

# Operations Workforce Study

Jan Lee  
Assistant General Manager

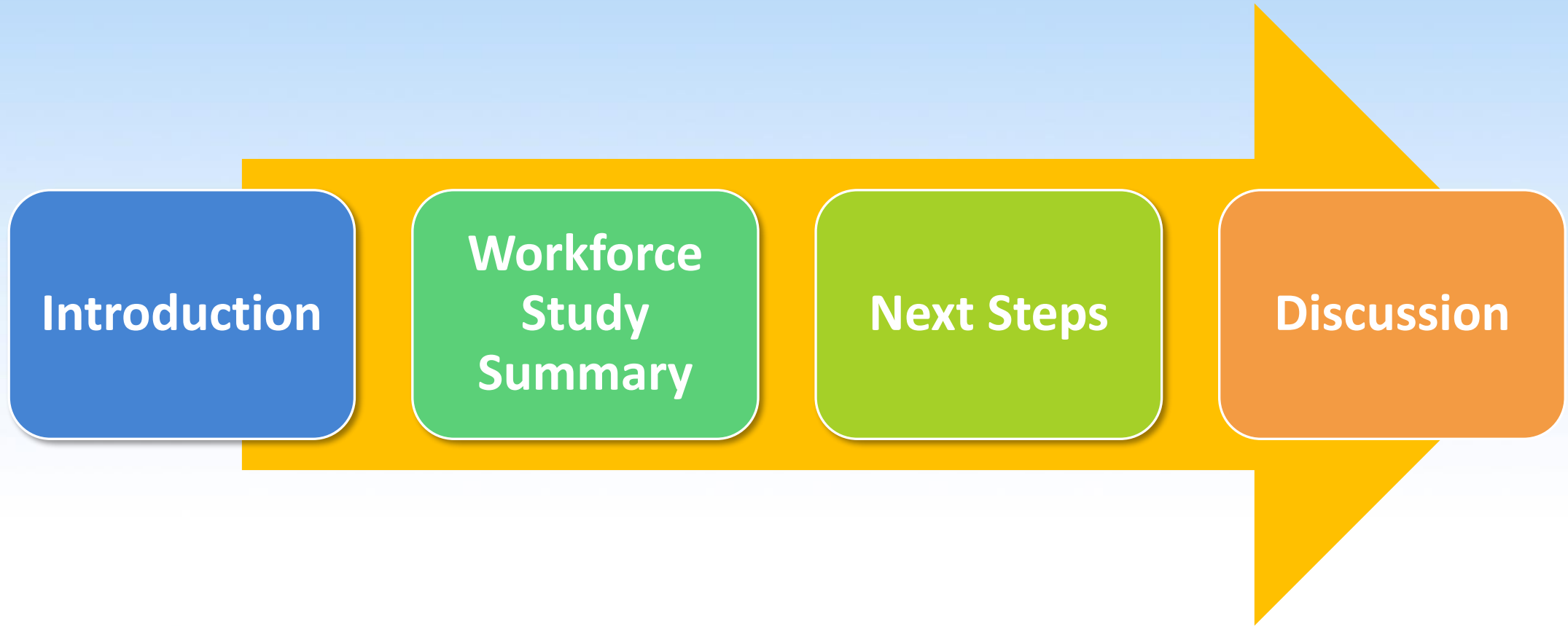
*March 7, 2023*



**Dublin San Ramon  
Services District**

*Water, wastewater, recycled water*

# Presentation Outline



**Introduction**

**Workforce  
Study  
Summary**

**Next Steps**

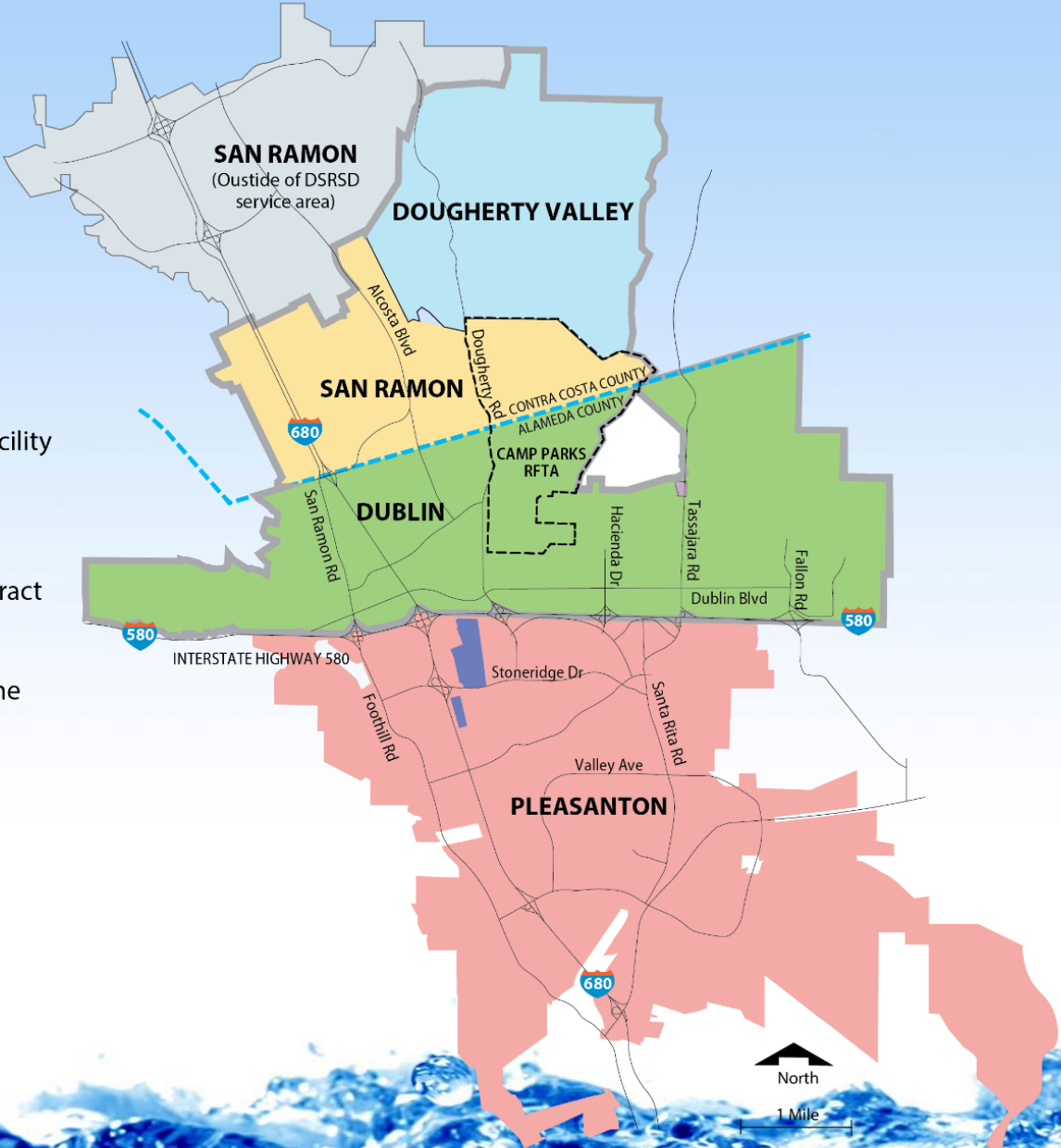
**Discussion**

# DSRSD Services

Total water and wastewater customers served: 196,000

### Map Legend

- DSRSD Regional Wastewater Treatment Facility
- DSRSD Water Only Service Area
- DSRSD Wastewater Only Service Area
- DSRSD Wastewater Treatment Under Contract
- DSRSD Water & Wastewater Service Area
- - - Alameda Contra Costa County Dividing Line
- DSRSD Boundary
- Camp Parks (Parks RFTA) Boundary



# Joint Powers Authorities

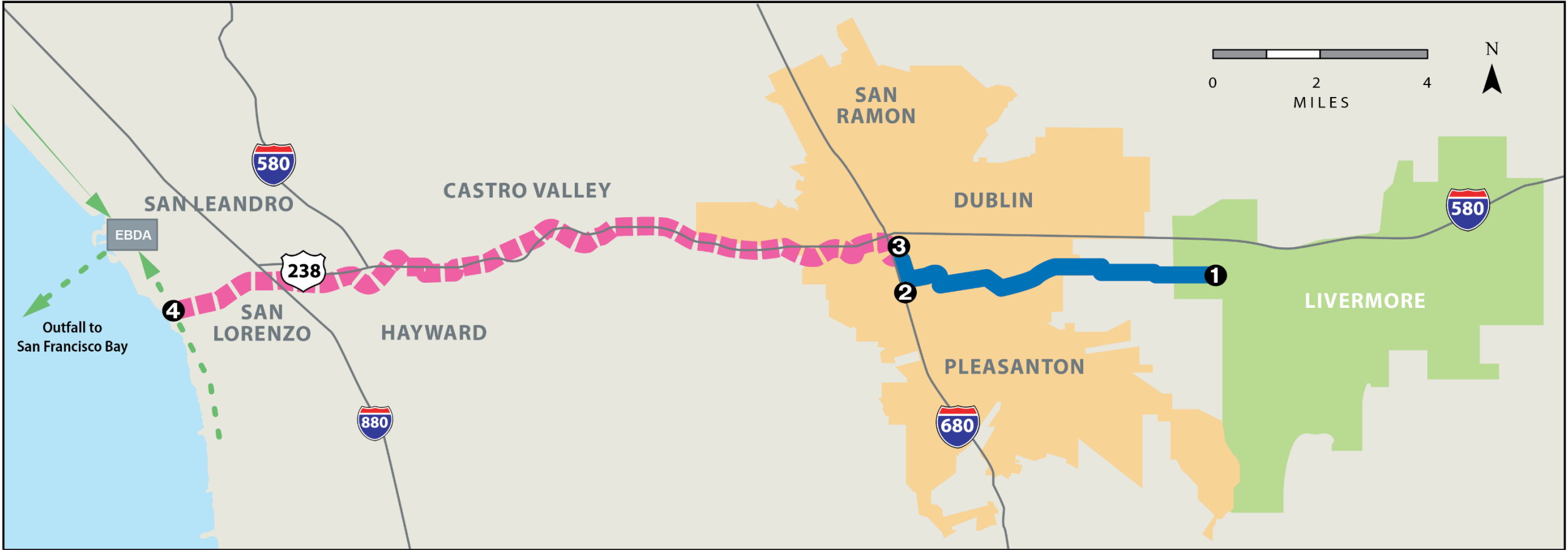


DERWA



LAVWMA





**LEGEND**

- - - LAVWMA Export Pipeline
- Livermore Pipeline
- - - EBDA Pipeline

- DSRSD Wastewater Service Area
- Livermore Wastewater Service Area
- East Bay Dischargers Authority

