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BOARD SECRETARY:  
KAIT KNIGHT

## AGENDA

The Special Joint Meeting of the Board of Directors of Diablo Water District and Contra Costa Water District will be held on February 22, 2024 at 10:00 am at the District's office, 87 Carol Lane, Oakley, California. This meeting is being conducted in person and via webinar. Members of the public and District staff may attend the meeting via conference call / web using the credentials below. Members of the public will continue to have the opportunity to provide public input via the webinar or phone features.

Dial in Number: 1-949-346-1487

Conference ID: 119 074 788#

Or

Web Option: [www.diablowater.org/webmeetings](http://www.diablowater.org/webmeetings)

*Check your browsers' functionality or download the Microsoft Teams App prior to the meeting.*

The District's agendas and supporting documents are available on the District's website: [www.diablowater.org](http://www.diablowater.org), or by calling Kait Knight at (925) 625-6587. A fee may be charged for copies.

If you have a special accommodation needs to attend the meeting, please provide at least two (2) working days' notice prior to the meeting by calling Kait Knight at (925) 625-6587.

### **1. Call to Order, Roll Call, and Pledge of Allegiance.**

### **2. Public Input.**

Anyone present may address the Board of Directors on any subject within the jurisdiction of Diablo Water District. If the subject item is on this Agenda, please hold public comment until the appropriate item. **All virtual attendees will remain on mute until called upon to address the Board.**

**Discussion Items**

3. **DWD's Request for Engagement with Governance and Oversight of RBWTP.**
4. **Randall-Bold Water Treatment Plant Master Plan Update.**
5. **RBWTP Operations & Capital Improvement Program Update.**
6. **Canal Improvements Update.**
7. **Adjournment.**

*Posted this 20<sup>th</sup> day of February 2024.*



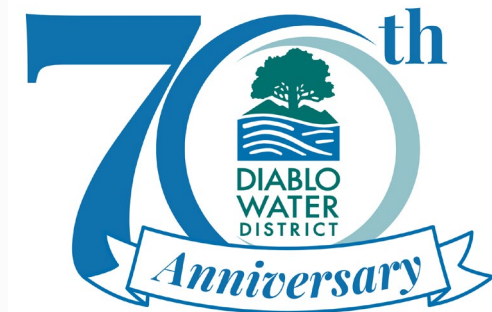
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**Dan Muelrath, General Manager**

