



Board of Directors
Bruce E. Dandy, President
Sheldon G. Berger, Vice President
Lynn E. Maulhardt, Secretary/Treasurer
Mohammed A. Hasan
Edwin T. McFadden III
Michael Mobley
Daniel C. Naumann

General Manager
Mauricio E. Guardado, Jr.

Legal Counsel
David D. Boyer

AGENDA
ENGINEERING and OPERATIONS COMMITTEE
Thursday, April 7, 2022, at 9:00 a.m.
UNITED WATER CONSERVATION DISTRICT
Boardroom, 1701 N. Lombard Street, Oxnard CA 93030

Call to Order – Open Session
Committee Members roll call

1. Public Comment (Proposed Time: 5 minutes)

The public may comment on any matter not on the agenda within the jurisdiction of the Committee. All comments are subject to a five-minute time limit.

2. Approval of Minutes (Proposed Time: 5 minutes)

Motion

The Committee will review and consider approving the Minutes from the February 3, 2022 Engineering and Operations Committee meeting.

3. Project Highlights

3.1 Engineering Department Monthly Update (Engineering Department, Maryam Bral) (Proposed Time: 20 minutes)

3.2 Environmental Services Department Monthly Update (Environmental Services Department, Linda Purpus) (Proposed Time: 15 minutes)

3.3 Operations and Maintenance Department Monthly Update (Operations and Maintenance Department, Brian Collins) (Proposed Time: 15 minutes)

FUTURE AGENDA ITEMS

ADJOURNMENT

Directors:

Edwin T. McFadden III, Chair
Lynn E. Maulhardt
Daniel C. Naumann

Staff:

Mauricio E. Guardado, Jr.	Dr. Maryam Bral
Anthony Emmert	Brian Collins
John Carman	Craig Morgan
Michel Kadah	Robert Richardson
Adrian Quiroz	Linda Purpus
Randall McInvale	Evan Lashly
Hannah Garcia-Wickstrum	Tessa Lenz

The Americans with Disabilities Act provides that no qualified individual with a disability shall be excluded from participation in, or denied the benefits of, the District's services, programs or activities because of any disability. If you need special assistance to participate in this meeting, or if you require agenda material in an alternative format, please contact the District's offices at (805) 525-4431. Notification of at least 48 hours prior to the meeting will enable the District to make appropriate arrangements.



Engineering and Operations Committee Meeting Agenda

Thursday, April 7, 2022

Page 2

Approved:

A handwritten signature in blue ink, appearing to read 'M. Guardado'.

Mauricio E. Guardado, Jr., General Manager

A handwritten signature in blue ink, appearing to read 'M. Bral'.

Dr. Maryam Bral, Chief Engineer

A handwritten signature in blue ink, appearing to read 'B. Collins'.

Brian Collins, Chief Operations Officer

Posted: (date) March 31, 2022

(time) 4:45 p.m.

(attest) *Destiny Rubio*

At: UWCD Headquarters, 1701 N. Lombard Street, Oxnard CA 93030

Posted: (date) March 31, 2022

(time) 5:00 p.m.

(attest) *Destiny Rubio*

At: www.unitedwater.org



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MINUTES
ENGINEERING AND OPERATIONS
COMMITTEE MEETING
Thursday, February 3, 2022, 9:00 A.M.
Board Room, UWCD Headquarters
1701 N. Lombard Street, Oxnard CA 93030

COMMITTEE MEMBERS IN ATTENDANCE

Lynn E. Maulhardt, Chair
Edwin T. McFadden III, Director
Daniel C. Naumann, Director

STAFF IN ATTENDANCE

Dr. Maryam Bral, chief engineer
Brian Collins, chief operations officer
John Carman, operations and maintenance program supervisor
Anthony Emmert, assistant general manager
Tessa Lenz, associate environmental scientist
Randall McInvale, environmental scientist regulatory affairs
Craig Morgan, engineering manager
Josh Perez, chief human resources officer
Zachary Plummer, technology systems manager
Linda Purpus, environmental services manager

PUBLIC IN ATTENDANCE

None

Call to Order – Open Session

Chair Maulhardt called the Committee to order at 9:00a.m. All Committee members were present (Maulhardt, McFadden, Naumann)

1. Public Comments
Information Item

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

Director Naumann stated that he attended the Regional Defense Partnership for the 21st Century meeting and that there were about 35 participants on the zoom call who were also engineers. He stated that Dr. Bral did a great job presenting the Iron and Manganese Treatment Project and the Coastal Brackish Groundwater Extraction Treatment Plant Project.