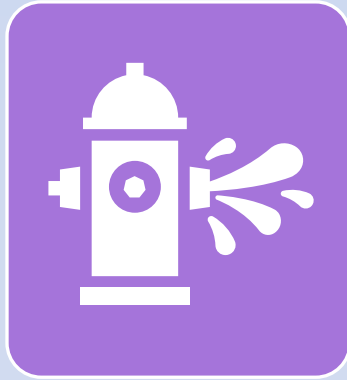
- 1** Livermore Wastewater Treatment Plant
- 2** DSRSD Wastewater Treatment Plant
- 3** LAVWMA Pump Station
- 4** LAVWMA Dechlorination Facility



# Operations Divisions



Plant Operations



Field Operations



Instrumentation,  
Controls, and  
Electrical



Mechanical  
Maintenance



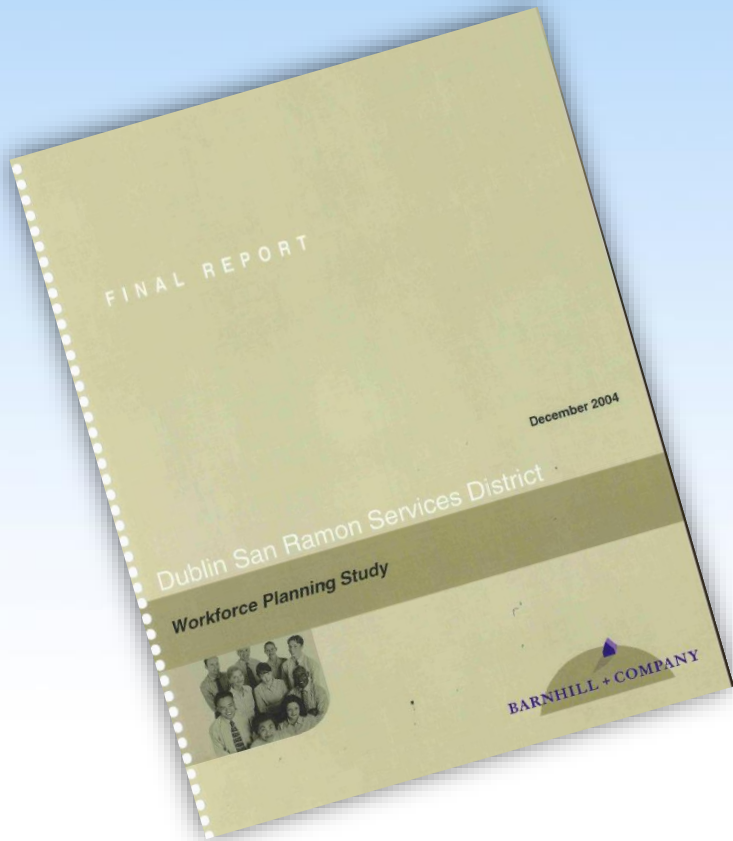
Laboratory and  
Environmental  
Services



Operations  
Support Services



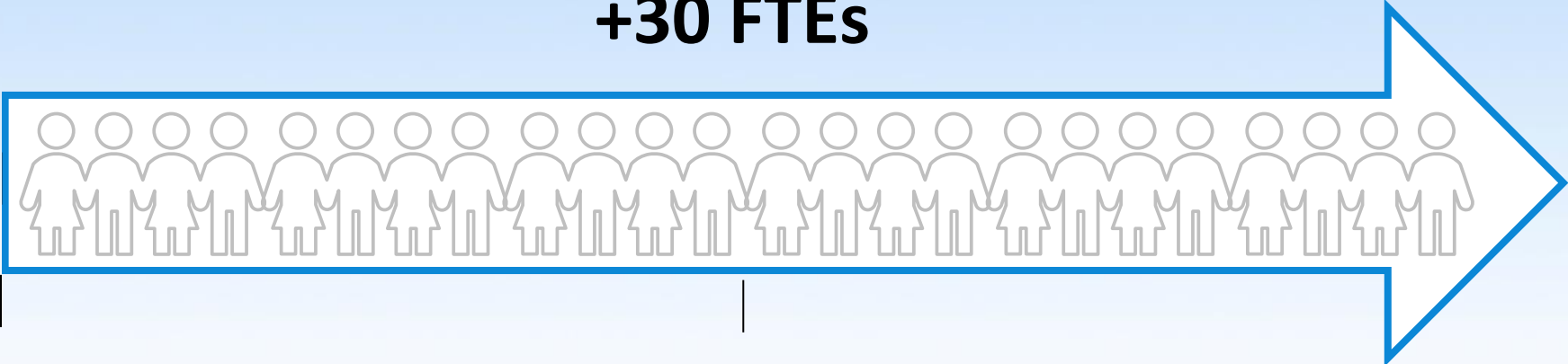
# 2004 Workforce Planning Study



- » Anticipated significant growth in service area
- » No mention of LAVWMA or DERWA
- » Assumed no changes in regulatory requirements  
*“that may require additional analytical testing, safety, or changes in equipment that impact staffing”*