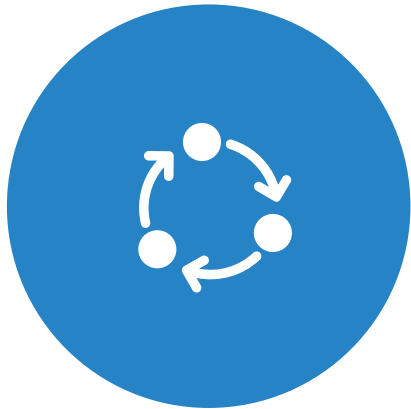


# Request for Engagement with Governance and Oversight of RBWTP

FEBRUARY 22, 2024



# Today's Goals



START THE ENGAGEMENT  
PROCESS



FOCUS ON AREAS OF  
STRATEGIC ALIGNMENT

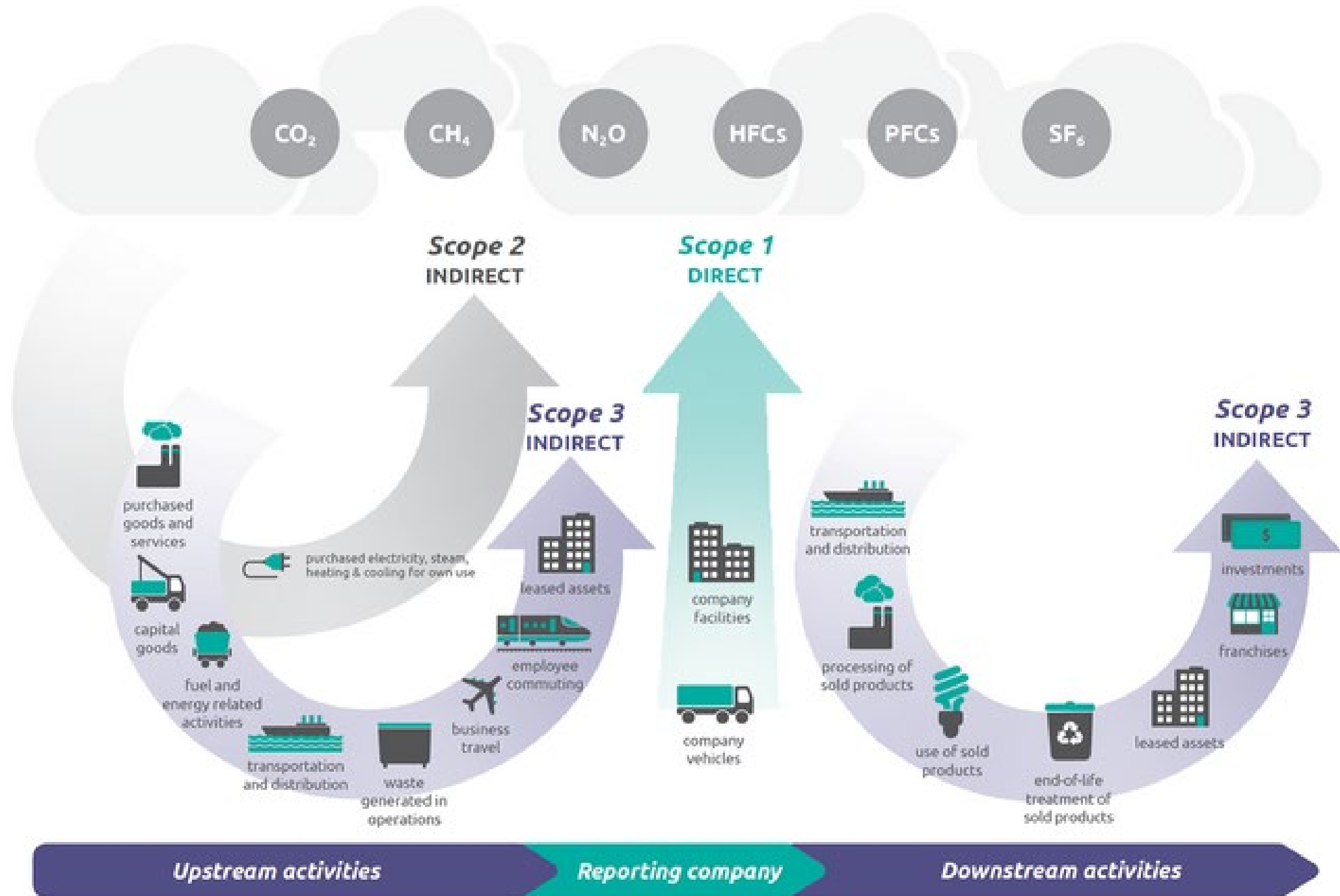


DISCUSS BENEFITS BEYOND  
RBWTP

# The “WHY” Behind DWD’s Engagement Request

- JPA is not reflective of a modern collaborative partnership that can be leveraged to improve regional water supply resiliency.
- DWD has no say over capital and O&M expenses that cause significant DWD budget fluctuations.
- DWD customers desire improved water quality.
- RBWTP GHG emissions are Scope 3 and DWD has no mechanism to offset.
- Agreement is silent on many items that may be beneficial to both parties.







# Potential Engagement Options



- Staff to Staff working group to identify areas of interest for changes to JPA. May result in:
  - New agreement; or
  - Amendment; or
  - Other

Or

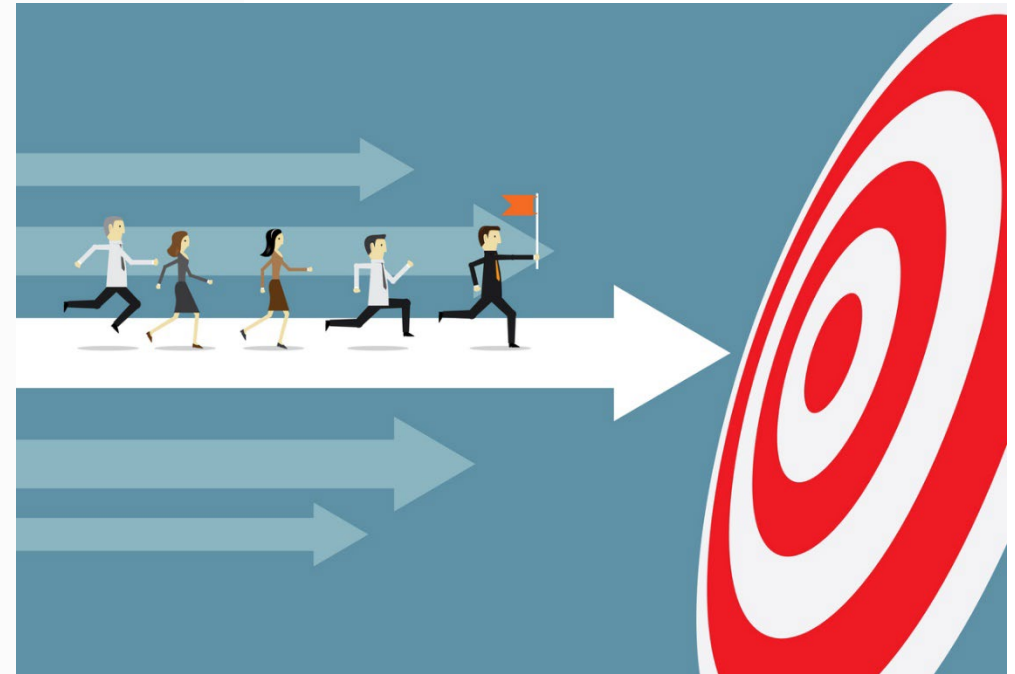
- Board to Board policy setting
  - Facilitated discussions (Center for Collaborative Policy or others)