2. Approval of Minutes
Motion

Motion to approve the Minutes from the January 6, 2022, Engineering and Operations Committee meeting, Director McFadden; Second, Director Naumann. Voice vote: three ayes (Maulhardt, McFadden, Naumann). Motion carries unanimously 3/0.

3. February 9, 2022 Board Meeting Agenda Motion Items

3.1 Authorize an Amendment to the Bureau of Reclamation's Agreement for the Physical Modeling of the Hardened Ramp for the Freeman Expansion Project

Chief Operations Officer Brian Collins addressed the Committee and shared a slide regarding this motion item (see attached). He asked the Committee to recommend approval of the amendment to the Bureau of Reclamation's (BoR) agreement for physical modeling of the Hardened Ramp for the Freeman Expansion Project in the amount of \$683,633, to the full Board.

Director Naumann asked if this will keep the District on schedule. Mr. Collins stated that the amendment covers work through October 31, 2022. He added, the amendment also extends the deadline of the contributed funds agreement to March 2023 to allow response to comments from agencies which are anticipated to be received December 31, 2022.

Director McFadden moved the Committee recommend approval of the amendment to the full Board; Director Naumann concurred. Chair Maulhardt approved the recommendation of the motion item to the full Board.

3.2 Authorize an Amendment to the Iowa Institute of Hydraulic Research Contract for the Physical Modeling of the Vertical Slot for the Freeman Expansion Project

Mr. Collins addressed the Committee and shared a slide regarding this motion item (see attached). He asked the Committee to recommend approval of the amendment to the Iowa Institute of Hydraulic Research (IIHR) agreement for physical modeling of the Vertical Slot for the Freeman Expansion Project in the amount of \$1,004,495, to the full Board.

Mr. Collins stated that this amendment includes the fifth model of the fish screen. The District will decide whether this model is needed by May. He added, these contracts are related to the supplemental appropriation which was approved at the January Board of Directors meeting. Director McFadden asked that staff report back on whether the fifth model will be needed.

Director McFadden moved the Committee recommend approval of the amendment to the full Board; Director Naumann concurred. Chair Maulhardt approved the recommendation of the motion item to the full Board.

3.3 Resolution 2022-06 A Resolution of the United Water Conservation District Board of Directors supporting the submission of the 2021 Sustainable Groundwater Management (SGM) Grant Program SGMA Implementation Round 1 application to the California Department of Water Resources

Chief Engineer Dr. Bral addressed the Committee and shared a slide regarding this resolution (see attached). She asked the Committee to recommend approval of

Resolution 2022-06 related to supporting the submission of a 2021 Sustainable Groundwater Management (SGM) grant program application by the Fox Canyon Groundwater Management Agency to the California Department of Water Resources, to the full Board.

Director McFadden moved the Committee recommend approval to the Resolution to the full Board. Director Naumann concurred. Chair Maulhardt approved the recommendation of the Resolution to the full Board.

4. Project Highlights

4.1 Engineering Department Monthly Update (see attached slides)

Dr. Bral made a presentation updating the Committee of the Engineering Departments activities during January, including NEPA and environmental permitting for the Santa Felicia Dam (SFD) Safety Improvement Project (SIP). The District held four technical assistance meetings with FERC, NMFS, CDFW, and the SWRCB to facilitate discussions on the design of the release reach channel downstream of the SFD Outlet Works. She stated that as part of the SFDSIP, the Outlet Works (OW) will be relocated to the east abutment. As a result of this, the current channel will be abandoned and a new one will be created as mitigation. Staff completed the 30 percent design and submitted them to FERC on February 1 to begin the 30-day review process by FERC and NMFS. She added, once this has been finalized staff will submit the Biological Assessment (BA) to FERC and initiate formal Section 7 consultation with NMFS.

The Committee engaged in a lengthy discussion regarding the purpose of the mitigation effort, the topography of the proposed channel design, and how reliable the channel would be in the event of a massive release. The committee expressed concern about having to rebuild the channel in the event of an emergency water release and suggested that funds for this be possibly included in future reserves. Staff responded and stated that the purpose of the new channel is to accommodate controlled releases. The channel is not designed to convey emergency releases. In such event, the purpose is to save the dam and the channel will reestablish itself following an emergency release.