# 2004 Workforce Planning Study Results

**+30 FTEs**



**2004 Staffing Level, 61 FTEs**

**2023 Staffing Level, 75 FTEs**

**Buildout Staffing Level, 91 FTEs**

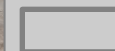






# DSRSD Potable System

Year 2000



DSRSD Water Service Area



Potable Water Lines



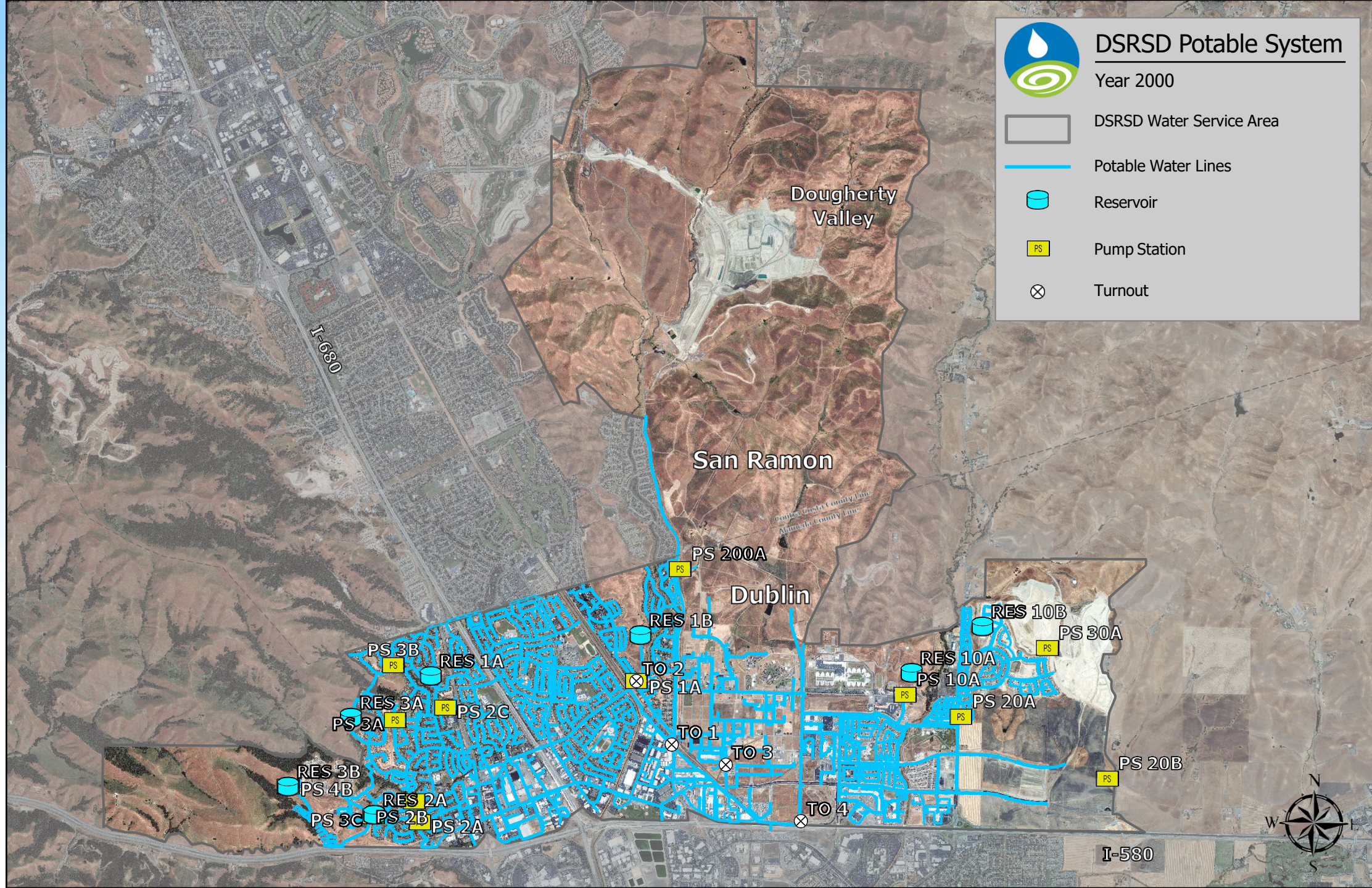
Reservoir



Pump Station



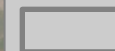
Turnout





# DSRSD Potable System

Year 2023



DSRSD Water Service Area



Potable Water Lines



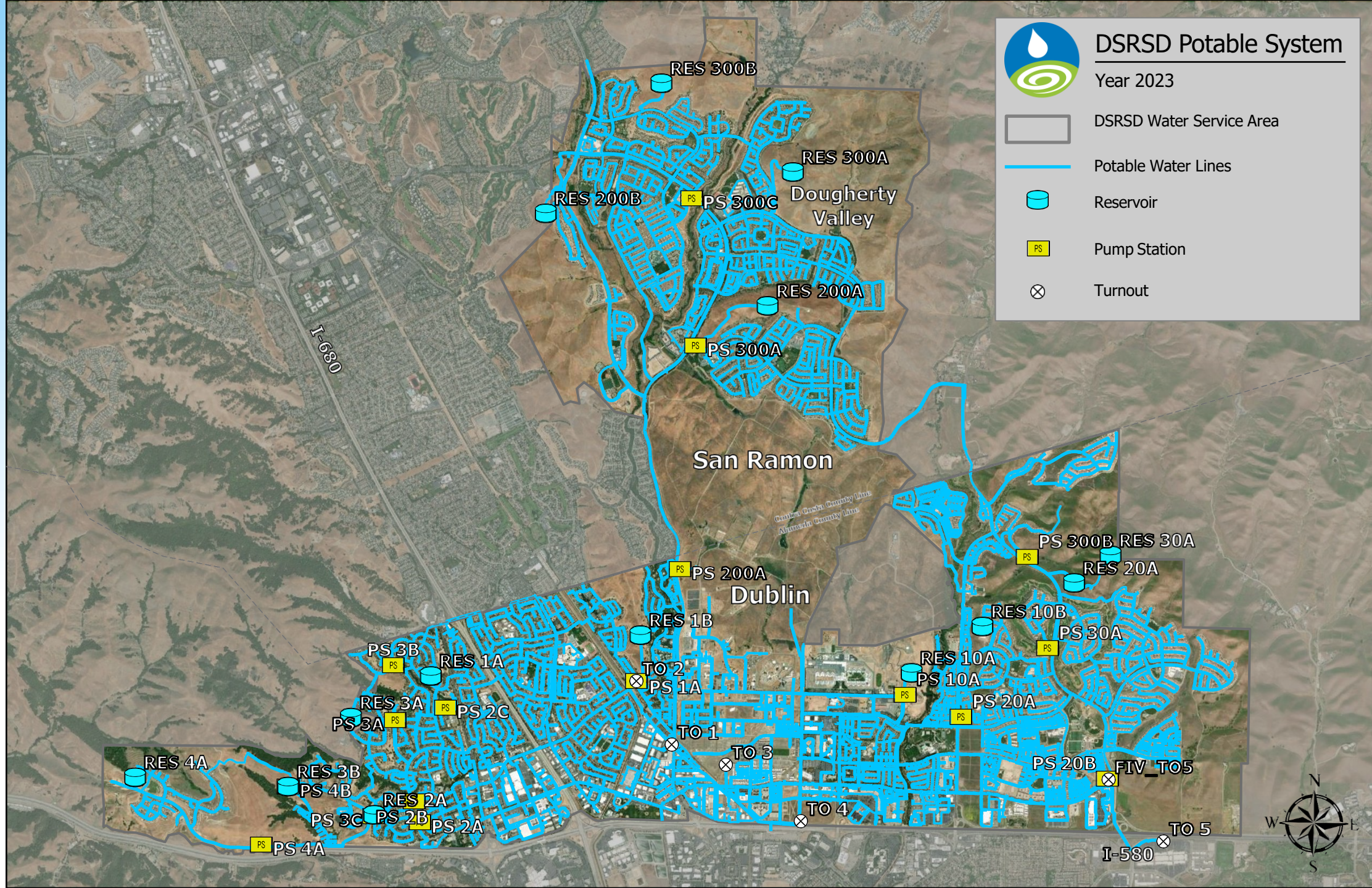
Reservoir



Pump Station



Turnout



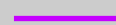


# DSRSD Recycled System

Year 2000



DSRSD Water Service Area



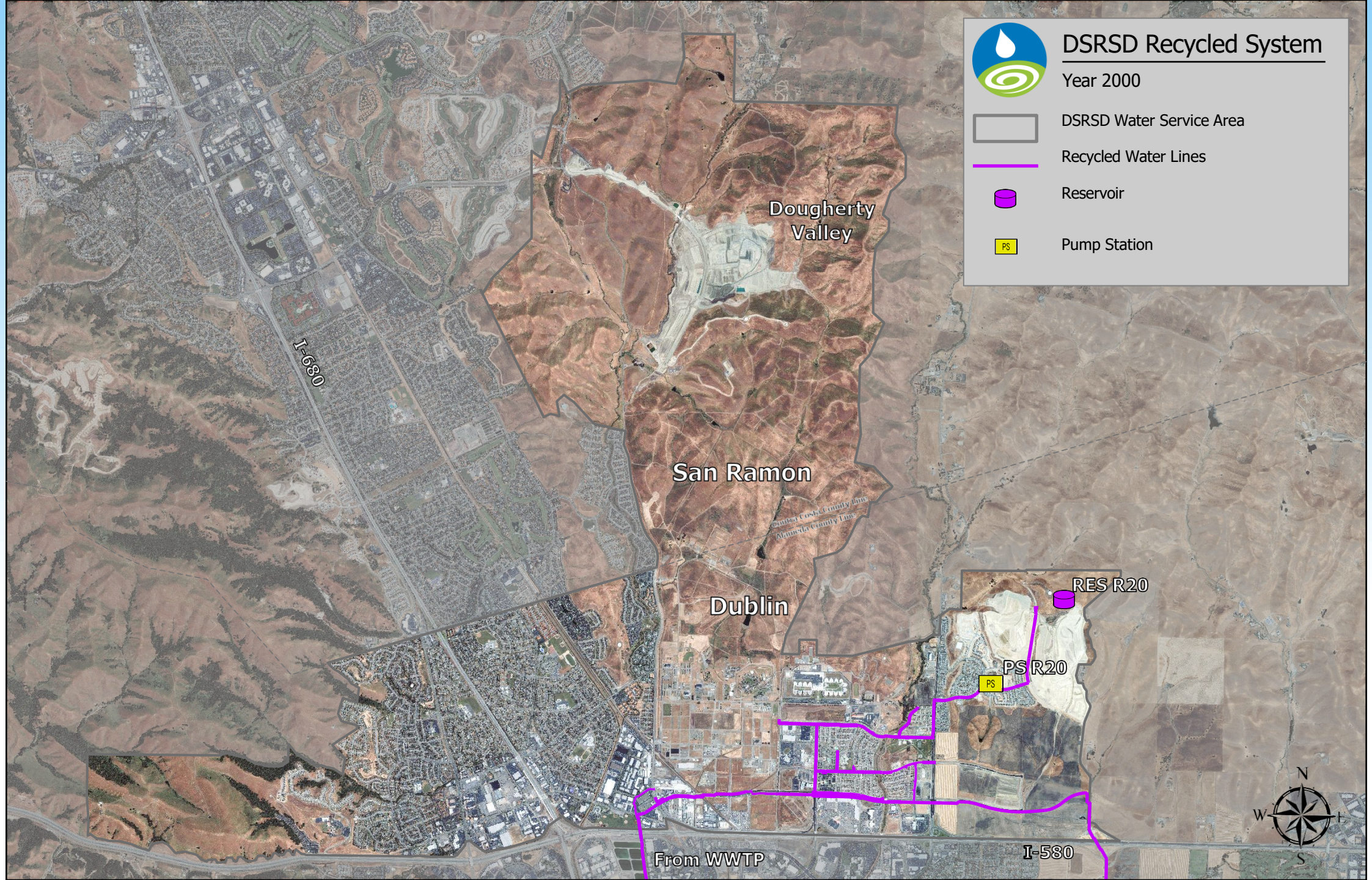
Recycled Water Lines



Reservoir



Pump Station







# DSRSD Recycled System

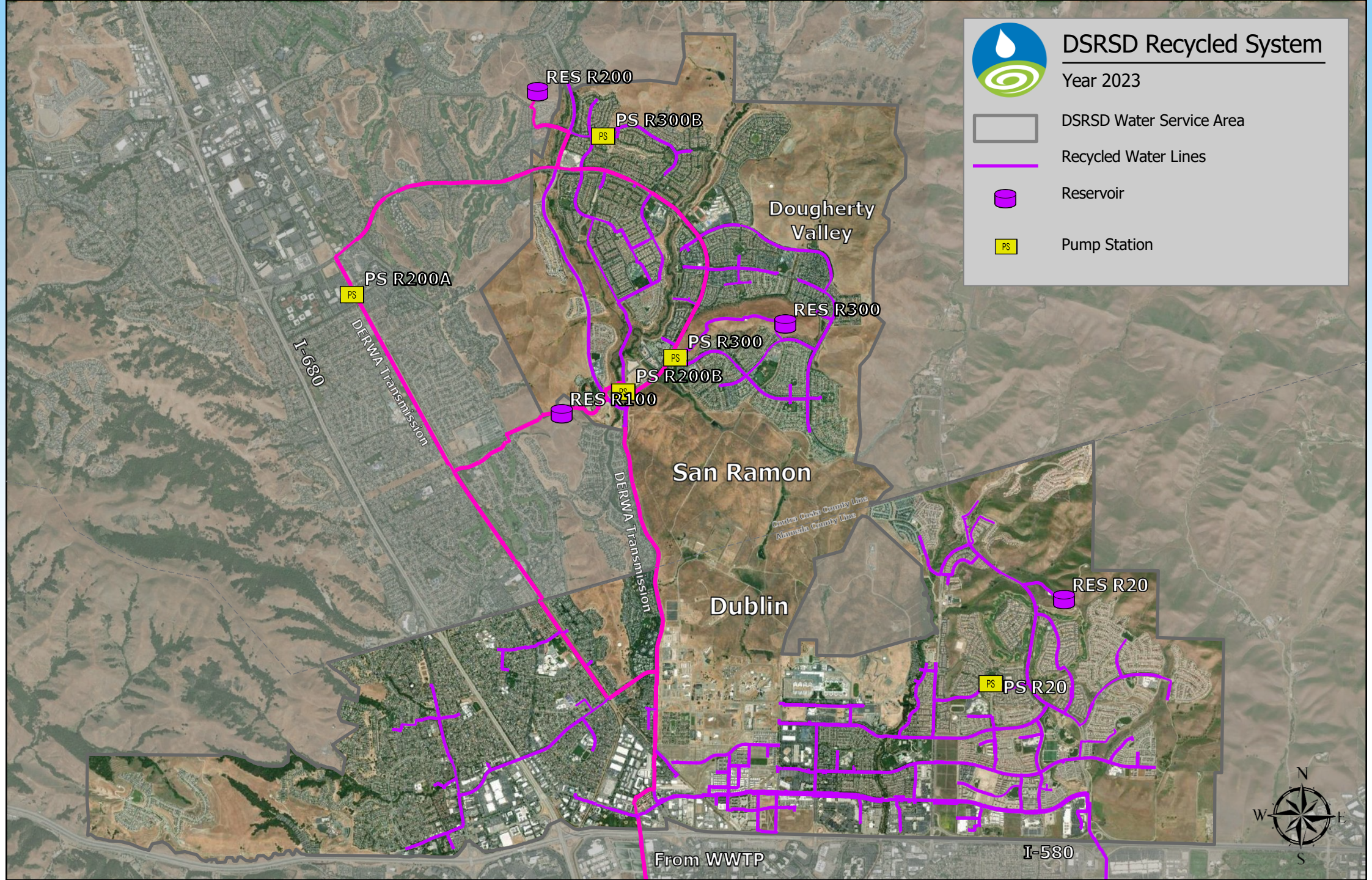
Year 2023

 DSRSD Water Service Area

 Recycled Water Lines

 Reservoir

 Pump Station



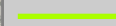


# DSRSD Collection System

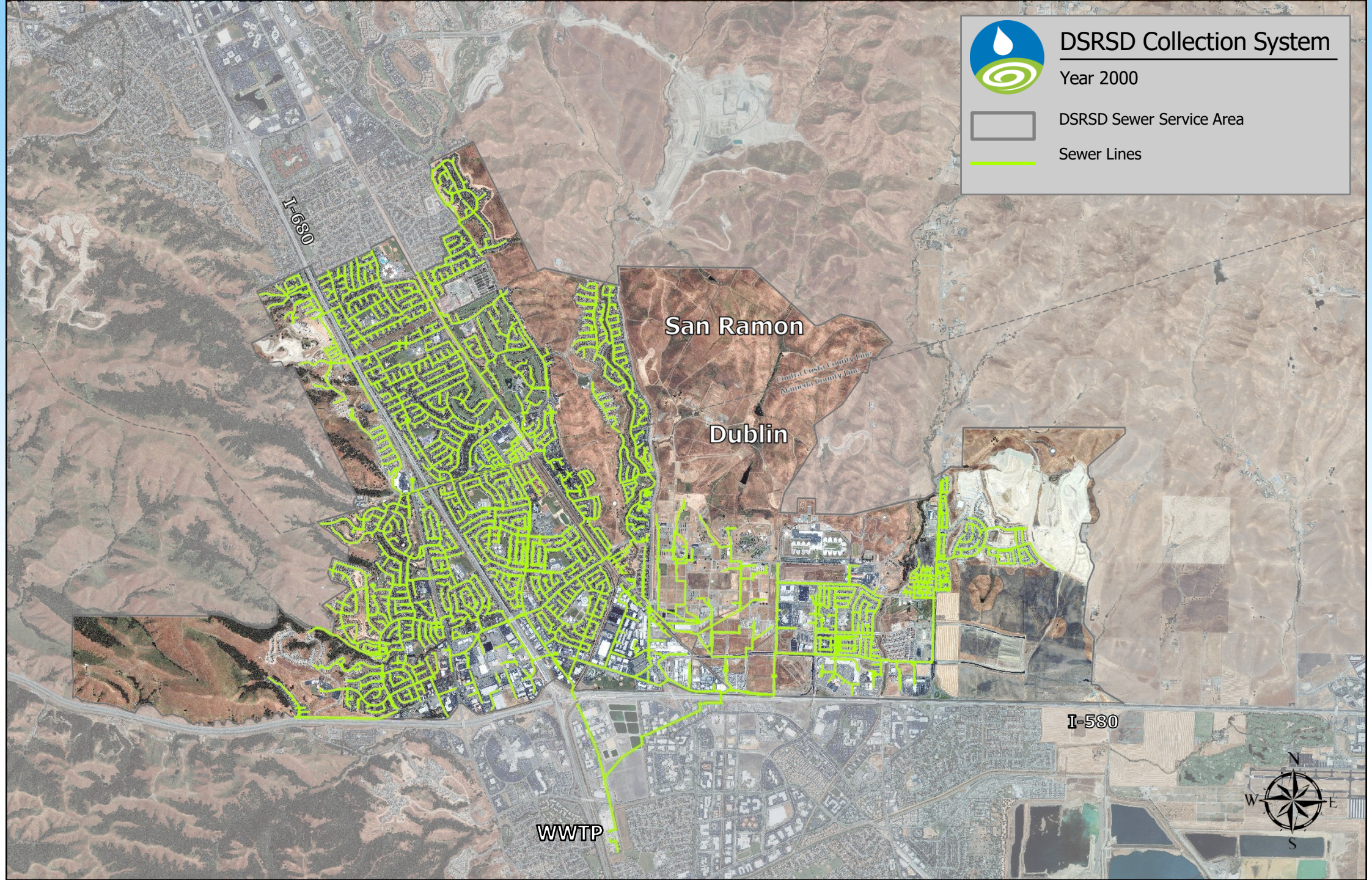
Year 2000



DSRSD Sewer Service Area



Sewer Lines





# DSRSD Collection System

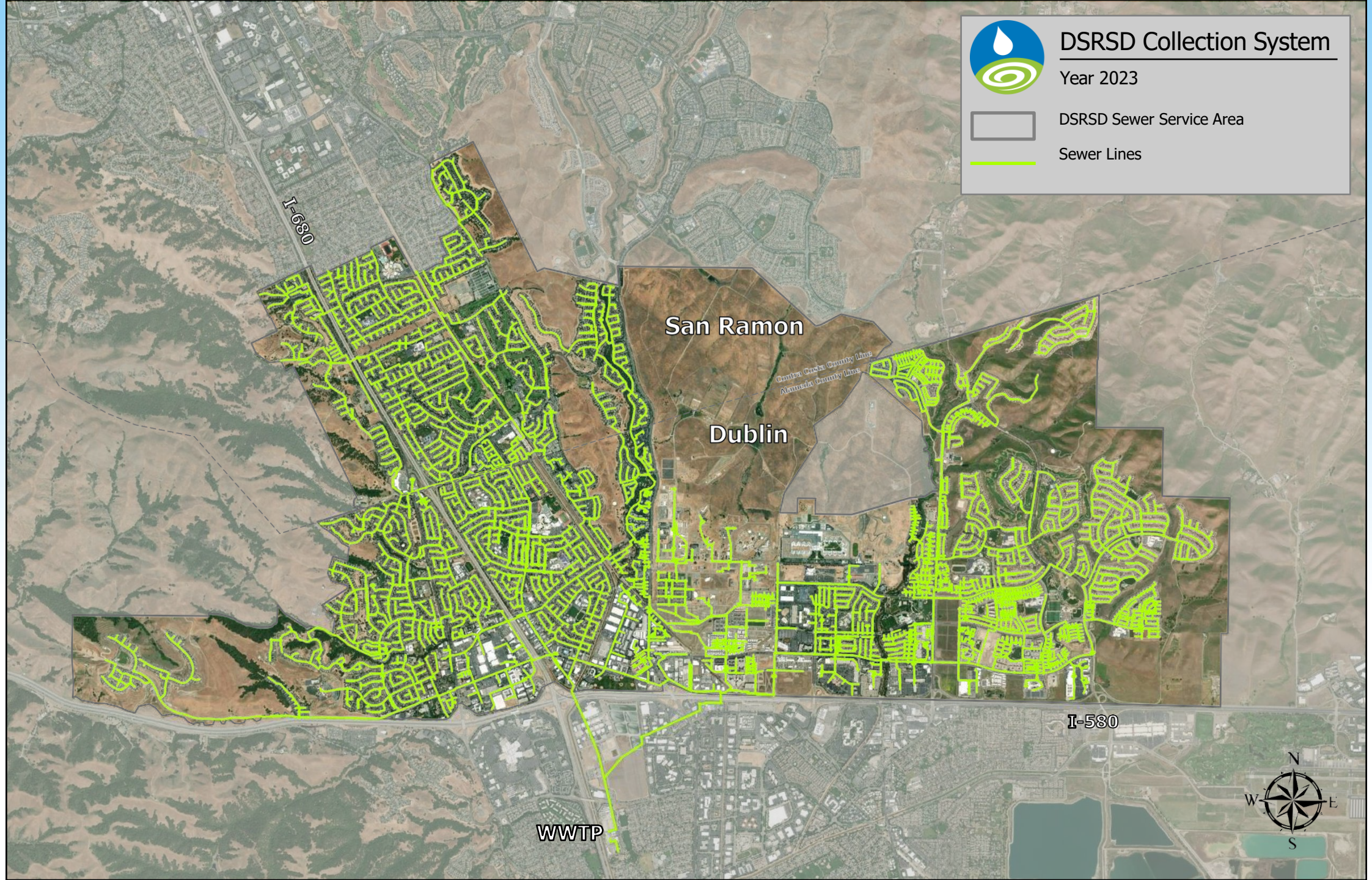
Year 2023



DSRSD Sewer Service Area



Sewer Lines



# 2023 Operations Workforce Study

## » Comprehensive review of Operations Department staffing needs

- Level of service
- District Strategic Plan
- Span of control and organizational efficiencies
- Succession and business continuity needs

## » Inform budget preparation for FYE 2024 and FYE 2025





# Dublin San Ramon Services District

## Operations Department Workforce Study Project Report

March 7, 2023





# Agenda

1. About Raftelis
2. Project Purpose and Approach
3. Benchmarking