Or

- Mediation
  - Not preferred

# Political / Strategic Alignment

- Resilient regional water supply
- Water quality
  - Canal encasement
  - Real time access to water quality data
  - Improved product water
- Low water rates
- Financial stability
- And more....





# Additional Benefits of Revisiting CCWA JPA

- Regional water supply options
  - More flexibility to move real water / paper water
- Los Vaqueros expansion
  - Provide a more resilient water supply during reservoir decommissioning
- DWD has spent a significant amount of resources on:
  - Wellhead treatment options
  - Potential for reverse osmosis
  - Direct Potable Reuse
  - Additional groundwater options

## Next Steps

- Each Board to provide direction to their staff within the next three months on preferred path forward.
  - Staff to Staff working group to create options and recommendations on modernizing the current JPA.
  - Board to Board policy setting via facilitator.
  - Other mutually agreeable solution.



# **RANDALL-BOLD WATER TREATMENT PLANT MASTER PLAN UPDATE**

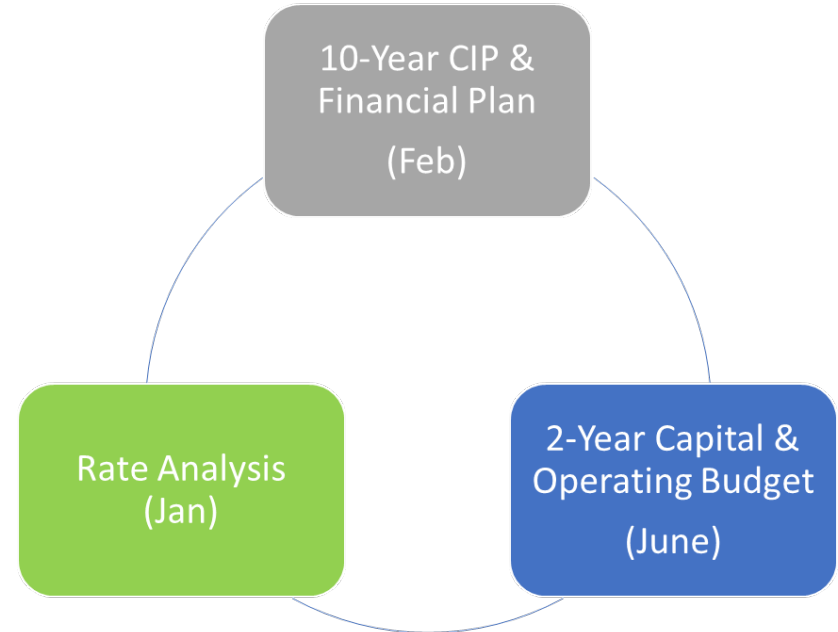
**JEFF QUIMBY  
ASSISTANT GENERAL MANAGER**

# RANDALL-BOLD WTP MASTER PLAN UPDATE



## Ten-Year CIP

- Establishes 10-Year Financial Plan
- Prioritizes projects; forecasts revenue requirements
- Umbrella for CCWD Master Plans
  - Facilities
  - Future Water Supply (FY25)
  - Treated Water System
  - Treatment Plants (FY26)
  - Untreated Water System



## Two-Year Budget

- Authorizes projects and expenditures
- Annual budget provided to DWD for Randall-Bold

## Rate Review

- Annual rate analysis and review conducted
- Authorizes rate increases

## Water Treatment Plant Master Plan Update (WTPMP)

- Comprehensive plan for short-term and long-term improvements at the WTPs
- First completed in 2003 with updates in 2011 and 2020
- Periodic updates necessary to reflect current conditions



