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Sheldon G. Berger, Vice President  
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Mauricio E. Guardado, Jr.

Legal Counsel  
David D. Boyer

**MINUTES**  
**ENGINEERING AND OPERATIONS**  
**COMMITTEE MEETING**  
**Thursday, September 1, 2022 – 9:00 A.M.**  
**Board Room, UWCD Headquarters**  
**1701 N. Lombard Street, Oxnard, CA 93030**

**COMMITTEE MEMBERS IN ATTENDANCE**

Lynn E. Maulhardt, chair  
Daniel C. Naumann, director

**COMMITTEE MEMBER ABSENT**

Gordon Kimball, director

**STAFF IN ATTENDANCE**

Dr. Maryam Bral, chief engineer  
Brian Collins, chief operations officer  
John Carman, operations and maintenance program supervisor  
Tessa Lenz, associate environmental scientist  
Jackie Lozano, administrative assistant  
Craig Morgan, engineering manager  
Josh Perez, chief human resources officer  
Zachary Plummer, technology systems manager  
Linda Purpus, environmental services manager  
Ed Reese, technology systems specialist  
Robert Richardson, senior engineer  
Vanessa Vasquez, administrative assistant  
Brian Zahn, chief financial officer

**PUBLIC IN ATTENDANCE**

Three members of the public were in attendance but chose not to sign the attendance sheet.

**Call to Order – Open Session**

Chair Maulhardt called the Committee meeting to order at 9:19 a.m. Chair Maulhardt and Director Naumann were present. Director Kimball was absent.

**1. Public Comments**  
**Information Item**

Chair Maulhardt asked if there were any comments or questions from the public for the Committee. None were offered.

**2. Approval of Minutes**  
**Motion**

Motion to approve the Minutes from the July 7, 2022, Engineering and Operations Committee meeting, Director Naumann; Second, Chair Maulhardt. Voice vote: two ayes (Maulhardt, Naumann), none opposed, and one absent (Kimball). Motion carried 2/0/1.

**3. September 14, 2022, Board Meeting Agenda Motion Items**

The Committee reviewed and discussed the following motion items for the September 14 UWCD Board of Directors meeting to formulate Committee recommendations:

**3.1 Phase 1A License Agreement with U.S. Navy for the Extraction Barrier and Brackish Water Treatment Project – Phase 1A**

Chief Engineer Dr. Maryam Bral presented the motion item to the Committee (presentation attached). Director Maulhardt inquired as to how long Phase 1 would last. Dr. Bral responded Phase 1 was projected to run through 2025 with an overlap of Phase 1A to Phase 1B. Director Naumann felt it would be beneficial for Dr. Bral to share the progress of this project with Mr. Gene Fisher of the Regional Defense Partnership-21<sup>st</sup> Century as well as other District allies and supporters (Calleguas Municipal Water District) of this process.

No public comments or questions were offered.

The Committee members were pleased the project was moving along correctly and were in favor of recommending approval of the motion item to the full Board.

**3.2 Authorize a Contract with GEI Consultants, Inc. to Develop the 90 percent Design Phase of the Santa Felicia Dam Outlet Works Improvement Project**

Dr. Bral presented this motion item to the Committee (presentation attached). She mentioned the Board of Consultants (BOC) met and understood the process and timelines, which she clarified for Chair Maulhardt.

No public comments or questions were offered.

The Committee members were supportive of this contract, and felt it was a very clear and logical process. They were pleased the project was on schedule and were in favor of recommending approval of the motion item to the full Board.

**3.3 Authorize a Contract with GEI Consultants, Inc. to Develop the 60 percent Design Phase of the Santa Felicia Dam Spillway Improvement Project**

Dr. Bral continued with a summary of this motion item to the Committee (presentation attached). When questioned if both of the Santa Felicia Dam projects were running simultaneously, Dr. Bral replied that both the Outlet Works Project and Dam Spillway Improvement Project are being designed in parallel implemented and simultaneously and are on track to be completed as noted on the timeline and the project implementation (construction) is staggered over two periods as noted on the timeline.

