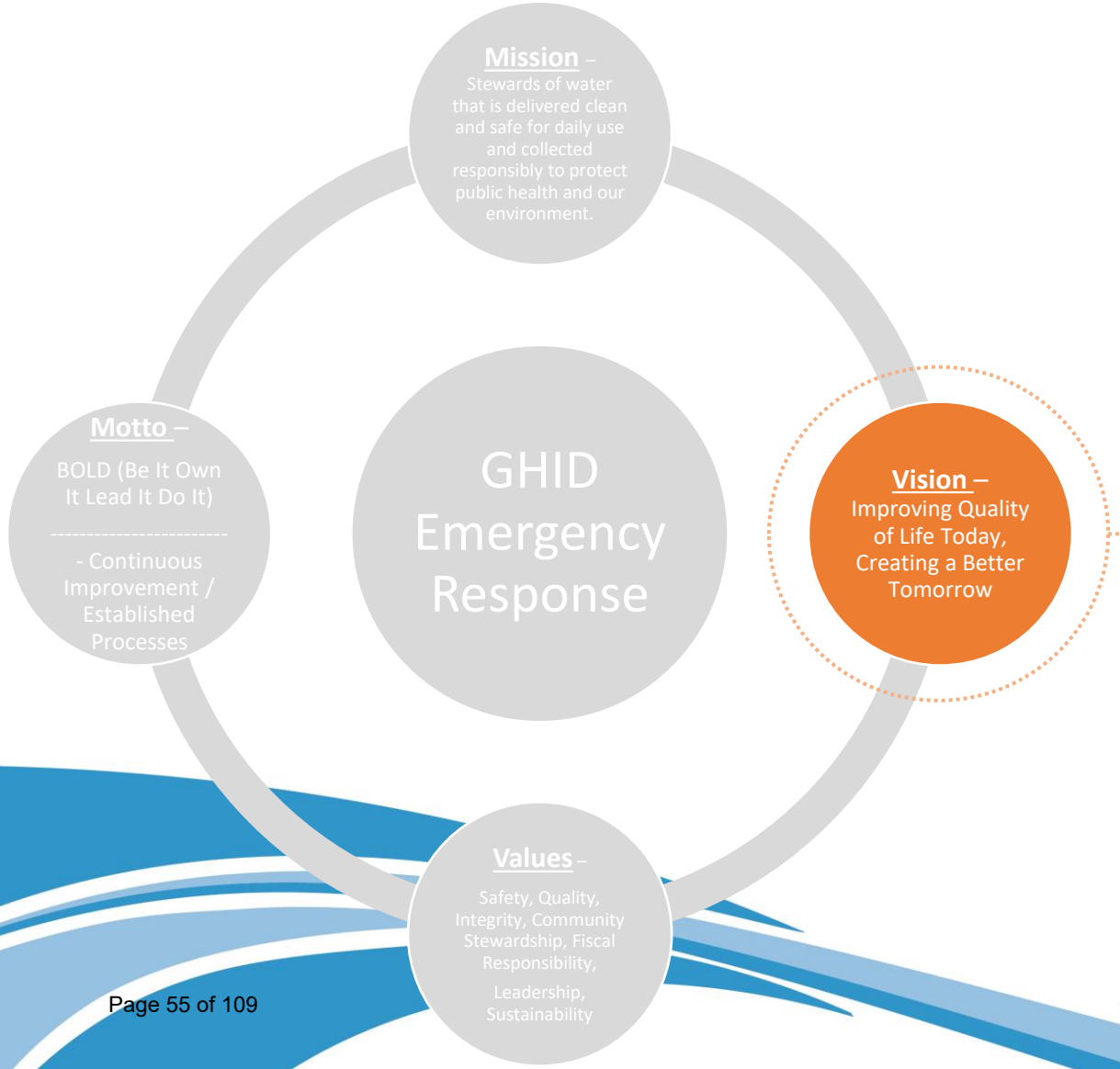
ERP – Mission



Stewards of Water

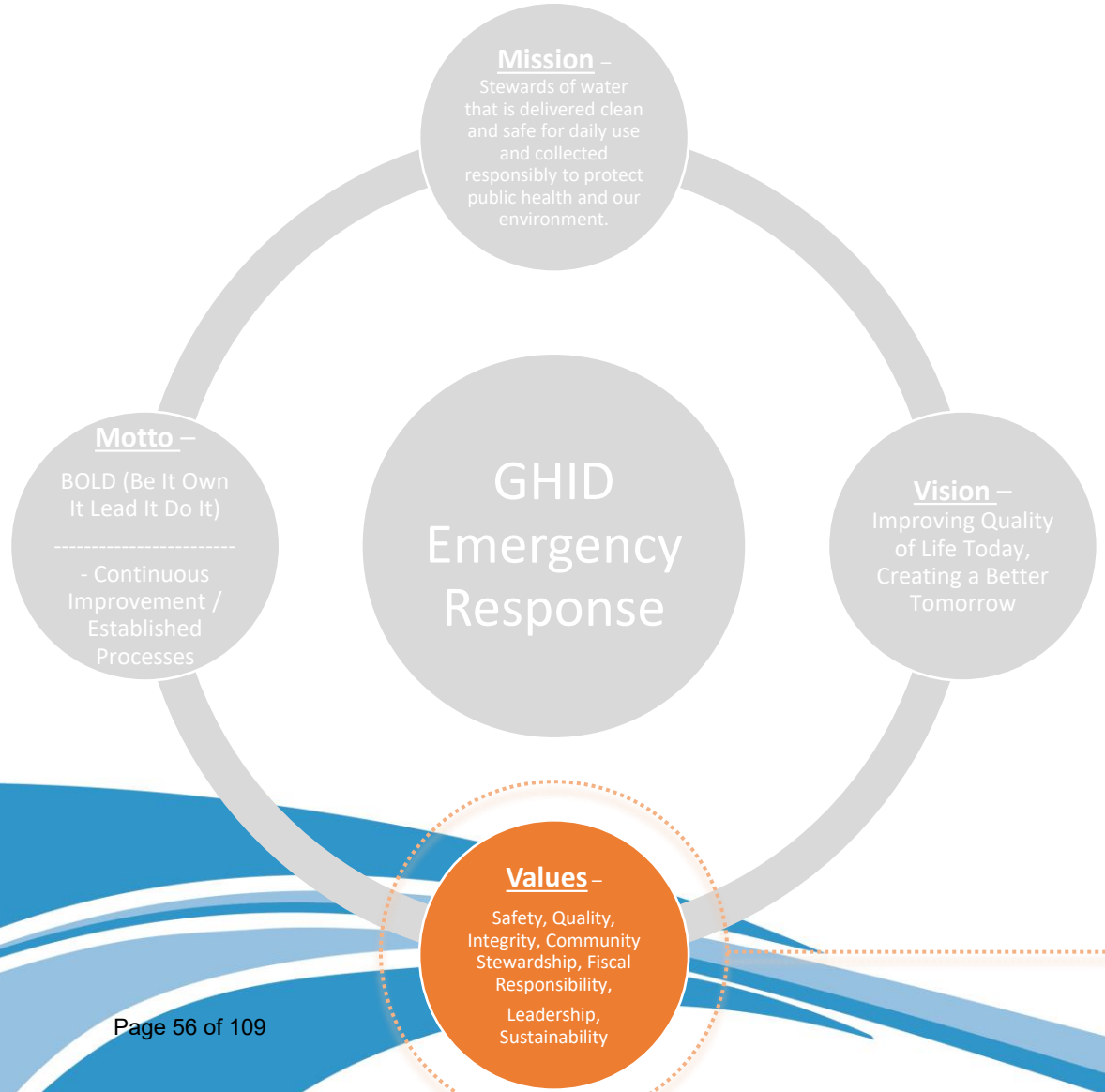
- Delivered Clean and Safe
- Collected Responsibly
- Protect Public Health
- And Our Environment

ERP - Vision



- Improving Quality of Life Today …
  - Increased Preparation
  - Increased Awareness
  - Increased Expertise
- Creating a Better Tomorrow …
  - Heightened Resilience
  - Quicker Response
  - More Effective Programs

ERP - Values

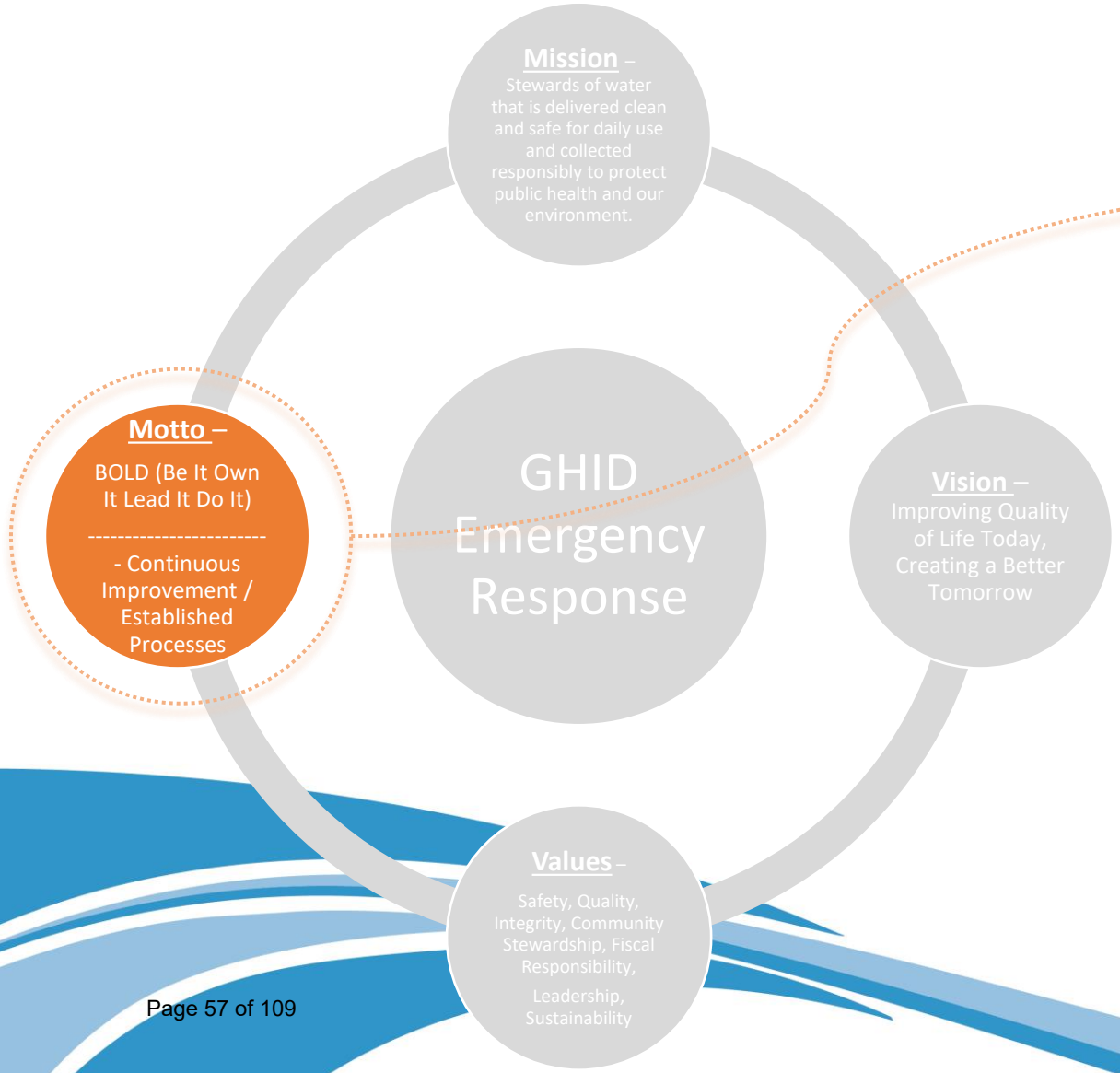


- **Safety.** Public and employee safety response programs ensure safety is top priority during incident response. This prioritization allows for clarity during critical decision-making processes during response management
- **Sustainability.** Thriving response program facilitates long term viability of our operations and core business functions
- **Fiscal Responsibility.** Proper planning, training, and incident response programs minimize exposure to GHID to ensure costs are responsibly managed, expenses reduced, and financial positions maintained

