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General Manager  
Mauricio E. Guardado, Jr.

Legal Counsel  
David D. Boyer

**ENGINEERING and OPERATIONS**  
**COMMITTEE MEETING**  
**MINUTES**

**Thursday, October 5, 2023, at 9:30 a.m.**  
**UWCD Headquarters, First Floor, Board Room**  
**1701 N. Lombard Street, Oxnard, CA 93030**

**COMMITTEE MEMBERS IN ATTENDANCE**

Lynn E. Maulhardt, chair  
Catherine P. Keeling, director  
Daniel C. Naumann, director

**STAFF IN ATTENDANCE**

Mauricio Guardado, general manager  
Anthony Emmert, assistant general manager  
Dr. Maryam Bral, chief engineer  
Marissa Caringella, environmental services manager  
John Carman, operations and maintenance program supervisor  
Randy Castaneda, chief water treatment operator  
Hannah Garcia-Wickstrum, environmental scientist  
Tessa Lenz, environmental scientist  
Craig Morgan, engineering manager  
Randall McInvale, principal environmental scientist  
Josh Perez, chief human resources officer  
Michel Kadah, engineer  
Zachary Plummer, technology systems manager  
Robert Richardson, principal engineer  
Vanessa Vasquez, clerk of the committee  
Brian Zahn, chief financial officer

**PUBLIC IN ATTENDANCE**

No members of the public were in attendance.

**Call to Order – Open Session**

Director Naumann called the committee meeting to order at 9:30 a.m. The clerk of the Committee called roll. All Committee members were present (Naumann, Maulhardt, and Keeling).

**1. Public Comments**

**Information Item**

Director Naumann asked for public comment. None were offered.



**2. Approval of Minutes**

**Motion**

Motion to approve the Minutes from the July 6, 2023, Engineering and Operations Committee meeting, Director Naumann; Second, Maulhardt. Voice vote: two ayes (Naumann and Maulhardt); none opposed; one abstained (Keeling). Motion carries 2/0/1.

**3. October 11, 2023, Board Meeting Motion Agenda Item**

The Committee reviewed and discussed the following motion item to formulate recommendations to the full Board at its October 11, 2023, meeting.

**3.1 Resolution 2023-15 Approving Adoption of the Revised Santa Felicia Dam (SFD) Owner Dam Safety Program (ODSP) dated October 2023**

Chief Engineer Dr. Maryam Bral presented background on motion 3.1 (presentation attached).

Chair Maulhardt asked Dr. Bral if the only changes to the SFD ODSP were to the command structure or if there were changes to tasks. Dr. Bral stated that the reporting structure had minor changes and that overall, there were no significant changes to the package. To further clarify Chair Maulhardt asked if the categories remained the same and or if only names were being updated. Dr. Bral responded yes, due to the outcome of the SFD Functional Exercise it was determined that there was a lot of coordination required by the incident command position. It was best to divide the position amongst two positions – Incident Commander and EAP Coordinator positions.

No further questions or comments. The Committee members were all in favor of recommending approval of this motion to the full Board.

**4. Monthly Department Updates**

**Information Item**

The Committee received and reviewed the monthly reports from the Engineering, Environmental Services, and Operations and Maintenance Departments as well as receiving verbal presentations of highlights (presentations are attached).

**4.1 Engineering Department Update**

Dr. Bral presented department updates that covered status updates on the Santa Felicia Dam safety improvement project, Santa Felicia Dam regulatory updates, 2023 Lake Piru recreation area pavement maintenance program, the Iron and Manganese Treatment facility, filter media loading, filter media backwash, Freeman Conveyance system upgrade, and the Extraction Barrier and Brackish Groundwater Treatment-Water Phase 1, and public outreach (presentation attached).

Referencing the Santa Felicia Dam Safety Improvement Project (slide two), Chair Maulhardt asked when construction would begin. Dr. Bral provided a potential construction date of July 15, 2025. General Manager, Mauricio Guardado then discussed how NMFS (National Marine Fishery Service) filed a late motion to



intervene with FERC (Federal Energy Regulatory Commission) on August 29 (slide three). Dr. Bral further explained how the motion was denied by FERC and expressed her sincere gratitude as the SFD Safety Improvement Project could have been delayed significantly had the motion to intervene been approved. Chair Maulhardt added that the Board should be made aware of this regulatory process to offer support.