Dr. Bral also provided updates on the Lake Piru Water Treatment Plant Slope Repair and Drainage Improvement Project and the Oxnard Hueneme System Backup Generator Project.

4.2 Environmental Services Department Update (see attached slides)

Environmental Services Department Manager Linda Purpus addressed the Committee, offering departmental updates and a key highlight regarding CalTrout's petition to CDFW to list Southern California Steelhead under CESA. Ms. Purpus then introduced Environmental Scientist Regulatory Affairs Randall McInvale to present the key highlight. Mr. McInvale provided an overview of the activities the District has conducted since the petition was submitted. He also provided an in-

depth explanation on what is specifically being asked for within the petition and the potential implications.

4.3 Operations and Maintenance Department Update and Modeling Presentation (see attached slides)

Mr. Collins made a presentation updating the Committee of the Operations and Maintenance Departments activities during January, including an update on the modeling efforts. Mr. Collins stated that staff will be traveling to Iowa at the end of the month and that the 1:12 model is complete, the agencies have submitted the draft and staff will be reviewing the 120-page report. Chair Maulhardt asked if anything has been done to simulate the wave pattern of the concrete steel over time. Engineering Manager Craig Morgan stated that staff is currently at the 30 percent design and there are no motion sensors in place, he added, the thought is to have steel baffles included in the channel to keep it in place. Chair Maulhardt then asked if there have been tests on the pounding. Mr. Collins stated that this is strictly hydraulic modeling. Chair Maulhardt then asked if the structure will be anchored to the bedrock. Mr. Morgan stated that yes it will be anchored like how the structure is anchored now.

The Committee members recommended staff to present updates on the SGM Grant application, the CESA listing and updates on the physical modeling, to the full Board.

5. Future Agenda Topics

None were offered

ADJOURNMENT 10:30a.m.

Chair Maulhardt adjourned the meeting at 10:30a.m.

I certify that the above is a true and correct copy of the minutes of the Engineering and Operations Committee Meeting of February 3, 2022.

ATTEST: _____
Lynn Maulhardt, Chair

Motion Item 3.1

Amendment to the Bureau of Reclamation CFA for the Physical Modeling of the Hardened Ramp for the Freeman Expansion Project.

- ☐ CFA/Change order with Bureau of Reclamation for \$683,633
 - ☐ Physical Modeling Scope Changes include:
 - ☐ Extended schedule for design development work to conclude by September 30, 2022. Draft report due by October 31, 2022.
 - ☐ Evaluate Mod 6 and Mod 9 designs baseline.
 - ☐ Covid related material cost increases.
 - ☐ Support BoR response to Agency comments on draft report for finalization.



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Motion Item 3.2

Amendment to the University of Iowa Contract for the Physical Modeling of the Vertical Slot for the Freeman Expansion Project.

- ☐ Contract with University of Iowa for \$1,004,495
 - ☐ Physical Modeling Scope Changes include:
 - ☐ 72 tons of Sediment sourced from Texas (match BoR).
 - ☐ Sediment volume increase in 1:12 model.
 - ☐ Increase the AWS flow from 600 to 750 cfs.
 - ☐ Modeling 1,200 cfs AWS flow condition via 1:24 fish entrance gates.
 - ☐ Simulating fish pipe discharge from fish counting stations.
 - ☐ Project schedule extension to October 31, 2022.
 - ☐ 1:8 scale screen model (decision by May 1, 2022).



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Motion Item 3.3

**A Resolution of the United Water Conservation District
Board of Directors supporting the submission of the 2021
Sustainable Groundwater Management (SGM) Grant
Program SGMA Implementation Round 1 application to
the California Department of Water Resources**








ENGINEERING DEPARTMENT MONTHLY UPDATE

February 3, 2022



Santa Felicia Dam Safety Improvement Project NEPA Process





2

Lake Piru Water Treatment Plant and Crack Repair Construction



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Iron and Manganese Treatment Project



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OH System Backup Generator Project



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Projects for inclusion in Oxnard Basin’s Annual Report