Chair Maulhardt asked if Engineering looked at the *what if* in the modeling or construction and, also, what the fallback position would be in order to get the water out of the lake, should the area experience two wet years in a row? Dr. Bral responded that we are in the process of developing contingency measures and that these concerns are being addressed in a responsible manner.

Currently, Engineering is working on a Reservoir Management Plan. Chair Maulhardt emphasized the importance of looking at all of the probabilities to ensure the District does not forego any opportunities of receiving water (i.e., Article 21).

Regarding the construction window, Dr. Bral mentioned the project is scheduled to begin the summer of 2024 and, as they near final design, the timeline would be refined. Construction of each of the two components would last for two years with the anticipated completion date by summer 2028. Director Naumann felt that was a good target and requested Dr. Bral include the start and end date of the projects in the slide presentations so the Committee could see the progress on the timeline.

No public comments or questions were offered. The Committee members agreed to recommend approval of the motion item to the full Board.

**3.4 Five-year Purchase of State Water from Casitas Municipal Water District**

Chief Operations Officer Brian Collins presented this motion item to the Committee (presentation attached). Director Naumann expressed his enthusiasm that this item is moving forward and thanked staff for making this happen. Chair Maulhardt also expressed his pleasure that the negotiation is going forward.

No public comments or questions were offered. The Committee members agreed to recommend approval of the motion item to the full Board.

**4. Project Highlights**

**4.1 Engineering Department Update** (see attached slides)

Dr. Bral presented an overview of the Engineering department's activities, including updates of the Santa Felicia Dam Safety Improvement Projects and the draft Biological Assessment report. She also provided an update on the Iron and Manganese Treatment Facility and shared her department's participation in two public outreach events. Director Naumann requested that she share the timelines moving forward to show the progress of the Iron and Manganese Treatment Facility. Also, there was discussion between the Committee and staff regarding the Biological Assessment Report. The Committee thanked Dr. Bral for her updates.

Information Item. There were no further comments or questions from the Committee. No public comments or questions were offered.

**4.2 Environmental Services Department Update** (see attached slides)

Environmental Services Department Manager Linda Purpus provided updates to the Committee on activities relating to coordination for increased importation of SWP water, permit filing and implementation, ongoing efforts supporting the Multiple Species Habitat Conservation Plan (MCHCP), and recruitment. There was discussion between the Committee and staff regarding CDFW's denial of request

for incidental take coverage under Fish and Game Code 2084 for the Santa Felicia Project.

Information Item. There were no comments or further questions from the Committee. No public comments or questions were offered.

**4.3 Operations and Maintenance Department Update** (see attached slides)

Mr. Collins provided updates on the Operations and Maintenance Department activities for the past two months. Included in the updates were images depicting work activities at the Santa Felicia Dam, Freeman Diversion, and the PTP and OH pipelines. He highlighted activities of the physical modeling and mentioned he would share pictures at the next Committee meeting of their activities at Freeman relating to sediment removal.

There was discussion among the Committee and staff regarding data collected from the new instrumentation panels.

After the discussion, Chair Maulhardt moved the Committee into a short break at 10:32 a.m. At 10:34, Chair Maulhardt resumed the Open Session.

Mr. Collins continued his updates to the Committee regarding the desander used in the modeling. Director Naumann said he was pleased with the design and excited to hear about the process. Mr. Collins expressed his heartfelt appreciation to the Committee members for giving their support to the modeling project. At the conclusion of the discussion, Chair Maulhardt and Director Naumann proposed to staff that nothing be removed from the presentations to the Board since its a record of where the money is being spent, what the technical issues are, and the drivers of why this is occurring. They then directed staff to review with the General Manager Mauricio Guardado regarding what needs to be included.

For the sake of clarification, Mr. Collins clarified the Committee requested no edits be made to the presentation when it goes to the Board, but to confirm that the timing is appropriate with Mr. Guardado. Mr. Collins also mentioned that in the future staff plans to capture video of a two- to five-minute summary of the modeling activities at Denver and Iowa to share with the Committee and Board members.

