

AGENDA
ENGINEERING and OPERATIONS COMMITTEE MEETING

Wednesday, July 3, 2024, at 9:30 a.m.
UWCD Headquarters, First Floor, Board Room
1701 N. Lombard Street, Oxnard, CA 93030

OPEN SESSION - ROLL CALL

1. Public Comment
Information Item

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
Motion

Approve the May 2, 2024, Engineering and Operations Committee meeting minutes.

3. July 10, 2024, Board Meeting Motion Agenda Items

Review, discuss, and make a recommendation on the following agenda items for approval at the July 10, 2024, Board meeting:

3.1 Amendment to the Professional Consulting Services Agreement with Black and Veatch for Santa Felicia Dam Safety Improvement Project - Outlet Works Improvement Project Construction Management and Inspection Services (CIP 8002) (Engineering Department, Dr. Maryam Bral)

Recommend approval of the motion item to the full Board authorizing the General Manager to award an amendment to the executed Agreement for Professional Consulting Services with Black and Veatch Corporation in the amount not to exceed \$1,809,337 (Amendment No. 1) to provide construction management and inspection services, and preconstruction services including an independent review of the construction contract documents for the Santa Felicia Dam Safety Improvement Project – Outlet Works Improvement Project (CIP 8002).

3.2 Authorize the Execution of an Agreement with GEI Consultants, Inc. to Develop the Final Design Phase, Prepare Final Bid Documents and Provide Bid Phase Support Services for the Santa Felicia Dam Spillway Improvement Project (CIP 8003) (Engineering Department, Dr. Maryam Bral)

Recommend approval of the motion item to the full Board authorizing the General Manager to execute an agreement with GEI Consultants, Inc. in the amount of \$2,154,576.00 to develop the final design phase, prepare final bid documents, and provide bid phase support services for the Santa Felicia Dam Spillway Improvement Project (CIP 8003).

4. Monthly Department Updates
Information Item

Receive and review the monthly reports from the Engineering, Environmental Services, and Operations and Maintenance Departments as well as receive a verbal presentation of its highlights.

4.1 Engineering Department Update (Dr. Maryam Bral)

4.2 Environmental Services Department Update (Marissa Caringella)

4.3 Operations and Maintenance Department Update (Craig Morgan)

5. Future Agenda Items

ADJOURNMENT

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.

Approved:

 FOR MEG

Mauricio E. Guardado, Jr., General Manager

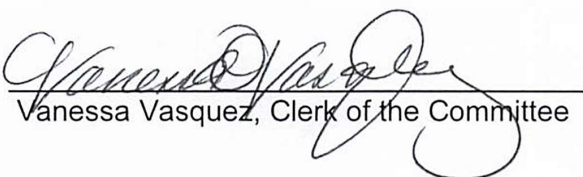


Dr. Maryam Bral, Chief Engineer



Craig Morgan, Chief Operations Officer

This agenda was posted Thursday, June, 27, 2024, at 3:00 p.m. at United Water Conservation District Headquarters, Oxnard, CA and www.unitedwater.org.



Vanessa Vasquez, Clerk of the Committee

**MINUTES
ENGINEERING AND OPERATIONS COMMITTEE MEETING**

**Thursday, May 2, 2024, at 9:30 a.m.
UWCD Headquarters, First Floor, Board Room
1701 N. Lombard Street, Oxnard, CA 93030**

OPEN SESSION

The meeting was called to order at 9:35 a.m.

Committee Members Roll Call

Two Committee members were present (Keeling, Maulhardt). One seat is currently vacant.

1. Public Comment

General Manager Mauricio Guardado commented he had attended a Regional Defense Partnership (RDP) meeting that morning and reported that there was an overwhelming amount of support for United Water's Extraction Barrier and Brackish (EBB) Water Treatment Project. RDP went to Washington to meet with the head of Navy Installation where the Department of Defense (DOD) was promoting the EBB Project. All agencies were familiar with the project, an accomplishment he wanted to share publicly with staff and the Committee.

**2. Approval of Minutes
Motion**

Action: M/S/C (Keeling, Maulhardt) to approve the March 7, 2024, minutes.

Vote: Ayes: Keeling and Maulhardt; Noes: None; Absent: None

3. March 13, 2024, UWCD Board of Directors Meeting Agenda Items

3.1 Resolution Determining that the Santa Felicia Dam 72-inch Butterfly Valve Redundancy and Seismic Resiliency Project ("Project") is Exempt from the Provisions of the California Environmental Quality Act and Approving the Project (Dr. Maryam Bral)

Recommend approval of the motion to the Board the adoption of Resolution determining that the Santa Felicia Dam 72-inch Butterfly Valve Redundancy Project (Project) is exempt from the provisions of the California Environmental Quality Act (CEQA) and approving the Project and directing staff to file a Notice of Exemption in accordance with CEQA.

Action: M/S/C (Keeling, Maulhardt) to approve staff's recommendation.

Vote: Ayes: Keeling and Maulhardt; Noes: None; Absent: None



3.2 Amendment to Agreement with Northwest Hydraulic Consultants for Professional Consulting Services in Connection with the Freeman Conveyance System Upgrade - Freeman to Ferro Recharge Basin Project (CIP 8018)

(Dr. Maryam Bral)

Recommend approval of the motion item to the Board authorizing the General Manager to sign an Amendment to the current agreement with Northwest Hydraulic Consultants for consulting services in connection with the Freeman Conveyance System Upgrade - Freeman to Ferro Recharge Basin Project.

Action: M/S/C (Keeling, Maulhardt) to approve staff's recommendation.

Vote: Ayes: Keeling and Maulhardt; Noes: None; Absent: None

3.3 Supplemental Appropriation of funds for the Iron and Manganese Treatment Project (CIP 8007)

Review and consider recommending to the full Board of Directors that it authorizes a supplemental appropriation of \$344,126 for the Iron and Manganese Treatment Project (C.I.P. 8007) at its regular May 15, 2024, meeting.

Committee members and staff discussed the supplemental appropriation of funds and how the District is held financially responsible for projects despite being awarded grants. Engineering staff explained the grants that are awarded do not equate to available funding. Project costs are paid upfront by the District and reimbursed later by the funding agency, and the duration of those reimbursements can vary from months to years. Director Keeling added that public perception is that we have been awarded money which is readily available. Chair Maulhardt asked for the graph depicted on slide number 7, "*Iron and Manganese Treatment Project Expenditures*" be presented to the Board along with an additional slide explaining the disconnect between awarded grants and receiving funding.

Action: M/S/C (Keeling, Maulhardt) to approve staff's recommendation.

Vote: Ayes: Keeling and Maulhardt; Noes: None; Absent: None

3.4 Construction Management and Inspection Services Contract for Phase 1 of the PTP Recycled Water Connection - Laguna Road Pipeline Project (CIP 8043)

Recommend approval of the motion item to the Board authorizing the General Manager to award a construction management and inspection services contract to the most qualified proposer, as recommended by staff, in support of Phase 1 of the PTP Recycled Water Connection - Laguna Road Pipeline Project (CIP 8043).

Chair Maulhardt requested information regarding grant funding be added to the motion item slide. Mr. Guardado stated that a formal motion was not required as there is no specification of consultant or fees.

4. Monthly Department Updates
Information Items

4.1 Engineering Department Update



Information Item

Received and reviewed the Engineering Department monthly update (presentation attached).

4.3 Environmental Services Department Update

Information Item

Received the Environmental Services Department monthly update and verbal highlights (presentation attached).

4.4 Operations and Maintenance Department Update

Information Item

Received the Operations and Maintenance Department monthly update well as a presentation of its highlights (presentation attached).

5. Future Agenda Items

Dr. Bral asked the Committee their preference in keeping the Engineering and Operations Committee start time at 9:30 a.m. Committee members agreed to keep the start time at 9:30 a.m. and to schedule the meeting for an hour and a half.

ADJOURNMENT

The meeting was adjourned at 11:13 a.m.

I certify that the above is a true and correct copy of the minutes of the UWCD Engineering and Operations Committee Meeting of May 2, 2024.

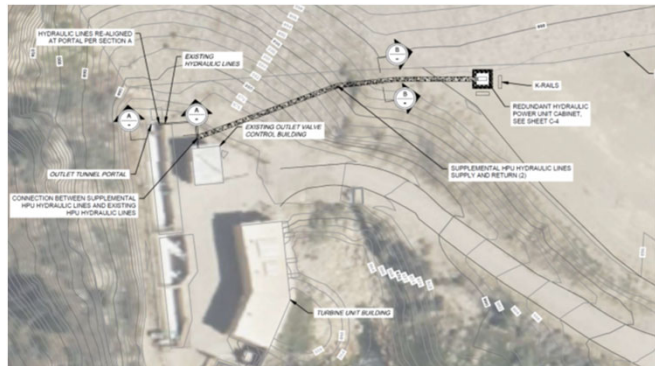
ATTEST: _____
Chair Lynn E. Maulhardt

System Reliability
Regulatory & Environmental Compliance

Motion Item 3.1

Resolution for Adoption of CEQA Notice of Exemption (NOE) for the 72-inch Butterfly Valve Redundancy and Seismic Resiliency Project

- ❑ FERC requires Interim Risk Reduction Measures (IRR) prior to construction of the SFD SIP.
- ❑ A redundant system provides remote operation of 72-inch butterfly valve and realignment of hydraulic pipelines in case of an emergency when and if existing/primary system is inaccessible.
- ❑ Exempt under Section 15301 and Section 15303

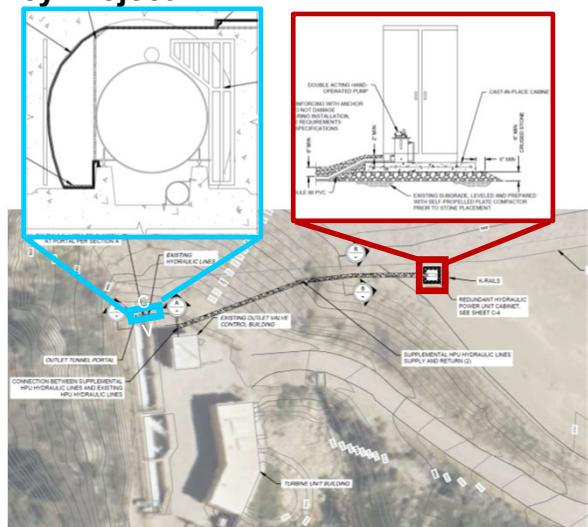
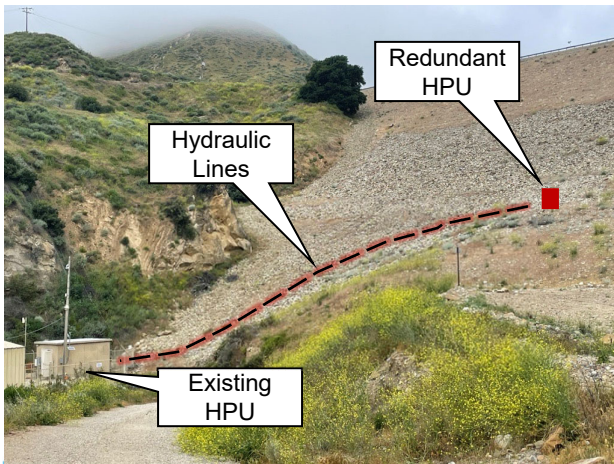


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System Reliability
Regulatory & Environmental Compliance

Motion Item 3.1

Resolution for Adoption of CEQA Notice of Exemption (NOE) for the 72-inch Butterfly Valve Redundancy and Seismic Resiliency Project



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Water Supply and System Reliability

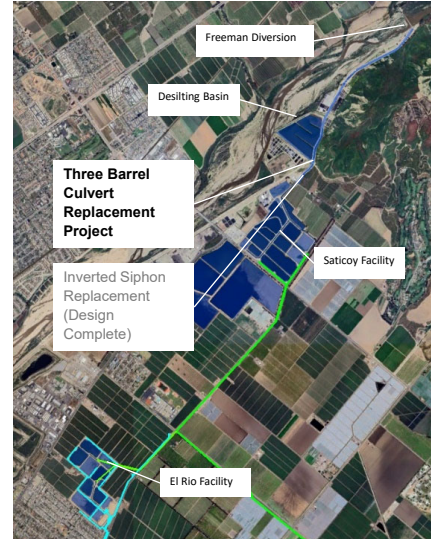
Motion Item 3.2

Amendment to Agreement with Northwest Hydraulic Consultants for Professional Consulting Services

- Three Barrel Culvert Replacement Project
 - Removes Hydraulic Restriction
 - Complies with Current Levee Safety Standards
 - Replaces Aging Structure
 - Supported by SGM Grant

- Scope Remaining
 - Final Construction Documents
 - 408 Permit US Army Corp of Engineers
 - Watershed Protection Encroachment Permit

- Contract Amendment
 - Original Contract Amount: \$248,689
 - Proposed Amendment: \$49,460



Water Supply and System Reliability

Motion Item 3.3

Authorize a Supplemental Appropriation of Funds for the Iron and Manganese Treatment Project (CIP 8007)

- ❑ **Scope Remaining**
 - 30-Day Contractor-Supported Operations started on April 10, 2024
 - Release of Retention Payment
 - Record Drawings and Documents
 - DDW Reporting
 - Grant Agreement Closeout

- ❑ **CIP Budget**
 - FY 2023-24 Allocation: \$14,221,954
 - Total Projected Exp.: \$14,565,080
 - **Suppl. Appropriation: \$343,126**



1

Change Orders

Construction Contract Change Orders

Description	Cost	% of Original Contract
Original Contract	\$9,342,900	100.0%
Buy American Act Compliance	\$662,910	7.1%
Design/Construction Conflict	\$718,602	7.7%
District Work Directive	\$55,756	0.6%
Credits	\$(82,108)	-0.9%
Total	\$10,698,061	114.5%