4. Findings and Recommendations

# Who is Raftelis?

One of the most experienced local government financial and management consulting practices in the nation.

**30 years** serving local governments and utilities

More than **140 consultants** across the U.S.

Raftelis has provided financial/organizational assistance for

**1,200+**

public agencies and utilities

that serve more than

**25%**

of the U.S. population

including the agencies serving

**38/50**

of the nation's 50 largest cities

and including

**1,200+**

municipal and county governments

# Raftelis Firm Capabilities



## **FINANCE**

**Meet your goals while maintaining a financially sustainable organization**

Financial and capital planning  
Budget development  
Financial condition assessments



## **COMMUNICATION**

**Communicate strategically to build an informed, supportive community**

Strategic communication planning  
Public involvement and community outreach  
Virtual engagement



## **STRATEGIC PLANNING**

**Set the direction for the future of your organization and community**

Organization, department, and community-based strategic planning  
Effective Board / Commission / Council governance  
Retreat planning and facilitation



## **ORGANIZATION**

**Plan for long-term sustainability and operate with maximum efficiency**

Organizational and operational assessments  
Performance measurement  
Staffing Analysis



## **TECHNOLOGY**

**Use your data and technology to improve experience and gain valuable insights**

Business process development  
Data management, analytics, and visualization  
Performance measurement and dashboarding  
Information technology assessments and strategic planning