## WTPMP Scope of Work

- Renewal and Replacement Evaluation
  - Desktop analysis and field evaluations to establish facility condition
  - Assessment of criticality to consider safety, environmental, community, and operational impacts of asset's potential failure
  - Develop improvement recommendations, priorities and conceptual costs





## WTPMP Scope of Work (Cont.)

- Facility Planning Evaluations
  - Regulatory and water quality evaluation
  - Filter media performance evaluation
  - Capacity evaluation for future demands
  - Operating efficiency evaluations



## **WTPMP Scope of Work (Cont.)**

- Opportunities for DWD participation
  - User group
  - Field assessments
  - Report/Recommendation review
- Schedule
  - FY26 – Kickoff Spring 2025

# **RANDALL-BOLD WATER TREATMENT PLANT OPERATIONS AND CAPITAL IMPROVEMENT PROGRAM (CIP) OVERVIEW**

**DAVE HUEY**

**DIRECTOR OF OPERATIONS AND MAINTENANCE**

# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW



## Randall-Bold WTP Operations

- Produces high-quality water with regional benefit since commissioned in 1992
- Reliably meets DWD and CCWD demands, including key partners; City of Antioch, Community of Bay Point, and City of Brentwood
- Staffing resources shared with CCWD/City of Brentwood WTP



# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW



## **Upcoming Assessments and Studies**

- Energy Efficiency Study
  - Kickoff in FY25 (\$120K)
- Power System Reliability Assessment
  - Assessment and preliminary design in FY25
    - (\$406K - Operating Budget)

***Briefing Provided to DWD Leadership on January 24***

# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW



## Randall-Bold WTP Capital Improvements

- WTP Master Plan Update completed in 2020; incorporated in Fiscal Year 25 (FY25) to FY34 CIP
- FY25-34 CIP Randall-Bold WTP Improvement Program Total Project Value = \$91.4M
  - No Priority Level 1
  - \$45.1M Priority Level 2
  - \$44.8M Priority Level 3

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
\$4.7M	\$6.9M	\$5.3M	\$2.4M	\$4.6M	\$4.3M	\$5.1M	\$5.0M	\$3.8M	\$4.0M



# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW



## Randall-Bold WTP Priority 2 Projects in FY23-32 (\$000's)

PROJECT NAME	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
WTP Restoration	\$550	\$920	\$761	\$606	\$149	\$99	\$99	\$97	\$97	\$89
Filter Media Replacement					\$2,194					
Power System Assessment	\$406									
eDNA Migration	\$92									
Cybersecurity	\$64									
Ozone Generator PSU Replacement	\$282	\$1,154	\$282	\$1,154						
Condition Assessment/Upgrades		\$140	\$578							
Sodium Hypo and LAS Conversion	\$3,222	\$2,213								
DCS Replacement	\$37	\$1,438	\$1,438							
Clear Well Condition Assessment and Hydraulic Improvements		\$330								
Floc/Sed Basin Structural Improvements and Upgrades*		\$325	\$2,194							
WTP Master Plan (WTPMP) Update		\$367							\$367	
WTPMP Implementation Placeholder				\$596	\$2,275	\$4,217	\$4,962	\$4,901	\$3,300	\$3,911
<b>SUBTOTAL</b>	<b>\$4.7M</b>	<b>\$6.9M</b>	<b>\$5.3M</b>	<b>\$2.4M</b>	<b>\$4.6M</b>	<b>\$4.3M</b>	<b>\$5.1M</b>	<b>\$5.0M</b>	<b>\$3.8M</b>	<b>\$4.0M</b>

\* Sedimentation Basin Costs are not funded by DWD

# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW

## Randall-Bold WTP FY23 Projects

- Chemical Storage Improvements Phase 2
  - Replacement of chemical storage and feed systems
- Substation Control Equipment Upgrade
  - Enhanced power supply reliability and worker safety

Aluminum Sulfate Tank



Power Control Panel



# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW

## Randall-Bold WTP FY23 Projects (Cont.)

- Ambient Ozone Analyzer Replacement
  - Improved worker safety and regulatory compliance
- Safety and Security Upgrades
  - New alarms and cameras, site lighting conversion to LED for enhanced security and energy efficiency

Post Ozone Analyzer Enclosure



LED Lighting Conversion



# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW

## Randall-Bold WTP FY24 Construction

- Server Room Improvements
  - Construction of a secure, dedicated room where network equipment will be relocated in FY25
  - Benefits all Randall-Bold WTP partners and supports CCWD Disaster Recovery Plan