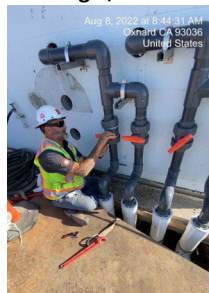


Jan 29, 2024



May 11, 2022

E&I Relocation



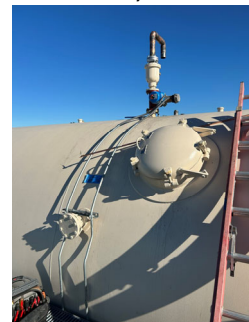
Aug 8, 2022

Disinfection Lines Upsize



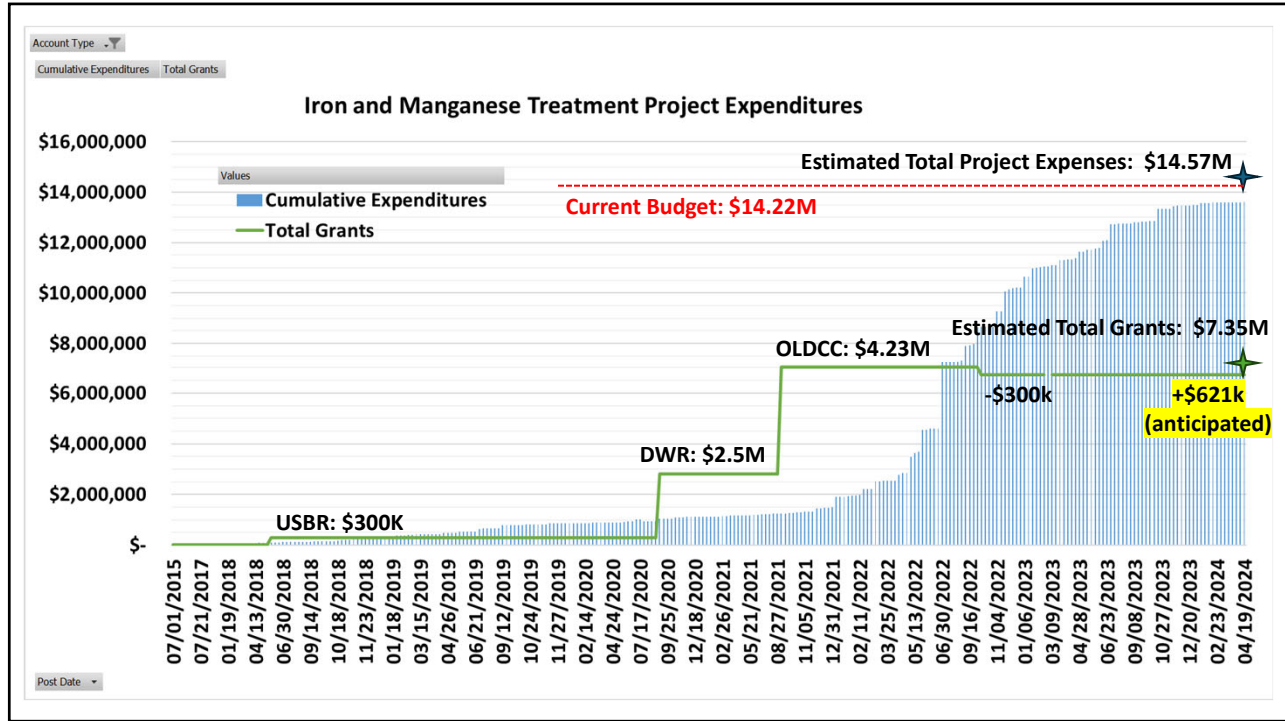
Oct 13, 2022

6" Water Line Relocation



Air Scour System Mods

2



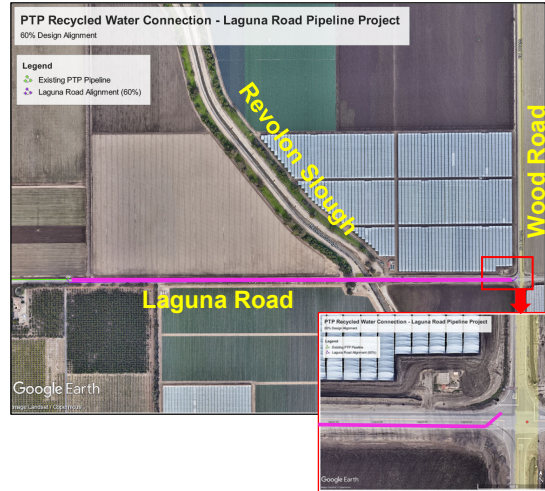
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Water Supply and System Reliability

Motion Item 3.4

Authorize the General Manager to Award a Construction Management and Inspection Services Contract related to the Phase 1 of the PTP Recycled Water Connection - Laguna Road Pipeline Project

- Design and construction of approximately 3,200 feet of 24-inch diameter pipeline along Laguna Road, connecting the PTP System to PVCWD system at the intersection of Wood Road and Laguna Road.
- RFP for Construction Management and Inspection Services was issued on April 4, 2024.
- Four qualified consultants were solicited to provide proposals by May 1, 2024.
- Recommended Firm to review and evaluate the final design (ready by May 21, 2024) for constructability and buildability.
- Project is supported by the DWR SGM grant of \$2.65M.





ENGINEERING DEPARTMENT Monthly Update May 2, 2024

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C. REGULATORY AND ENVIRONMENTAL
COMPLIANCE

Santa Felicia Dam Safety Improvement Project

Design PFMA Update

- Draft Report submitted by Consultant on April 9
 - Review by Staff, Designer and SMEs due in May
- Final Report due to FERC in June
 - Outlet Works total PFMs: 19
 - ✓ 1 Credible
 - Spillway total PFMs: 16
 - ✓ 10 Credible



A PFMA is an exercise to identify all potential failure modes under normal, flood, earthquake, and other loading conditions, including all external loading conditions for water retaining and conveying structures, and to assess those potential failure modes that are significant enough to warrant continued awareness and attention to visual observation, monitoring, and remediation, as appropriate.

- FERC Engineering Guidelines for the Evaluation of Hydropower Projects, Chapter 17



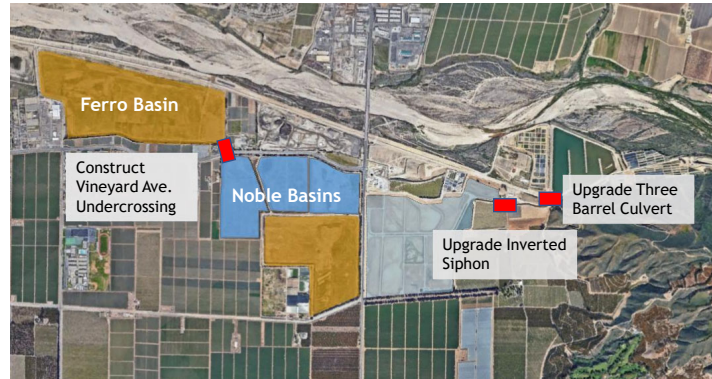
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 A. WATER SUPPLY

Freeman Conveyance System Upgrade

- Three Barrel Culvert Repl.**
 - 100% Design
 - Permitting w/ USACE and Ventura County
- Inverted Siphon Repl.**
 - Construction in July 2024
 - Completion over 90 days
- Vineyard Ave Undercrossing**
 - 60% Design
 - Permitting with Caltrans ongoing



 A. WATER SUPPLY

PTP Recycled Water Connection - Laguna Road Pipeline Project Phase 1

- RFP for Construction Management and Inspection Services was issued on April 4
- Site visit by interested consultants on April 10
- 100% design due on May 21



A. WATER SUPPLY

EBB Water – Phase 1

- Land Surveying Services**
 - Utility locating substantially complete
 - Topo survey complete
- Geotechnical Services**
 - Dig permit approved
 - 1st Geotechnical borings were drilled at Point Mugu
- Monitoring Wells Construction**
 - County drilling permit is obtained
 - Drilling to begin in late May
- Grant Funding Programs**
 - 2024 DCIP application due on June 17. Staff is preparing application, including request for support letters



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**F. COMMUNICATIONS AND
COMMUNITY OUTREACH**

Public Outreach

Project Information

- **Embankment Dam**
 - 213 feet high
 - 1,275-foot-long crest
 - Crest El. 1075.0
- **Spillway**
 - 475-foot-long crest
 - Ogee weir El. 1055.0
 - 570-foot-long chute
 - Funnel shaped
 - 104.3-foot-wide at downstream end
- **Outlet Works**
 - 60-inch diameter
 - 72-inch butterfly valve
 - 2 – 36-inch fixed cone valves



April 20 - St. Francis Dam Tour



April 27 – CoLAB Annual Spring Fling



April 23-24 - USSD 2024 Annual Conference & Exhibition

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ENVIRONMENTAL SERVICES DEPARTMENT UPDATE

May 2, 2024



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Updates

FERC Notice of Intent to Prepare SFDSIP
Environmental Assessment (NEPA)

Pacific lamprey passage system
successfully used at Freeman Diversion

Southern California steelhead rainbow
trout listed as endangered under CESA

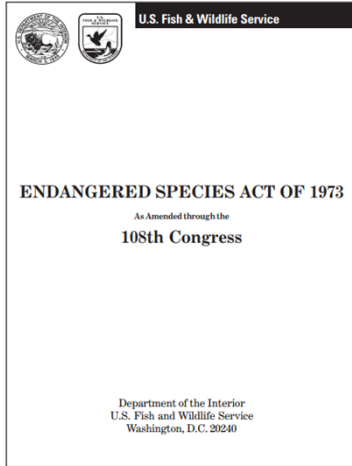
Freeman MSHCP submitted!



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Key Highlight – Freeman Diversion Multiple Species Habitat Conservation Plan



Habitat Conservation Plan Background

- Incidental take for non-federal actions
- Applicant driven process
- Conservation plan and impact offsets
- Assurances to the species and applicant
- Long-term outlook



Freeman Diversion Multiple Species Habitat Conservation Plan Project Highlights

- Operational Work Group
- Hardened Ramp Operations Model
- Adult Steelhead Migration Model
- Mediation meeting
- USBR WaterSMART Grant Application Follow-up



Freeman Diversion Multiple Species Habitat Conservation Plan Project Highlights

April 9th Submittals:

- Draft MSHCP
- Draft EIR
- CWA 404 Application
- CWA 401 Application
- LSAA Notification



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**OPERATIONS AND
MAINTENANCE
DEPARTMENT
UPDATE**



May 2, 2024

1

Santa Felicia Dam



2

Freeman Diversion



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3

Todd Barranca



4

4

Ferro Basin



5

5

Saticoy Well Field



6

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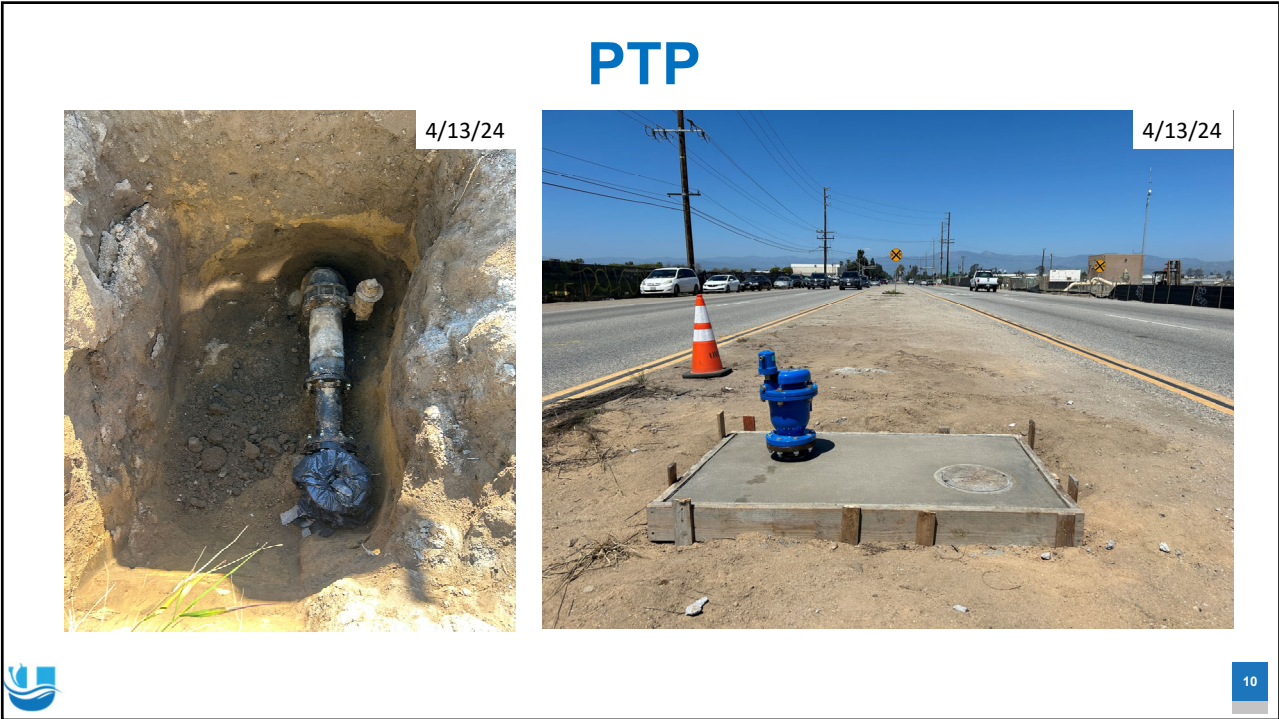
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STAFF REPORT

To: Engineering and Operations Committee Meeting

Through: Mauricio E. Guardado, Jr., General Manager

From: Dr. Maryam Bral, Chief Engineer
Adrian Quiroz, Engineer
Kaili Taniguchi, Engineer

Date: June 24, 2024 (July 3, 2024, Committee Meeting)

Agenda Item: **3.1 Amendment to the Professional Consulting Services Agreement with Black and Veatch for Santa Felicia Dam Safety Improvement Project - Outlet Works Improvement Project Construction Management and Inspection Services (CIP 8002) Motion**

Staff Recommendation:

Recommend approval of the motion to the full Board authorizing the General Manager to award an amendment to the executed Professional Consulting Services Agreement with Black and Veatch Corporation in the amount not to exceed \$1,809,337 (Amendment No. 1) to provide construction management and inspection services, and preconstruction services including an independent review of the construction contract documents for the Santa Felicia Dam Safety Improvement Project – Outlet Works Improvement Project (“Project”) (CIP 8002).

Background:

The existing outlet works system needs to be replaced due to concerns related to the seismic stability of the intake tower and water conveyance conduit through the dam and the ongoing accumulation of sediment in the reservoir that could potentially impact the operation of the outlet works in the near future. The existing outlet works will be relocated to the east (left) abutment and replaced with a new outlet works facility which will consist of an intake control facility, including a sloping intake located in the reservoir, two water conveyance conduits in a new tunnel through a downstream control facility (DCF), and a hydropower facility consisting of a small cross-flow turbine located within the DCF. The design of the Project has advanced to 100% design, which will be completed and presented at the Board of Consultants (BOC) meeting No. 9 in August 2024.

Discussion:

On June 21, 2023, the District entered into an Agreement for Professional Consulting Services with Black and Veatch Corporation (BV) to provide construction management and inspection services over multiple years in the amount of \$14,601,187. This Agreement is structured to provide an Amendment to the Agreement each fiscal year,

Agenda Item: 3.1 Amendment to the Professional Consulting Services Agreement with Black and Veatch for Santa Felicia Dam Safety Improvement Project - Outlet Works Improvement Project Construction Management and Inspection Services (CIP 8002) Motion

only for the work that would be completed within that fiscal year. The total cost will be included in Fiscal Years' (FY) future budgets.

BV's scope of work for Amendment No. 1 includes the following key services: independent constructability review of the 100% design, construction contract document review, bid/award process support including potential contractor prequalification, support with an approach to partnering, claims and disputes management for construction, preparation of a document control system for construction, and the preparation and support for multiple preconstruction plans and programs.

BV's proposal for future years' work includes the following key services: public outreach, construction/project management, construction coordination, and documentation, establishing a document control and internet-based communication system, construction administration and change management (contract document clarification, requests for information, potential change orders, change orders, and directed change orders), construction schedule monitoring, contractor invoice review, construction inspections, testing and reporting, partnering, claims and disputes management, and maintaining safety records for the Project for each subsequent fiscal year contract. BV will also coordinate testing and start-up of the new facility, training District staff, environmental compliance services coordination, support for grant and loan compliance, acceptance of the new facility, and closeout of the Project. Future fiscal year contract amendments scopes of work are currently estimated at an amount not to exceed \$11,293,227.

Pending the Federal Energy Regulatory Commission (FERC) approval to proceed with construction in 2026, Staff will request Board approval of the additional amendments to the Contract and allocation of additional funds in the subsequent fiscal year budgets to cover the ongoing activities.