## **EXECUTIVE RECRUITMENT**

**Identify top talent to lead local governments and utilities**



# Your Team



**Rebekka  
Hosken**  
Senior  
Manager



**Ben  
Kittelson**  
Senior  
Consultant



**Scott  
Parker**  
Senior  
Manager

# Project Purpose and Approach



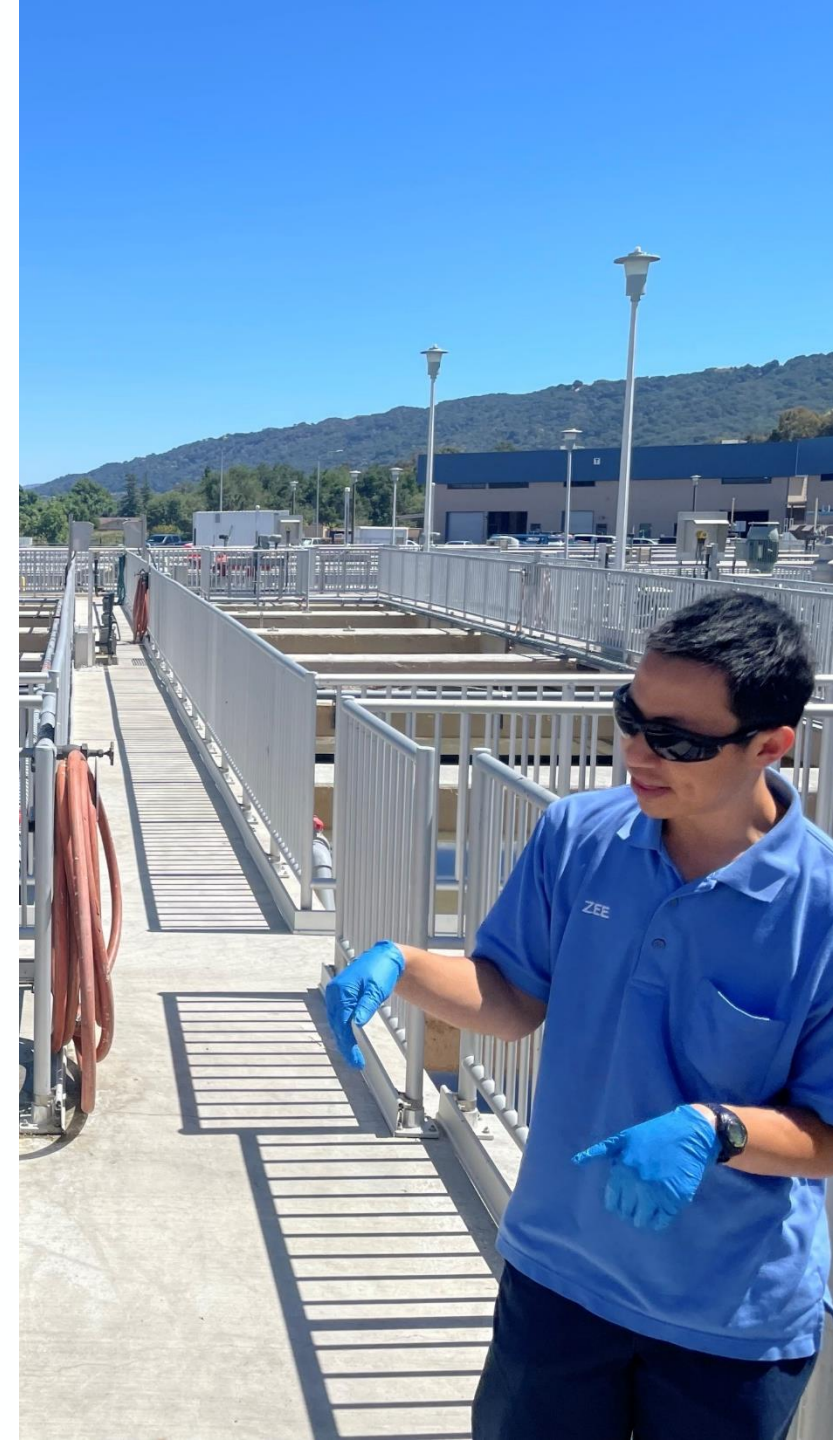


# Goals of the Study

- Assess Operations Department staffing, structure, and operations to meet current and future needs
  - Plant Operations Division
  - Mechanical Maintenance Division
  - Instrumentation, Controls, and Electrical Division
  - Laboratory and Environmental Services
  - Operations Support Services Division
  - Field Operations (now in Engineering Department)
- Compare against best practices and benchmark against peer utilities

# Approach and Methodology

- Process kicked off in May 2022
- Over 40 in-person and remote interviews with DSRSD staff
- Toured DSRSD plant facility
- Benchmarked DSRSD against eight California utilities
- Completed best practice research
- Reviewed DSRSD data and documents
- Completed project report



# Benchmarking





# Benchmarking Organizations

Utility	Total FTEs	Total Operations and Maintenance Budget	Customer Accounts
City of Livermore	61.50	\$37,126,267	42,900
Delta Diablo	77.50	\$31,685,452	71,650
Las Virgenes Municipal Water District	124.00	\$58,905,878	37,127
City of Hayward	124.06	\$96,597,204	70,608
<b>Dublin San Ramon Services District (DSRSD)</b>	<b>132.00</b>	<b>\$72,007,173</b>	<b>50,613</b>
Alameda County Water District (ACWD)	244.00	\$119,047,000	86,468
Central Contra Costa Sanitary District (Central San)	294.00	\$85,019,046	121,690
Inland Empire Utilities Agency (IEUA)	302.00	\$172,739,000	N/A
East Bay Municipal Utility District (EBMUD)	2,065.00	\$418,300,000	561,408