Project	Proponent	Projected Yield (AFY)
Freeman Diversion Expansion	UWCD	8000
Extraction Barrier and Brackish Water Treatment	UWCD	15,000 (12,000)
Ferro-Rose Artificial Recharge of Groundwater	UWCD	2000-3000
Laguna Rd Recycled Water Pipeline Interconnection	UWCD	1500
Nauman-Hueneme Rd Recycled Water Pipeline Interconnection	UWCD	1500
Purchase of Supplemental State Water	UWCD	6000
Advanced Water Purification Facility (AWPF) Improvements (Phase II)	Oxnard	7000
Seawater Intrusion Barrier	FCGMA	Unknown

Additionally, 4 Monitoring Wells related Projects proposed by FCGMA



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Projects for inclusion in Pleasant Valley Basin's Annual Report

Project	Proponent	Projected Yield (AFY)
PVCWD Private Reservoir Program	PVCWD	500-1000
PVCWD Recycled Water Connection Pipeline	PVCWD	1,000-2,000
Extraction Barrier and Brackish Water Treatment	UWCD	15,000 (12,000)
Freeman Diversion Expansion	UWCD	2000
Laguna Rd Recycled Water Pipeline Interconnection	UWCD	
Purchase of Supplemental State Water	UWCD	6000
Houweling Nursery's Indoor Grow Facility RO Brine Recovery Project	Houweling	300

Additionally, 3 Monitoring Wells Type Projects proposed by FCGMA, and 5 feasibility Study Projects proposed by Camarillo



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DWR SGM Grant Round 1 Proposed Projects for Oxnard Basin

Project Name	Proponent	Score	Total Project Cost	Min-Max Grant Request	Recommended Project Amount	% of Project Total Costs
Ferro-Rose Artificial Recharge of Groundwater	UWCD	26	\$4.0M	\$1.0M - \$3.8M	\$2.51M	33
Laguna Road RW Interconnection	UWCD	24	\$4.2M	\$2.0M - \$4.0M	\$2.65M	35
MW Construction and Data Collection for Design of Extraction Barrier and Brackish Water Treatment	UWCD	20	\$2.1M	\$1.0M - \$1.9M	\$1.31M	17
Installation of 3 Monitoring Wells to Assess the Hydraulic Connectivity Between Surface Water Bodies, Semi-Perched Aquifer, the Principal Aquifers	FCGMA	18	\$493,442	\$127,500 - \$382,500	\$382,500	5
Install Multi-Depth Monitoring Wells at Two Locations in the Oxnard Subbasin	FCGMA	18	\$1.7M	\$625,500 - \$1.3M	\$737,800	10



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DWR SGM Grant Round 1
Proposed Projects for Pleasant Valley Basin

Project Name	Proponent	Score	Total Project Cost	Min-Max Grant Request	Recommended Project Amount	% of Project Total Costs
RW Connection Pipeline	PVCWD	22	\$5.60M	\$5.26M	\$5.26M	69
Private Reservoir Program	PVCWD	22	\$590,000	\$550,000	\$550,000	7
Install Multi-Depth Monitoring Wells and Three Locations in the Pleasant Valley Basin (PVB)	FCGMA	19	\$2.55M	\$652,500 - \$2.10M	\$1.07M	14
Installation of 3 Monitoring Wells to Assess the Hydraulic Connectivity Between Surface Water Bodies, Semi-Perched Aquifer, the Principal Aquifers	FCGMA	18	\$493,442	\$127,500 - \$382,500	\$382,500	5
Stormwater Diversion to WRP Feasibility Study	City of Camarillo	18	\$350,000	\$332,500	\$332,500	4



QUESTIONS





ENVIRONMENTAL SERVICES MONTHLY UPDATE

February 3, 2022




Department Updates

- Freeman Fish Passage Operations
- FERC License Habitat Releases
- Internal Training Opportunities

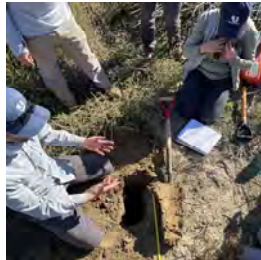
Key Highlight

- Southern California Steelhead CESA Listing



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Summary Updates



- Freeman Fish Ladder Operations
- FERC License for Santa Felicia Dam
 - Enhanced habitat water releases triggered through March 2022
- Facilitation of Internal Training Opportunities



3

Key Highlight

District-led effort to address and oppose listing of southern California steelhead under CESA

- Science-based evaluation and development of comments on:
 1. CalTrout petition to list
 2. CDFW evaluation of petition
- Engaged and informed stakeholder coalition to oppose listing