Staff is recommending award of Amendment No. 1 to the contract with BV to continue preconstruction services for the Project.

Mission Goal:

Meets Mission-Related Goal C, Regulatory and Environmental Compliance – Ensure long-term sustainability of all water sources within the District while complying with all regulations.

Fiscal Impact:

Sufficient funds are available in the FY 2024/25 budget (CIP 8002, Account 8002-850) to cover this FY 2024-25 contract amendment.

Attachment A – Santa Felicia Dam Safety Improvement Project – Amendment No. 1 to Professional Consulting Services Agreement with Black and Veatch Corporation.



STAFF REPORT

To: Engineering and Operations Committee Meeting

Through: Mauricio E. Guardado, Jr., General Manager

From: Dr. Maryam Bral, Chief Engineer
Adrian Quiroz, Engineer

Date: June 24, 2024 (July 3, 2024, meeting)

Agenda Item: 3.2 Authorize the Execution of an Agreement with GEI Consultants, Inc. to Develop the Final Design Phase, Prepare Final Bid Documents and Provide Bid Phase Support Services for the Santa Felicia Dam Spillway Improvement Project (CIP 8003)
Motion

Staff Recommendation:

Recommend approval of the motion item to the full Board authorizing the General Manager to execute an agreement with GEI Consultants, Inc. (GEI) in the amount of \$2,154,576.00 to develop the final design phase, prepare final bid documents, and provide bid phase support services for the Santa Felicia Dam Spillway Improvement Project (CIP 8003).

Background:

The hydraulic capacity of the existing spillway is inadequate to pass the inflow design flood (IDF) of 220,000 cubic feet per second. Improvements to the existing spillway are required to safely pass the IDF. The spillway improvements consist of lowering the spillway chute slab (complete replacement of the slab), reuse of the existing spillway walls and the ogee crest and raising the embankment dam crest by 6.5 feet with a mechanically stabilized earth wall. The design of the Santa Felicia Dam Spillway Improvement Project (Project) has been advanced to the 60% phase and was presented to the Board of Consultants (BOC), Federal Energy Regulatory Commission (FERC), and the California Department of Water Resources Division of Safety of Dams (DSOD) at BOC Meeting No. 8 in November 2023. BOC comments and recommendations were included in the final report prepared by the BOC at the completion of the BOC Meeting No. 8 that was submitted to FERC on December 14, 2023. The BOC comments included in the report will be addressed during the 90% design development.

Discussion:

During the 90% design phase, GEI will perform geotechnical, structural, hydraulic, and site civil analyses and design studies required to advance the design, three-dimensional visualization models, plans, and technical specifications to the 90% level of completion. In addition, previous versions of the Basis of Design Report (BDR), Constructability Evaluation Report, Opinion of Probable Construction Cost (OPCC), Reservoir Operations

Agenda Item: 3.2 Authorize the Execution of an Agreement with GEI Consultants, Inc. to Develop the Final Design Phase, Prepare Final Bid Documents and Provide Bid Phase Support Services for the Santa Felicia Dam Spillway Improvement Project (CIP 8003)
Motion

Plan during Construction, and Operations and Maintenance Manual will be updated to the 90% level of completion. Staff will submit the 90% design packet to the BOC, FERC, and DSOD in April 2025. The design findings will be presented at the BOC meeting No. 10 scheduled for early May 2025.

During the final design (100% design), GEI will update the design documents mentioned above, three-dimensional visualization models, plans, and specifications to the 100% level of completion. Staff will submit the 100% design packet to the BOC, FERC, and DSOD in early 2026. The design findings will be presented at the BOC meeting No. 11 tentatively scheduled for some time in early 2026.

In addition, GEI will provide support for the pre-qualification of prospective contractors and the associated “industry day” during which the project is presented to interested contractors. Support will include responding to contractor questions and providing additional information on the design of the Project.

GEI will prepare the final bid documents, including the bidding forms, bid schedule, and measurement and payment sections. The notice inviting bids for construction of the Project is currently anticipated to be advertised in September 2027. GEI’s support services during the bid phase include preparation of responses to interested contractors’ requests for information associated with the contract documents, preparation of addenda items as needed, and preparation of conformed plans and specifications.

Staff is recommending execution of an agreement with GEI. A copy of the Professional Consulting Service Agreement detailing GEI’s complete proposal, including the scope of work and deliverables, proposed fee, and the project schedule, is included in Attachment A.

Mission Goal:

Meets Mission-Related Goal C, Regulatory and Environmental Compliance – Ensure long-term sustainability of all water sources within the District while complying with all regulations.

Fiscal Impact:

Sufficient funds to cover the work anticipated to be completed (\$1.3M) during Fiscal Year (FY) 2024-25 are included in the FY 2024/25 budget (Account No. 051-400-81080-8003-815). The fee associated with work performed during subsequent fiscal years will be budgeted during the applicable fiscal year.

Attachment A – Santa Felicia Dam Spillway Improvement Project – Final Design and Bid Support Services Professional Services Agreement with GEI Consultants, Inc.

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES

THIS AGREEMENT (“Agreement”) is made and entered into on _____, 2024, by and between the **United Water Conservation District**, Ventura County, California, (hereinafter “**UNITED**”), and **GEI Consultants, Inc.** (hereinafter “**CONSULTANT**”).

RECITALS:

WHEREAS, UNITED desires to obtain professional engineering consultation services in connection with the **90% Design, 100% Design and Bid Phase Support Services for the Santa Felicia Dam Spillway Improvement Project** (“Project”); and

WHEREAS, UNITED has selected CONSULTANT to provide such services; and

WHEREAS, CONSULTANT represents that it has the skills, experience, license, and expertise to perform these professional services for UNITED; and

WHEREAS, UNITED is desirous of engaging the services of CONSULTANT to perform these services;

NOW, THEREFORE, based on the terms and covenants set forth herein, UNITED and CONSULTANT mutually agree as follows:

1. EMPLOYMENT

A. UNITED hereby employs CONSULTANT to perform and complete the professional engineering services as set forth in Exhibit “A” (“Scope of Work/Schedule of Charges”). CONSULTANT shall perform such professional services as set forth in Exhibit “A” and shall furnish or procure the use of incidental services, equipment, and facilities reasonably necessary for the completion of services.

B. Any extra work over and above that included in the Scope of Work included in Exhibit “A” shall be in compliance with Section 3D.

C. CONSULTANT represents that its services shall be performed, within the limits prescribed by UNITED, in a manner consistent with the level of care and skill ordinarily exercised by other engineering professionals under similar circumstances at the time and in the vicinity its services are performed.

D. **Thomas O. Keller** shall: (a) personally perform or supervise the performance of services on a day-to-day basis on behalf of CONSULTANT; and (b)

maintain direct communication with UNITED's **Chief Engineer, Maryam A. Bral** or designee in the performance of CONSULTANT's services.

E. CONSULTANT in the performance of services hereunder shall fully comply with any and all local, state and federal laws, regulations, ordinances, and policies applicable to its work, including any licensing laws applicable to CONSULTANT's profession and anti-discrimination laws pertaining to employment practices.

F. In the event of any conflict between the terms and conditions set forth in Exhibit A (Scope of Work/Schedule of Charges) versus those terms and conditions set forth in this Agreement, the terms and conditions set forth in this Agreement shall govern and the conflicting terms and conditions in Exhibit A shall not apply.

2. TERM OF AGREEMENT

Unless otherwise earlier terminated as specified in Section 8, this Agreement shall commence on the date set forth above and shall expire on **June 30, 2028**.

3. COMPENSATION

Payment by UNITED for the consulting services shall be considered as full compensation for all personnel, materials, supplies, and equipment used in carrying out the work.

A. Compensation and payments to the CONSULTANT shall be as described below:

1. UNITED shall compensate CONSULTANT on a time and expenses basis not to exceed **two million one hundred fifty-four thousand five hundred seventy-six dollars (\$2,154,576.00)** for performing all services authorized and required by this Agreement and specified in Exhibit "A." UNITED shall compensate CONSULTANT only for actual costs incurred on a time and expenses basis, but in no event shall the total compensation be greater than the not to exceed amount above. However, the total amount paid on a time and expenses basis may be lower than the not to exceed amount above based on actual costs incurred. Payment shall be made in accordance with CONSULTANT's Schedule of Charges submitted to UNITED, included in Exhibit "A" attached and incorporated by reference herein.

2. CONSULTANT shall provide UNITED with monthly itemized invoices. Invoices shall include the categories and identities of CONSULTANT's employees performing services, a description of the services, the number of hours spent performing services, the hourly rate for each employee, CONSULTANT's actual costs and expenses, and the total amount of compensation requested by CONSULTANT for that month. Upon UNITED's request, CONSULTANT shall

include with its monthly invoices a detailed verification, including accounting records, of the work actually performed and costs and expenses incurred, along with any other documents or information reasonably requested by UNITED.

B. UNITED shall pay CONSULTANT within thirty (30) days after receipt of CONSULTANT's invoices, with the exception of any disputed amounts which shall be withheld until resolution of the dispute. If UNITED has reasonable grounds to believe that CONSULTANT will be unable to materially perform the services under this Agreement, or there exists or may exist a claim against CONSULTANT arising out of CONSULTANT's negligence or intentional acts, errors, omissions, or material breach of any provision of this Agreement, then UNITED may withhold payment of any reasonable amount due to CONSULTANT which is directly related to such negligence, intentional act, error, omission or material breach. No payment made under this Agreement shall be conclusive evidence of CONSULTANT's performance of the Agreement, either wholly or in part, and no payment shall be construed to be an acceptance by UNITED of CONSULTANT's work.

C. CONSULTANT shall notify UNITED in writing of the need for additional services required due to the circumstances beyond the CONSULTANT's control ("Additional Services"). The CONSULTANT shall obtain written authorization from UNITED before rendering any Additional Services. Compensation for all approved Additional Services shall be negotiated and approved in writing by UNITED before such Additional Services are performed by CONSULTANT. No compensation shall be paid to the CONSULTANT for any Additional Services that are not previously approved by UNITED in writing.

D. Reimbursable expenses, if applicable, are in addition to compensation for services outlined in the Scope of Work and Additional Services, and shall be paid to the CONSULTANT in accordance with the guidelines specified on Exhibit "B". Reimbursable expenses are paid at the actual costs, without mark-ups, incurred by the CONSULTANT and the CONSULTANT's employees in conduct of Agreement activities.

4. SCHEDULE OF WORK

CONSULTANT shall complete and deliver services and deliverables to UNITED in a diligent and professional manner, in accordance with the Project schedule set forth in Exhibit "A" attached and incorporated by reference herein. Time is of the essence in CONSULTANT's performance of services hereunder.

CONSULTANT's Project Manager shall keep UNITED's **Chief Engineer, Maryam A. Bral**, or designee informed as to the progress of work by informal reports. Neither party shall hold the other responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents, or other events beyond the reasonable control of the other or the other's employees and agents.

5. ASSIGNMENT OF CONTRACT

This Agreement is a professional services contract. CONSULTANT shall not assign this Agreement or any portion of the work without the prior written approval of UNITED. Any such assignment without UNITED's prior written approval shall be void. UNITED may withhold such approval for any reason in its sole discretion.

6. INDEMNIFICATION

To the fullest extent permitted by law, CONSULTANT agrees to indemnify and hold UNITED entirely harmless from all liability arising out of:

1. Workers' Compensation and Employer's Liability. Any and all claims under Workers' Compensation acts and other employee benefit acts with respect to CONSULTANT's employees or CONSULTANT's subconsultant's employees arising out of CONSULTANT's work under this Agreement; and

2. General Liability. To the extent arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct of the CONSULTANT, the CONSULTANT shall indemnify, defend and hold UNITED harmless from any liability for damages for (1) death or bodily injury to person; (2) injury to, loss or theft of property; (3) any failure or alleged failure to comply with any provision of law; or (4) any other loss, damage or expense arising under either (1), (2), or (3) above, sustained by the CONSULTANT or UNITED, or any person, firm or corporation employed by the CONSULTANT or UNITED upon or in connection with the Project, except for liability resulting from the sole or active negligence, or willful misconduct of UNITED, its officers, employees, agents, or independent consultants who are directly employed by UNITED. The CONSULTANT, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings (other than professional negligence covered by Section A3 below) that may be brought or instituted against UNITED, its officers, agents, or employees, to the extent such claims, actions, suits, or other proceedings arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONSULTANT, and shall pay or satisfy any judgment that may be rendered against UNITED, its officers, agents, or employees, in any action, suit or other proceedings as a result thereof. Any costs to defend under this Section A2 shall not exceed the CONSULTANT's proportionate percentage of fault; and

3. Professional Liability. To the extent arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct of the CONSULTANT, the CONSULTANT shall indemnify and hold UNITED harmless from any loss, injury to, death of persons, or damage to property caused by any act, neglect, default, or omission of the CONSULTANT, or any person, firm, or corporation employed by the CONSULTANT, either directly or by independent

contract, including all damages due to loss or theft, sustained by any person, firm, or corporation, including UNITED, arising out of, or in any way connected with, the Project, including injury or damage either on or off UNITED property; but not for any loss, injury, death, or damages caused by sole or active negligence, or willful misconduct of UNITED. With regard to the CONSULTANT's obligation to indemnify for acts of professional negligence, such obligation does not include the obligation to provide defense counsel or to pay for the defense of actions or proceedings brought against UNITED, but rather to reimburse UNITED for attorneys' fees and costs incurred by UNITED in defending such actions or proceedings brought against UNITED, and such fees and costs shall not exceed the CONSULTANT's proportionate percentage of fault.

7. INSURANCE

A. CONSULTANT shall procure and maintain for the duration of this Agreement, and for injuries which occur and claims which are made after the services herein are provided, insurance policies in accordance with the requirements set forth in Exhibit "C" attached and incorporated by reference herein. CONSULTANT shall also provide UNITED with a certificate of insurance attesting to its professional liability (errors and omissions) coverage and all required additional insured endorsements.

B. Submission of insurance certificates or endorsements or other proof of insurance shall not relieve CONSULTANT from liability under the indemnification provisions of Section 6. CONSULTANT's obligations in accordance with Section 6 shall apply whether or not such insurance policies shall have been determined to apply to any of such claims, damage, lawsuits, losses or liabilities covered by Section 6.

C. By its signature hereto, CONSULTANT certifies that it is aware of the provisions of California Labor Code Section 3700 which requires every employer to be insured against liability for workers compensation' or to undertake self-insurance as specified. CONSULTANT shall comply with these provisions before commencing work under this Agreement.

8. TERMINATION OF AGREEMENT

A. Termination for Cause

1. UNITED may terminate CONSULTANT's services for cause, whereupon this Agreement shall terminate immediately. Termination may occur regardless of whether CONSULTANT's services are completed. Any termination or special instructions from UNITED shall be made in writing.

2. Termination for cause may occur upon any of the following events: (a) CONSULTANT's material breach of this Agreement; (b) abandonment or lack of

diligence in performance of the work by CONSULTANT; (c) cessation, suspension, revocation or expiration of any license needed by CONSULTANT to provide services hereunder; (d) failure of CONSULTANT to substantially comply with any local, state or federal laws, regulations, ordinances or policies applicable to its work hereunder; (e) filing by or against CONSULTANT of bankruptcy or any petition under any law for relief of debtors; or (f) conviction of CONSULTANT or its principal representative or personnel for any crime other than minor traffic offenses.