Dr. Bral continued her presentation.

Director Naumann asked whether groundwater from wells in the lower aquifer system is treated by the iron and manganese treatment facility. Dr. Bral responded in the affirmative. Dr. Bral explained that the treated water is blended with water from the upper aquifer system to manage nitrate issues. Director Naumann asked about the timing of the Freeman Conveyance System Upgrade – Freeman to Ferro Recharge Basin (slide nine). Dr. Bral responded that the project is in the preliminary design phase. The Committee went into discussion about plans for capturing storm season water and seeking stakeholder support.

#### **4.1.1 Owner Dam Safety Program (ODSP) Chief Dam Safety Engineer's (CDSE's) Annual Dam Safety Report October 2022 through October 2023**

Dr. Bral presented the ODSP CDSE's Annual Dam Safety Report to the Committee that covered dam safety incidents, critical inspection findings, surveillance and monitoring, Emergency Action Plan (EAP) exercises and 2022 ODSP external audit report findings (presentation attached).

Chair Maulhardt asked about the SFD spillway drain system rated as fair (slide four). He wanted to clarify if the fair rating would improve after spillway construction updates occur. Dr. Bral responded that the rating would improve.

Chair Maulhardt recommended condensing the conversation in the presentation and highlighting important details. Director Naumann asked if the ODSP updates are required to be read aloud in a public forum. Dr. Bral stated it is a requirement by FERC. Chair Maulhardt stated due to the notification being critical to certify dam safety, the Committee offers its full support on the notification. The Committee agreed that Chair Maulhardt will announce the ODSP CDSE's Annual Dam Safety Report notice as a requirement to the Board.

No further questions or comments were offered.

#### **4.2 Environmental Services Department Update**

Environmental Services Manager Marissa Caringella presented Environmental Services department updates that included Freeman Diversion operations, quagga mussel monitoring, increased state water imports to Lake Piru, and Extraction Barrier and Brackish Water Treatment Project highlights (presentation attached).



Chair Maulhardt asked for a reminder on what the acronym MSHCP stood for (slide two). Marissa responded, Multiple Species Habitat Conservation Plan.

Director Naumann asked whether state water imports could be received in February instead of in December. Marissa stated that the temporary variance to DWR's FERC license allows for 25,000 acre-feet of water during the delivery window of November 2023 through February 2024. Chair Maulhardt asked about water storage capacity. The Committee discussed water storage options and keeping the public informed. The Committee members agreed discussions would continue at a future committee meeting. Ms. Caringella added that temporary variances would be needed annually until a permanent solution to allow for increased state water imports to Lake Piru is in place. Chair Maulhardt expressed his gratitude for staff's hard work.

No further questions or comments offered.

#### **4.3 Operations and Maintenance Department Update**

Operations and Maintenance Program Supervisor John Carman presented Operations and Maintenance department updates that covered Santa Felicia Dam, PV Reservoir, OH Delivery, El Rio Booster Plant, Iron and Manganese Treatment Plant Ribbon Cutting Ceremony, and the PTP System (presentation attached).

Before presenting, Mr. Carman announced his retirement after a tenure of over 30 years with the District. Chair Maulhardt playfully responded to him he couldn't retire and added that staff's predecessors have had a lasting positive impact on the District. Addressing staff, he urged incumbents to continue their hard work. He thanked Mr. Carman for his involvement over the years.

The committee discussed maintenance work at the Saticoy and El Rio Ponds to improve percolation rates.

No further questions or comments were offered.

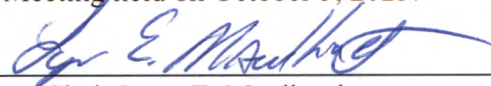
#### **5. Future Agenda Items**

No future agenda items or comments offered.