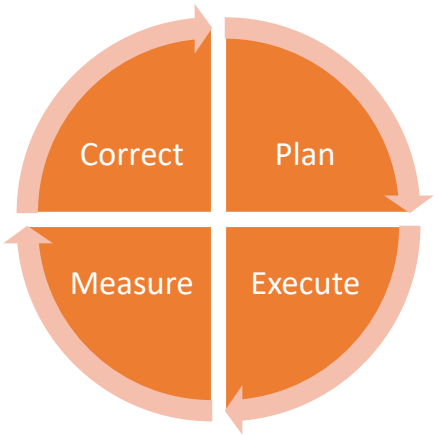
---

- **Leadership.** Strong leadership characteristics at all levels ensure a prepared and effective GHID team that can be trusted and effective in best emergency response programs
- **Quality.** This value applies to planning, execution, measuring, and correcting in all aspects of our emergency response program focused on operational excellence. This also allows for clarity during critical decision-making processes
- **Integrity.** Transparency, candid approaches, accountability and other similar characteristics of staff and teams are critical for effective and growth mindset response programs
- **Community Stewardship.** Emphasis on our patrons and stakeholders with value placed on end results impacts to them during response efforts

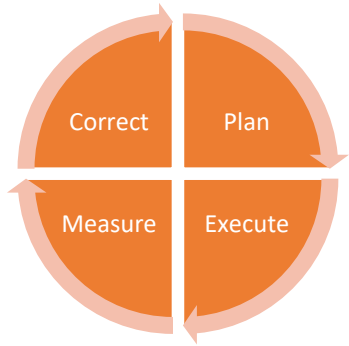
ERP - Motto



- Be It Own It Lead It Do It
- **Continuous Improvement / Established Processes …**
- **Plan**
- **Execute**
- **Measure**
- **Correct**



Continuous Improvement Process



Plan

- Emergency Response Program CIP
- After Hours Response Programs

Execute

- Training
- Tabletop Exercises
- Leak and Break Response

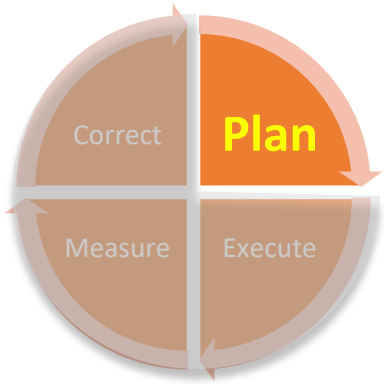
Measure

- After Action Reports
- Performance Metrics
- General Feedback

Correct

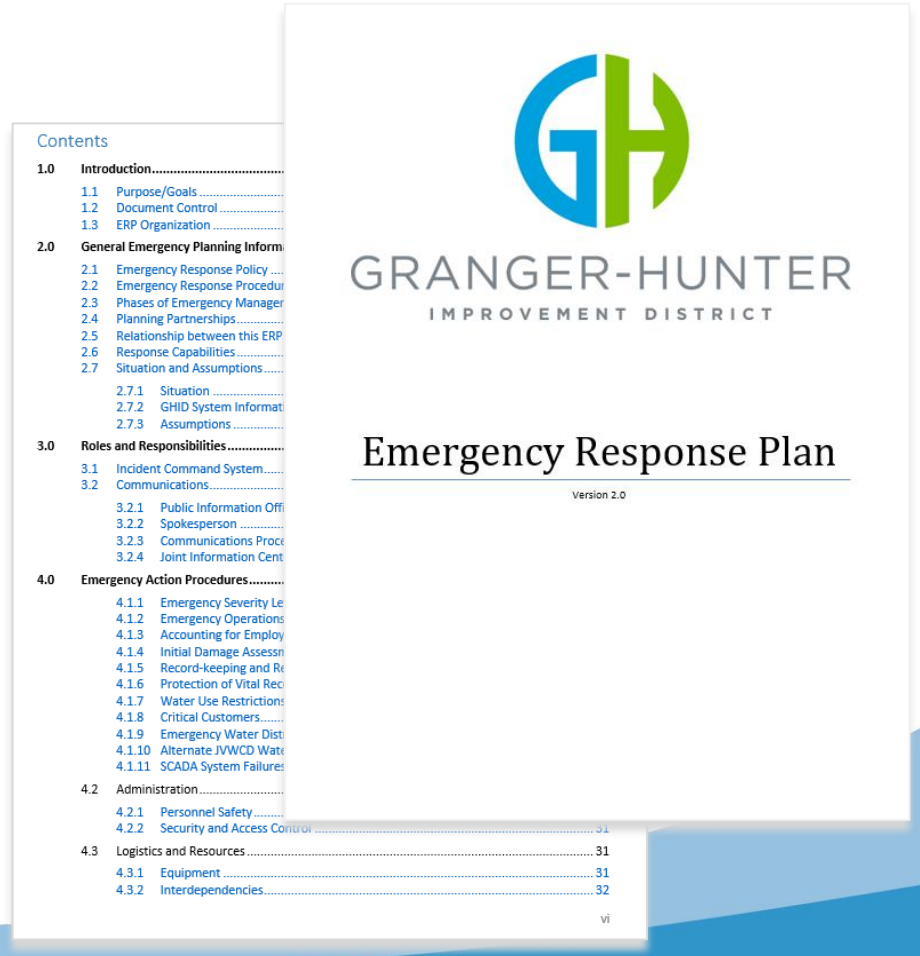
- Annual Updates and Revisions
- Improvements and Adjustments
- Feedback Loops

Emergency Response Program Preparedness Status



Existing Emergency Response Plan

1. Introduction Purpose and Organization
2. General Planning Information
3. Roles and Responsibilities
4. Emergency Action Procedures
5. Plan Management
6. References and Links
   - Appendices (8)


Contents

1.0 Introduction
1.1 Purpose/Goals
1.2 Document Control
1.3 ERP Organization
2.0 General Emergency Planning Inform
2.1 Emergency Response Policy
2.2 Emergency Response Procedur
2.3 Phases of Emergency Manager
2.4 Planning Partnerships
2.5 Relationship between this ERP
2.6 Response Capabilities
2.7 Situation and Assumptions
2.7.1 Situation
2.7.2 GHID System Informati
2.7.3 Assumptions
3.0 Roles and Responsibilities
3.1 Incident Command System
3.2 Communications
3.2.1 Public Information Offi
3.2.2 Spokesperson
3.2.3 Communications Proce
3.2.4 Joint Information Cent
4.0 Emergency Action Procedures
4.1.1 Emergency Severity Le
4.1.2 Emergency Operations
4.1.3 Accounting for Employ
4.1.4 Initial Damage Assessn
4.1.5 Record-keeping and Re
4.1.6 Protection of Vital Rec
4.1.7 Water Use Restriction
4.1.8 Critical Customers
4.1.9 Emergency Water Distr
4.1.10 Alternate JVWCD Wate
4.1.11 SCADA System Failures
4.2 Administration
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4.3.1 Equipment 31
4.3.2 Interdependencies 32
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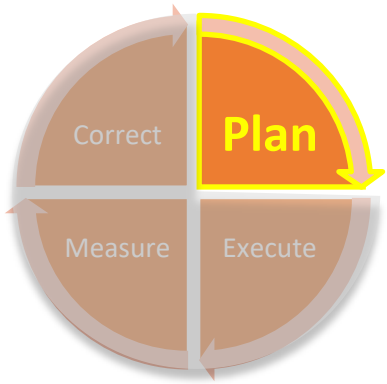
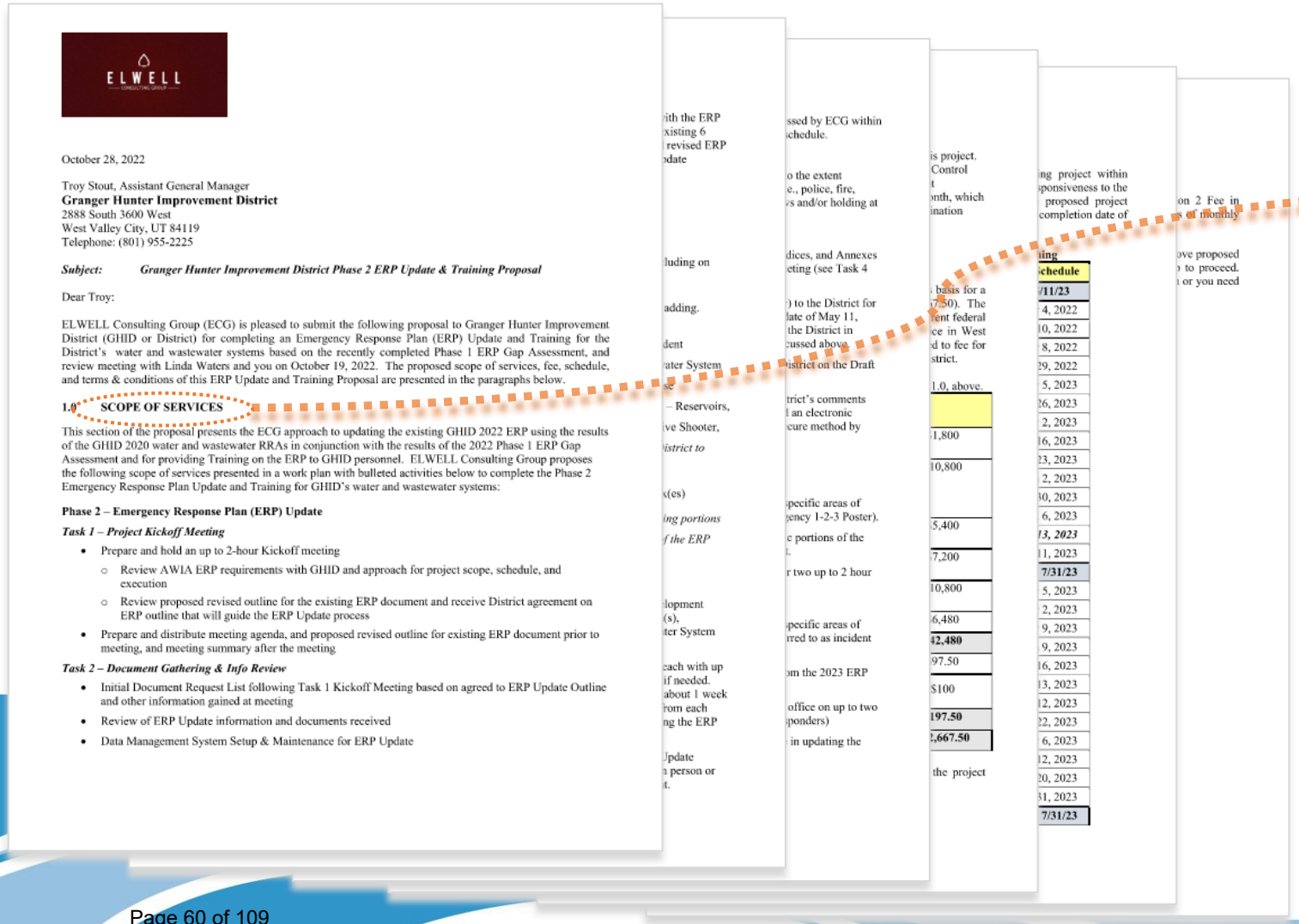
GRANGER-HUNTER
IMPROVEMENT DISTRICT

Emergency Response Plan

Version 2.0

Emergency Response Program Preparedness Status





ELWELL

October 28, 2022

Troy Stout, Assistant General Manager
Granger Hunter Improvement District
2888 South 3600 West
West Valley City, UT 84119
Telephone: (801) 955-2225

Subject: ***Granger Hunter Improvement District Phase 2 ERP Update & Training Proposal***

Dear Troy:

ELWELL Consulting Group (ECG) is pleased to submit the following proposal to Granger Hunter Improvement District (GHID or District) for completing an Emergency Response Plan (ERP) Update and Training for the District's water and wastewater systems based on the recently completed Phase 1 ERP Gap Assessment, and review meeting with Linda Waters and you on October 19, 2022. The proposed scope of services, fee, schedule, and terms & conditions of this ERP Update and Training Proposal are presented in the paragraphs below.