Original Location



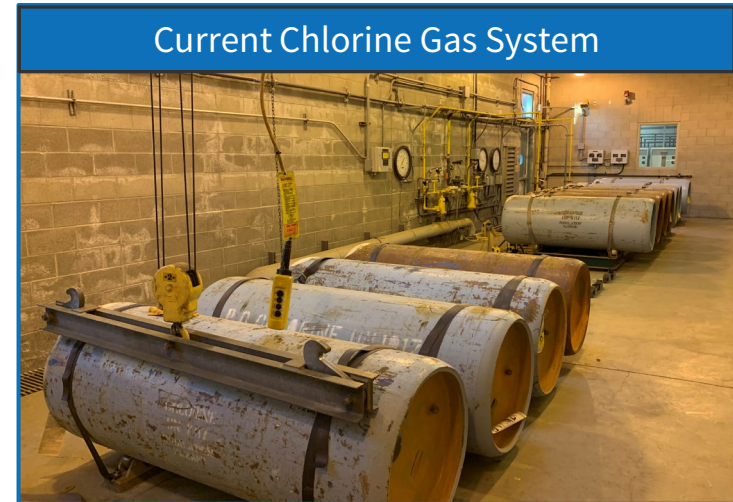
New Location and Cabinets



# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW

## Sodium Hypochlorite and LAS

- Elimination of high-risk chlorine gas and aqueous ammonia systems
- Conversion to sodium hypochlorite and liquid ammonium sulfate
- Improved worker and public safety, reduced regulatory burden
- Design in progress; construction to occur in FY25 and FY26





# RANDALL-BOLD WTP OPERATIONS AND CIP OVERVIEW



## **Randall-Bold WTP Future Construction Work**

- Ozone Generator No. 2 PSU and Dielectrics Replacement – Furnish and install in FY25 (\$660K)
- Ozone Generator No. 1 PSU and Dielectrics Replacement – Furnish and install in FY26 (\$750K)
- Clearwell Hydraulic Improvements – Construction in FY26 (\$200K)
- Pipe/Valve Condition Assessments and Chemical Feed Upgrades – Construction in FY27 (\$435K)



## **Randall-Bold WTP Future Construction Work (Cont.)**

- Sedimentation Basins Rehab and Improvements – Construction in FY27 (\$1.6M)
- Filter upgrades including valve actuator replacements – Construction in FY28 (\$1.5M)
- Distributed Control System replacement and cybersecurity enhancements – Construction in FY29 (\$1.3M).
- Filter media replacement set for FY29 (\$2M)