#### **ADJOURNMENT 10:58 a.m.**

Chair Maulhardt adjourned the meeting at 10:58 a.m.

I certify that the above is a true and correct copy of the minutes of the Engineering and Operations Committee Meeting held on October 5, 2023.


ATTEST:   
Chair Lynn E. Maulhardt



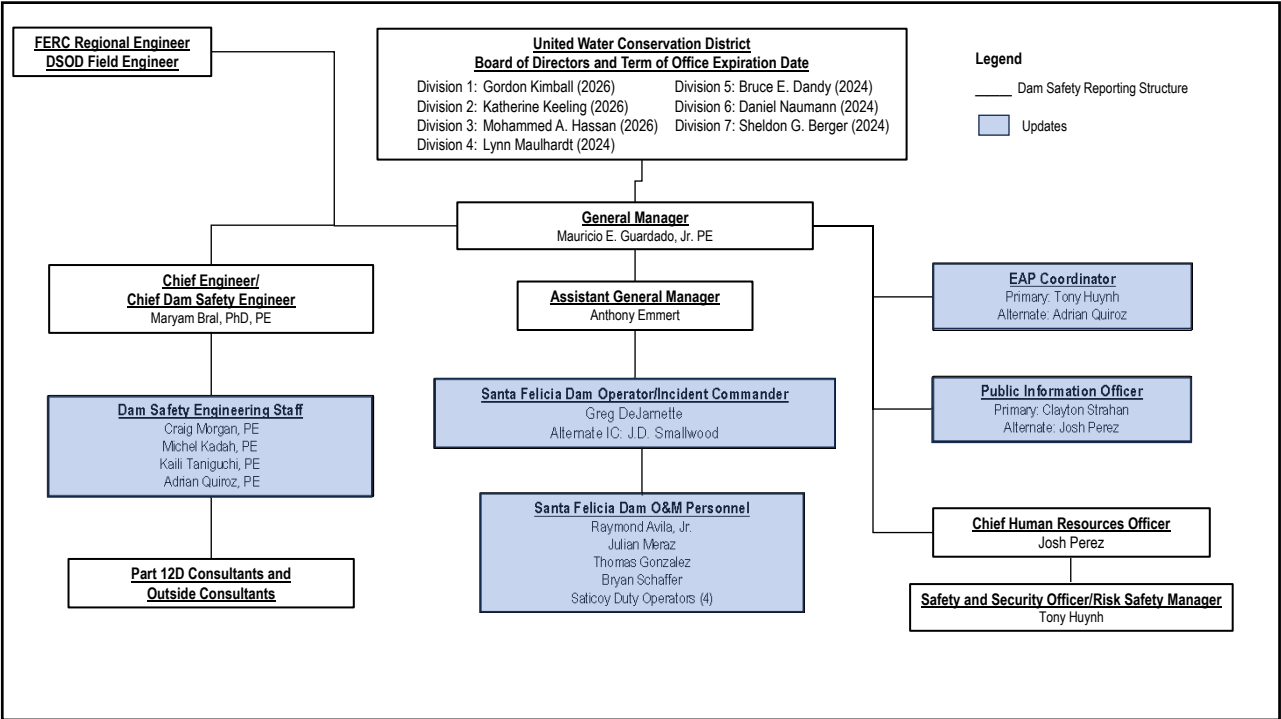
Regulatory Compliance

Resolution 2023-15 Adopting the Revised ODSP Document – October 2023

3.1 A Resolution of the United Water Conservation District Board of Directors Adopting the Revised Owner’s Dam Safety Program




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QUESTIONS






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## Santa Felicia Dam Safety Improvement Project

**Design and Pre-construction Phase**

- ❑ 60% Spillway Design Completion by end of October 31
- ❑ 100% Outlet Works Design ongoing
- ❑ BV completed review of the Outlet Works Design Documents:
  - ✓ Constructability Quality Assurance report
  - ✓ Owners Engineer Quality Assurance report
  - ✓ Plans and Specs review
- ❑ Multi-agency Coordination Meeting No. 5 (United, DWR, LADWP)
  - ✓ Coordinating activities prior to and during new Outlet Works Construction