3. Subject to the provisions of Section 3.B herein, CONSULTANT shall be paid for all approved services performed and approved expenses incurred to the date of termination for cause supported by documentary evidence, including payroll records and expense reports, up to the date of the termination. In the event of termination for cause, all damages and costs associated with the termination, including increased consultant and replacement consultant costs, shall be deducted from any payments due to CONSULTANT.

4. In the event a termination for cause is determined to have been made wrongfully or without cause, then the termination shall be treated as a termination for convenience in accordance with Section 8.B below, and CONSULTANT shall have no greater rights than it would have had if a termination for convenience had been effected in the first instance. No other loss, cost, damage, expense or liability may be claimed, requested or recovered by CONSULTANT.

B. Termination Without Cause/For Convenience. This Agreement may be terminated without cause by UNITED or for UNITED's convenience upon fourteen (14) days' written notice to the CONSULTANT. In the event of a termination without cause, UNITED shall pay the CONSULTANT for all approved services performed and all approved expenses incurred under this Agreement supported by documentary evidence, including payroll records and expense reports, up until the date of the notice of termination. In addition, CONSULTANT will be reimbursed for reasonable termination costs through the payment of 3% beyond the sum due the CONSULTANT under this section through 50% completion of the CONSULTANT's portion of the Project and, if 50% completion is reached, payment of 3% of the unpaid balance of the contract to CONSULTANT as termination cost. This 3% is agreed to compensate the CONSULTANT for the unpaid profit CONSULTANT would have made under the Project on the date of termination and is consideration for entry into this termination for convenience clause.

C. In the event of termination with or without cause, CONSULTANT shall promptly provide to UNITED all Project Documents as defined in Section 9 below within five (5) calendar days from the effective date of termination. Failure to provide all Project Documents as required shall be deemed a material breach of this Agreement.

D. In the event of a dispute as to the performance of the work or an interpretation of this Agreement, or payment or nonpayment for work performed or not performed, the parties shall attempt to resolve the dispute. Pending resolution of the dispute CONSULTANT agrees to continue the work diligently to completion. If the dispute is not resolved, CONSULTANT agrees it will neither rescind the Agreement nor stop the progress of work, but CONSULTANT's sole remedy will be to submit such controversy to determination by a court having competent jurisdiction of the dispute as required by this Agreement after the Project has been completed and not before.

9. PROFESSIONAL SERVICES

A. The CONSULTANT is employed to render a professional service(s) only and any payments made to it are compensation solely for such services as it may render and recommendations it may make in the performance of services.

B. All plans, specifications, construction documents, data, records, files, communications, information, reports and/or other documents that are prepared, generated, reproduced, maintained and/or managed by the CONSULTANT or CONSULTANT's subconsultants arising from or in any way related to the services provided under this Agreement (regardless of medium, format, etc.) shall be and remain the property of UNITED ("Project Documents"). UNITED may provide the CONSULTANT with a written request for the return of the Project Documents at any time. Upon CONSULTANT's receipt of UNITED's written request, CONSULTANT shall return the requested Project Documents to UNITED within five (5) calendar days. CONSULTANT may make copies of the work generated. Failure to comply with any such written request above shall be deemed a material breach of this Agreement. Nothing in this paragraph shall be deemed a waiver of any copyright in the Project Documents prepared by the CONSULTANT. Any unauthorized reuse or modification of such Project Documents other than for purposes intended by CONSULTANT or for the Project shall be at UNITED's risk and liability.

C. CONSULTANT agrees that all dealings of the parties under this Agreement shall be confidential and no Project Documents or information developed, prepared or assembled by CONSULTANT under this Agreement, or any information made available to CONSULTANT by UNITED, shall be revealed, disseminated or made available by CONSULTANT to any person or entity other than UNITED without the prior written consent of UNITED, unless otherwise required by subpoena or applicable law or regulatory authority.

10. INDEPENDENT CONTRACTOR RELATIONSHIP

It is expressly understood between the parties that no employee/employer relationship is intended, the relationship of CONSULTANT to UNITED being that of an independent contractor. UNITED shall not be required to make any payroll

or such other address as either party may designate hereinafter in writing delivered to the other party. All notices shall be agreed to have been received three (3) days after mailing.

C. No Waiver

No failure or delay by UNITED in asserting any of UNITED's rights and remedies as to any default of CONSULTANT shall operate as a waiver of the default, of any subsequent or other default by CONSULTANT, or of any of UNITED's rights or remedies. No such delay shall deprive UNITED of its right to institute and maintain any actions or proceedings which may be necessary to protect, assert or enforce any rights or remedies arising out of this Agreement or the performance of this Agreement.

D. Integration

This Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereto, and supersedes all prior agreements, oral or written, and all prior or contemporaneous discussions or negotiations between the parties.

E. Modification

No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the parties.

F. Rules of Interpretation

The terms of this Agreement have been negotiated by the parties and the language used in this Agreement shall be deemed to be the language chosen by the parties to express their mutual intent. This Agreement shall be construed without regard to any presumption or rule requiring construction against the party causing such instrument to be drafted, or in favor of the party receiving a particular benefit under this Agreement. No rule of strict construction shall be applied against any party to this Agreement.

G. Partial Invalidity

If any term, covenant, condition, or provision of this Agreement is found by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect, and shall in no way be affected, impaired, or invalidated thereby.

H. Incorporation of Recitals and Exhibits

The foregoing recitals and exhibits are incorporated herein as though fully set forth.

I. California Law; Dispute Resolution; Venue

This Agreement shall be interpreted and construed pursuant to the laws of the State of California, regardless of whether this Agreement is executed by any party in another state or otherwise. If a dispute arises between the parties related to this Agreement or the breach thereof, the parties shall first attempt in good faith to settle the matter through discussion, and if unsuccessful may in their discretion mutually agree to mediate the dispute prior to filing a judicial action. The costs of a third party mediator, if utilized, shall be borne equally by the parties. If either party elects to file an action in court, such action shall be filed and heard in a court of competent jurisdiction in the County of Ventura.

J. Counterparts

This Agreement may be executed in multiple counterparts, a complete set of which shall be deemed to be an original and all of which together shall comprise but a single document. Signatures may be given via facsimile transmission and shall be deemed given as of the date of facsimile transmittal of the executed Agreement by one party to the other.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

UNITED WATER CONSERVATION DISTRICT

By _____
Mauricio E. Guardado, Jr., General Manager
GEI Consultants, Inc.

By _____
Thomas O. Keller, Vice President

**EXHIBIT “A” TO AGREEMENT FOR
PROFESSIONAL CONSULTING SERVICES**

CONSULTANT shall provide professional engineering consultation services under this Agreement in accordance with work described in the attached **Scope of Work** and **Schedule of Charges**.

EXHIBIT “A” TO AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES

CONSULTANT shall provide professional consultation services for the **Santa Felicia Dam Spillway Improvement Project – Final Design and Bid Phase Support Services** in accordance with the following scope of work.

BACKGROUND

Santa Felicia Dam is owned and operated by United Water Conservation District (UWCD), and is under the jurisdiction of the Federal Energy Regulatory Commission (FERC) and California Department of Water Resources Division of Safety of Dams (DSOD).

The spillway of the dam does not have sufficient capacity to pass the inflow design flood (IDF) from Lake Piru Reservoir. The IDF for the spillway improvement project was established as 220,000 cubic feet per second (cfs), with computed outflow through spillway equal to 205,000 cfs due to attenuation of the flow caused by reservoir storage above the spillway crest level. The purpose of the spillway improvement project is to address the hydraulic deficiency of the existing spillway.

GEI Consultants, Inc. (GEI) has completed the following studies and designs to advance the spillway improvement project:

- Phase 1 Study – A feasibility study was performed to evaluate alternatives to mitigate the hydraulic deficiency of the spillway. UWCD submitted the Phase 1 Study report to FERC and DSOD in April 2015.
- Phase 2 Study – A Phase 2 Study was performed to further evaluate alternatives to address the hydraulic deficiency of the spillway. A subsurface exploration program was performed as part of the Phase 2 Study to obtain geotechnical information to support conceptual design of spillway modification alternatives. The Phase 2 Study report contains conceptual designs of four spillway modification alternatives and identifies a preferred alternative to carry forward into the final design phase. UWCD submitted the Phase 2 Study report to FERC and DSOD in March 2019.
- 10% Design – A 10% design phase was performed to advance the spillway improvement project. This design phase included a detailed condition assessment of the existing spillway as required by FERC and DSOD. UWCD submitted the 10% design report to FERC and DSOD in March 2020.
- Supplemental 10% Design – A supplemental 10% design phase was performed to advance the spillway improvement project. A subsurface exploration program was performed as part of this phase to obtain additional geotechnical information for design. UWCD submitted the supplemental 10% design documents to FERC and DSOD in September 2021.

- 30% Design – A 30% design phase was performed to advance the spillway improvement project. This design phase included development of the basis of design report, design report, a constructability evaluation and construction plans to a 30% design level. UWCD submitted the 30% design documents to FERC and DSOD in September 2022.
- 60% Design – A 60% design phase was performed to advance the spillway improvement project. UWCD submitted the 60% design documents to FERC and DSOD in November 2023.

As required by FERC, UWCD convened an independent Board of Consultants (BOC) to oversee and assess the adequacy of the investigations, designs, and construction activities for the spillway improvement project. Seven BOC meetings have been held through completion of the 60% design phase. An eighth BOC meeting is scheduled for May 2025 to review the 90% design. The BOC prepared a report at the end of each meeting to present their conclusions and recommendations with regard to the ongoing design work.

The spillway improvement project will consist of the following four major components to be constructed at the dam:

- Lowering the spillway chute slab (complete replacement of the slab),
- Reuse of the existing spillway walls and ogee crest,
- Raising the embankment dam crest by 6.5 feet with a mechanically stabilized earth (MSE) wall, and
- Abandoning the existing outlet works at the completion of the spillway improvements.

UWCD is also required by FERC and DSOD to replace the outlet works of the dam because of concerns for seismic stability of the intake tower and conduit through the dam, and to mitigate ongoing accumulation of sediment in the reservoir. The spillway improvement project and outlet works improvement project are collectively referred to as the “Santa Felicia Dam Safety Improvement Project” (Project). UWCD issued a Final Environmental Impact Report (Final EIR) for the Project in compliance with provisions of the California Environmental Quality Act in February 2019.

The 60% design is complete and future design milestones are anticipated to be at the 90% and 100% design completion levels, preparation of final bid documents and bid phase support. The design of the spillway improvements will evolve as additional analyses are performed, and additional input is received from UWCD, FERC, DSOD, and BOC.

The scope of work described below includes completion of final design of the spillway improvement project, consisting of 90% and 100% design, bid documents and bid phase support.

SCOPE OF WORK

The scope of work for the final design of the spillway improvement project is divided into the following four tasks:

- Task 1 – 90% Design Phase
- Task 2 – 100% Design Phase

Task 3 – Final Bid Documents

Task 4 – Bid Phase Support

The scope of work for each task is presented in detail below. General assumptions related to the scope of work are contained after a description of Task 4.

Task 1 – 90% Design Phase

Task 1.1 – Project Management and Coordination

This task includes management of the GEI team, contract administration, project controls, progress reporting, and coordination with UWCD, regulatory agencies, and other UWCD consultants. GEI's project manager will coordinate with UWCD throughout the duration of the work, with assistance as needed from task leads. This task includes the following activities:

- Management and supervision of the GEI design team.
- Coordination meetings of the GEI design team.
- Management, coordination, and evaluation of subconsultant services.
- Management of the project scope, schedule, and budget.
- Progress report included with submittal of monthly invoices.

Coordination and communications with UWCD include a one-hour bi-weekly progress meeting (virtual) to discuss project issues and progress. One design review meeting (virtual) with UWCD engineering and operations and maintenance staff will be held approximately mid-way through the 90% design phase to discuss design issues, answer questions, and obtain input. GEI will provide in-progress design drawings to UWCD in advance of the design review meeting.

GEI will participate in coordination meetings (virtual) with regulatory agencies and other UWCD consultants with regard to relevant designs performed by others.

GEI will assist UWCD in communications with FERC and DSOD to address issues related to process and functioning of the BOC, schedule of review submittals, and other matters related to the final design efforts. We have assumed that these communications will mainly be via phone and email.

Task 1.2 – 90% Analyses and Design

GEI will perform geotechnical, structural, hydraulic, and site civil analyses and design studies required to advance the design, plans, and specifications to the 90% level of completion.

Geotechnical analyses will include evaluations to support design of the lowered chute slab, secant pile cutoff wall at the end of the chute, and MSE wall for raising the dam crest.

Geotechnical analyses will include the following:

- Seepage analyses to estimate uplift forces in the foundation of the slab to refine the slab and anchor designs. Seepage analyses will also be used to evaluate the potential seepage along the left side of the ogee weir crest structure that was observed by UWCD in March and April 2024.

- Rock slope stability analyses to further evaluate the stability of planned excavations (cut slopes) within the spillway chute and the exposed hillside on the east side of the spillway. The analyses will include kinematic analyses and/or limit equilibrium analyses, depending on the character of the rock exposed in the cuts. Additionally, block sizes and approximate shapes will be estimated and checked against the proposed anchor installation pattern for the right spillway cuts where the risk of wedge sliding is higher than in other areas.
- Geologic reconnaissance of the hillside on the east side of the spillway will be performed. The reconnaissance will evaluate the previous sloughs that have occurred on the hillside in recent years and provide an assessment of the stability of the hillside.
- Evaluation of riprap sizing on upstream slope of embankment considering wave forces.
- Stability analyses of upstream slope of embankment under rapid drawdown conditions with the proposed dam crest raise.

Geotechnical parameters for design of facilities will be updated and included in the Design Report.

Structural analyses will be performed to advance the design of the spillway chute slab and concrete bevel reinforcement, including structural detailing. Structural analyses will include the following:

- Additional stability analyses of MSE wall sections and refinement of the MSE wall configuration design.
- L-PILE analyses of the downstream cutoff wall.
- Additional temperature variation studies for the slabs considering the concrete mixes and placement.
- Slab reinforcement and anchor bar design and layout refinement to support the spillway improvement project. Refinement of the slab and anchor designs will include 2-D plate analysis and grouped anchors evaluations.
- Stability analyses of the existing walls sections with saturated backfill.
- Design refinement of the approach wall extensions.
- Design of temporary shotcrete wall, reinforcement, and details.

Hydraulic analyses will be performed to support the final design of the spillway modifications. GEI will use the previously developed computational fluid dynamics (CFD) model of the proposed 60% design using Flow3D software. The CFD model will be used to evaluate additional analyses requested by the BOC, refinements to the downstream channel grading, potential erosion and temporary winterization design. The results of these modeling scenarios will be compared to the previous results of the modeling. Hydraulic analyses will also be performed for the slab underdrain system to estimate the potential flow depths and velocities through the system. GEI will update the spillway rating curve based on any modifications to the spillway configuration.

Site civil analyses include evaluations for development of final site grading, site drainage and details, slab drainage, access roads, refinement of the parking/turnaround areas, and temporary erosion control measures during construction. Site civil analyses will also include developing robust designs of the spillway underdrain cleanouts and evaluating the advantages and disadvantages of placing the spillway cleanouts outside of the spillway walls.