1.0 SCOPE OF SERVICES

This section of the proposal presents the ECG approach to updating the existing GHID 2022 ERP using the results of the GHID 2020 water and wastewater RRAs in conjunction with the results of the 2022 Phase 1 ERP Gap Assessment and for providing Training on the ERP to GHID personnel. ELWELL Consulting Group proposes the following scope of services presented in a work plan with bulleted activities below to complete the Phase 2 Emergency Response Plan Update and Training for GHID's water and wastewater systems:

Phase 2 – Emergency Response Plan (ERP) Update

Task 1 – Project Kickoff Meeting

- Prepare and hold an up to 2-hour Kickoff meeting
  - Review AWIA ERP requirements with GHID and approach for project scope, schedule, and execution
  - Review proposed revised outline for the existing ERP document and receive District agreement on ERP outline that will guide the ERP Update process
- Prepare and distribute meeting agenda, and proposed revised outline for existing ERP document prior to meeting, and meeting summary after the meeting

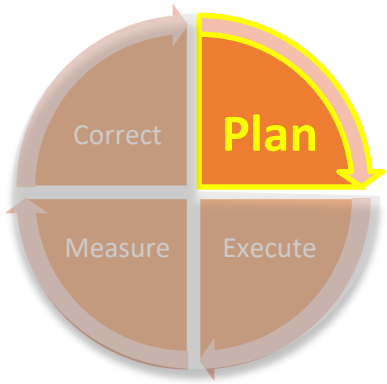
Task 2 – Document Gathering & Info Review

- Initial Document Request List following Task 1 Kickoff Meeting based on agreed to ERP Update Outline and other information gained at meeting
- Review of ERP Update information and documents received
- Data Management System Setup & Maintenance for ERP Update

- Plan Updates
- Document Additions
- Functional Training and Work Meetings
- AWWA, FEMA, EPA Compliance Updates
- Specific EAP(IRPs) Development
- Data Management System Setup

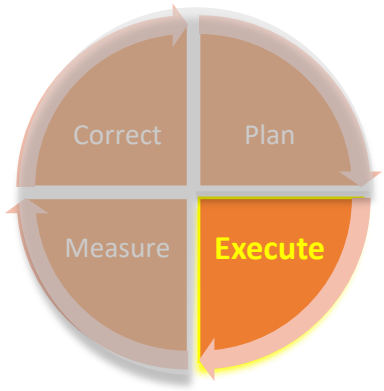
ELWELL
CONSULTING GROUP

Emergency Response Program Preparedness Status



- Plan Updates. Risk assessments and AWIA Requirement updates.
- Document Additions. New Emergency Action Plans (EAP's) also known as Incident Response Procedures (IRP's)
- Functional Training and Work Meetings
- AWWA, FEMA, EPA Compliance Updates
- Specific EAP(IRPs) Development
- Data Management System Setup

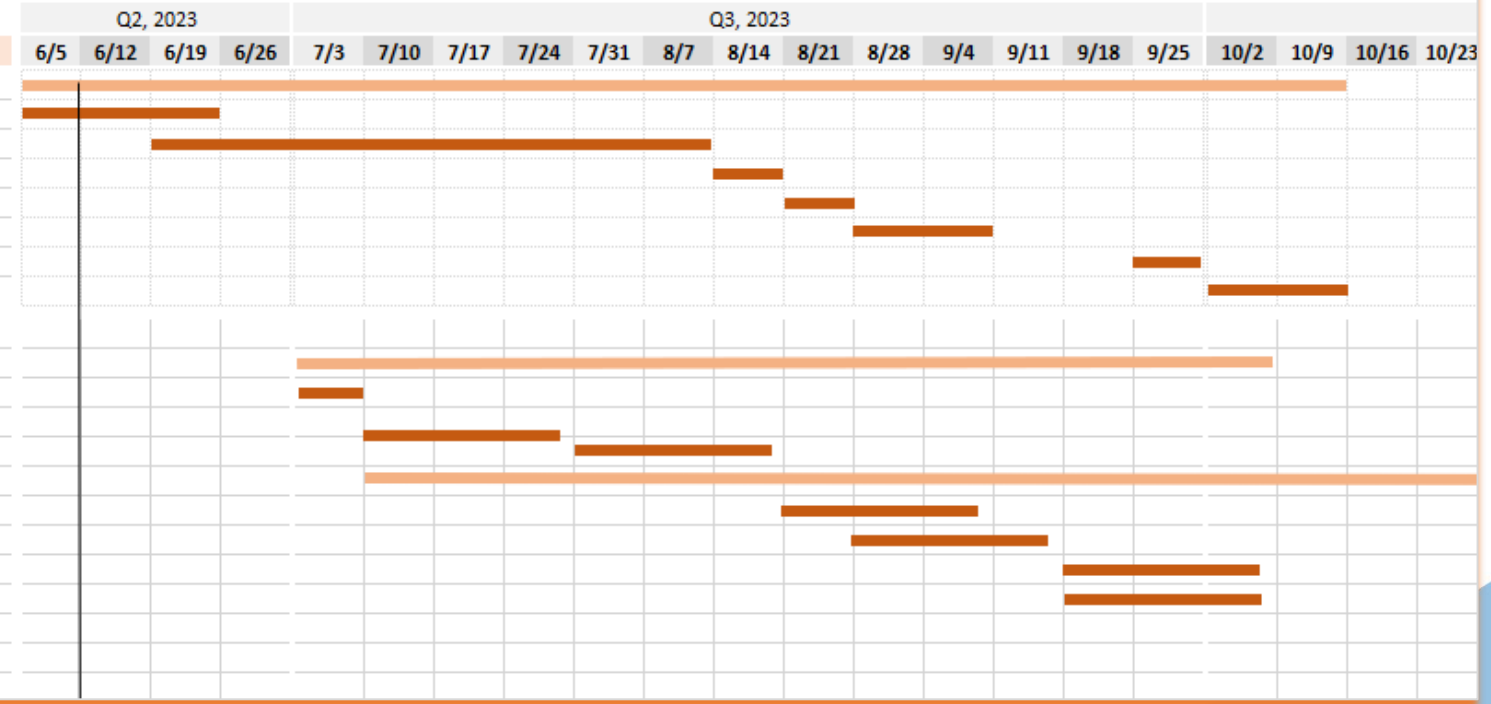
Current Emergency Preparedness Status



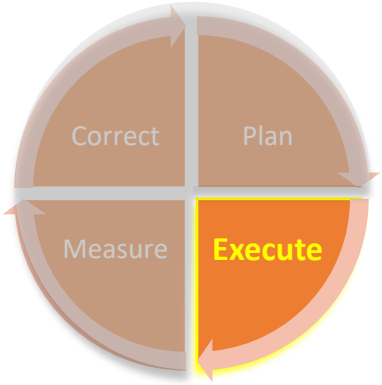
Granger-Hunter Improvement District

Emergency Response Plan - Document Revisions Schedule 2023

ID	Task	Start	End
1	**Complete GAP Items - Document Annual Revisions**		
A	Internal Action Items		
B	Consultant Action Items		
C	Collaboration		
D	Complete Draft Document		
E	Stakeholder Review and Comment		
F	Board Approval		
G	Finalized and Distributed		
2	**Training Exercises, Tabletops, and Drills**		
A	ERP Training Sessions		
i	Training Kickoff Meeting		
ii	Prepare Existing 2023 Doc Training		
iii	Hold ERP Document Training on Specific Portions		
B	Training Tabletop Exercises TTX(s)		
i	Training TTX Kickoff		
ii	Prepare ERP Training Scenarios - Two EAPs		
iii	Hold Two Half-Day TTXs at GHID Offices		
iv	Prepare After-Action Reports on TTXs		

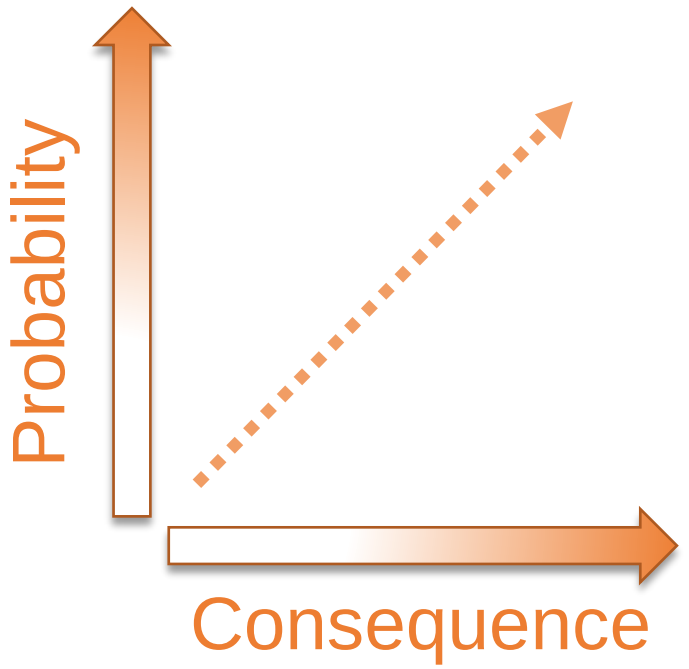


Emergency Action Plans - Review



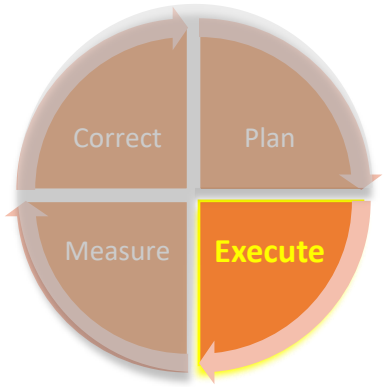
Critical Emergency Action Plans for GHID

1. Earthquake - MCE
2. Flooding
3. Cyber Security
4. Water Quality Event
5. Power Outage
6. Equipment Failure
7. Pandemic
8. Major SSO
9. Wide - Spread System Breaks
10. Severe and Extended Drought
11. JVWCD Delivery Outage
12. CVWRF Treatment Outage