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Regulatory

## Santa Felicia Dam Safety Improvement Project

### Environmental Permitting and Agency Consultation

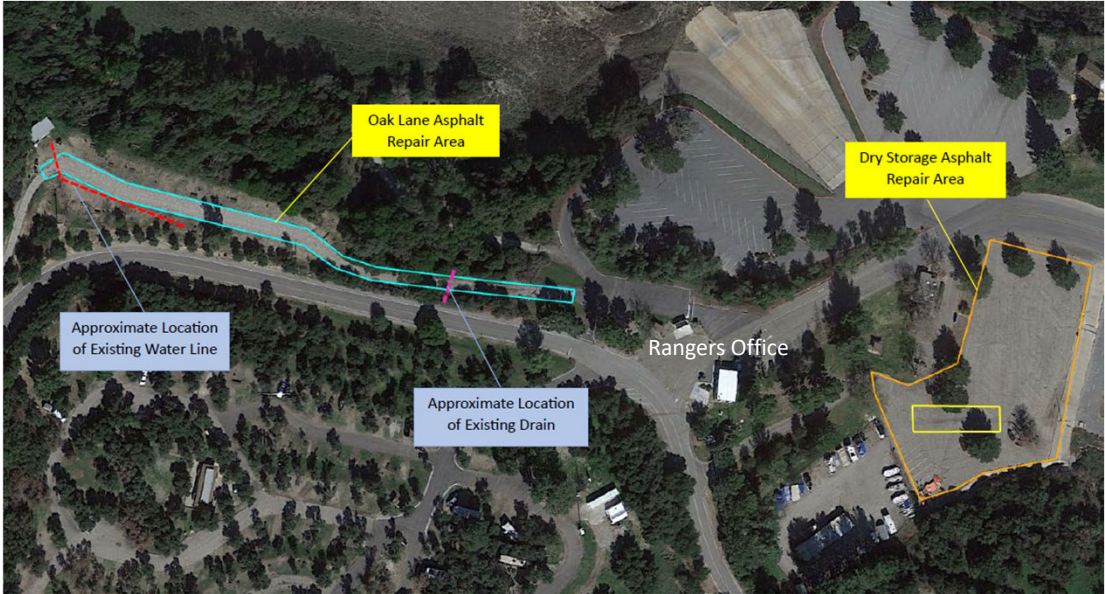
- ❑ Motion to Intervene - NMFS filed a late motion with FERC on August 29
- ❑ Opposition to Motion: United filed an Opposition on September 13.
- ❑ United’s letters to FERC (September 12).
  - Request for non-federal designation to conduct ESA Section 7 consultation with NMFS.
  - Clarification on Environmental Baseline under ESA of 2008 BiOp and Final BiOp for dam safety improvements.
- ❑ NMFS’ Letter filed with FERC on September 14 – NMFS responded to United’s May 24, 2023 response to comments on the draft Biological Assessment.




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## 2023 Lake Piru REC AREA Pavement Maintenance Program






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### Dry Storage Parking Area




8/30/2023




8/30/2023

### Oak Lane




4/18/2023



9/28/2023

Notice of Completion filed with the County in September



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### Iron and Manganese Treatment Facility