# Benchmarking Findings

---

- DSRSD is in line with peer organizations for industry performance metrics:
  - › Volume of water distributed, and wastewater treated
  - › Customers served per employee
  - › Expenditures per customer account
- Benchmarking is a useful snapshot but apples to apples comparisons are difficult
  - › Does not capture quality of service level among peers
  - › Unique operating factors, like two JPAs, impact comparison

# Findings and Recommendations





# DSRSD Strengths

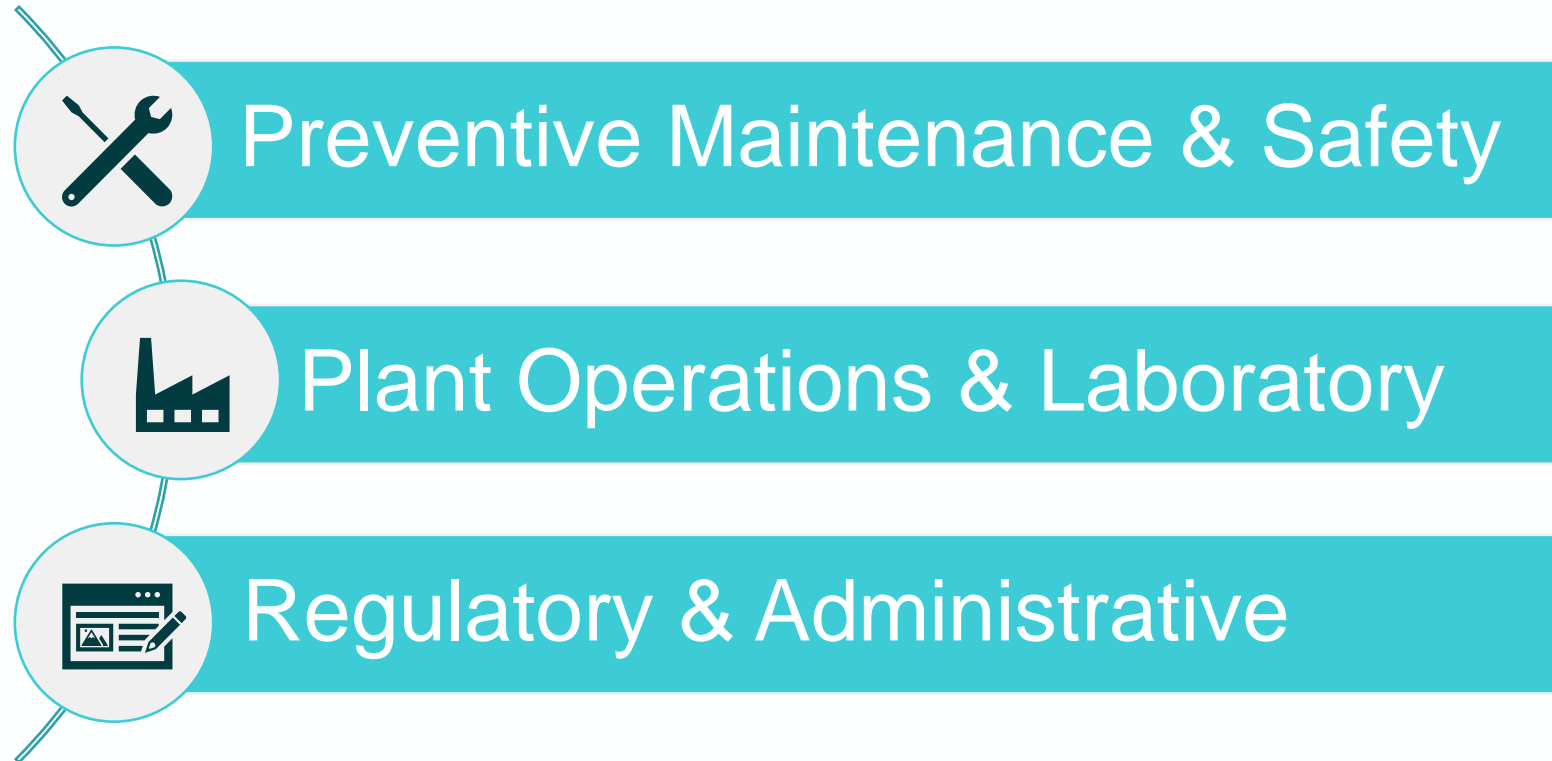
- Staff are dedicated and take pride in their work
- Operating teams generally work well together
- Broad spectrum operations, including water, wastewater, and recycled water
- Safety program is well-respected and appreciated by staff



# Areas for Improvement

- Maintenance is mostly reactive; preventative maintenance can be improved to maximize the value of District assets
- Staff capacity does not meet labor requirements in some areas
- Regulatory compliance and administrative support can be strengthened
- As District has grown, roles have not always been clarified

# Report Analysis and Recommendations



# Preventative Maintenance and Safety





# Preventative Maintenance

- In utilities, what we can see is the tip of the iceberg
- Most of DSRSD's assets are underground, behind a fence, and "invisible"
- In some areas, staff don't have capacity to be proactive and are mostly reactive
- There is limited capacity for asset management
- To maximize asset value and system reliability, DSRSD needs to invest resources in preventative maintenance



# Field Operations

---

- **Add 4.0 FTEs to provide capacity for preventative maintenance**
  - › AWWA and WEF best practice to have established valve turning and flushing programs
  - › Labor hour analysis used to calculate staffing need
- **Create a second Water/Wastewater Systems Supervisor position**
  - › Supervisor has 15 direct reports now, 19 with additions
  - › Large span of control decreases the ability to support strategic initiatives and collaborate across DSRSD

# Instrumentation, Controls, & Electrical

---

- **Create an Electrician position to support ongoing project work**
  - › Helps to ensure data is up to date
  - › Cover increasing workload due to technology and growth
  - › Important to have accurate equipment and asset data
  - › Can offset contracted help already being utilized



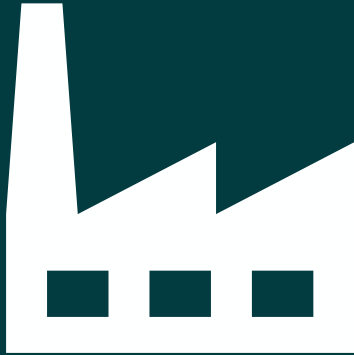
# Mechanical Maintenance

---

- **Clarify service level expectations for Mechanical Maintenance responsibilities outside of the plant**
  - › Expectations not defined for work performed on distribution and collection systems between Field Operations and Mechanical Maintenance
  - › Two Mechanical Maintenance staff are responsible for maintenance and repair of mechanical systems outside plant grounds
  - › Monitor the need for additional Field Mechanic position

# Plant Operations and Laboratory





## Plant Operations

- DSRSD operations are 24/7
- Requires highly skilled Operators with multiple certifications
- The pool of skilled labor is limited and highly competitive

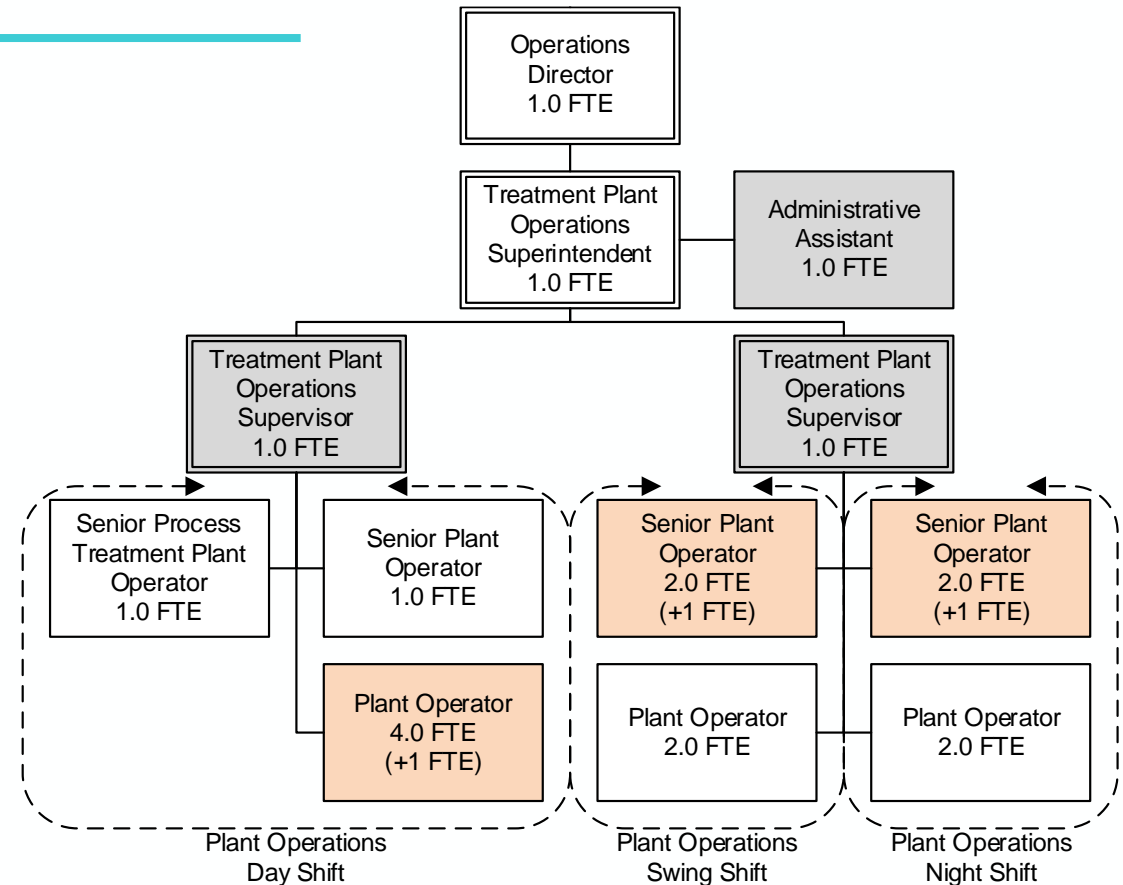
# Increase Plant Operations staffing by 3.0 FTEs to ensure adequate coverage