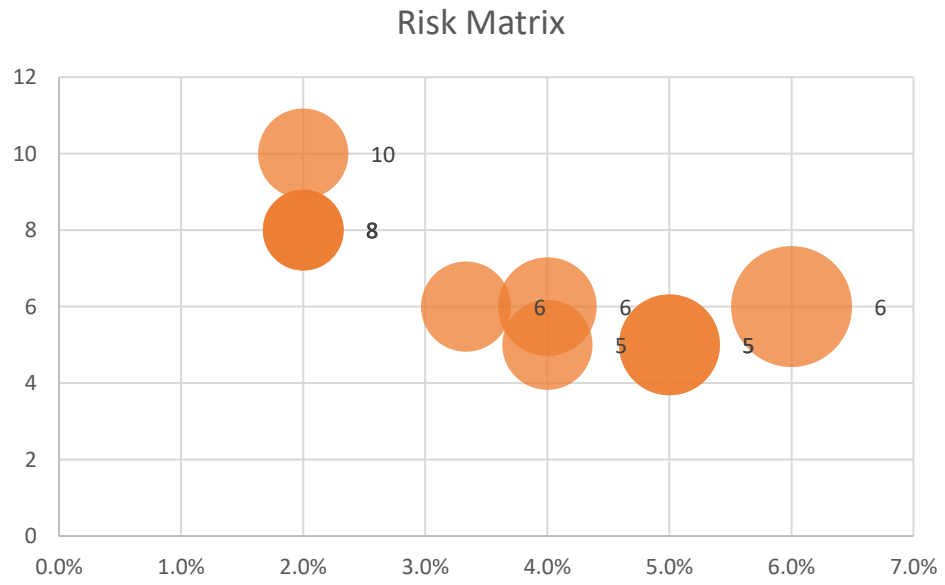
*… a written procedure **detailing the appropriate response to various types of emergencies**. An EAP is an essential component of an organization's safety procedures.*

Emergency Action Plan Review



Incident Probabilities and Severity -

	Description	Probability	Consequence	Score
1	Cyber Security Event	6.0%	6	0.36
2	Major WW Equipment Failure	5.0%	5	0.25
3	Wide - Spread System Breaks	5.0%	5	0.25
4	Water Quality Event	4.0%	6	0.24
5	Extended Power Outage	4.0%	5	0.2
6	Major Sanitary Sewer Overflow (SSO)	3.3%	6	0.2
7	Earthquake - MCE	2.0%	10	0.2
8	Severe and Extended Drought	2.0%	8	0.16
9	Loss of JVWCD Sources	2.0%	8	0.16
10	Loss of CVWRF Treatment	2.0%	8	0.16
11	Pandemic	2.0%	7	0.14
12	Flooding - Jordan River	1.0%	6	0.06



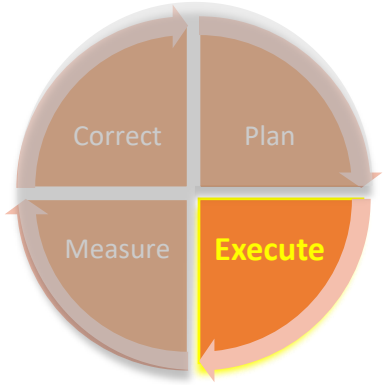
NEWS

Hurricane-Force Winds in Utah Close Schools, Leave Over 58,000 Without Power

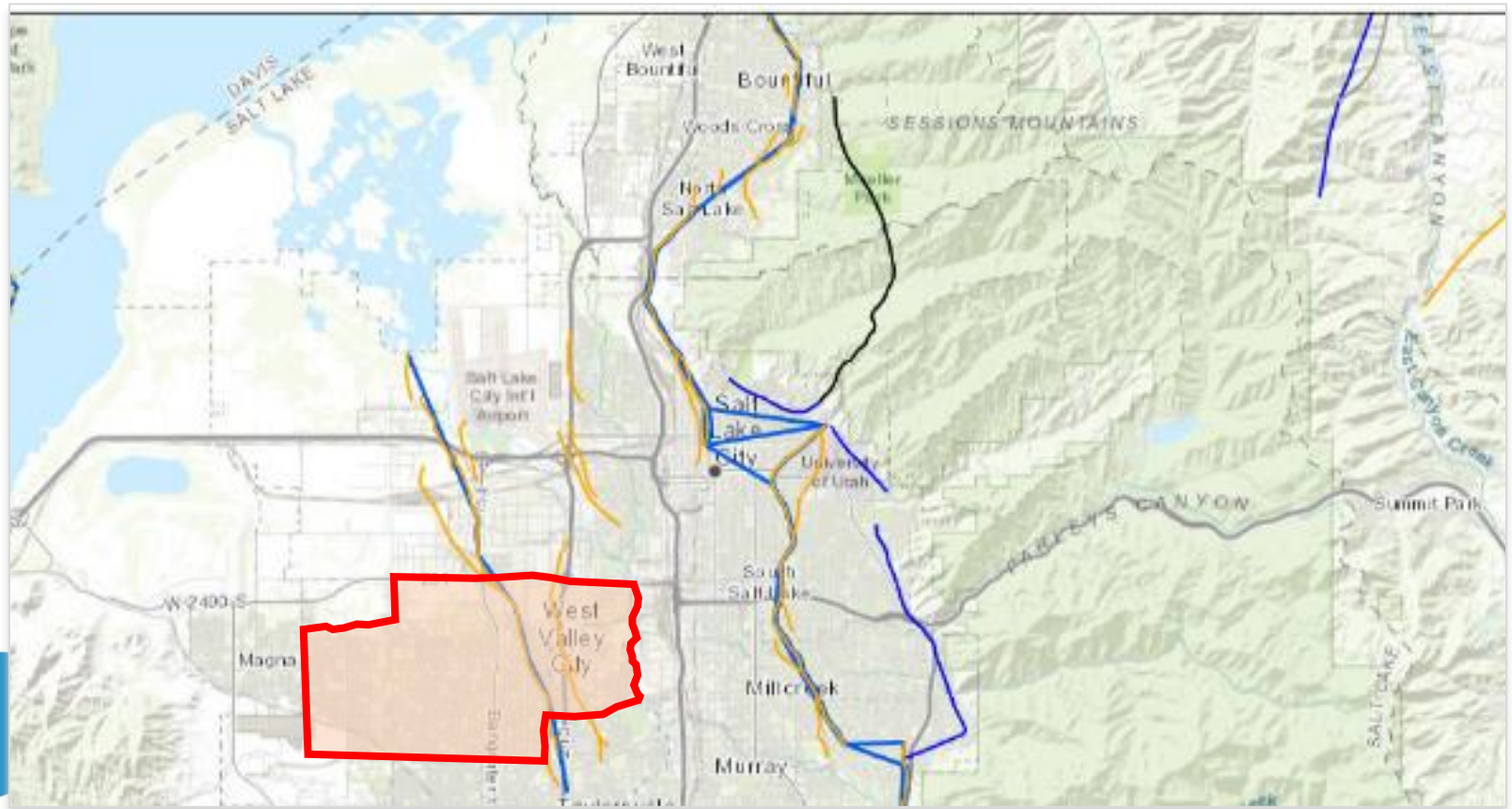
BY KATHERINE FUNG ON 9/8/20 AT 12:57 PM EDT

GRANGER-HUNTER
IMPROVEMENT DISTRICT

EAP Review – Earthquake Response



U.S. Geological Survey Quaternary Faults

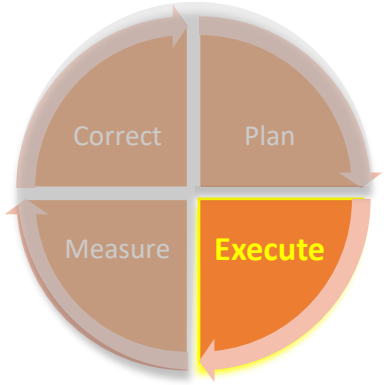


Quaternary Faults Database

- Historic (< 150 years), well constrained location
- Historic (< 150 years), moderately constrained location
- Historic (< 150 years), inferred location
- Latest Quaternary (<15,000 years), well constrained location
- Latest Quaternary (<15,000 years), moderately constrained location
- Latest Quaternary (<15,000 years), inferred location

- Late Quaternary (< 130,000 years), well constrained location
- Late Quaternary (< 130,000 years), moderately contrained location
- Late Quaternary (< 130,000 years), inferred location
- Middle and late Quaternary (< 750,000 years), well constrained location
- Middle and late Quaternary (< 750,000 years), moderately constrained location
- Middle and late Quaternary (< 750,000 years), inferred location

EAP Review – Earthquake Response



Probability of Liquefaction Triggering for M7.0 Wasatch Fault Earthquake Salt Lake Valley, Utah

HOW BAD WOULD THE DAMAGE BE?

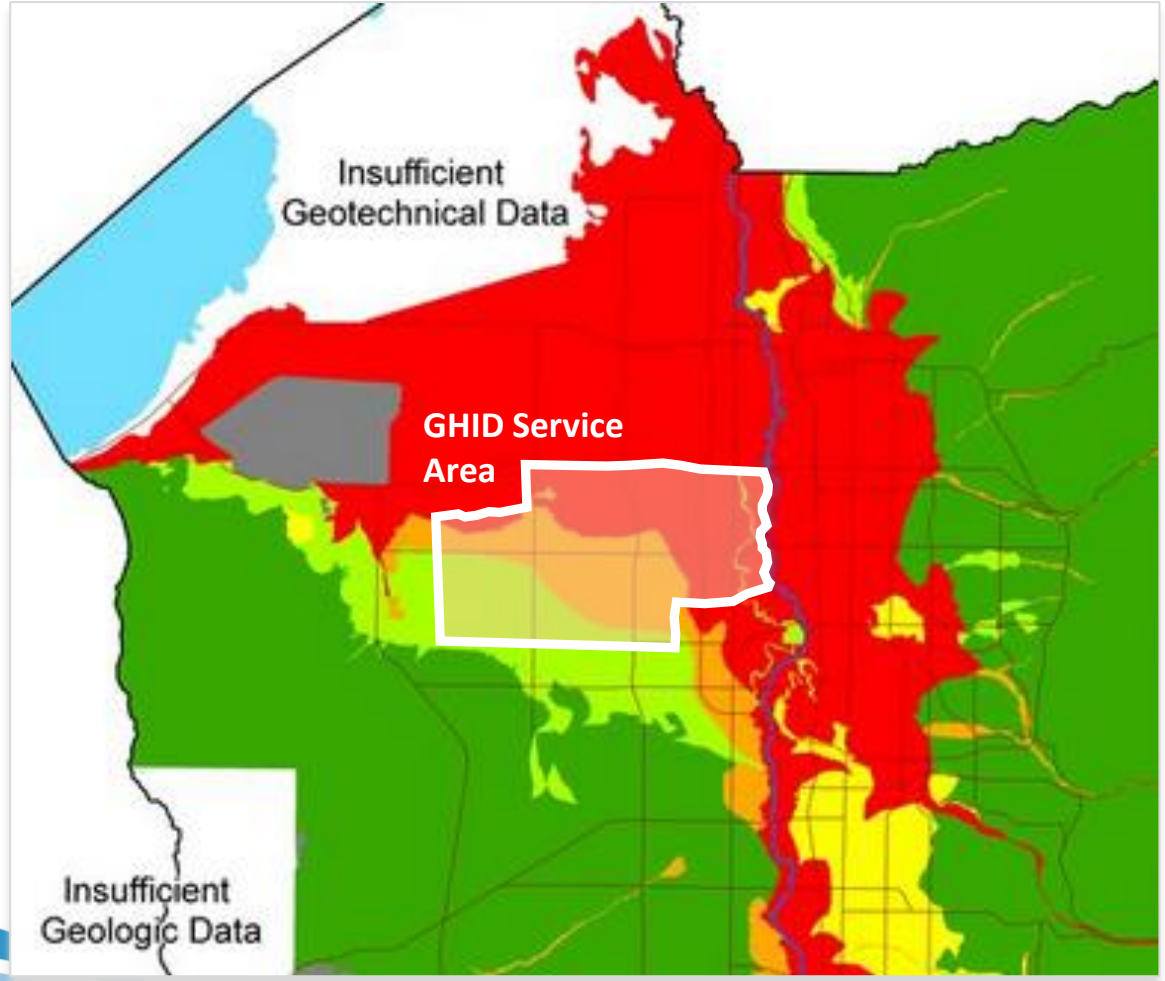
HAZUS ESTIMATES FOR 7.0 EARTHQUAKE

7,000+	3,000+	84,000+
CRITICALLY INJURED	FATALITIES	DISPLACED HOUSEHOLDS

HOW LONG WILL RECOVERY TAKE?