9/13/2023



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### Filter Media Loading





9/22/2023

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### Filter Media Backwash





9/22/2023

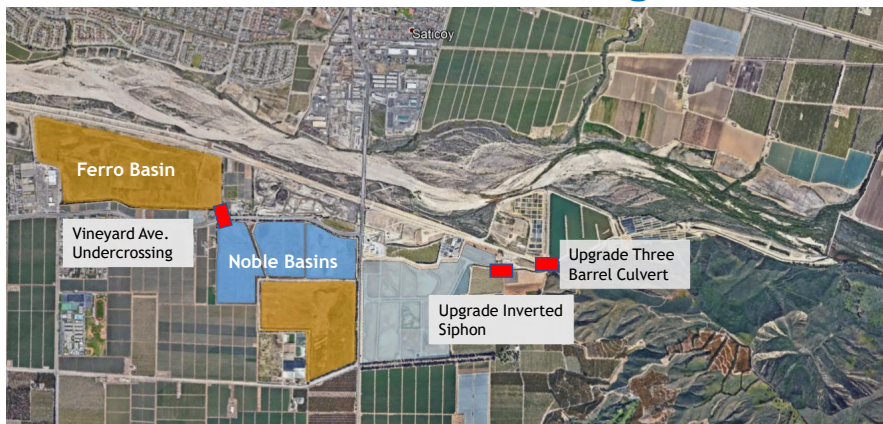
9/25/2023

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## Freeman Conveyance System Upgrade - Freeman to Ferro Recharge Basin



- ☐ Three Barrel Culvert - 90% design upgrade completed in August.
  - Staff reinitiated the permit process with Ventura County Watershed Protection.
- ☐ Inverted Siphon – 100% Design and Bid Packet ready for bid
- ☐ Noble – Ferro Connection – HDR to prepare the Preliminary Design Report

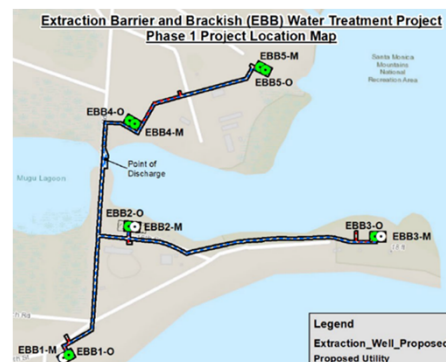


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## Extraction Barrier and Brackish Groundwater Treatment - WATER Phase 1

- ☐ **MOA** – Submitted to the Navy in August to be fully executed in 2023.
- ☐ **LOR** – Draft submitted to the Navy in September. The Navy to initiate the real estate process for an outgrant easement.
- ☐ **SWRCB Grant Agreement** - United and SWRCB/ DFA Staff are developing the agreement for \$8.45M grant. Full execution by late 2023.
- ☐ **Geotechnical Exploration** – Proposals from two Geotech consultants are under review by Staff.
- ☐ **Design and Permits** - KJ, ESA and United site visit on October 3. *(more information to be provided by ESD)*



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Public Outreach

Newark Desalination Facility and Aquifer Reclamation Wells visit in August



Thank You





# Owner Dam Safety Program

# CDSE's Annual Dam Safety Report



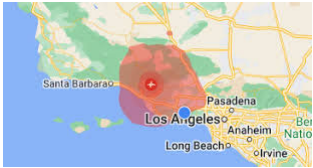
October 2022 through October 2023



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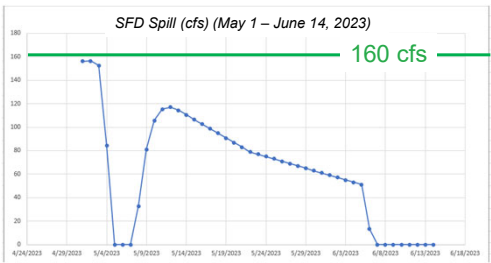

## Dam Safety Incidents

### Seismic Event




Aug 20, 2023 - 5.1 M Earthquake – 4.3 miles SE of Ojai, CA

### Spill Events



Spillway flow not considered a dam safety emergency



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Critical Inspection Findings





✓ Spillway debris removal by August 30, 2023



✓ Engineering Inspection of spillway on September 14



✓ Annual FERC Inspection on September 26





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Surveillance and Monitoring

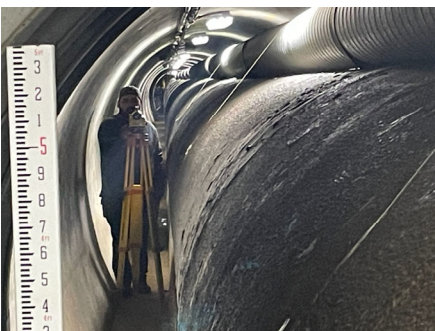

Monitoring Activity and Highlights


Triennial Spillway Drain Video Inspection – November 2022

Drain system functional and in fair condition.