Director Naumann commented that the presentation gives a perspective of why the District made the choices it did in constructing the model. Chair Maulhardt agreed and supported the video documentation concept and suggested the possibility of capturing video on the Extraction Barrier Brackish Water project. Director Naumann agreed, stating video showing the work on District projects gives a great perspective of what efforts are being made.

Information item. There were no additional comments or questions from the Committee. No public comments were offered.

**5. Future Agenda Topics**


None were offered



**ADJOURNMENT 10:51 a.m.**

Chair Maulhardt adjourned the meeting at 10:51 a.m.

I certify that the above is a true and correct copy of the minutes of the Engineering and Operations Committee Meeting of September 1, 2022.

ATTEST:   
Chair Lynn E. Maulhardt



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## Project Phases

➔Phase 1A

Exploration and Development Phase

- Field Exploration Activities (Planning, Design and Permitting Efforts)
- District's Right-of-Access through License Agreement 1A (2022-2025)

Phase 1B


Implementation Phase

- Construction of Seven (7) Groundwater Extraction Wells, Installation of Monitoring Wells, and Discharge of Extracted Water

Phase 2

Build-out Phase

- Construction of Additional Extraction Wells, Water Treatment Plant, Drinking Water Delivery to U.S. Navy, Distribution Pipes, and Brine Disposal



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Extraction Barrier and Brackish Water  
Treatment Project

August 2-


Coordination Meeting with Calleguas MWD –  
Discussed Discharge Options to SMP

August 10-

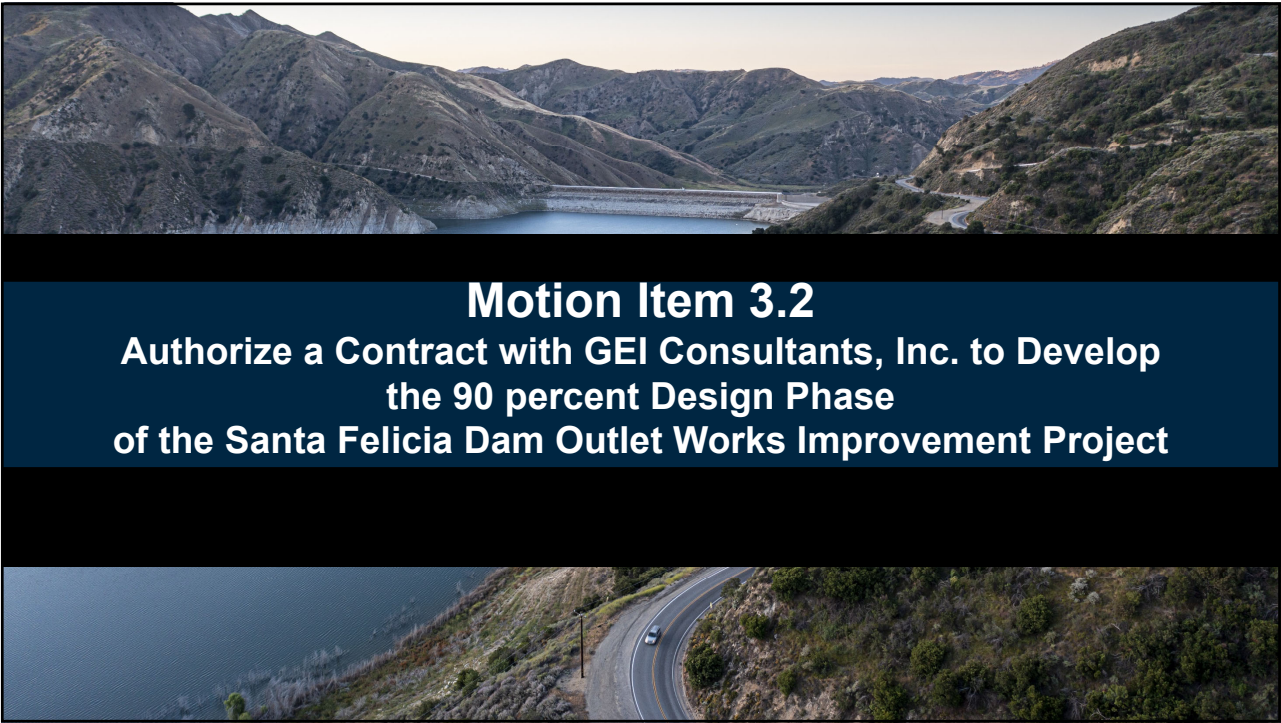
Fourth Navy Leadership Meeting between NBVC and United –  
Discussed License Agreement 1A, M.O.U, Public Outreach, and  
Funding Sources