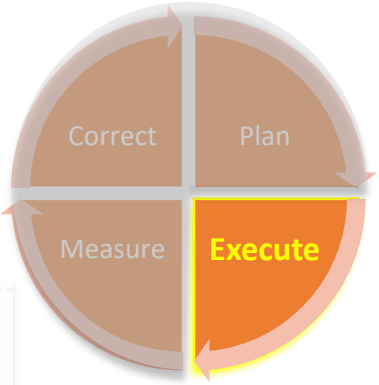
CRITICAL UTILITIES SYSTEMS COULD BE OFFLINE FOR MONTHS

- After one month there could still be over 100,000 homes without **electricity**.
- After 3 months there could still be over 300,000 homes without drinking **water**.
- Most **natural gas** structures will take two weeks to return to operation.
- It will likely take 6 to 7 months for **sewer** recovery, or 2-3 times longer than water recovery.



FEMA has called the Wasatch Fault "one of the most probable catastrophic natural threat scenarios in the U.S." **The Wasatch Fault has a 43% chance of experiencing a 6.75 or greater magnitude earthquake in the next 50 years, and experts project that such an event would be among the deadliest disasters in U.S. history.**

EAP Review – Earthquake Response



HOW BIG WOULD IT BE?

COMPARED TO THE MAGNA 5.7 EARTHQUAKE IN 2020:

6.0 = 2x bigger, 3x stronger

6.75 = 11x bigger, 38x stronger

7.0 = 20x bigger, 89x stronger

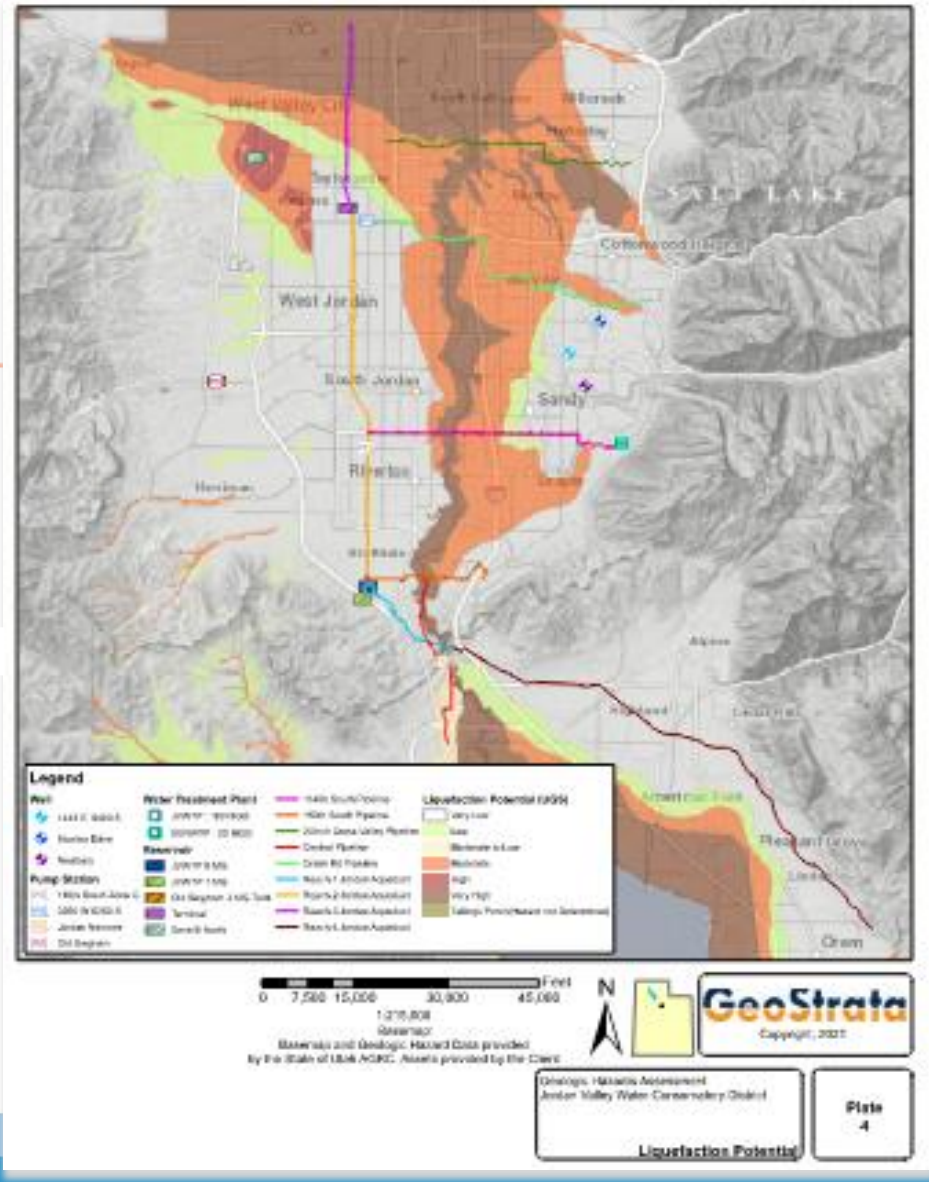
Bigger = magnitude; Stronger = Energy Release

EAP Review – Earthquake Response

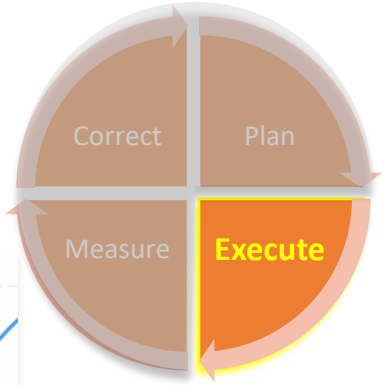
UTAH SEISMIC SAFETY COMMISSION

JORDAN AQUEDUCT REACHES 1-4 | JORDAN VALLEY WATER CONSERVANCY DISTRICT

While the Jordan Aqueduct Reaches 1-4 does not cross major fault lines like the three aqueducts above, it is located in a predicted high ground acceleration and liquefaction potential area. **The aqueduct serves drinking water to over one million people.** Most of the Jordan Aqueduct Reaches 1-4 is steel pipe with unrestrained joints. These unrestrained joints have a high potential to separate when subjected to high ground acceleration and/or liquefaction. Repair of a large number of separated joints would likely take at least 2-3 months.



EAP Review – Earthquake Response



WHY DO UTAHNS WANT TO IMPROVE RESILIENCY?

YOUR UTAH, YOUR FUTURE SURVEY RESULTS ON TOP PRIORITIES

#1
Reducing the number of deaths and injuries a disaster would cause

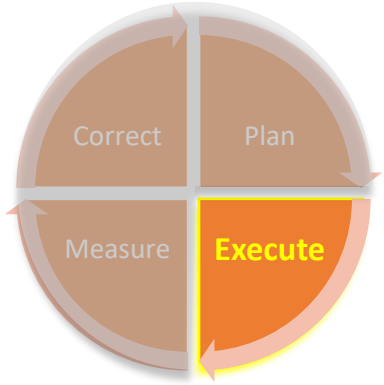
#2
Reducing how long it takes to recover from a disaster (restoring utilities, reopening businesses, etc.)

#3
Reducing the number of people who would be unable to live in their damaged homes after an earthquake

#4
Reducing how much it would cost to repair damage after a disaster

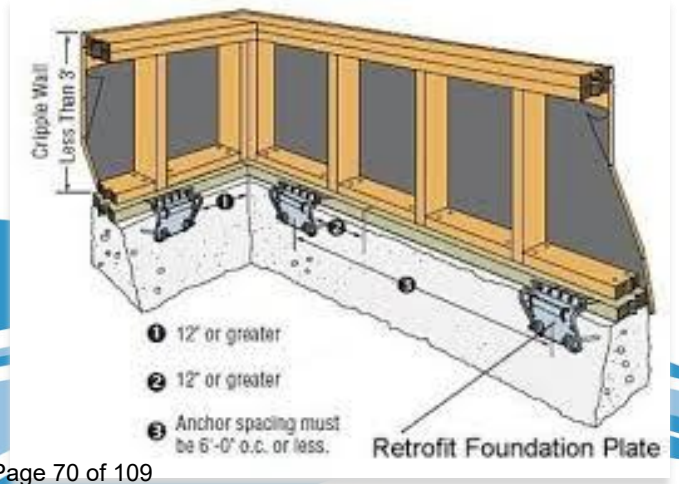
#5
Limiting how much we spend on improving our disaster resilience

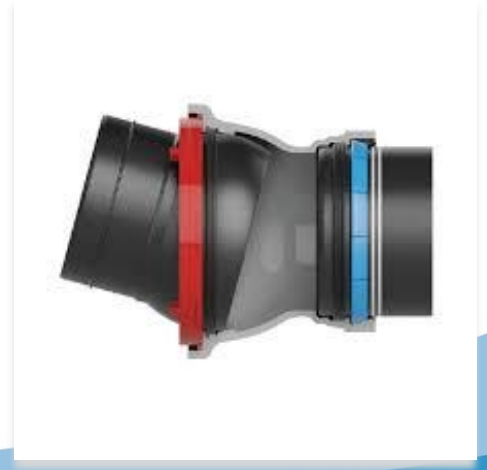
EAP Review – Earthquake Response



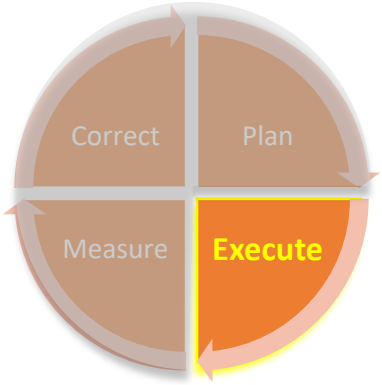
Potential Improvements:

1. Earthquake Resistant Pipe at Fault Crossing
2. Seismic Retrofits / Upgrades at Critical Facilities
3. Foundation Stabilization for Liquefaction Risks
4. Assess Rebuild Timing and Alternatives





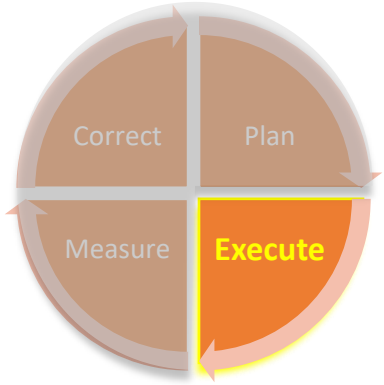
EAP Review – Earthquake Response



Next Important Earthquake Preparation Activities:

1. Detailed EAP Completion.
2. Asset Seismic Stability / Vulnerability Assessments.
3. Develop Routine Functional Exercises and Tabletop Drills.
4. Hazard Mitigation Plan Development.
5. Detailed Seismic Studies and Analyses.
6. BRIC Grant Applications.
7. Mitigation Improvements and Advancements.