---

- Additional staff needed to meet minimum coverage for shift schedule
  - › Minimum staffing is 3.0 FTEs on day shift and 2.0 FTEs on other shifts
  - › Minimum of 1.0 Senior Operator FTE per shift
- Current staffing level does not account for leave and training coverage
  - › Takes years to bring new staff member up to speed
- Some potential offset in overtime costs

# Convert two Senior Process Operators to Supervisors

- Plant Operations does not currently use Supervisor positions
- Peers have both a Superintendent and Supervisor level
- Superintendent has 13 direct reports across three shifts; takes time away from strategic and collaborative efforts





# Laboratory

- Critical part of DSRSD operations and benefit for safe and healthy operations
- Provides Operations the ability to adjust biology and chemistry in real-time
- Chemists and Operators can interact regularly
- Lab has had some turnover related to workload concerns



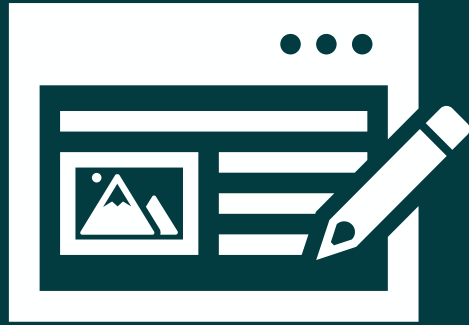
# Increase Laboratory Capacity by 2.0 FTEs

---

- Regulatory environment is changing nationwide
- State of California has issued new accreditation standards that must be met in 2023
  - › Maintaining accreditation will allow the lab to meet utility needs in a changing regulatory and technology landscape
  - › Will have an estimated 1,496 labor hour impact
- Add one Laboratory Technician to address immediate needs
- Add Environmental Chemist to support necessary quality assurance and quality control

# Regulatory and Administrative





# Regulatory Compliance

- Filing of State, Federal, and other mandated reports
- Critical function to ensure DSRSD keeps its permits to operate
- Changing regulatory environment and increasing workload
- Operations Compliance Manager at maximum capacity now

# Regulatory Compliance

---

- **Create a cross-functional task force to clarify roles for data collection and compliance reporting**
  - › Responsibility and roles compliance across the organization are not clear
  - › Best practice is to have operating divisions collect high quality data and provide to compliance staff for analysis and reporting
- **Monitor the need for additional analytical capacity for regulatory compliance**
  - › Allow other changes to take effect first, which should reduce workload for current staff
  - › Additional analyst-level position may be necessary to support the Operations Compliance Manager and proactively monitor changing regulations

# Warehouse Inventory Management

---

- **Create one Warehouse Specialist position to manage equipment and parts inventory**
  - › Each workgroup does their own inventory management and receipt of deliveries
    - As a result, inventory control is weak
  - › Warehouse position could better coordinate purchases, manage supply, receive deliveries, and keep inventory control
  - › Frees up other staff capacity for their primary roles

# Service Level and Role Clarity

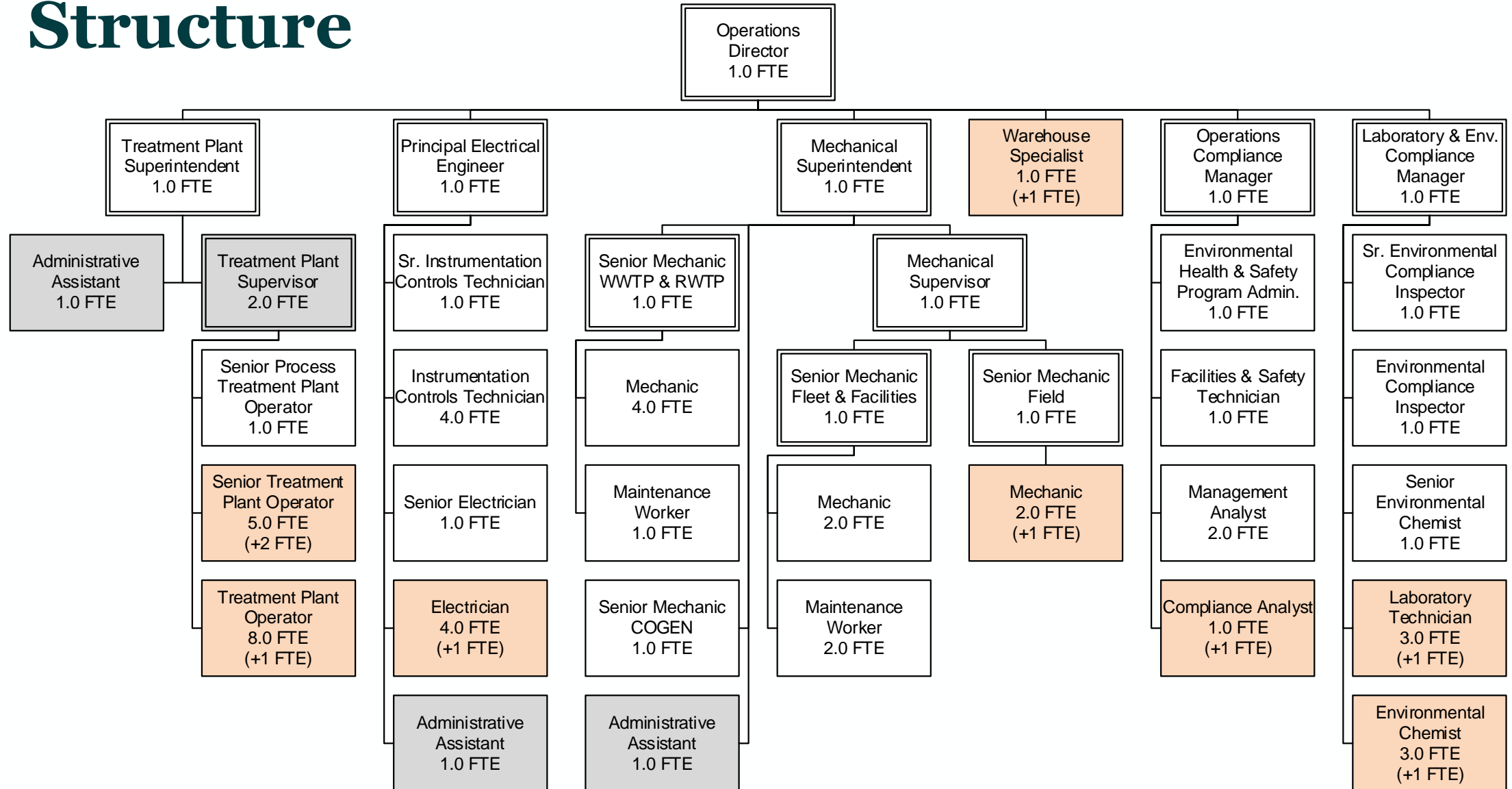
---

- **There is a need to clarify expectations for several areas of operation to improve the effectiveness of staff**
  - › Coordination between Field Operations and Mechanical Maintenance
  - › Responsibility for safety related systems and equipment
  - › Size and scope of safety program
  - › Direct administrative support for Operations Divisions
- **Improve asset management by identifying a position to coordinate and lead efforts**
  - › Current cross-departmental approach should be maintained