August 24-

Finalized Draft License Agreement 1A



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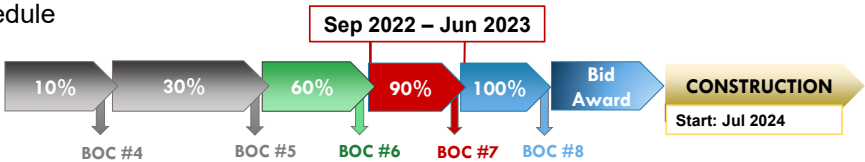
Motion Item 3.2

Authorize a Contract with GEI Consultants, Inc. to Develop the 90 percent Design Phase of the Santa Felicia Dam Outlet Works Improvement Project

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Outlet Works Improvement Project - 90% Design

- ☐ Scope of Work:
- Additional Analyses and Design Development
  - Basis of Design and Design Reports, Plans Drawings and Specifications
  - Geotechnical Baseline Report
  - Constructability Report and Updated Engineering Cost Estimate
  - **3D Design Rendering Model of the Improvements**
  - **Operations and Maintenance Manual**
  - **Reservoir Operations Plan during Construction**
  - BOC Meeting #7 (May 2023)
  - UWCD Board Presentation (optional)
- ☐ Fee and Schedule:
- \$1,502,018
  - Schedule



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## Spillway Improvement Project - 60% Design

❑ Scope of Work:

▪ Additional Analyses and Design Development

▪ Basis of Design and Design Reports, Plans Drawings and Specifications

▪ Constructability Report and Updated Engineering Cost Estimate

▪ BOC Meeting #8 (Oct 2023)

▪ UWCD Board Presentation (optional)

❑ Fee and Schedule:

▪ \$917,004

▪ Schedule

Sep 2022 –Dec 2023

10%  
↓  
BOC #4

Supp. 10%  
↓  
BOC #5

30%  
↓  
BOC #6

60%  
↓  
BOC #8

90%  
↓  
BOC #9

100%  
↓  
BOC #10

Bid Award

CONSTRUCTION

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OPERATIONS AND MAINTENANCE

Motion Item 3.4- Five Year Purchase of State Water from Casitas Municipal Water

September 1, 2022



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Percent allocated (availability)	Water Received (AF)	Cost per AF	Conveyance Cost/AF	Total to CMWD	Total Cost of water
5%	250	\$700	\$300	\$175,000	\$250,000
10%	500	\$700	\$300	\$350,000	\$500,000
15%	750	\$700	\$300	\$525,000	\$750,000
20%	1000	\$600	\$300	\$600,000	\$900,000
25%	1250	\$575	\$300	\$718,750	\$1,093,750
30%	1500	\$550	\$300	\$825,000	\$1,275,000
35%	1750	\$525	\$300	\$918,750	\$1,443,750
40%	2000	\$500	\$300	\$1,000,000	\$1,600,000
45%	2250	\$475	\$300	\$1,068,750	\$1,743,750
50%	2500	\$450	\$300	\$1,125,000	\$1,875,000
55%	2750	\$425	\$300	\$1,168,750	\$1,993,750
60%	3000	\$400	\$300	\$1,200,000	\$2,100,000
65%	3250	\$375	\$300	\$1,218,750	\$2,193,750
70%	3500	\$350	\$300	\$1,225,000	\$2,275,000
75%	3750	\$325	\$300	\$1,218,750	\$2,343,750
80%	4000	\$300	\$300	\$1,200,000	\$2,400,000
85%	4250	\$275	\$300	\$1,168,750	\$2,443,750
90%	4500	\$275	\$300	\$1,237,500	\$2,587,500
95%	4750	\$275	\$300	\$1,306,250	\$2,731,250
100%	5000	\$275	\$300	\$1,375,000	\$2,875,000