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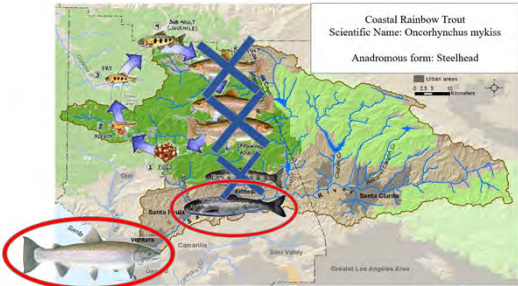
Building Coalitions and Leading the Charge

- Diversity of stakeholder groups
- Providing leadership on technical and regulatory review
- Highlighting the future challenges
- Commenting directly to the Commission



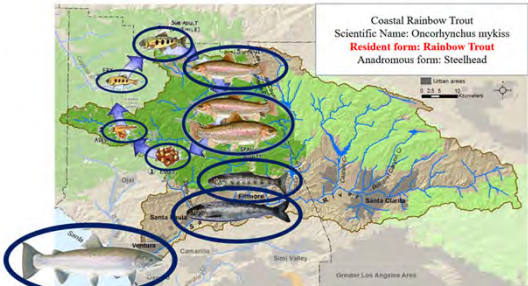
CESA Listing Petition Proposal

Current Federal Listing



VS

Proposed State Listing



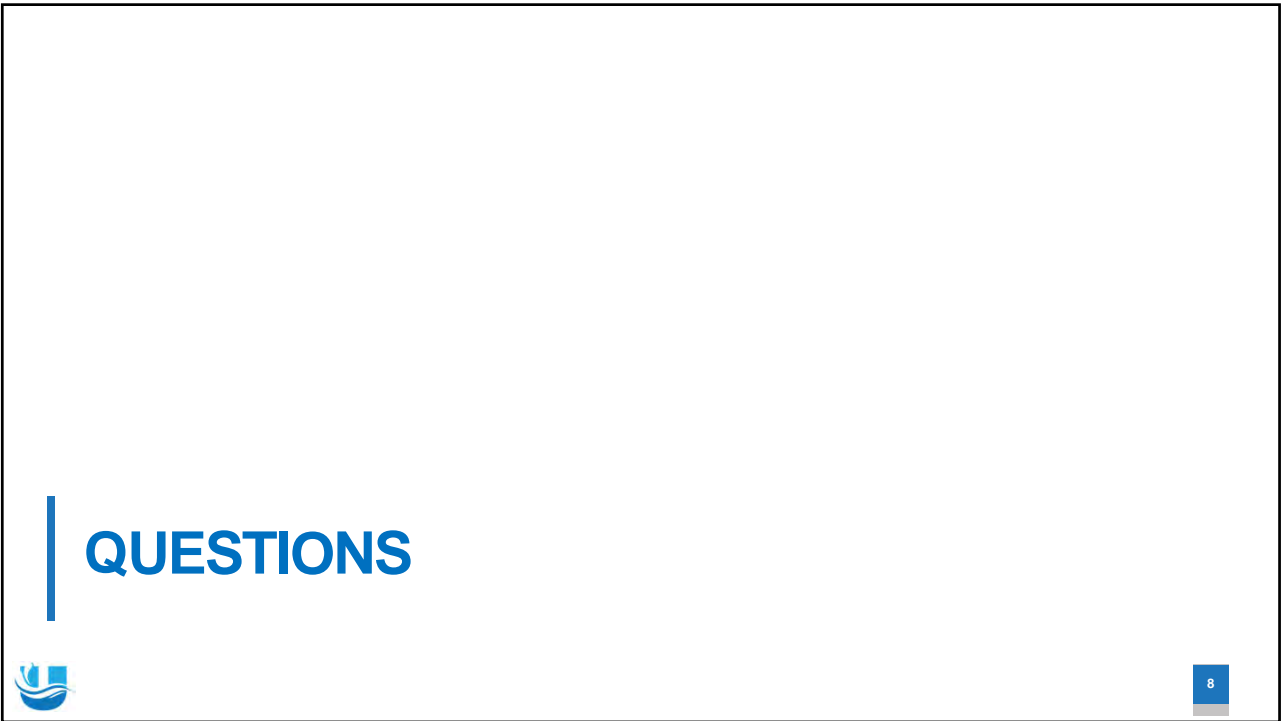


Looking Ahead


- Comments provided to stakeholders and submitted to the Commission in preparation for the February 16-17, 2022 meeting
- Strategy for additional engagement