# CANAL IMPROVEMENTS UPDATE

**MIKI TSUBOTA**

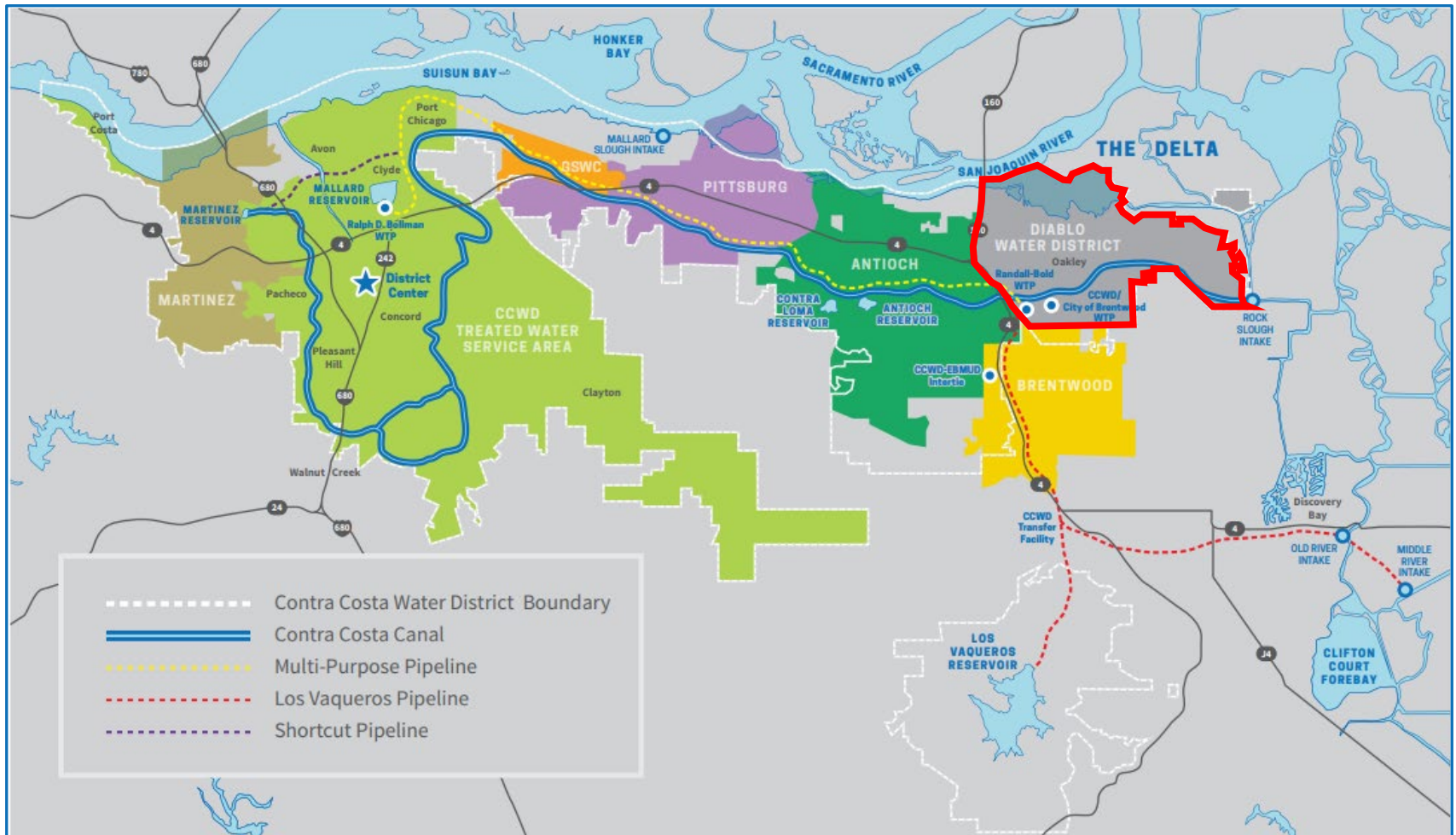
**ASSISTANT GENERAL MANAGER**

CCWD & DWD

SPECIAL JOINT MEETING

FEBRUARY 22, 2024

# CANAL IMPROVEMENTS UPDATE



## Canal Replacement to Date

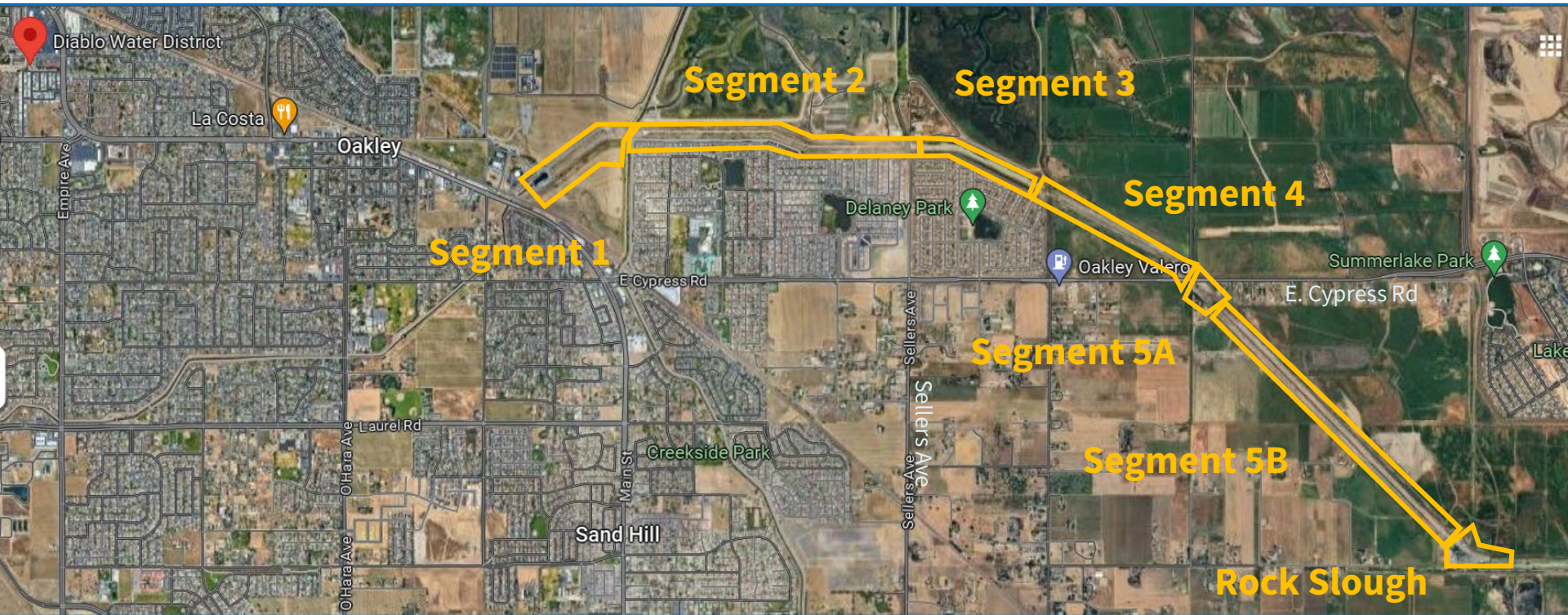
- Since 2009, CCWD has replaced ~4 miles of unlined Canal in Oakley from Rock Slough to Pumping Plant #1