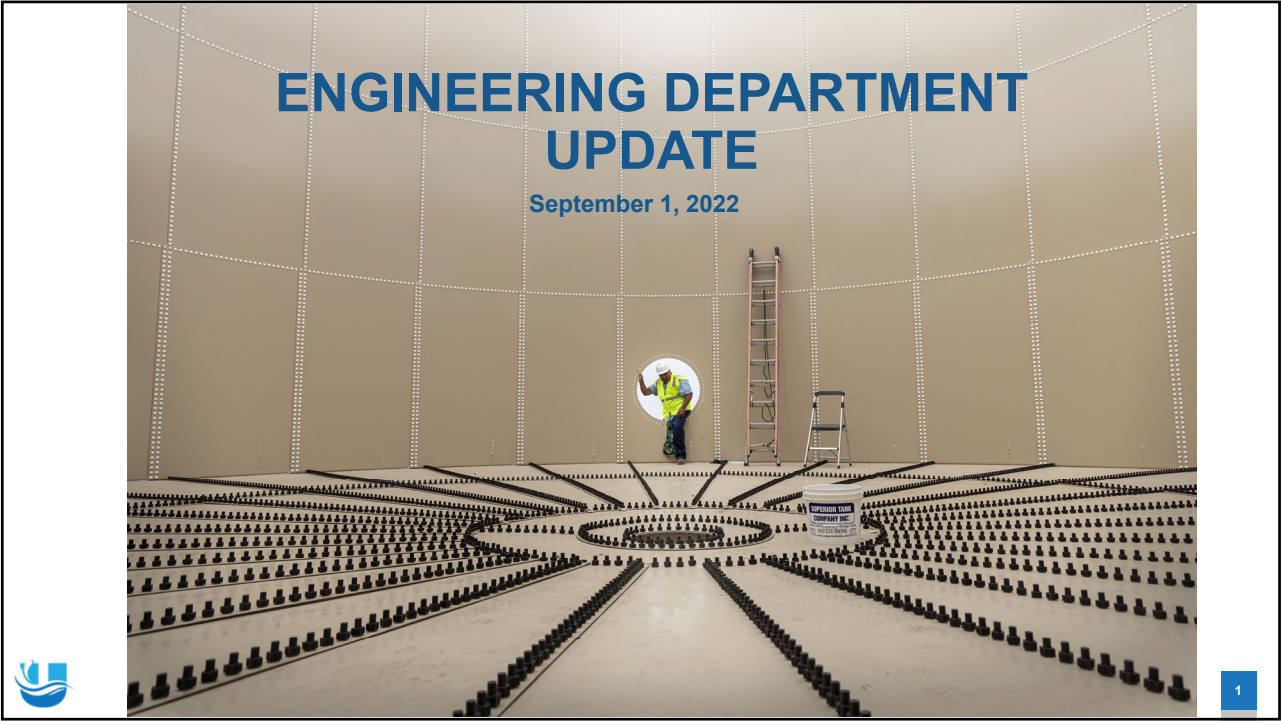


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Questions?





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# Santa Felicia Dam Safety Improvement Project

- ❑ 60% OW and 30% SpW Design
  - Design of the New Outlet Works and Spillway Improvements on Schedule – BOC Meeting on September 28 and 29
  - Approval of Motion Items 3.2 and 3.3 Allows for Design Advancement
- ❑ Biological Assessment Report
  - Draft Biological Assessment Report Submitted to FERC on August 9
  - Draft Biological Assessment Report to NMFS by FERC on August 15

A landscape photograph of a dam and reservoir surrounded by mountains.