Additional civil, geotechnical, structural, and hydraulic analyses will be performed as the project evolves. Draft technical memoranda (TMs) or calculation packages will be prepared to document the various analysis and design studies. Draft TMs will be submitted to UWCD for review and finalized to address UWCD comments. Calculation packages will be included in the Design Report.

Task 1.3 – 90% Plan Drawings

This task consists of updating the 60% design level drawings and preparing additional drawings for construction of the spillway improvement project. The drawings will include plan views, profiles, sections, and details of the various project elements to a 90% level of completion. The drawings will show required demolition, excavations, foundation preparation, seepage and uplift control provisions, reinforced concrete slabs and walls, anchors, existing retaining wall improvements, backfills, and final grades for the spillway modifications and raising of the dam crest. Access roads, construction staging areas, and stockpile areas will also be shown on the drawings. The drawing set will include updates to previous design drawings developed to install cleanouts on the existing retaining wall heel drains. We anticipate that the final drawing set will include approximately 100 drawings, divided into the following sections:

- General
- Erosion Control
- Demolition
- Civil
- Structural
- Electrical
- MSE Wall
- Wall Heel Drain Cleanouts

Reference drawings will also be included in the plan set. The drawings will be prepared in a current version of AutoCAD Civil 3D as standard 22x34-inch full size drawings, which are conveniently reducible to 11x17-inch half size drawings for reference. Plans will be delivered in AutoCAD and PDF formats.

Task 1.4 – 90% Specifications

GEI will prepare technical specifications for construction to a 90% design level of completion. Each technical specification will be a separate Microsoft Word file.

Pertinent sections of UWCD's General Conditions and Standard Specifications will be used as needed. It is anticipated that specifications and contracting requirements will include:

- UWCD Notice to Contractors and Instruction to Bidders

- UWCD General Provisions
- UWCD Special Provisions
- UWCD Standard Contract, Forms, and Instructions
- Bid Schedule
- Information for Bidders package

Technical specifications will be submitted as individual Microsoft Word files. A compiled set of specifications will be submitted in searchable PDF format.

Task 1.5 – 90% Basis of Design Report and Design Report

The 60% Basis of Design Report (BDR) will be updated to a 90% level of completion. The BDR contains design criteria used for final design of the spillway improvement project.

The 60% Design Report will be updated to a 90% level of completion. The Design Report documents the design of facilities for the spillway improvement project and summarizes the analyses that have been performed for the project to date.

The Design Report will reference other documents pertinent to the design effort, such as plan drawings, specifications, and topic-specific technical memoranda and reports. TMs developed during 90% design will be included as appendices to the 90% Design Report, as appropriate. As the project advances through various stages of design, the Design Report will be updated to reflect an increasing level of detail, ultimately resulting in a Final Design Report at the end of the project. A draft 90% Design Report will be submitted to UWCD for review, and a final 90% Design Report prepared to address UWCD comments.

Task 1.6 – 90% Constructability Evaluation Report and Cost Estimate

GEI will update the 60% Constructability Evaluation Report based on the 90% design information. The report will include an anticipated construction schedule (Microsoft Project format) based on an anticipated sequence of construction. The report will include general discussions of reservoir level control, dewatering issues, anticipated excavation methods, construction staging areas, as well as construction risks and potential mitigation measures. The Constructability Report will inform development of the construction plans and specifications. A draft 90% Constructability Evaluation Report will be submitted to UWCD for review and a final 90% Constructability Evaluation Report prepared to address UWCD comments.

Opinions of probable construction cost (OPCC) for the spillway improvement project will be updated based on the 90% design information. The OPCC represents a likely contractor bid to construct the project, including contractor overhead and profit, plus a contingency to account for potential unforeseen or changed conditions. The cost estimates will be generated in accordance with guidelines established by ACE as a Class 1 equivalent (-10% to +15%) estimate level. The OPCC will be based on our evaluation of the major construction items appropriate to complete the work, and quantity estimates developed from the 90% design drawings. The cost estimate will be submitted as a separate TM.

Task 1.7 – Integration with New Release Channel Design and Other Project Design Documents

GEI will coordinate with UWCD consultants with regard to relevant designs performed by others. GEI will incorporate applicable new release channel design drawings and specifications provided by others into the 90% design documents for the spillway improvement project. GEI will incorporate the findings of a separate site development evaluation into the 90% design documents. GEI will participate in coordination meetings (virtual) with other UWCD consultants to integrate the applicable design documents.

Task 1.8 – 90% Three-Dimensional Visualizations

GEI will develop three-dimensional (3D) visualization models to depict the spillway improvements using current design drawings. The models will include the dam site as a whole (overview of spillway and outlet works improvements), spillway modifications, dam crest raise, access roads, outlet works abandonment, above-ground facilities, and downstream release channel. The model will include the topography based on the final grading with the facilities shown in-place. A model will also be developed to show the spillway chute winterization design and temporary construction measures. The deliverable will include a file in 3D PDF format that a user can use to rotate views and pan around to visualize the design layout. Up to 10 figures will be created showing various views and sectional cuts through the model. The model will be dimensionally accurate based on the current design drawings with select dimensioning and annotative text added to the figures, but at a lesser detail than those on the design drawings.

Task 1.9 – 90% Reservoir Operations Plan During Construction

GEI will develop a reservoir operations plan for the construction period of the spillway improvement project. The plan will summarize desired reservoir elevations to allow for efficient construction of facilities, required reservoir levels to allow for testing of new outlet works facilities (if needed), capability of the outlet works system to lower the reservoir, constraints on lowering the reservoir, proposed means to maintain habitat releases during construction, potential water quality issues with respect to habitat releases, and assessment of potential storm water inflows to the reservoir during construction. The plan will identify issues that need to be resolved to effectively manage the reservoir during the construction period. The plan will be developed in coordination with UWCD, and consider operational and environmental issues raised by UWCD.

A draft 90% Reservoir Operations Plan During Construction will be submitted to UWCD for review. The plan will be updated to incorporate UWCD comments on the draft.

Task 1.10 – Draft Operations and Maintenance Manual

GEI will develop a project-level operations and maintenance (O&M) manual that provides general descriptive information on the configuration of the spillway improvement project. The O&M manual will serve as an overarching guide to the spillway describing the functions of each component. The O&M manual will serve as a guide pointing to detailed information on each component-specific O&M manuals to be provided by the construction contractor and suppliers. The guide will provide necessary design-related information to assist personnel in decision-making, provide overall capabilities and limitations of the spillway improvement project, provide

information on inspection and maintenance requirements including the spillway drains and cleanouts and the MSE wall, and point to reference data for components, and instrumentation.

A draft O&M manual will be submitted to UWCD for review. UWCD comments will be incorporated into the O&M manual in the next phase of design.

Task 1.11 – Board of Consultants Meeting

As required by FERC, UWCD convened a BOC to oversee and assess the adequacy of the investigations, designs, and construction activities for the spillway improvement project. FERC has specific requirements in terms of operation of the BOC, as indicated in a September 16, 2016 letter from FERC to UWCD. GEI will work closely with UWCD to help assure that all BOC requirements established by FERC are followed and to support UWCD in communications with the BOC.

There will be one meeting of the BOC near the completion of the 90% design phase (BOC Meeting No. 10), to be attended by UWCD, GEI, FERC, and DSOD. The 90% design documents to be submitted to the BOC, FERC, and DSOD for formal review are the following:

- 90% Basis of Design Report
- 90% Design Report and Appended TMs
- 90% Plan Drawings
- 90% Specifications
- 90% Constructability Evaluation Report
- 90% Reservoir Operations Plan for Construction
- Updated BOC Comment Tracking Form
- Potential Failure Mode Analysis (PFMA) Comment Tracking Form

GEI will perform the following in support of the 90% design BOC meeting: assist UWCD with development of a meeting agenda, prepare a list of questions for the BOC to respond to, compile and print a packet of information for review by meeting attendees, develop a PowerPoint presentation to summarize key elements of the 90% design work, and attend the BOC meeting to make presentations and answer questions. We have assumed that this meeting will be held at UWCD's office in Ventura County over a two-day period, and be attended in-person by two GEI staff with other GEI staff participating virtually.

UWCD will handle scheduling of the meeting with the BOC and communications with the BOC, FERC, and DSOD relative to the meeting time and location.

Task 1.12 – Comment Response Memorandum

FERC, DSOD, and the BOC will submit comments on the 90% design documents submitted to them for review. GEI will develop tracking forms to document FERC, DSOD, and BOC comments and provide responses to comments. A comment response memorandum (CRM) will be prepared by GEI to compile the tracking forms. A Draft CRM will be submitted to UWCD for review, and finalized to address UWCD comments on GEI's responses. UWCD comments on the 90% design documents will be tracked and addressed separately.

Comments on the 90% design received from UWCD, FERC, DSOD, and BOC will be incorporated into the next phases of design, as appropriate.

Task 1.13 – Presentation to UWCD Board (Optional)

As an optional task, GEI will prepare for and participate in a workshop to present key elements of the 90% design to UWCD management/Board. For budgeting purposes, we have assumed a labor effort of 52 hours for this task.

Task 1.14 – Alternate Release Channel Design (Optional)

As an optional task, GEI will develop an alternate new release channel design to convey flows in an engineered earth channel from a new concrete-lined outlet channel (part of outlet works improvement project) to lower Piru Creek. The design flow capacity of the alternate release channel will be the same as the flow capacity of the existing lower Piru Creek. GEI will develop a computation fluid dynamics (CFD) model of the outlet channel, the alternate release channel and lower Piru Creek and perform hydraulic analyses to evaluate flow velocities, flow depths and channel shear stresses under various flow rates. The hydraulic analyses will be used to evaluate erosion and scour potential and determine erosion protection measures for the alternate release channel. We have assumed that the alternate channel design will not require special features for protection or passage of fish, nor require habitat restoration measures. A TM will be developed to document the 90% design of the alternate release channel. A Draft TM will be submitted to UWCD for review and finalized to address UWCD comments. The TM will be included as an appendix to the 90% Design Report.

Task 2 – 100% Design Phase

Task 2.1 – Project Management and Coordination

GEI will provide project management and coordination during the 100% design phase, including management of the GEI team, contract administration, project controls, progress reporting, and coordination with UWCD, regulatory agencies, and other UWCD consultants. The project management and coordination activities are described in Task 1.1.

Task 2.2 – 100% Analyses and Design

GEI will update the geotechnical, structural, hydraulic, site civil, and applicable analyses and evaluations to advance the design, plans, and specifications to a 100% level of completion. The updated engineering design studies will be documented in the Design Report or separate TMs, as appropriate.

Task 2.3 – 100% Plan Drawings

GEI will update the plan drawings to bring them to a 100% level of completion. Updates will be based on the results of additional design studies and consider comments on the 90% design documents received from UWCD, FERC, DSOD, and BOC.

The plan drawings will be finalized in Task 3 to incorporate comments received from UWCD, FERC, DSOD, and BOC on the 100% submittal.

Task 2.4 – 100% Specifications

GEI will update the specifications to bring them to a 100% level of completion. Updates will be based on the results of additional design studies and consider comments on the 90% design documents received from UWCD, FERC, DSOD, and BOC.

The specifications will be finalized in Task 3 to incorporate comments received from UWCD, FERC, DSOD, and BOC on the 100% submittal.

Task 2.5 – 100% Basis of Design and Design Report

GEI will update the Basis of Design Report to bring it to a 100% level of completion. GEI will update the Design Report to bring it to a 100% level of completion. TMs developed during 100% design will be included as appendices to the 100% Design Report, as appropriate. A draft 100% Design Report will be submitted to UWCD for review, and a final 100% Design Report prepared to address UWCD comments.

This task includes finalization of the Design Report to incorporate comments received from UWCD, FERC, DSOD, and BOC on the 100% submittal.

Task 2.6 – 100% Cost Estimate, Schedule, Constructability Report

GEI will update the OPCC based on the 100% design information. The construction cost estimate will be updates of the AACE Class 1 estimate developed during 90% design. The OPCC will be based on our evaluation of the major construction items appropriate to complete the work, and quantity estimates developed from the 100% design drawings. The cost estimate will be submitted as a separate TM.

GEI will update the Constructability Report based on the 100% design information. A draft 100% Constructability Report will be submitted to UWCD for review and a final 100% Constructability Report prepared to address UWCD comments.

This task includes finalization of the Constructability Report to incorporate comments received from UWCD, FERC, DSOD, and BOC on the 100% submittal.

Task 2.7 – Integration with New Release Channel Design and Other Project Design Documents

GEI will coordinate with UWCD consultants with regard to relevant designs performed by others. GEI will incorporate applicable design drawings and specifications of the new release channel provided by others into the 100% design documents for the spillway improvement project. GEI will incorporate the findings of a separate site development evaluation into the 100% design documents. GEI will participate in coordination meetings (virtual) with other UWCD consultants to integrate the applicable design documents.

Task 2.8 – Three-Dimensional Visualizations

GEI will update 3D visualizations prepared previously in Task 1.8 based on the updates to the drawings from 90% to 100% design.

Task 2.9 – 100% Reservoir Operations Plan During Construction

GEI will update the reservoir operations plan for the construction period of the spillway improvement project. The plan will be developed in coordination with UWCD, and consider operational and environmental issues raised by UWCD. A draft 100% Reservoir Operations Plan During Construction will be submitted to UWCD for review. The plan will be updated to incorporate UWCD comments on the draft.

Task 2.10 – 100% Operations and Maintenance Manual

GEI will update the O&M manual based on comments received from UWCD under Task 1.10.

Task 2.11 – Support for Contractor Pre-Qualification and Industry Day

GEI will provide support for the pre-qualification of prospective contractors and support for the industry day. Support will include responding to contractor questions and providing additional information on the design of the spillway improvement project.

Task 2.12 – Board of Consultants Meeting

There will be one meeting of the BOC near the completion of the 100% design phase, to be attended by UWCD, GEI, FERC, and DSOD. The 100% design documents to be submitted to the BOC, FERC, and DSOD for formal review are the following:

- 100% Basis of Design Report
- 100% Design Report and Appended TMs
- 100% Plan Drawings
- 100% Specifications
- 100% Constructability Report
- Reservoir Operations Plan for Construction
- Updated BOC Comment Tracking Form
- PFMA Comment Tracking Form

GEI will perform the following in support of the 100% design BOC meeting: assist UWCD with development of a meeting agenda, prepare a list of questions for the BOC to respond to, compile and print a packet of information for review by meeting attendees, develop a PowerPoint presentation to summarize key elements of the 100% design work, and attend the BOC meeting to make presentations and answer questions. We have assumed that this meeting will be held at UWCD's office in Ventura County over a two-day period, and be attended in-person by two GEI staff with other GEI staff participating virtually.

UWCD will handle scheduling of the meeting with the BOC and communications with the BOC, FERC, and DSOD relative to the meeting time and location.

Task 2.13 – Comment Response Memorandum

FERC, DSOD, and the BOC will submit comments on the 100% design documents submitted to them for review. GEI will update the comment tracking forms to document FERC, DSOD, and BOC comments, and provide responses to comments. GEI will update the CRM. A Draft CRM will be submitted to UWCD for review, and finalized to address UWCD comments on GEI's responses. UWCD comments on the 100% design documents will be tracked and addressed separately.

Comments on the 100% design received from UWCD, FERC, DSOD, and BOC will be used to finalize reports and TMs as part of separate tasks, and to prepare final plan drawings and specifications for bidding as part of Task 3.