Emergency Response Program Next Steps



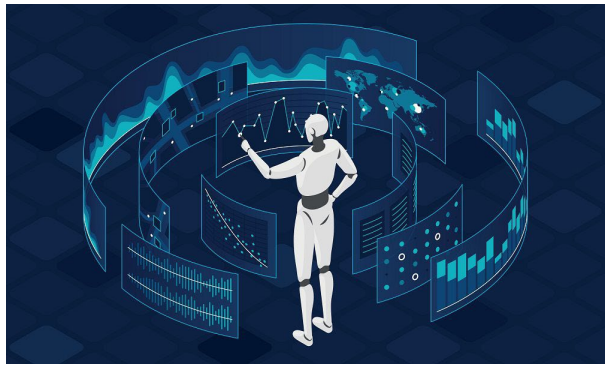
Next Important Target Milestones:

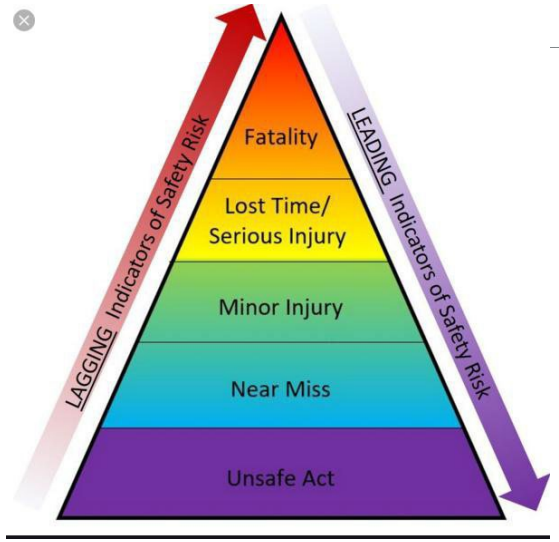
1. ERP Updates
2. EAP Completions
3. Develop Routine Functional Exercises and Tabletop Drills
4. Hazard Mitigation Plan Development
5. Mitigation Improvements and Advancements

Safety!

Safety Topics Getting Attention:

- Employee Mental Health and Well-being.
- Serious Injury and Fatality and Prevention.
- AI in Safety





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IMPROVEMENT DISTRICT

OUR TEAM – TALENT UPDATE

Talent Acquisition

Talent Development

Talent Engagement

Topics

Talent Acquisition
(Staffing)

Metrics Review

2024 – 2028 Strategy Discussion

- Talent Pool Development

Talent Development
(Training)

Peer Training Model Review

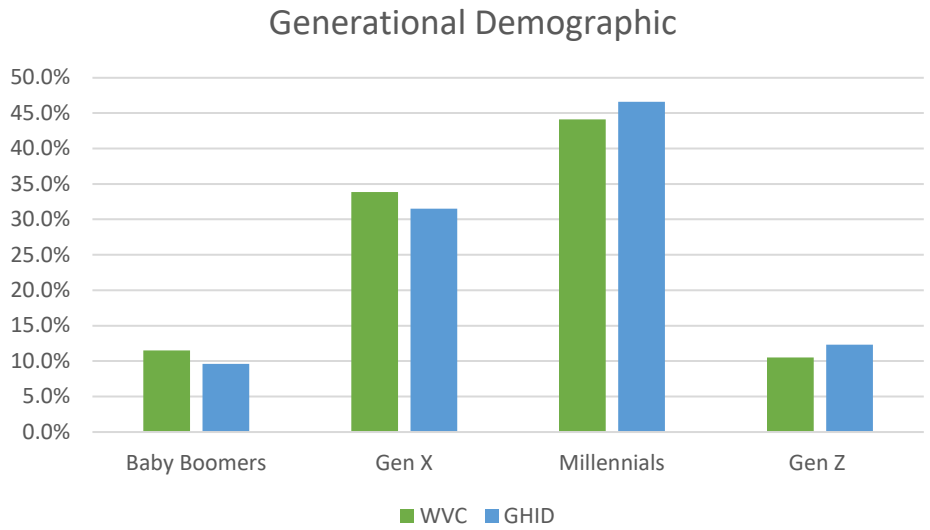
2024 – 2028 Strategy Discussion

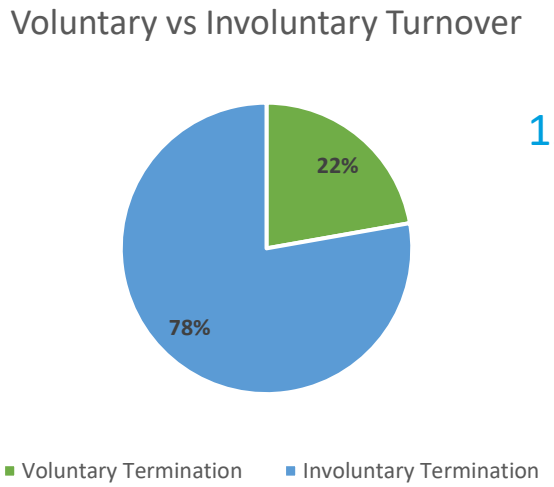
- Leadership Core Competencies
- Succession Planning

Talent Engagement
(Rewards & Recognition)

Recognition System Implementation

TALENT ACQUISITION METRICS





12-Month Turnover
23.3%

2023 Turnover
12.4%

2023 Hiring Statistics	
Internal Promotions	8
Average Time to Fill (External)	43 Days
Offer Acceptance Rate (External)	83%
First Year Attrition Improvement (50% 2022 20% 2023)	60%

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TALENT ACQUISITION 2024 – 2028 STRATEGY

Water Distribution Operator

Water Treatment Operator

TALENT POOL DEVELOPMENT
will require
INDUSTRY COLLABORATION

Wastewater Treatment Operator

Wastewater Collections Operator

Instrumentation Technician

Engineer

Mechanics

baywork
Bay area water/wastewater workforce reliability

RETIREMENT
15% ELIGIBLE IN 5 YRS
25% ELIGIBLE IN 10 YRS

CONTINUED ATTRITION TRENDS

CHANGES IN WORKFORCE DEMOGRAPHICS

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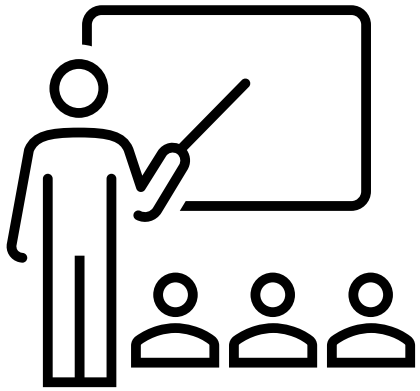
TALENT DEVELOPMENT TRAINING MODEL

01	02	03	04	05
Escape the isolation trap of leadership	Absorb emotional nutrients	Listen and compare perspectives	Increase self-awareness	Build accountability relationships

- ☑ Culture and Leadership Branding
- ☑ Coaching and Feedback
- ☑ Five Languages of Leadership



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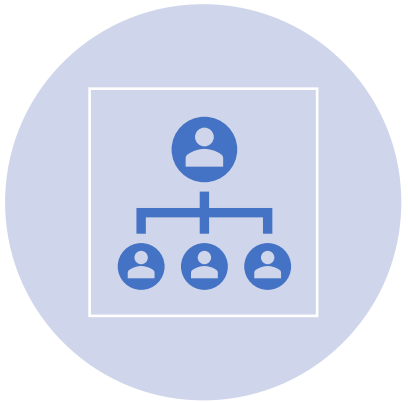
TALENT DEVELOPMENT 2024 – 2028 STRATEGY

LEADERSHIP COMPETENCY PATHWAYS

IN-ROLE PROMOTION PATHWAYS



SUCCESSION PLANNING

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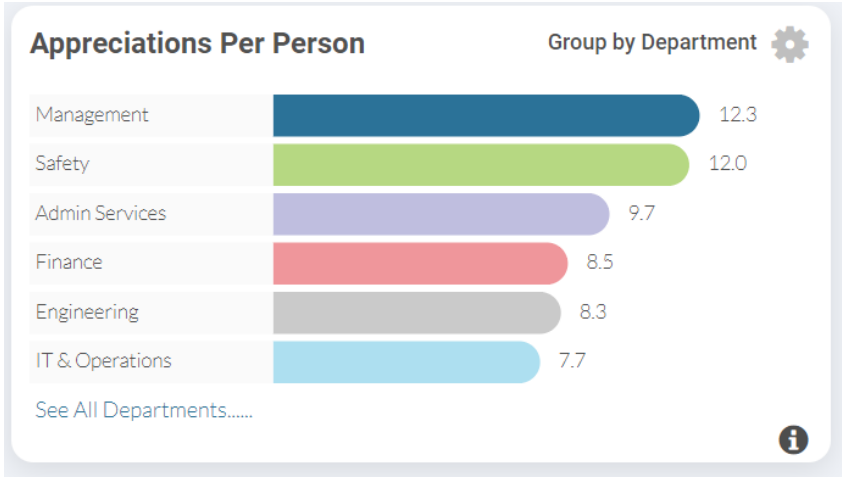
Talent Engagement Recognition

motivosity

Showing thanks or giving recognition for everyday successes can go a long way toward creating an atmosphere filled with collaboration and support.



Appreciation Insights

488	60 83%	69 96%	64 12.8	195 10.26	288 5.43
# of appreciations given	% of users giving thanks	% of users getting thanks	Average appreciations (Per Leader)	Average appreciations (Per Manager)	Average appreciations (Per Frontline Employee)

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Fleet Program

Fleet Program

Fleet Maintenance Program

- VEU
- VCI
- Fleet CEP

Vehicle Equivalency Units

Vehicle Equivalency Units (VEU)

- A way to compare Fleet
- ½ Ton Pick-up Truck vs. 10-Wheeler Dump Truck
- One (1) ½ Ton = 1 VEU

Converting VEU's to Total Technician's Needed

- 1516 Hrs. worked/Year/Technician
- Convert VEU's to Man Hrs. Required to Tech's needed

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Vehicle Condition Index

Vehicle Condition Index (VCI)

Category	Points
Age	5 Points
Mileage	9 Points
Type of Service (Use)	5 Points
Reliability	5 Points
Maintenance & Repair Costs	3 Points
Condition	5 Points
Energy Efficiency	1 Point
Total	33 Points

Fleet CEP

Fleet Capital Equipment Program (CEP) Replacement Guide

- Outlines components of VCI
- Assigns weights to variables to determine condition
- Rates equipment vs. Others in Fleet

Example – CEP Point Guideline	
Factor	Points
Age	One point for each year of chronological age. Based on in-service data.
Miles	Small Class – one point for each 10,000 miles. Med. Class – one point for each 20,000 miles.
Point Ranges: Under 18 points – Condition I – Excellent 18 to 22 points - Condition II - Good 23 to 27 points - Condition III - Qualifies for replacement 28 + points - Condition IV - Needs Immediate Consideration	

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QUESTIONS?