## Santa Felicia Dam Safety Improvement Project

### Draft Biological Assessment

Prepared for US Fish and Wildlife Service and National Marine Fisheries Service  
July 29, 2022

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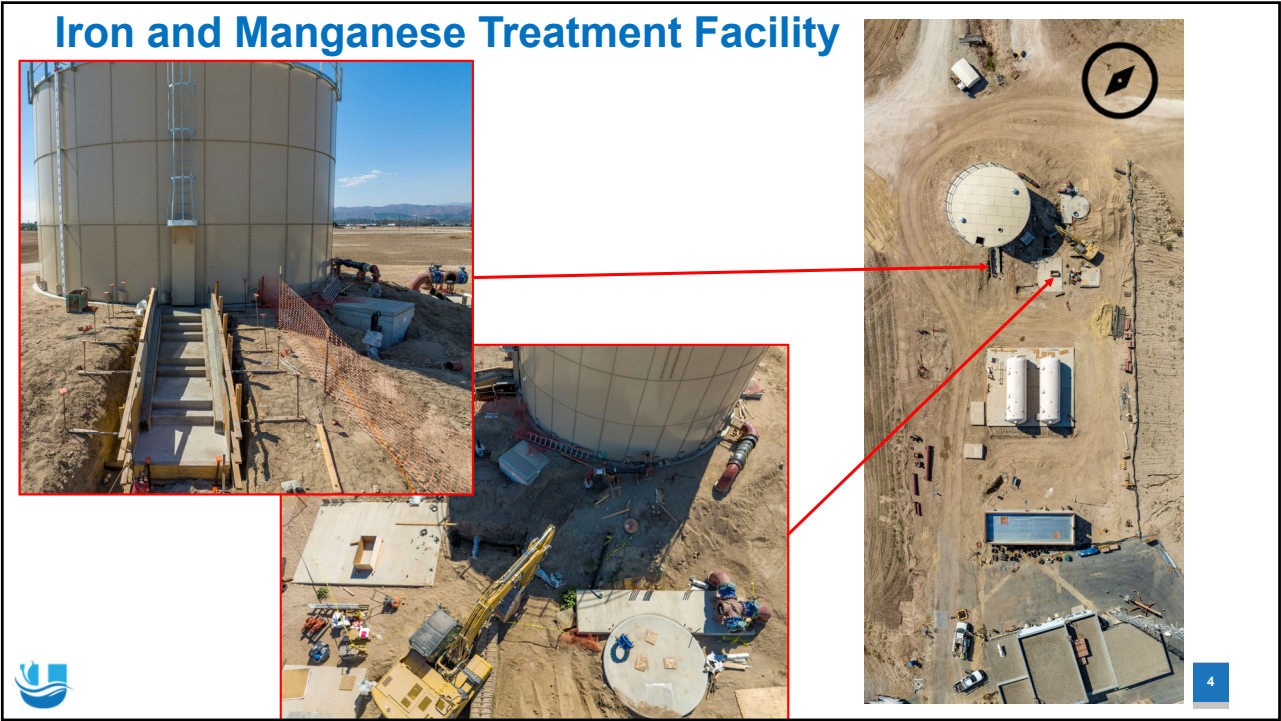



### Dam Safety and Regulatory Compliance

- July 19 - Annual Law Enforcement Consultation
- August 18 – ODSP Audit Kick Off Meeting
- August 23 – Annual FERC Inspection
- August 23, 24, 30 – 2022 Part 12D Inspection and PFMA Review Session
- Preparation for EAP Tabletop Exercise on October 20

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### Iron and Manganese Treatment Facility





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### Iron and Manganese Treatment Facility



### Iron and Manganese Treatment Facility






A photograph showing a woman in a dark blue shirt standing and speaking into a microphone at an outdoor public outreach event. She is positioned under a green metal pavilion with a red roof. Several people are seated at a table in the background, and a large black speaker is on the ground. The scene is outdoors with trees and a building visible in the distance.