Biennial Monitoring Survey – June 2023 (Structural)

Data Processing In-Progress.






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EAP Exercises



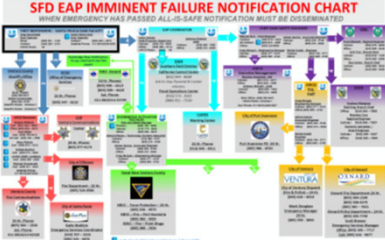
2022 EAP Tabletop Exercise  
October 20, 2022

54 Participants from 11 agencies



2023 EAP Functional Exercise  
February 23, 2023

49 participants from 10 agencies




2023 EAP Call-Down Drill  
June 27, 2023

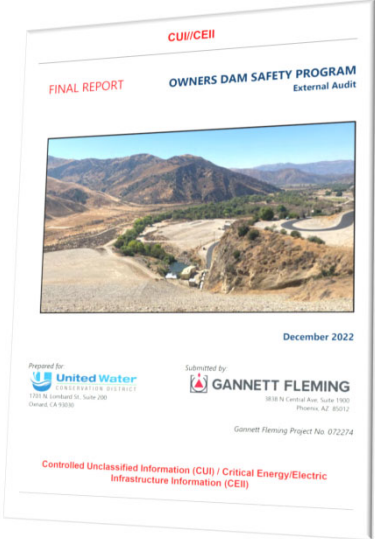
Notified 15 external agencies in 13 minutes

Two inundation flood maps introduced during the past year

5

2022 ODSP External Audit Report Findings

- External Auditor provided 15 recommendations for improving the SFD ODSP
-  Develop an overarching dam safety policy that states UWCD’s commitment to public safety through the implementation of an effective dam safety program.
- GM Debriefing in November 2022
- Plan and Schedule for addressing recommendations to be submitted to FERC by December 31, 2023



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CDSE’s Annual Dam Safety Report

The report documents dam safety events and accomplishments over the past year. (Ref: 2022 ODSP Audit Report)

✓ 2022 ODSP Audit Report Findings

✓ Dam Safety Incidents / EAP Activations

✓ Critical Inspection Findings

✓ Surveillance and Monitoring

✓ Maintenance Modifications

✓ EAP Updates

✓ EAP Exercises

✓ Annual Trainings

✓ **New policies, practices and procedures**



✓ **Current and projected future ODSP improvements**

☐ Expand ODSP to Serve as Dam Safety Policy


☐ Implement Dam Safety Mentorship Program and Succession Planning

☐ Future Dam Safety Training Plans

- Implement Cross-Training for SFD and Saticoy O&M Staff
- Implement Routine Training at Monthly O&M Safety Meetings



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QUESTIONS ?

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Lake Piru – summer 2023  
Photo by Ecomarine Consulting

# ENVIRONMENTAL SERVICES DEPARTMENT SEPTEMBER UPDATE

October 5, 2023



## Freeman Diversion Operations

Flushing operation support

Maintenance activity planning

MSHCP to be submitted Feb 9, 2024



Freeman Diversion – Sept 15, 2023



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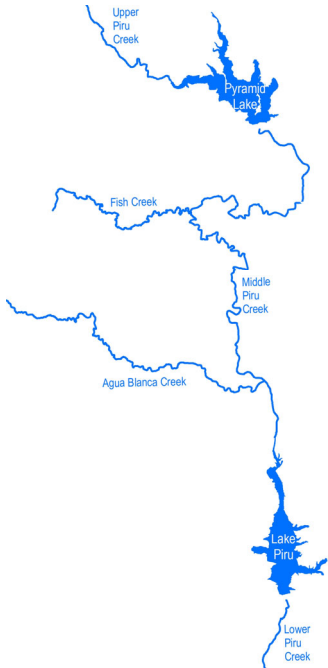


# Quagga Mussel Management

- Monitoring at Lake Piru, lower Piru Creek, SFD spillway pool
- Lower system monitoring of 10 sites weekly
- Lower System chemical treatment



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# Increased State Water Imports to Lake Piru

- APPROVED!**  
Temporary Variance for Nov 2023 to Feb 2024 delivery
- United can import up to 25,000 acre-feet from Pyramid to Lake Piru
- Planning for next year
- Long-term solution underway



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### Extraction Barrier and Brackish Water Treatment Project Highlights

Collected scientific data from the Mugu Lagoon for technical studies and CEQA

In August 2023, conducted

- Bathymetric survey of the Mugu Lagoon via kayak, and
- Eelgrass mapping of the Mugu Lagoon via kayak.