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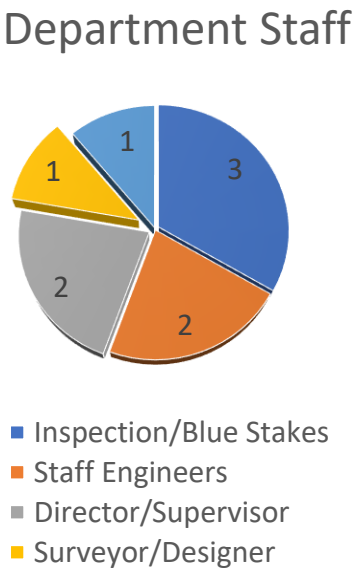
ENGINEERING UPDATE

Fire Line Backflow Assembly

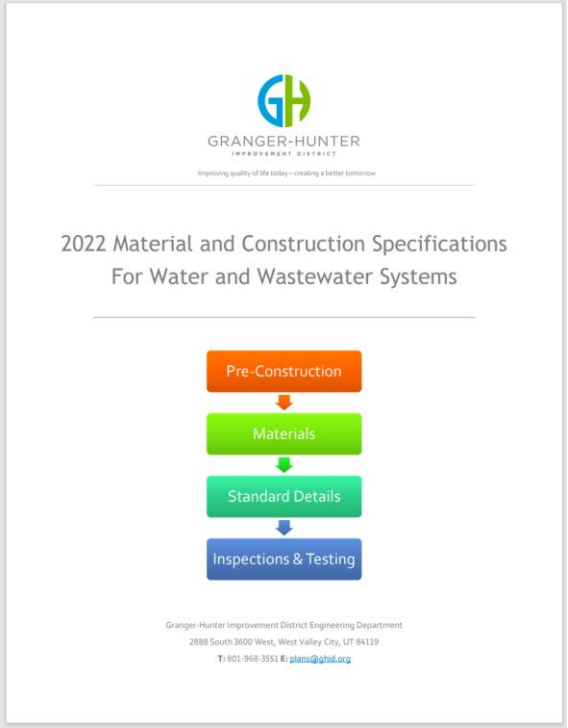
ENGINEERING DEPARTMENT

Engineering Department staff perform several tasks including:

- Construction inspections
- Blue Staking
- Design and management of capital projects
- Plan review
- Hydrant meter rentals
- Preparing fees and processing payments



PLAN REVIEW



The Plan Review Committee reviews and approves proposed projects based on conformance to the District's plans and specifications.

Projects reviewed by the Committee include but is not limited to:

- New water and wastewater connections
- Tenant improvements
- Lateral repairs

STRATEGIC INITIATIVE

- Water Quality
- Water Loss

FIRE LINES

Fire lines are pipelines intended solely for the supply of water for a building's fire suppression.

Typically, a fire line is connected to a building's fire sprinkler system and/or fire hydrants within the limits of the property.

Fire lines are usually:

- Unmetered
- Private (owned and maintained by property owner)

The District has ~**500** fire line **connections**.

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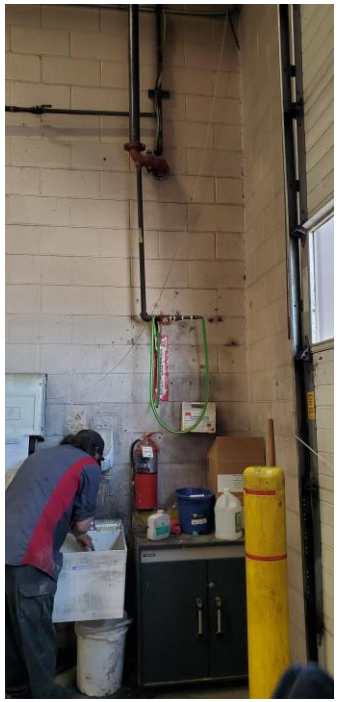
FIRE LINES

Issues with fire lines include:

- Source of potential cross connection from water that sits stagnant in the pipeline for long periods
- Leaks
- Water theft and illegal connections

Identified water theft



Illegal connections – hoses attached to fire riser piping

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WATER QUALITY

Utah Rule R309-105-12 – Cross Connection Control

The water supplier shall not allow a connection to his system which may jeopardize its quality and integrity. Cross connections are not allowed unless controlled by an approved and properly operating backflow prevention assembly or device. The requirements of the International Plumbing Code and its amendments as adopted by the Department of Commerce shall be met with respect to cross connection control and backflow prevention.

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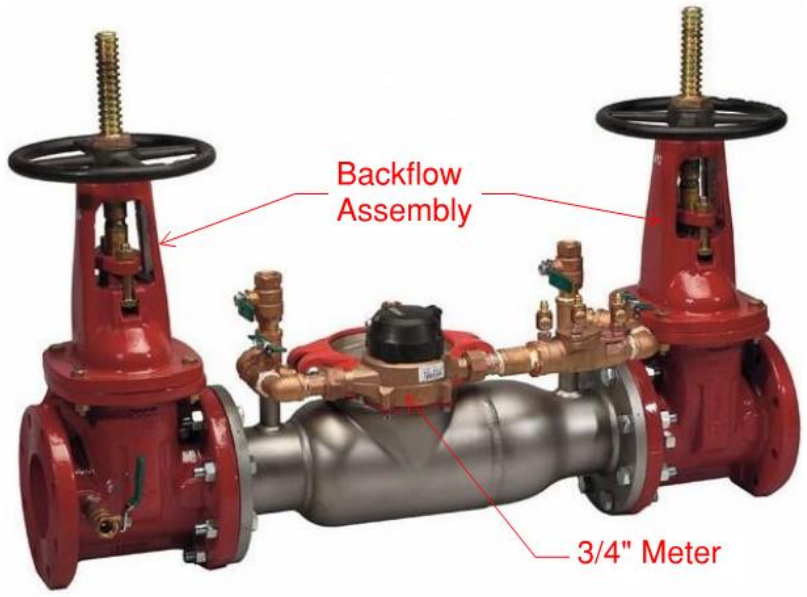
WATER QUALITY

International Plumbing Code

608.7 Cross connection control: Cross connections shall be prohibited, except where approved backflow prevention assemblies, backflow prevention devices or other means or methods are installed to protect the potable water supply.

FIRE LINE BACKFLOW ASSEMBLY

Fireline backflow assemblies can be used to mitigate potential issues with fire lines (cross-connections, leaks, and water theft)



Typical Fireline Backflow Assembly

A double check detector backflow assembly comes with a gap for a ¾-inch meter for the detection of low flows.

GHID will provide the required meters.

When water is drawn from a hydrant or there is a leak, the meter will show water consumption.

This assembly can be installed in a vault or hot house.

FIRE LINE BACKFLOW ASSEMBLY

The following agencies/municipalities require fire line backflow assemblies:

- West Jordan
- Riverton
- Salt Lake City

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FIRE LINE BACKFLOW ASSEMBLY

Vault Sizing requirements and Cost

Fire Line Size	Min. Vault Length	Min. Vault Width	Approx. Cost*
6”	66”	60”	$15K to 20K
8”	72”	60”	
10”	84”	60”	

*Estimated cost includes material and labor for both concrete vault and fire line assembly

FIRE LINE BACKFLOW ASSEMBLY

PROS	CONS
• Protects the District's water system from cross-contamination • Leak detection • Allows for identification of water theft and illegal connections	• Additional meters for GHID to procure, operate, and maintain • Additional cost and space required • Reduction in water pressure (up to 10 psi) • Annual testing and inspection required

RECOMMENDED ROLL OUT

1. Double Check Detector Backflow Assemblies would be required on all new construction that has a dedicated fire line or a sprinkler system and at least one hydrant. Backflow Prevention is already required for the fire sprinkler systems so they will not be required for fire lines that feed directly to the sprinkler system. This will become GHID's new standard on fire lines.

2. Any property that does any external work on the water or sewer between implementation of the new fire line standard and 2030 will be required to update their fire lines to meet the new standard.

3. GHID to send out a mailer informing customers with fire lines that they have until 2030 to meet the new District standard.

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QUESTIONS?

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2021 – 2023 Leak Detection Presentation

Leak Detection Survey

Full District Leak Detection Survey Completed 2021 - 2023

- Findings
- Cost Savings
- Where Do We Go From Here?

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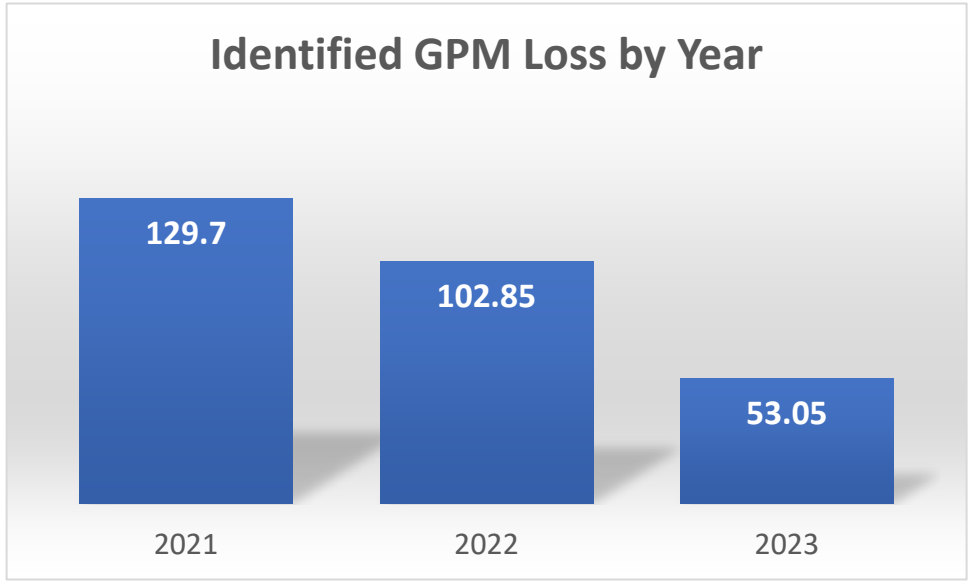
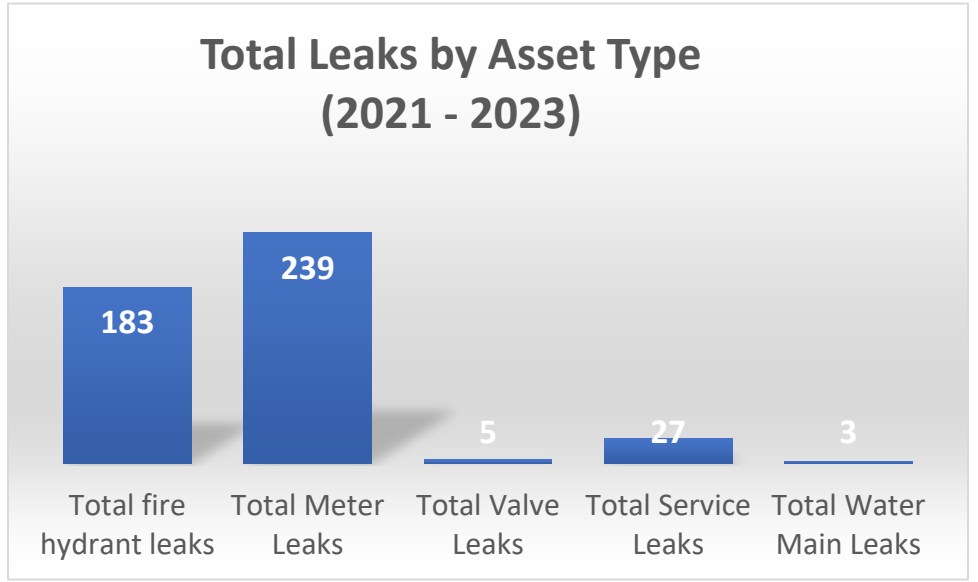
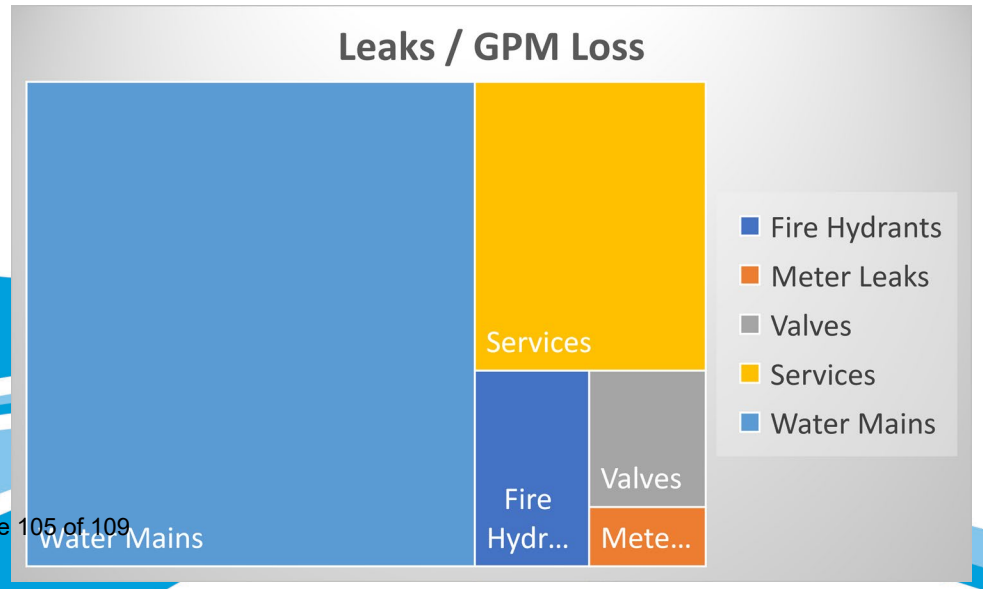
2021 – 2023 Leak Detection Results