Canal Segment 5B Replacement (most recent) shown above



# CANAL IMPROVEMENTS UPDATE



## **Segment 5A Update**

- City of Oakley's project to widen East Cypress Road is dependent upon installation of Segment 5A pipeline
- Currently negotiating agreement for City to design and construct pipeline as part of the East Cypress Road Widening project
- CCWD will review City's Segment 5A design and construction documents
- Construction is anticipated to begin in Summer 2025



## Canal Modernization Project Objectives

- Constructed in late 1930s, Main Canal is backbone water conveyance facility and priority for improvements
- 5 Project Objectives Board approved in January 2019



IMPROVE SAFETY



IMPROVE  
RELIABILITY



IMPROVE WATER  
QUALITY



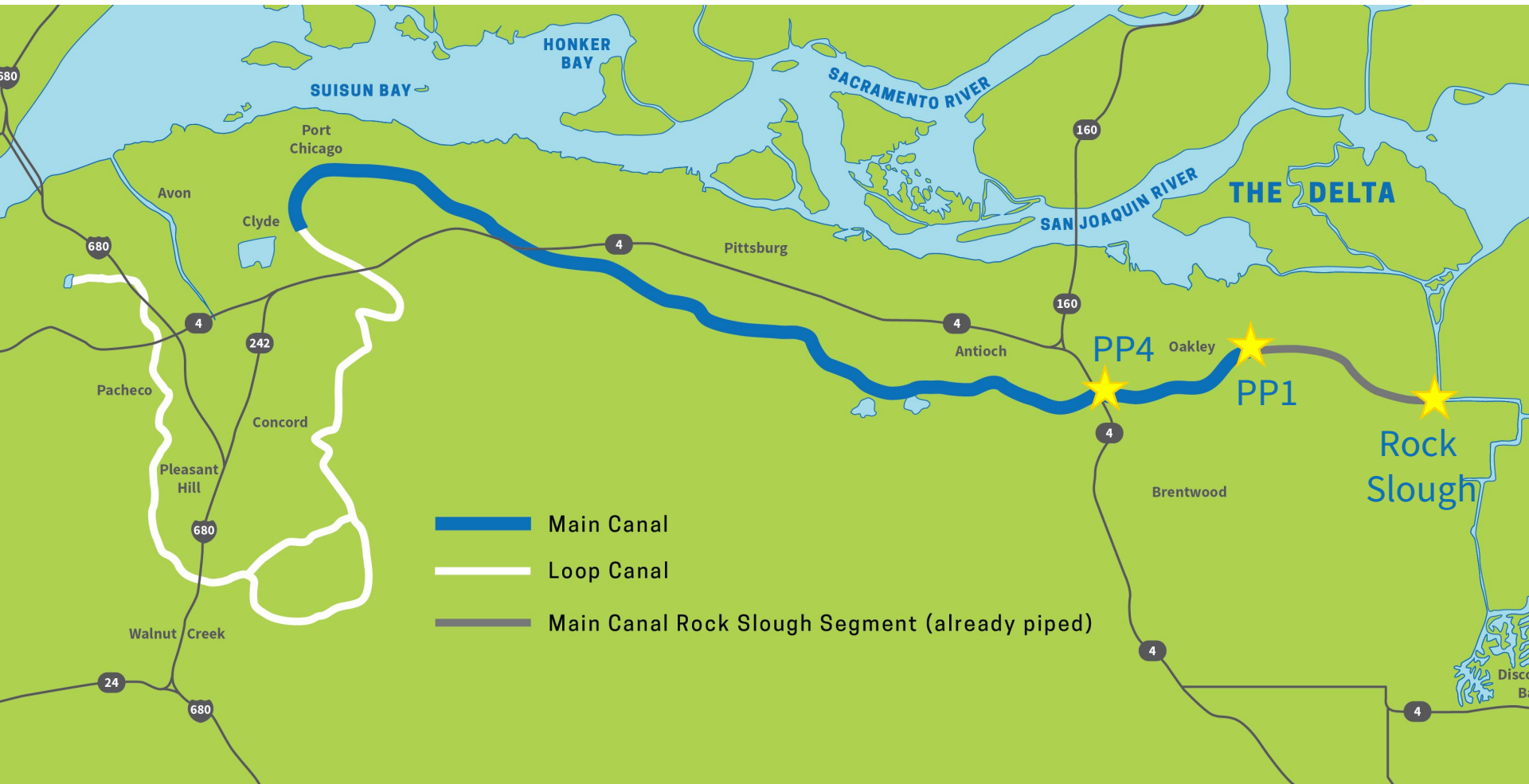
COST-EFFECTIVE  
CONVEYANCE



INCREASE WATER  
CONSERVATION

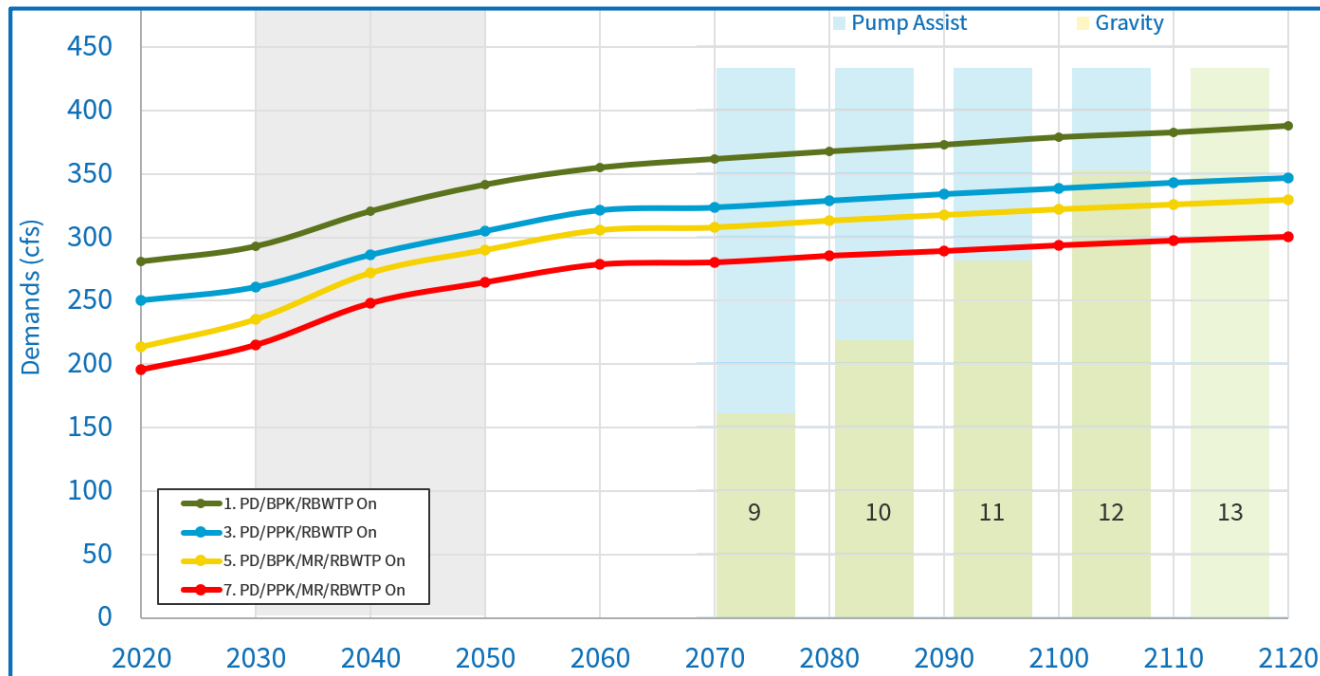
- Fully piped best meets project objectives with greatest risk reduction

# CANAL IMPROVEMENTS UPDATE



## Preliminary Design

- PP4 to Loop Canal priority due to higher risk; PP1 to PP4 evaluation to follow
- Design work scope includes hydraulic modeling, constructability, site investigations, stormwater management, permitting
- Sizing pipeline to meet future demands



## Public Opinion Research

- Customer surveys & focus group 2021-2022; key findings include:
  - Strong agreement that the community should do as much as possible to secure safe & reliable water supply for the future

## Schedule

- |                                |               |
|--------------------------------|---------------|
| • Preliminary Design Report    | December 2024 |
| • Environmental Impact Report  | 2025-2027     |
| • Detailed Design & Permitting | 2025-2029     |
| • Begin Construction           | 2030          |