## Public Outreach


- July 14 –  
Society of American Military Engineers –  
San Francisco Post – Dam and Levee  
Resilience Webinar Series – Local  
Government
- August 17 –  
Piru Neighborhood Council Meeting  
SFD Safety Improvement Project  
Updates

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A solid blue vertical bar.

## QUESTIONS

A blue logo featuring a stylized wave or 'U' shape.

A small blue square containing the white number 8.

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# ENVIRONMENTAL SERVICES DEPARTMENT UPDATE



September 1, 2022




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## Department Summary Updates


- Coordination with DWR
  - CEQA for increased importation of SWP water
  - USFS' Rivers Values Assessment
- Permitting
  - Application submittals and implementation
    - o SFD and Lake Piru Recreation Area
    - o Freeman Sediment Management Project
    - o Condor Point
- MSHCP Effort
- CESA
  - CDFW denial of request for incidental take coverage for Santa Felicia Project under F&G Code 2084
- Recruitment/Staff Updates





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QUESTIONS



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# OPERATIONS AND MAINTENANCE DEPARTMENT UPDATE


September 1, 2022



## Santa Felicia Dam

FERC Part 12 Inspection – Asphalt Reseal





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Freeman Diversion

Freeman Maintenance - Desilt Basin





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OH Delivery

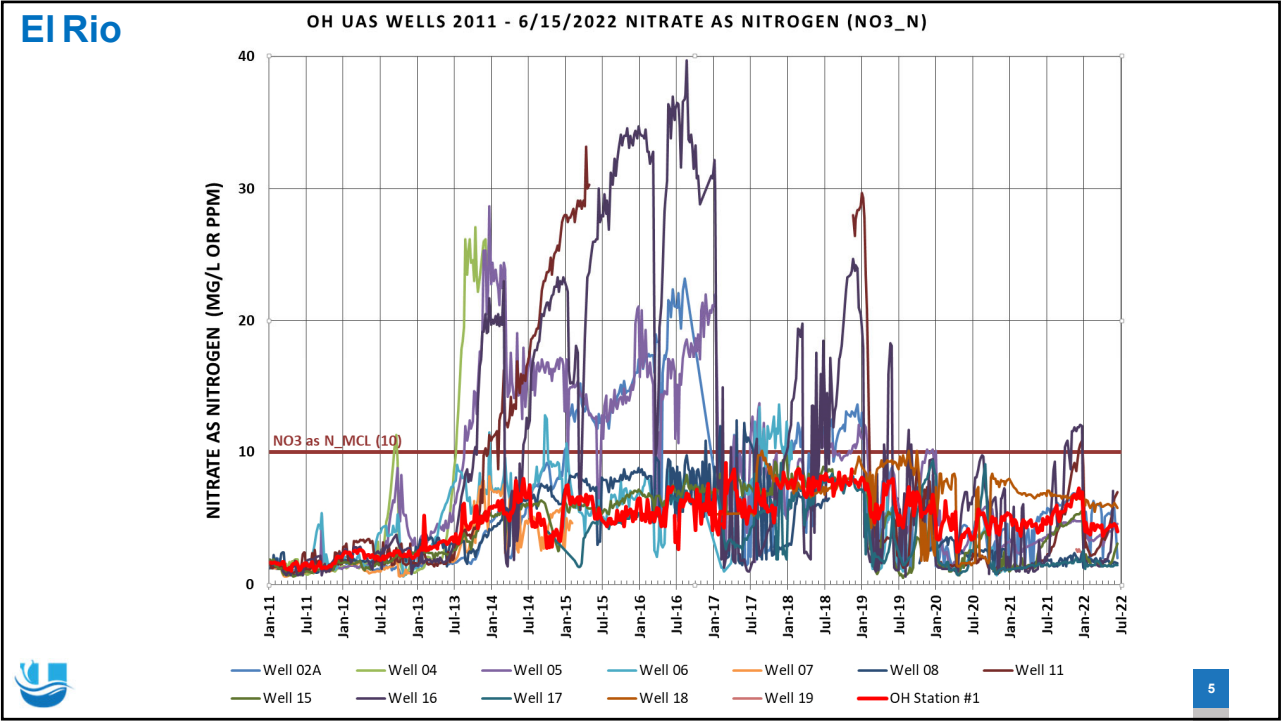
OH Well 18 – Chlorine Injection System Service