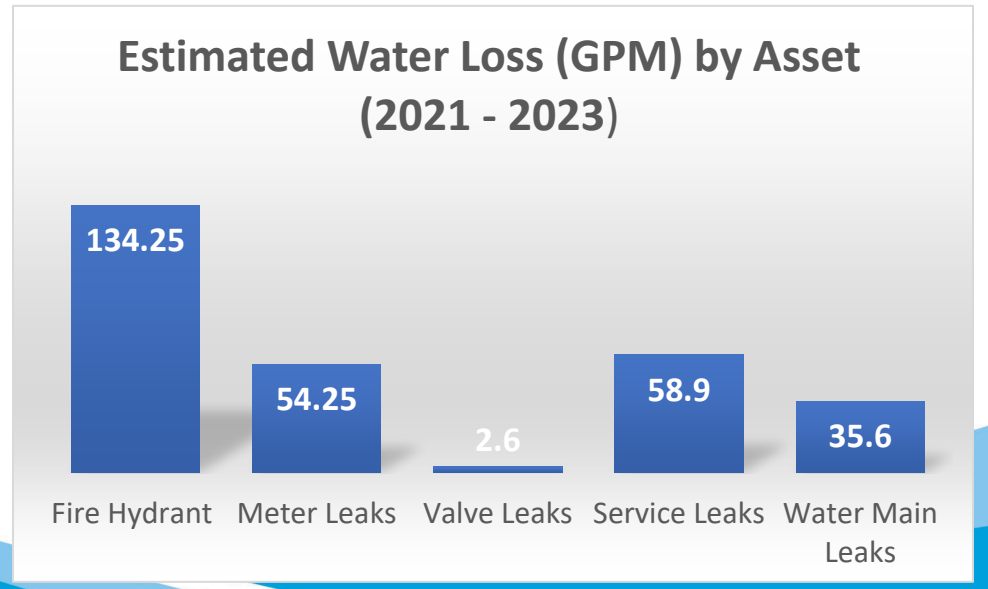
- 2021 to 2023 415 miles of water pipes surveyed
- Total 20,579 survey points
- 531 Leaks identified and repaired
- 285.6 estimated gallons per minute of water loss eliminated

2021 – 2023 Leak Detection Results



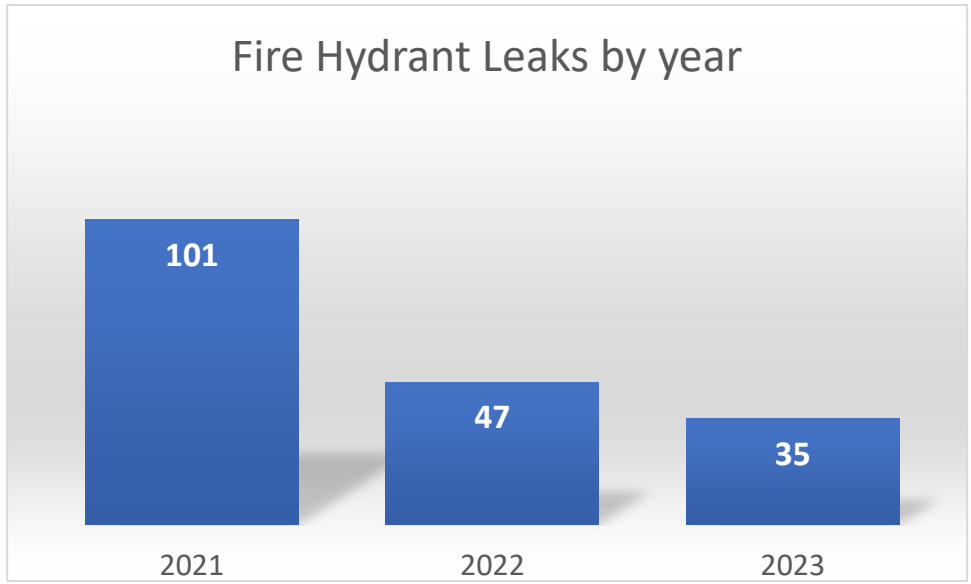


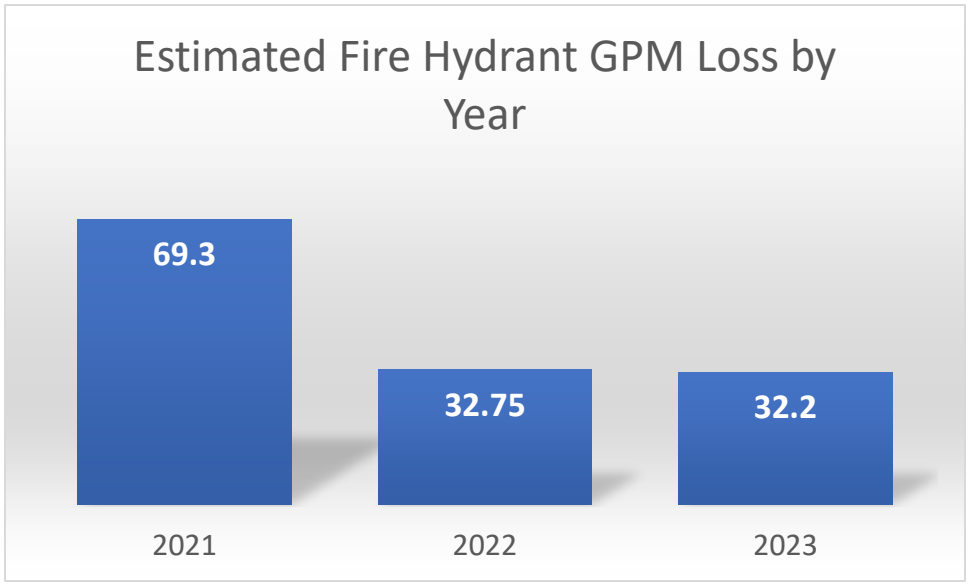


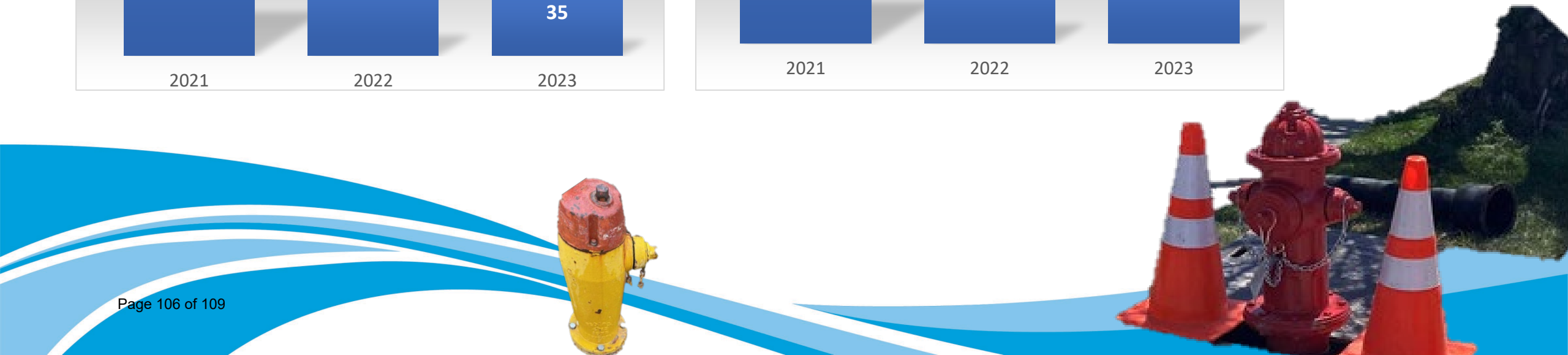


2021 – 2023 Leak Detection Results

Fire Hydrants. .







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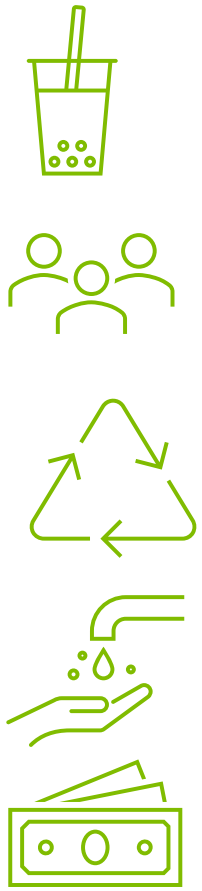
Estimated Cost Savings

- Estimated 150,111,360 gallons of water saved (460.6 acre-feet)
- Estimated water loss savings $257,763.31
- Total leak detection expense $211,400.00 (2021 – 2023)
  - GHID $68,560.00
  - JVWCD $142,840.00
- Estimated District cost savings $189,203.31



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Recommendations

Recommendations & Next Steps. . .

- Ensure leak detection audit is completed annually
- Following up behind all leaks located and repairing them is critical, “The repair crews did a great job fixing the leaks that were located”
- Implement District Metered Areas (DMAs)
  - The objective of a DMA is to break up a large system into more manageable areas and continuously monitor many variables.
- Continue to update infrastructure (Meters, Water Mains, Hydrants).
- Begin to consider other leak detection options

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QUESTIONS?