### Extraction Barrier and Brackish Water Treatment Project Highlights

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# OPERATIONS AND MAINTENANCE DEPARTMENT MONTHLY UPDATE

October 5, 2023



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## Santa Felicia Dam

Filtration Plant 4” Hose – Monument / Parapet wall painting- Marina Dock





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2



PV Reservoir





3

3

OH Delivery

El Rio Recharge Basins – SCBA Training





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# El Rio Booster Plant

## Nh3 Stalactite removal / repair



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# FeMn

## Ribbon Cutting



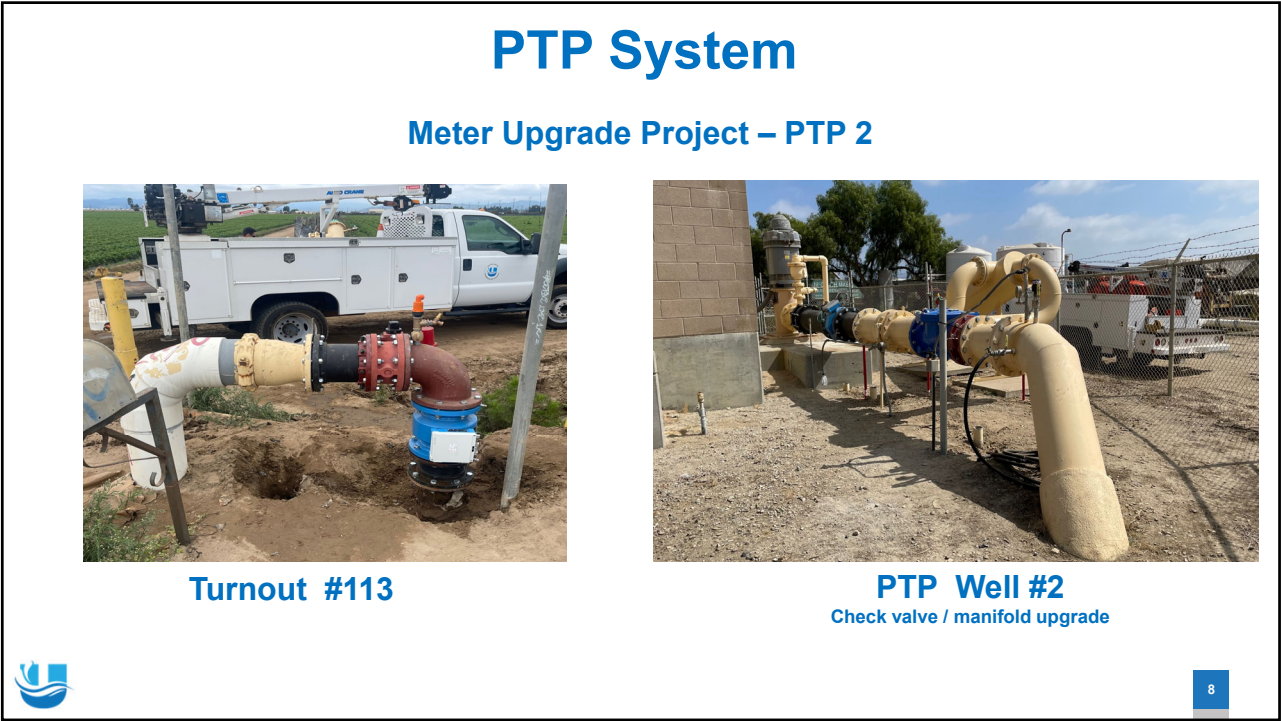
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# Questions?