Task 2.14 – Presentation to UWCD Board (Optional)

As an optional task, GEI will prepare for and participate in a workshop to present key elements of the 100% design to UWCD management/Board. For budgeting purposes, we have assumed a labor effort of 52 hours for this task.

Task 2.15 – Alternate Release Channel Design (Optional)

As an optional task, GEI will update the alternate release channel design to bring it to a 100% level of completion. Updates will be based on the results of additional design studies and consider comments on the 90% design documents received from UWCD, FERC, DSOD, and BOC. The TM will be updated during 100% design and will be included as an appendix to the 100% Design Report.

Task 3 – Final Bid Documents

Task 3.1 – General Bid Documents

GEI will finalize bid documents, including bidding forms, bid schedule, UWCD general provisions, applicable special provisions, and measurement and payment sections.

Task 3.2 – Plan Drawings

GEI will finalize all plan drawings for inclusion in the final bid documents. The drawings will be finalized based on comments received from UWCD, FERC, DSOD, and BOC on the 100% design drawings. Plans will be delivered in AutoCAD and PDF formats.

Task 3.3 – Specifications

GEI will finalize all technical specifications for inclusion in the construction contract documents. The specifications will be finalized based on comments received from UWCD, FERC, DSOD, and BOC on the 100% specifications.

Task 4 – Bid Phase Support

Task 4.1 – Pre-Bid Meeting

GEI will prepare for and attend a pre-bid meeting to provide an overview of the project and answer potential bidder's questions. We assume the pre-bid meeting will take place at the dam site and include a site tour for potential bidders.

Task 4.2 – Respond to RFIs and Questions

GEI will provide responses to contractor questions and "Requests For Information" (RFIs) related to the project design.

Task 4.3 – Prepare Addenda

If requested by the UWCD, GEI will prepare addenda items as needed to clarify technical questions on the project design.

Task 4.4 – Develop Conformed Plans & Specifications

GEI will prepare a "conformed" set of plans and specifications that incorporates all addenda to the bid documents. Conformed plans and specifications are for reference only, and will include the following statement on each cover:

"The Conformed Plans and Specifications are intended to include revisions made to the Contract Documents by addenda. Conformed Plans and Specifications are for reference only and are not to be used as the Contract Documents. The United Water Conservation District does not guarantee the accuracy or completeness of the Conformed Plans and Specifications."

CONTINGENCY SERVICES

There is a potential that comments made by regulators on the 90% or 100% designs will result in the need to modify the design of the spillway improvement project. It is possible that no design modifications will be required. However, an allowance budget of \$200,000 is provided to make design modifications, if needed and approved by UWCD.

ADDITIONAL ASSUMPTIONS

The following additional assumptions were made in developing the scope of work and fee estimate for final design of the spillway improvement project:

1. The configuration of spillway improvements will be as generally shown on the 60% design documents. Changes to this general configuration required by UWCD, BOC, or regulatory agencies may require modifications to the scope of work and design fee.
2. The existing walls of the spillway can be used to safely pass the IDF.
3. The BOC and regulatory agencies will not request extraordinary engineering analyses beyond typical geotechnical, structural, and hydraulic evaluations for a spillway slab replacement project.
4. A physical hydraulic model of the spillway will not be required.

5. Additional three-dimensional Finite Element Model (FEM) analyses of the existing walls will not be required.
6. All site survey information and site topography for design of facilities will be provided by others.
7. No additional field subsurface explorations will be required for design of facilities.
8. All deliverables will be submitted in electronic format. Two hard copies of final documents will be submitted to UWCD.
9. All bid documents will be printed by UWCD.
10. The bid phase support budget is an allowance amount based on an anticipated level of effort. GEI will request an increase in the budget amount if additional effort is required to respond to Requests for Information, prepare addenda, or develop conformed plans and specifications.

SCHEDULE

CONSULTANT shall provide professional consultation services for the **Santa Felicia Dam Spillway Improvement Project – Final Design and Bid Phase Support Services** in accordance with the schedule below.

Item	Approximate Date
UWCD Decision on Optional Task for Alternate Release Channel Design	10/25/2024
Alternate Release Channel Alignment Defined (Optional Task)	1/13/2025
Submit 90 Percent Design Packet for UWCD, FERC, DSOD, and BOC Review	4/21/2025
Participate in BOC Meeting No. 10	5/7-8/2025
Receive Comments on 90 Percent Design from All Entities	8/12/2025
Submit 100 Percent Design Packet for UWCD, FERC, DSOD, and BOC Review	4/20/2026
Participate in BOC Meeting on 100% Design	5/5-6/2026
Receive Comments on 100 Percent Design from All Entities	10/2026
Complete Final Bid Documents for Advertisement for Bids	6/2027
Complete Bid Phase Support	12/2027

UWCD = United Water Conservation District
 FERC = Federal Energy Regulatory Commission
 DSOD = California Division of Safety of Dams
 BOC = Board of Consultants

United Water Conservation District
Spillway Improvement Project – Final Design and Bid Phase Support Services
Fee Estimate
GEI Consultants, Inc.
 6/21/2024

Task	Base Services	Optional Services	Total Fee
Task 1 - 90% Design Phase (7/2024 - 7/2025)	\$1,020,484	\$59,272	\$1,079,756
Task 2 - 100% Design Phase (7/2025 - 6/2026)	\$639,653	\$41,488	\$681,141
Task 3 - Final Bid Documents (6/2026 - 6/2027)	\$107,397	\$0	\$107,397
Task 4 - Bid Phase Support (6/2027 - 12/2027)	\$86,282	\$0	\$86,282
Contingency	\$0	\$200,000	\$200,000
TOTAL	\$1,853,816	\$300,760	\$2,154,576

FEE SCHEDULE

<u>Personnel Category</u>	<i>Hourly Billing Rate</i> <u>\$ per hour</u>
Staff Professional – Grade 1	\$ 143
Staff Professional – Grade 2	\$ 157
Project Professional – Grade 3	\$ 172
Project Professional – Grade 4	\$ 193
Senior Professional – Grade 5	\$ 228
Senior Professional – Grade 6	\$ 259
Senior Professional – Grade 7	\$ 307
Senior Consultant – Grade 8	\$ 344

Senior Drafter and Designer	\$ 172
Drafter / Designer and Senior Technician	\$ 157
Field Professional	\$ 127
Technician, Word Processor, Administrative Staff	\$ 128
Office Aide	\$ 100

These rates are billed for both regular and overtime hours in all categories.
 Rates will increase 3% annually at the start of the July billing period.
 Rates for Deposition and Testimony are increased 1.5 times.

OTHER PROJECT COSTS

Subconsultants, Subcontractors and Other Project Expenses - All costs for subconsultants, subcontractors and other project expenses will be billed at cost plus a 15% service charge. Examples of such expenses ordinarily charged to projects are subcontractors; subconsultants; chemical laboratory charges; rented or leased field and laboratory equipment; outside printing and reproduction; communications and mailing charges; reproduction expenses; shipping costs for samples and equipment; disposal of samples; rental vehicles; fares for travel on public carriers; special fees for insurance certificates, permits, licenses, etc.; fees for restoration of paving or land due to field exploration, etc.; state and local sales and use taxes and state taxes on GEI fees. The 15% service charge will not apply to GEI-owned equipment and vehicles or in-house reproduction expenses.

Field and Laboratory Equipment Billing Rates – GEI-owned field and laboratory equipment such as pumps, sampling equipment, monitoring instrumentation, field density equipment, portable gas chromatographs, etc. will be billed at a daily, weekly, or monthly rate, as needed for the project. Expendable supplies are billed at a unit rate.

Transportation and Subsistence - Automobile expenses for GEI or employee owned cars will be reimbursed per the Travel Expenses provisions included in Exhibit B.
 Tolls and parking charges will be billed directly. When required for a project, four-wheel drive vehicles owned by GEI or the employees will be billed at a daily rate appropriate for those vehicles. Per diem living costs for personnel on assignment away from their home office will be negotiated per Exhibit B.

**EXHIBIT "A" TO AGREEMENT FOR
PROFESSIONAL CONSULTING SERVICES**

Feed Estimate and Schedule of Charges

Fee Estimate Detail

United Water Conservation District
 Spillway Improvement Project
 Design Fee Estimate - Final Design
 GEI Consultants, Inc.
 6/19/2024

Task ¹	GEI Labor Hours ²										GEI Total Labor Hours	GEI Costs				Total Fee (2024 GEI Labor Rates) ³	Budget to Account for GEI Labor Rate Escalation ⁴
	Engineer/Geologist/Scientist Professional Grade								CADD Drafter/ Designer	Techn./ Admin.		Labor	Direct Expenses	Subconsultant	GEI subtotal		
	8	7	6	5	4	3	2	1									
2024 Rate \$/Hr	\$344	\$307	\$259	\$228	\$193	\$172	\$157	\$143	\$172	\$128							
Task 1 - 90% Design Phase (7/2024 - 7/2025)	808	898	40	880	480	388	240	0	662	172	4,344	\$1,038,768	\$5,000	\$38,000	\$1,079,768	\$1,079,768	\$1,079,768
1.1 Project Management, Coordination, Workshop	140	140		80						16	375	\$111,428			\$111,428	\$111,428	
1.2 90% Analyses and Design	108	140	40	200	240	300	80		32	32	1,172	\$256,172	\$1,500		\$257,672	\$257,672	
1.3 90% Plan Drawings	40	80		140			160				340	\$153,840		\$10,000	\$163,840	\$163,840	
1.4 90% Specifications	24	40		100	80					40	284	\$63,896		\$10,000	\$73,896	\$73,896	
1.5 90% Basis of Design and Design Report	40	80		120		80				24	344	\$82,512			\$82,512	\$82,512	
1.6 90% Constructability Evaluation Report and Cost Estimate	40	120		80	40				40	8	328	\$84,464		\$18,000	\$102,464	\$102,464	
1.7 Integration with Release Channel Design Documents	16	40		40					16		112	\$29,656			\$29,656	\$29,656	
1.8 Three-Dimensional Visualizations	4	40				16			80		140	\$30,168			\$30,168	\$30,168	
1.9 90% Reservoir Operations Plan During Construction	40	40		40	20				8	8	156	\$41,420			\$41,420	\$41,420	
1.10 90% Maintenance Manual	20	40		40	20					8	128	\$33,164			\$33,164	\$33,164	
1.11 Board of Consultants Meeting	48	60		40						16	164	\$44,700	\$2,500		\$47,200	\$47,200	
1.12 Responses to Reviewer Comments on Design	40	80		40						8	168	\$47,064			\$47,064	\$47,064	
1.13 Presentation to UWCD Board (Optional)	24	16							4	8	52	\$14,880	\$1,000		\$15,880	\$15,880	
1.14 Alternate Release Channel Design (Optional)	24	80		20					32	4	160	\$43,392			\$43,392	\$43,392	
Task 2 - 100% Design Phase (7/2025 - 6/2026)	468	882	0	440	288	184	280	0	198	124	2,682	\$688,802	\$4,600	\$17,000	\$681,302	\$681,302	\$681,141
2.1 Project Management, Coordination, Workshop	120	120		60						8	308	\$92,824			\$92,824	\$92,824	
2.2 100% Analyses and Design	40	40		80	80	140	150		8	8	546	\$109,750			\$109,750	\$109,750	
2.3 100% Plan Drawings	16	40		84	80		80			128	428	\$86,952		\$5,000	\$91,952	\$91,952	
2.4 100% Specifications	16	24		44	24					24	132	\$30,608		\$5,000	\$35,608	\$35,608	
2.5 100% Basis of Design and Design Report	32	60		60		20				24	196	\$49,620			\$49,620	\$49,620	
2.6 100% Constructability Evaluation Report and Cost Estimate	32	60		20	16					8	136	\$38,100		\$7,000	\$45,100	\$45,100	
2.7 Integration with Release Channel Design Documents	8	24		24					8		64	\$16,968			\$16,968	\$16,968	
2.8 Three-Dimensional Visualizations	2	16				4			32		54	\$11,792			\$11,792	\$11,792	
2.9 100% Reservoir Operations Plan During Construction	16	32		16	8					4	76	\$21,032			\$21,032	\$21,032	
2.10 100% Maintenance Manual	16	32		16						4	68	\$19,488			\$19,488	\$19,488	
2.11 Support for Contractor Pre-Qualification and Industry Day	40	40		20						8	108	\$31,624	\$1,000		\$32,624	\$32,624	
2.12 Board of Consultants Meeting	48	60		40						16	164	\$44,700	\$2,500		\$47,200	\$47,200	
2.13 Responses to Reviewer Comments on Design	40	80		40						8	168	\$47,064			\$47,064	\$47,064	
2.14 Presentation to UWCD Board (Optional)	24	16							4	8	52	\$14,880	\$1,000		\$15,880	\$15,880	
2.15 Alternate Release Channel Design (Optional)	8	48		16					16	4	52	\$24,400			\$24,400	\$24,400	
Task 3 - Final Bid Documents (6/2026 - 6/2027)	40	120	0	120	0	0	0	0	100	24	404	\$88,282	\$0	\$0,000	\$101,282	\$101,282	\$107,397
3.1 General Bid Documents	8	40								8	56	\$16,056			\$16,056	\$16,056	
3.2 Plan Drawings	16	40		40						100	196	\$44,104		\$1,500	\$45,604	\$45,604	
3.3 Specifications	16	40		80						16	152	\$38,072		\$1,500	\$39,572	\$39,572	
Task 4 - Bid Phase Support (6/2027 - 12/2027)	48	118	0	40	0	0	0	0	68	28	288	\$74,488	\$2,600	\$2,000	\$78,888	\$78,888	\$88,282
4.1 Prebid Meeting	16	16								4	36	\$10,928	\$2,500		\$13,428	\$13,428	
4.2 Respond to RFIs and Questions	16	40								8	64	\$18,808		\$2,000	\$20,808	\$20,808	
4.3 Prepare Addenda	8	40		40					16	8	112	\$27,928			\$27,928	\$27,928	
4.4 Develop Conformed Plans & Specifications	8	20							40	8	76	\$16,796			\$16,796	\$16,796	
TOTAL	1,164	1,824	40	1,480	788	680	470	0	804	348	7,828	\$1,848,260	\$12,000	\$80,000	\$1,921,260	\$1,921,250	\$1,954,576
CONTINGENCY																	
Contingency	120	240	0	240	40	0	0	0	100	32	772	\$188,888	\$1,304	\$0	\$200,000	\$200,000	\$200,000
C.1 Design Changes Based on UWCD, BOC, Regulatory Reviews (if Needed)	120	240		240	40				100	32	772	\$188,888	\$1,304	\$0	\$200,000	\$200,000	\$200,000
TOTAL	120	240	-	240	40	-	-	-	100	32	772	\$188,888	1,304	-	\$200,000	\$200,000	\$200,000
Total																\$2,154,576	

Notes

- Refer to scope of work for detailed description of tasks.
- Labor hour distribution by Grade Level is for budgeting purposes only. The actual Grade Level distribution will be based on efficiently performing the work task.
- The distribution of the design fee estimate for the tasks are approximate, and may vary from that shown. GEI assumes that the fee can be moved between tasks with UWCD approval.
- Includes an escalation of 3% per year beyond 2024 to account for labor rate increases and expense inflation over the duration of the project.