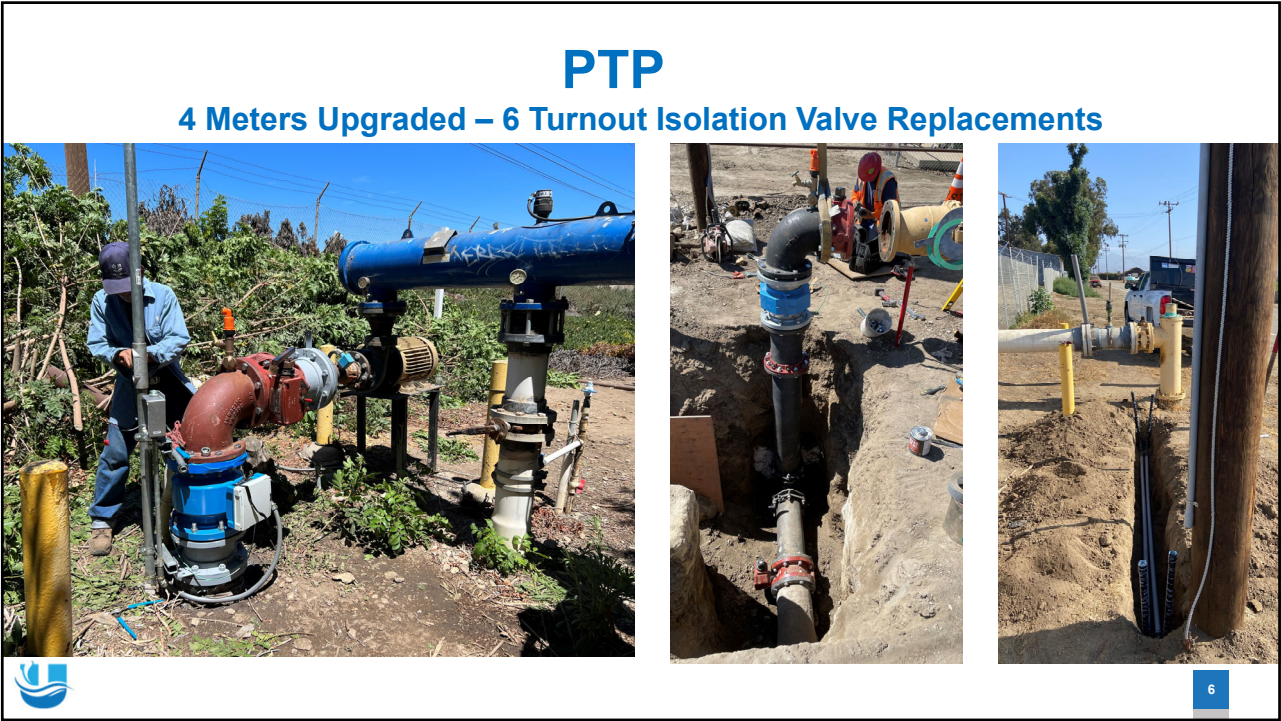


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## Electrical and Instrumentation

Lombard Emergency Generator - PHWA AMI








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## Physical Modeling





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Desander





nhc

water resource specialists

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Sluicing Channel and Outlet





nhc

water resource specialists

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Low Flow Channel Rock Placement





nhc

water resource specialists

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Questions?



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