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OPERATIONS AND MAINTENANCE UPDATE

February 3, 2022



SANTA FELICIA DAM





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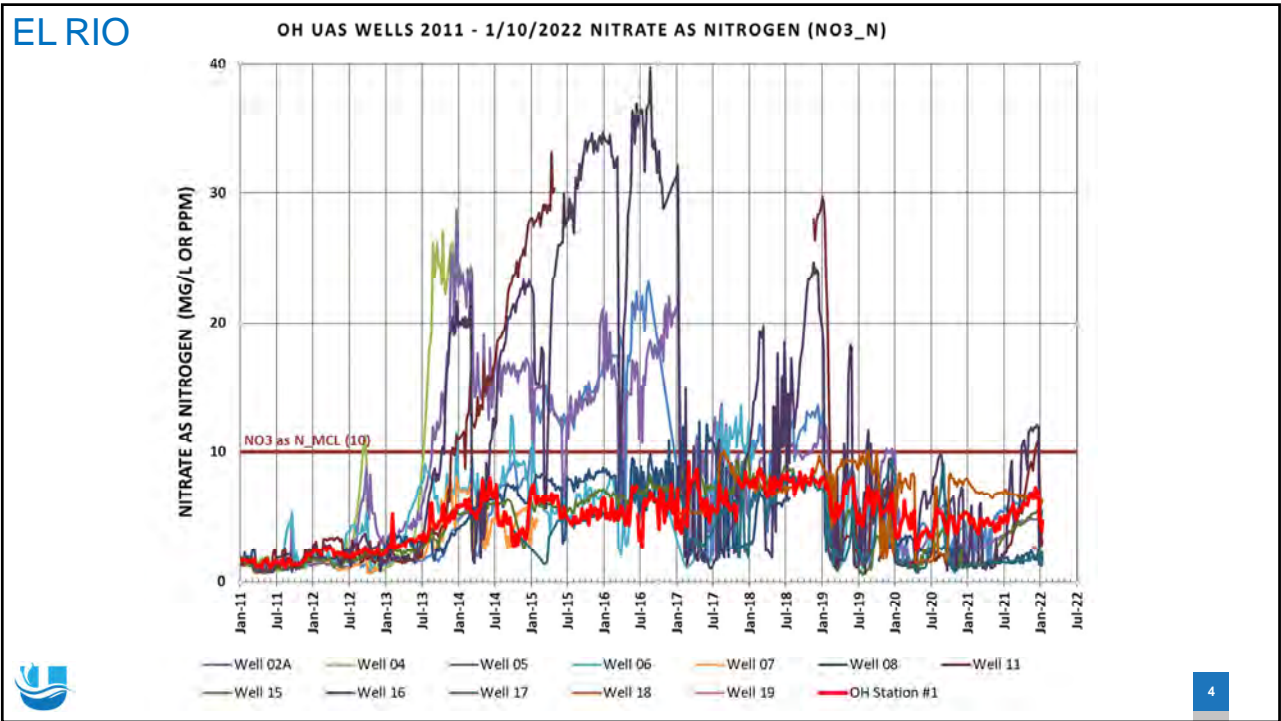
SATICOY OPERATIONS





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OH BOOSTER PLANT

Drainage Erosion Repair



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5

PTP Delivery System




6

6


MODELING

1:24 Model at 226 kcfs




IOWA

IIHR – HYDROSCIENCE & ENGINEERING



Dam and Diversion



7

1:12 Construction Update






8

1:24 MOD-6 Upstream Photos – 3,000 cfs

Flushing Channel Closed

Flushing Channel Open

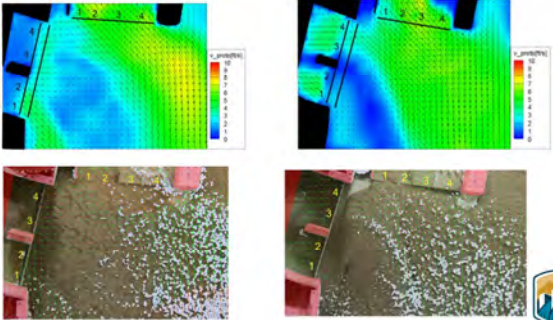
Flushing Channel Removed




1:24 PIV Flushing Closed – 3,000 cfs

MOD-6

MOD-9





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QUESTIONS?



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