EXHIBIT “B” TO AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES

CONSULTANT shall adhere to the following **Guidelines for Expense Reimbursement**:

Incidental expenditures incurred by CONSULTANT in the course of performing work under this Agreement and submitted for reimbursement by UNITED shall comply with the following guidelines.

Receipts are required for all reimbursable expenses (with an exception for meals and lodging) and shall be furnished with the invoice. Reimbursable expenditures shall not be subject to mark-up. Only actual costs of expenditures within the limits presented below are eligible for reimbursement.

1. Reimbursable Expenditures

A. Travel Expenses

Expenses for airfare or other travel accommodations shall not exceed costs that would reasonably be expected for comparable economy or coach class accommodations.

Personal vehicles may be used when appropriate and mileage will be reimbursed at the standard Internal Revenue Service (IRS) business mileage rate (e.g., 65.5 cents per mile for calendar year 2023, but for a total cost no greater than the cost that would reasonably be expected for round trip economy or coach class airfare. With the exception of extenuating circumstances (e.g. transport of specialized equipment), mileage for any trip over 500 miles shall be reimbursed at a total cost no greater than would reasonably be expected for round trip economy or coach class airfare. Extenuating circumstances shall be pre-approved by UNITED.

Rental vehicle costs are reimbursable when justified by the nature of the trip. With the exception of extenuating circumstances (e.g. transport of more than 4 people or excessive cargo) the total expense for the rental vehicle shall not exceed a cost that would reasonably be expected for a standard class vehicle. Insurance for rental vehicles is not reimbursable and must be in accordance with all insurance requirements set forth in this Agreement.

B. Lodging

The cost of lodging incurred on approved CONSULTANT business trips is reimbursable. UNITED will reimburse lodging at the standard U.S. General Services Administration (GSA) rate for Ventura County (e.g., \$182.00 per night [excluding

taxes] for the months of October 2022 and January – September 2023). GSA rates are annually updated in October.

C. Meals

The cost of meals incurred on approved CONSULTANT Projects is reimbursable.

If UNITED is reimbursing the CONSULTANT for lodging, UNITED will reimburse for meals at the appropriate standard GSA rate for Ventura County (i.e., \$55.50 (or 75% of a daily rate) per day for first and last calendar day of PROJECT work, and \$74.00 per day for additional PROJECT work days for calendar year 2023.

If UNITED is not reimbursing the CONSULTANT for lodging, UNITED will not reimburse the CONSULTANT for meals.

D. Equipment

All reimbursable equipment must be purchased or rented at a reasonable cost, in accordance with industry standards.

E. Expendable Items

Items that are expendable (depleted) will not be returned to UNITED, as the items will be “used up” in the course of CONSULTANT’s work.

F. Non-Expendable Items

Items that are non-expendable (not depleted) will be returned to UNITED upon completion of CONSULTANT’s work.

**EXHIBIT “C” TO AGREEMENT FOR
PROFESSIONAL CONSULTING SERVICES**

CONSULTANT shall procure and maintain for the duration of the Agreement, and for injuries that occur and claims which are made after the services herein are performed, insurance against claims or injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by CONSULTANT, its agents, representatives, or employees.

Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence Form CG 00 01 or its equivalent).
2. Insurance Services Office Form Number CA 00 01 covering Automobile Liability, Code 1 or its equivalent (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.
4. Errors & Omissions Liability insurance appropriate to the CONSULTANT's profession. Architects' and engineers' coverage is to be endorsed to include contractual liability.
5. Valuable Document Insurance on all plans, specifications and other documents as may be required to protect UNITED in the amount of its full equity in such plans, specifications and other documents.

Minimum Limits of Insurance

CONSULTANT shall maintain limits no less than:

1. General Liability: **\$1,000,000** per occurrence for bodily injury, personal injury and property damage. Including operations, products and completed operations, as applicable. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: **\$1,000,000** per accident for bodily injury and property damage.

3. Employer's Liability: **\$1,000,000** per accident for bodily injury or disease.
4. Errors & Omissions Liability: **\$1,000,000** per claim.
5. Valuable Document Insurance **Full Equity of all Documents**

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by UNITED. At the option of UNITED, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects UNITED, its directors, officers, officials, employees and agents; or CONSULTANT shall provide a financial guarantee satisfactory to UNITED guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions

The commercial general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

6. For all policies required by this Agreement, UNITED and its directors, officers, officials, employees and volunteers are to be covered as additional named insureds as respects: liability arising out of work or operations performed by or on behalf of the CONSULTANT; or automobiles owned, leased, hired or borrowed by the CONSULTANT.
7. For any claims related to this Project, the CONSULTANT's insurance coverage shall be primary insurance as respects UNITED and its directors, officers, officials, employees and agents. Any insurance or self-insurance maintained by UNITED, its directors, officers, officials, employees or agents shall be excess of the CONSULTANT's insurance and shall not contribute with it.
8. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days prior written notice has been provided to UNITED (with the exception of ten (10) days for nonpayment of premium).

If General Liability, Contractors Pollution Liability and/or Asbestos Pollution Liability and/or Errors & Omissions coverages are written on a claims-made form:

9. The retroactive date must be shown, and must be before the date of the contract or the beginning of contract work.
10. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.

11. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the CONSULTANT must purchase an extended period coverage for a minimum of five (5) years after completion of contract work.
12. A copy of the claims reporting requirements must be submitted to UNITED for review.
13. If the services involve lead-based paint or asbestos identification/ remediation, the Contractors Pollution Liability shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/ remediation, the Contractors Pollution Liability shall not contain a mold exclusion and the definition of "Pollution" shall include microbial matter including mold.

Acceptability of Insurers

Insurance is to be placed with insurers qualified to do business in the State of California with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to UNITED. Exception may be made for the State Compensation Insurance Fund when not specifically rated.

Verification of Coverage

CONSULTANT shall furnish UNITED with original certificates and amendatory/ additional insured endorsements effecting coverage required by this clause. The endorsements should be on forms provided by UNITED or on other than UNITED's forms provided those endorsements conform to UNITED requirements. All certificates and endorsements are to be received and approved by UNITED before work commences. However, failure to do so shall not operate as a waiver of these insurance requirements. UNITED reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

Waiver of Subrogation

CONSULTANT hereby agrees to waive subrogation, which any insurer of contractor may acquire from vendor by virtue of the payment of any loss. CONSULTANT agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the entity for all work performed by the CONSULTANT, its employees, agents and subcontractors.



STAFF REPORT

To: Engineering and Operations Committee

Through: Mauricio E. Guardado Jr., General Manager

From: Maryam A. Bral, Chief Engineer
Robert J. Richardson, Engineering Manager
Nathan Summerville, Senior Engineer
Adrian Quiroz, Engineer
Kaili Taniguchi, Engineer
Kimberly Badescu, Associate Engineer
Zachary Hanson, Water Resources Engineer

Date: June 25, 2024 (July 3, 2024, meeting)

Agenda Item: 4.1 Monthly Engineering Department Report
Information item

Staff Recommendation:

The Engineering and Operations Committee members will receive this summary report from the Engineering Department regarding its activities for the months of May and June.

Discussion:

1. Santa Felicia Dam Safety Improvement Project

- Spillway Improvement Project
 - On June 21, Staff received a finalized proposal from GEI Consultants for the 90% Design, 100% Design, and Bid Phase Support Services for the SFD Spillway Improvement Project. The proposed not-to-exceed fee for these services is in the amount of \$2,154,576 and the contract term would span from July 2024 through June 2028.
- Outlet Works Improvement Project
 - On May 23, Engineering Staff, O&M Staff, and Construction Management Services Consultant, Black & Veatch, conducted a constructability review site visit for the Outlet Works Improvement Project. In addition, the group reviewed a three-dimensional model of the proposed outlet works facility to ensure that there is appropriate access, clearance, and egress in the Intake Control Facility and Downstream Control Facility for day-to-day operations and maintenance.
 - On June 19, Staff received a finalized proposal from Black & Veatch Corporation for Amendment No.1 to the Professional Consulting Services

4.1 **Monthly Engineering Department Report Information Item**

- Agreement (PCSA) for Construction Management and Inspection Services for the Outlet Works Improvement Project. The proposed not-to-exceed fee for the services included in this amendment is \$1,809,337 which would bring the total contract amount to \$3,307,960 to date. The contract term would span from July 2024 through June 2025.
- On June 21, Staff submitted a request for authorization to construct the SFD 72" Butterfly Valve Redundancy Plan to FERC. If authorized by FERC, construction of this project would take place in September 2025.
 - Design PFMA – 90% Outlet Works and 60% Spillway
 - Design PFMA Workshop - The design PFMA workshop was conducted at District HQ from January 22-25, and three virtual overflow days were conducted on February 2, February 5, and March 11. The final report was e-filed with FERC on June 7.
 - FERC License Amendment Application, NEPA Documentation, and the Endangered Species Act Section 7 Consultation
 - Please see the monthly Environmental Services Department staff report for additional updates.
 - Loan and Grant Applications
 - On May 30, Staff received a letter from the Department of Energy (DOE) offering the District an opportunity to revise the Community Benefits Plan (CBP) component of the application to the DOE's Section 247 - Maintaining and Enhancing Hydroelectricity Incentive Program. The CBP was enhanced by Staff according to the program guidance and resubmitted to the DOE on June 20. The District's original program application was submitted on March 11, requesting \$5 million for the SFD Outlet Works Improvement Project.
2. Lake Piru Recreation Area Facility Improvement Project (FIP)
- On June 4, Engineering and O&M Staff and Stantec Consulting Services conducted a site reconnaissance visit at the Lake Piru Recreation Area to review the facility's electrical systems. Please see Figure 1 - UWCD and Stantec during LP Site Visit on June 4. The site visit would inform the Electrical Systems Evaluation that Stantec is developing as part of the FIP 30% Design Package.
3. Freeman Diversion Expansion
- Staff continue to meet with the special advisors and consultants to provide data to be used in their sediment model.
 - Please see the Monthly Environmental Services Department Report for updates on the Project's environmental compliance and permitting process.
4. Iron and Manganese Treatment Facility
- GSE's work in this reporting period included addressing punch list items related to start-up and testing.

4.1 Monthly Engineering Department Report Information Item

- The three-month operational period to comply with the Division of Drinking Water (DDW) requirements for demonstrating full treatment efficacy started on April 10. GSE's 30-day O&M support period also started on this date. As of June 24, approximately 402.5 acre-feet of treated water has been delivered to the OH system from the Iron and Manganese Treatment Plant.
- Amendment No. 5 was fully executed with HDR Engineering, Inc. in the amount of \$38,479 for construction management and inspection services for the extended period for start-up and testing activities and for all construction contract close-out activities.
- Change Order No. 44 has been fully executed with GSE Construction Company, Inc. in the amount of \$76,316.75 which includes work that was conducted on a Time and Materials (T&M) basis to remove and relocate combination air valves and to install 3-inch motor-operated valves at the filter vessel vents to substantially improve the operation of the air scour system.
- Amendment No. 2 request was submitted to the Office of Local Defense Community Cooperation (OLDCC) to extend the Defense Community Infrastructure Program (DCIP) grant end date from July 31 to December 31 to complete all grant close-out activities.

5. PTP Metering Improvement Project

- Four owner-signed utility easement deeds have been received and delivered to the Ventura County Clerk-Recorder for recording including Turnout Nos. 120, 142, 145, and 150.
- Hamner, Jewell, and Associates (HJA) have been assisting in the acquisition of four (4) outstanding utility easement deeds including Turnout Nos. 107, 156, 144 and 154. There are pending challenges associated with obtaining owner signatures that include:
 - Turnout No. 107: One of the family members listed on the property title has deceased and is in probate. The property ownership names and ownership distribution are not clear and there would be risk in executing a utility easement deed with only partial ownership approval.
 - Turnout No. 156: There are multiple property owners listed in the title and a majority owner who is actively farming on the property has made several special requests to the District in exchange for a signed easement. These requests have significant implications and additional costs that would not be advantageous to the District.
 - Turnout No. 144: The property owner has repeatedly indicated to HJA and District staff that they will sign the easement deed but has not followed through.
 - Turnout No. 154: The property owner submitted a letter to the District on January 28, 2022, stating they will not offer an easement deed to the District.
- An additional eight (8) battery-operated meters (3x6", 3x8", 2x10") were procured to close out the project, including a ready-service spare in each size.

4.1 Monthly Engineering Department Report Information Item

- Total number of meters installed: 53 of 60 or 88.3% complete.
 - Easement acquisition completion: 36 of 40 obtained or 90% complete.
 - Approximately 85% of the installed meters have been integrated into the District's Supervisory Control and Data Acquisition System (SCADA).
6. PTP Recycled Water Connection – Laguna Road Pipeline Project
- May 17- Technical Workshop meeting with MKN Associates (MKN) and Mott MacDonald (MottMac) with initial constructability review comments from MottMac to MKN, primarily regarding the Horizontal Direction Drilling (HDD) of the pipeline under the Revolon Slough.
 - June 12 - The Board of Directors adopted the Initial Study, Mitigated Negative (CEQA document) Declaration (IS-MND).
 - June 13 - MKN submitted the draft 100% design plans and specifications related to the pipeline. Staff worked with MottMac to review and provide comments back to MKN by June 28.
7. Rice Avenue Grade Separation Project and Impact on PTP
- On June 11, the District was informed that the City of Oxnard has included a “Coordination Clause” in the project bid documents. The “Coordination Clause” will provide access to Well Site No. 4 and a segment of the 30-inch PTP main line northwest of the Union Pacific Railroad right of way during the construction phase.
8. State Water Project (SWP) Interconnection Pipeline Project
- The 100% design documents for the project are nearly complete. The City of Ventura will tentatively advertise the project for bids in August 2024. Staff will continue to coordinate the project activities, including the construction schedule with the City.
9. Freeman Conveyance System Upgrade - Freeman to Ferro
- Three Barrel Culvert Replacement: On June 18, staff submitted a permit package to the Army Corp of Engineers for a 408 permit.
 - Inverted Siphon Replacement: Staff continued preconstruction activities and coordination for the upcoming construction planned to start on July 15. Staff executed a rental agreement with Herc Rentals for \$88,334 to provide bypass pumping for canal operations during construction. Staff also executed an agreement with the Department of Water Resources under their Flood Diversion and Recharge Enhancement Initiative to support up to \$480,000 of recharge enhancement activities.
 - Vineyard Avenue Crossing: Staff received the 100% design plans for the Noble-Ferro connection across Vineyard Avenue. The encroachment permit package remains under review by Caltrans. Staff continued with environmental permitting efforts.

4.1 **Monthly Engineering Department Report** **Information Item**

10. Extraction Barrier and Brackish Water Treatment Project

- Grants:
 - June 17 - The District submitted a grant application in response to the Office of Local Defense Community Cooperation (OLDCC) FY24 Defense Community Infrastructure Program (DCIP) grant opportunity requesting \$20 million in Federal funds for the Phase 1 project. Several letters of support were received including Naval Base Ventura County's new Commanding Officer, Capt. Brown, and from Congresswoman Julia Brownley.
 - June 17 – The grant agreement with the State Water Resources Control Board (SWRCB) Division of Financial Assistance (DFA) for the \$8,449,062 Groundwater Grant Program (GWGP) grant for the Phase 1 project was fully executed. The anticipated work completion date per the agreement is currently February 1, 2026.
- Agreements:
 - The District received a letter requesting funding in the amount of \$110,000 as the Real Estate Administrative Fee to Naval Facilities Engineering Systems Command Southwest Real Estate Department to support the Navy's efforts in executing a 50-year easement in support of the Phase 1 project.
- Design:
 - Kennedy/Jenks Consultants (K/J) is preparing 30% design documents relating to the conveyance pipelines.
 - K/J is preparing an Outfall Technical Memorandum (TM) providing a technical evaluation of several outfall construction alternatives with an anticipated completion date of July 31.
- CEQA/NEPA/Permits:
 - Please see the Monthly Environmental Services Department Report for updates on the Project's environmental compliance and permitting process.
- Geotech/Hydrogeology:
 - Please see the Monthly Water Resources Department Report for updates on the construction of new monitoring wells.
 - June 18 -Shear vane study conducted in the Mugu Lagoon to determine design requirements for outfall design.
 - Earth Systems (ES) is preparing the draft geotechnical report with an anticipated completion date of June 2024.