# **Recommended Structure & Additional Staffing**

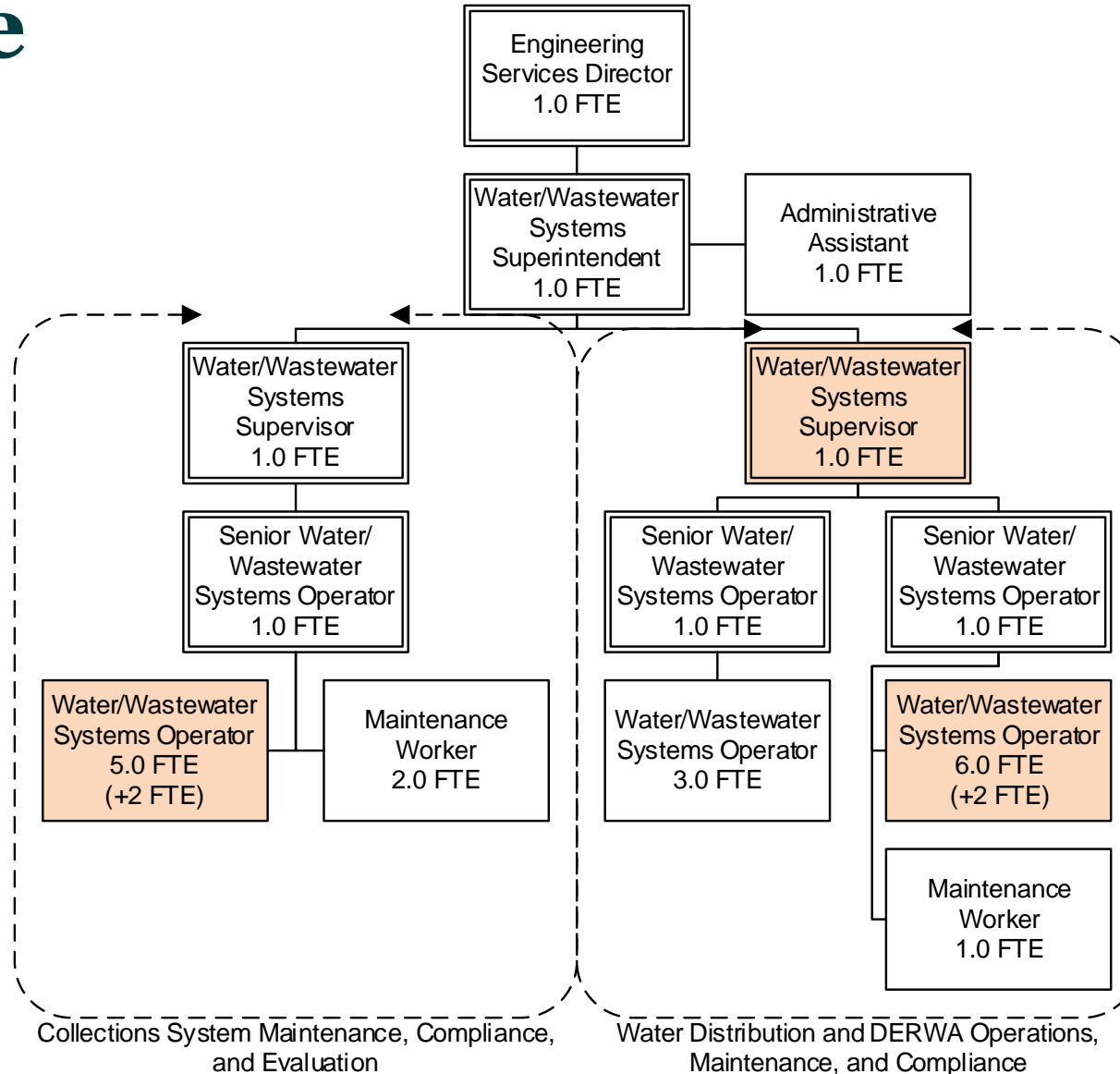


# Recommended Operations Department Structure





# Recommended Field Operations Division Structure



# Staffing Summary

Division or Program Area	Position	Estimated Cost
Laboratory and Technical Services	New. +1 FTE Environmental Chemist	\$199,526
	New. +1 FTE Laboratory Technician	\$165,781
Field Operations	New. +4 FTEs Water/Wastewater Systems Operator	\$676,348
	New. +1 FTE Water/Wastewater Systems Supervisor	\$232,750
Plant Operations	New. +2 FTEs Senior Wastewater Treatment Plant Operator	\$374,344
	New. +1 FTEs Wastewater Treatment Plant Operator	\$160,846
	Convert. 2 FTEs Wastewater Treatment Plant Supervisor	\$63,624
Mechanical Maintenance	New. +1 FTE Field Mechanic	\$176,145
Instrumentation, Controls, and Electrical	New. +1 FTE Electrician	\$188,466
Operations Administration	New. +1 FTE Warehouse Specialist	\$164,509
Operations Support Services	New. +1 FTE Regulatory Compliance Analyst	\$188,660
<b>Total:</b>	<b>+14 FTEs and +2 Conversions</b>	<b>\$2,590,999</b>

# Recommended Phasing of Staff Positions

Division	Immediate	FY2024	FY2026	FY2027
<b>Laboratory and Technical Services</b>	+1 FTE Environmental Chemist +1 FTE Laboratory Technician			
<b>Field Operations</b>	+2 FTEs Water/Wastewater Systems Operator	+1 FTE Water/Wastewater Systems Supervisor	+2 FTEs Water/Wastewater Systems Operator	
<b>Plant Operations</b>	Convert 2 Wastewater Treatment Plant Supervisors	+1 FTE Senior Wastewater Treatment Plant Operator +1 FTE Wastewater Treatment Plant Operator	+1 FTE Senior Wastewater Treatment Plant Operator	
<b>Mechanical Maintenance</b>				+1 FTE Field Mechanic
<b>Instrumentation, Controls, and Electrical</b>		+1 FTE Electrician		
<b>Regulatory/ Administrative</b>	+1 FTE Warehouse Specialist			+1 FTE Regulatory Compliance Analyst
<b>Total New FTEs</b>	<b>+5 FTEs +2 Conversions</b>	<b>+4 FTEs</b>	<b>+3 FTEs</b>	<b>+2 FTE</b>
<b>Estimated Impact</b>	<b>\$931,614</b>	<b>\$769,234</b>	<b>\$525,346</b>	<b>\$364,805</b>



# Thank you!

## Contacts:

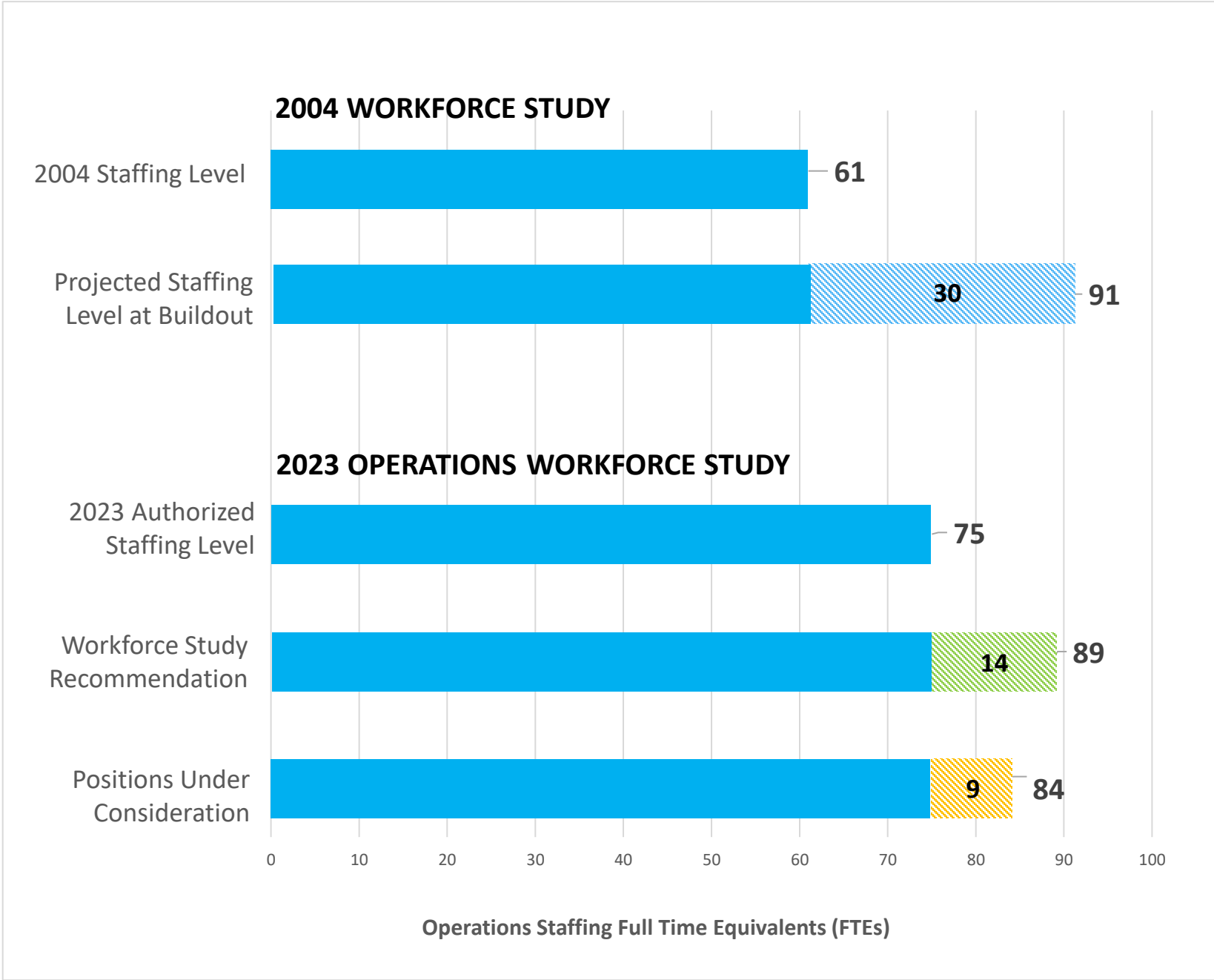
Rebekka Hosken, Senior Manager / 818.632.4086 / [rhosken@raftelis.com](mailto:rhosken@raftelis.com)

Ben Kittelson, Senior Consultant / 503.819.5343 / [bkittelson@raftelis.com](mailto:bkittelson@raftelis.com)

Scott Parker, Senior Manager / 913.238.1131 / [sparker@raftelis.com](mailto:sparker@raftelis.com)

# NEXT STEPS







## Positions under Review for FYE 2024 and FYE 2025

Division	Position Request
Laboratory and Environmental Compliance	2
Field Operations	2
Plant Operations	2
Operations Support Services	1
Instrumentation, Controls, and Electrical	1
Mechanical	1
<b>TOTAL</b>	<b>9</b>





## Next Steps

- » Complete review of staffing positions for FYE 2024 and FYE 2025
- » Incorporate recommendations into Operating Budget
- » Review and implement opportunities to increase efficiency
- » Reassess workforce needs in 2025





**Discussion**