11. Asset Management/ CMMS System

- Staff continued to plan a field condition assessment of a portion of the OH Pipeline, which is scheduled for the end of 2024.

12. OH Water Well No.20

- No updates to report.

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13. OH Well 14 Energy Efficiency Upgrade

- No updates to report.

14. California American Water Emergency Use Interconnection to the OH Pipeline

- The California American Water (CalAM) is planning to start work in Simon Way in July. The District and CalAM will closely coordinate the construction activities related to the emergency connections to the OH Pipeline that require the OH Pipeline shutdown. The OH Pipeline shutdown that is expected to take place in November will be closely coordinated with the District customers at the minimum two weeks prior to the shutdown.

15. Other Topics, Meetings and Training

- On June 4, Maryam Bral along with Brian Zahn and John Lindquist presented “UWCD FY 2024-25 Budget” to the Channel Islands Beach Community Services District’s Board of Directors.
- On June 5, the annual California Division of Dams (DSOD) inspection of SFD was conducted. In attendance were Engineering, O&M, and Recreation Staff in addition to the DSOD Area 9 Engineer, Cameron Lancaster, DSOD Regional Engineer, Brandon Cruz, and DSOD Field Engineering Branch Chief, Andrew Mangney. The group observed the full open/close cycle of the two (2) 36” cone valves and the 72” Butterfly. In addition, the group inspected the dam embankment, abutments, spillway, and outlet works tunnel. An inspection report will be prepared by DSOD and only minor maintenance action items are anticipated to be included. Please see Figure 2. - Annual SFD Inspection by DSOD on June 5.
- On June 6, Engineering, O&M, Human Resources, and Recreation District Staff participated in DWR’s 2024 Pyramid Dam Functional Exercise, see Figure 3 – UWCD Staff Participating in DWR Functional Exercise on June 6. Staff actively participated in the exercise and responded to a simulated failure of Pyramid Dam. The exercise took place at the Ventura County Emergency Operations Center in Ventura, CA.
- On June 7, Maryam Bral along with General Manager, Mauricio Guardado, President Berger, and Director Huber attended the Naval Base Ventura County Change of Command Ceremony at the Ronald Reagan Presidential Library in Simi Valley. Please see Figure 4 – United Staff and Board Members attended NBVC Change of Command Ceremony on June 7.
- On June 10, Nathan Summerville attended a Workshop at the American Water Works Association (AWWA) Annual Conference and Exposition (ACE) in Anaheim, California. The workshop covered condition assessment of large-diameter water transmission lines.
- On June 13, Robert Richardson and Christofer Coppinger presented “The Power of Federal, State and Local Collaboration in Combating Seawater Intrusion and Bringing Water Security to Ventura County” at AWWA ACE in Anaheim, California.

4.1 Monthly Engineering Department Report Information Item

Please see Figure 5 - Robert Richardson and Christofer Coppinger presenting at AWWA ACE24.

- Maryam Bral attended AWA Water Issues Committee meeting on June 18 and WaterWise Breakfast presentation on June 20.
- On June 20, Kimberly Badescu, the Department's new hire attended the Water Collaborative Delivery Association training on Collaborative Project Delivery in Santa Ana, California.

**4.1 Monthly Engineering Department Report
Information Item**



Figure 1 - UWCD and Stantec during LP Site Visit on June 4



Figure 2 - Annual SFD Inspection by DSOD on June 5

4.1 Monthly Engineering Department Report Information Item



Figure 3 – UWCD Staff Participating in DWR Functional Exercise on June 6



Figure 4 – United Staff and Board Members attended NBVC Change of Command Ceremony on June 7

**4.1 Monthly Engineering Department Report
Information Item**



**Figure 5 - Robert Richardson and Christofer Coppinger presenting at AWWA
ACE24**



STAFF REPORT

To: Engineering and Operations Committee Members

Through: Mauricio E. Guardado, Jr., General Manager
Anthony A. Emmert, Assistant General Manager

cc: Dr. Maryam Bral, Chief Engineer

From: Marissa Caringella, Environmental Services Manager

Date: June 25, 2024 (July 3, 2024, meeting)

Agenda Item: **4.2 Environmental Services Department Monthly Report**
Information Item

Staff Recommendation:

Receive this summary report from the Environmental Services Department regarding activities for the month of June 2024.

Discussion:

1. Santa Felicia Project Operations and Federal Energy Regulatory Commission (FERC) License Support

- Santa Felicia Dam Safety Improvement Project (SFDSIP)

On May 29, 2024, United Water Conservation District (United) filed a project status update with FERC proposing to submit updated National Environmental Policy Act and Endangered Species Act Section 7 consultation documents by September 30, 2024. These will include an updated Environmental Assessment, an updated draft Biological Assessment for the National Marine Fisheries Service (NMFS), and a draft Biological Assessment for the U.S. Fish and Wildlife Service (USFWS). United will also file a revised overall project schedule with FERC by August 6, 2024.

- Water Release Plan and Water Release and Ramping Rate Implementation Plan

Under the Water Release Plan and FERC license for the Santa Felicia Project, United is required to make certain water releases from the Santa Felicia Dam for steelhead habitat and migration when specific triggers are met. Triggers for habitat water releases are based on cumulative rainfall within the water year. The measured cumulative rainfall for the current water year has exceeded the triggers for enhanced habitat water releases through October 1, 2024. The minimum required habitat water release starting June 1 through October 1 is nine cubic feet per second.

4.2 Environmental Services Department Monthly Report Information Item

- Santa Felicia Fish Passage Pre-Implementation Studies

On June 4, 2024, Environmental Services staff (ES) stopped fish trapping in middle Piru Creek due to water temperatures exceeding the thermal maximum (21°C) established in the project's Scientific Collecting Permit, issued by the California Department of Fish and Wildlife (CDFW). Both the rotary screw trap and fyke trap were removed from middle Piru Creek by Cramer Fish Sciences staff with assistance from ES and Recreation staff. In accordance with the USFWS Biological Opinion for the project, sensitive species surveys (arroyo toad and least Bell's vireo) were completed both before and during demobilization of the fish traps.

The 2023–2024 field sampling season was the final phase of planned field activities for pre-implementation studies in middle Piru Creek. Cramer Fish Sciences and ES will analyze the 2023–24 data and prepare a summary report which will be used to inform recommendations for future resource agency consultation.

- Annual Reporting, Triggered Surveys, and Permitting

Land Resource Management Plan (LRMP): On June 27, 2024, ES filed an annual report with FERC and NMFS in accordance with the LRMP. The annual report detailed all use and maintenance of the wet crossing on lower Piru Creek below Santa Felicia Dam between July 1, 2023, and June 30, 2024.

Snorkel Surveys: During the week of June 24, 2024, ES completed the last triggered snorkel surveys below Santa Felicia Dam. The snorkel surveys are a FERC compliance activity and were triggered in response to fish recorded moving upstream in the Freeman Diversion fish ladder in May 2024.

Section 404 Clean Water Act Permit: On June 18, 2024, ES submitted a permit modification request to the U.S. Army Corps of Engineers (USACE) to adjust the location of a portion of the 3.4-acre swim beach at the Juan Fernandez Day Use Area.

2. Freeman Diversion Operations

During the month of June, ES supported Freeman Diversion operations and maintenance activities by coordinating with and providing notifications to resource agencies as needed, conducting surveys of dewatered areas, and providing on-site biological monitoring. The fish ladder remains operational.

On May 30, 2024, a single individual *Oncorhynchus mykiss* (*O. mykiss*) was documented by the video surveillance system transiting through the Freeman Diversion fish ladder in an upstream direction.

On June 4, 2024, ES filed a letter with the USACE requesting an extension of the current Clean Water Act 404 Programmatic Individual Permit for routine maintenance at the Freeman Diversion.

4.2 Environmental Services Department Monthly Report Information Item

3. Freeman Diversion Multiple Species Habitat Conservation Plan (MSHCP)

On May 30, 2024, Judge David O. Carter issued a Minute Order in the *Wishtoyo Foundation et al. v. United* case requiring United and Wishtoyo to submit to the court proposed findings and orders regarding future operations at the Freeman Diversion by July 9, 2024, as well as to attend a hearing on the subject on July 16, 2024. In addition to requiring United and Wishtoyo to submit proposed findings and orders, the Minute Order also invited NMFS and CDFW to submit their own proposed findings and orders at their discretion. Wishtoyo, NMFS, and CDFW all requested that the court extend the filing date and on June 17, 2024, Judge Carter issued an order granting the extension and establishing a new filing date of September 13, 2024, and a subsequent hearing date of September 30, 2024.

4. Quagga Mussel Management

Throughout the month of June, ES continued conducting quagga mussel monitoring activities on Lake Piru, lower Piru Creek, and the spillway pool in accordance with the Quagga Mussel Monitoring and Control Plan. ES also continued quagga mussel veliger (larva) sampling in United's lower system. United staff continues to meet regularly with Pleasant Valley County Water District (PVCWD).

During the weekend of May 31, 2024, scientific divers conducted quagga mussel control and monitoring activities at Lake Piru. The divers observed a large recruitment of quagga mussels on all hard substrates. Between 60 to 90 feet below the surface, the divers observed close to 100% cover on hard substrates.

On June 6, 2024, ES met with Department of Water Resources environmental staff to discuss the quagga mussel infestations in Pyramid and Castaic Lakes.

5. Capital Improvement Project Permitting and California Environmental Quality Act (CEQA) Support

During the month of June, ES continued to support Engineering Department (Engineering) staff with environmental permitting and CEQA compliance for multiple projects.

On June 18, 2024, Engineering submitted the 408 Permission package for the Three Barrel Culvert Replacement Project with the USACE. In support of the project, ES completed all environmental requirements and reviewed all cultural materials for the package.

During the month of June, the CEQA process for the Groundwater Recharge Capacity Expansion Project (Vineyard Undercrossing Project) continued to move forward. ES and Engineering reviewed the draft CEQA Initial Study – Mitigated Negative Declaration for the project.

On June 12, 2024, United's Board of Directors adopted the CEQA document for the Pumping Trough Pipeline Recycled Water Connection Laguna Road Pipeline Project. The

4.2 Environmental Services Department Monthly Report Information Item

final CEQA Notice of Determination was posted with the Ventura County Clerk on June 14, 2024, and with the State Clearinghouse on June 18, 2024.

6. Grant Efforts

On June 17, 2024, United applied for a \$20 million federal grant from the FY23 Department of Defense, Defense Community Infrastructure Program, to support Phase 1 of the Extraction Barrier and Brackish Water Treatment Project.

On June 24, 2024, United applied for a \$3 million federal grant from the FY24 Bureau of Reclamation, WaterSMART Environmental Water Resource Projects Round 1, for the Freeman Diversion Fish Screen and Fish Bypass System Project. To date, United has received letters of support for the Freeman Diversion Fish Screen and Fish Bypass System Project from the Farmer's Irrigation District, Southland Sod, The Nature Conservancy, NMFS, Center for Biological Diversity, PVCWD, CalTrout, and CDFW.

During the week of June 24, 2024, two members of the Grant Task Force, ES staff Tessa Lenz and HR staff Destiny Rubio, traveled to Washington, D.C. with the General Manager to meet with funding agency staff and highlight United's key projects.

7. Miscellaneous

- On June 11 and 12, 2024, the U.S. Geological Survey conducted arroyo toad surveys upstream of Lake Piru in middle Piru Creek, Aqua Blanca, and Canton Creek.
- On June 12, 2024, ES attended a webinar hosted by the California Lake Management Society titled "Cyanobacterial blooms vs aquatic weed mitigative strategies: A managerial dilemma?"
- On June 18, 2024, ES and Water Resources provided a tour of the Freeman Diversion to Somach Simmons & Dunn attorneys.
- On June 21, 2024, United submitted a comment letter to the California Fish and Game Commission and CDFW including information regarding the status of *O. mykiss*.
- On June 22 and 23, 2024, ES staff Hannah Garcia-Wickstrum attended a Riparian Bird Workshop in Santa Paula hosted by The Wildlife Society's California Central Coast Chapter.

STAFF REPORT

To: Engineering and Operations Committee Members

Through: Mauricio E. Guardado, Jr., General Manager

From: Craig Morgan, Chief Operations Officer
Randy Castañeda, Operations Supervisor — Water Treatment
J.D. Smallwood, Operations Supervisor — Water Distribution

Date: June 26, 2024 (July 3, 2024, meeting)

Agenda Item: 4.3 Operations and Maintenance Department Monthly Report
Information Item

Staff Recommendation:

The Engineering and Operations Committee members will receive this summary report from the Operations and Maintenance department regarding its activities for the month of June 2024.

1. Major Facilities Update

- **Santa Felicia Dam**
 - On June 1st, 2024, the lake level was 1050.15 and reached a peak of 1050.6, on June 11th, 2024.
 - Santa Felicia Dam release flows varied from 6–190 CFS throughout June due to varying lake inflows, operational changes, and inspections.
 - Discing / weed abatement activities are ongoing and continuing at both the Piru Spreading Grounds and Lake Piru Recreation Area.
 - SFD monthly inspection for June is ongoing.
 - SFD's annual DSOD inspection was held and completed on Wednesday, June 5.
 - Herbicide applications are ongoing and continuing at SFD/Recreation Area.
 - Siren test was held and completed on Friday, June 7.

- **Freeman Diversion, Saticoy, and El Rio Recharge Facilities**
 - District staff operated the Freeman Diversion throughout the month of June, harvesting Santa Clara River flows, accommodating fish ladder by-pass flows, recharging basins, and delivering surface water to El Rio, PTP and PV pipelines.
 - Discing/scraping tasks have been completed on Ponds O and J, water has now been reintroduced and the ponds are recharging.
 - Saticoy O&M staff is preparing for the anticipated Inverted Siphon project.
 - Various clean-up activities occurring around the Saticoy facility and the Freeman Diversion.

**Agenda Item: 4.3 Operations and Maintenance Department Monthly Report
Information Item**

- Herbicide application tasks are ongoing and continuing near the Freeman Diversion and the Saticoy Spreading Grounds / Noble Basins.
- Static water levels (distance of water from the well pad to the water table):

	2024	2023	2022
Saticoy	24'	21'	120'
El Rio	61'	85'	142'
PTP	55'-95'	62'-97'	117-150'

- **Oxnard-Hueneme (OH) Delivery System**

- UWCD staff assisted with scraping El Rio Basin 10 to improve percolation rates and began repairs of inlet piping into this basin.
- El Rio staff worked with contractors to rectify telemetry level issues for Iron/Manganese pressure filters.
- EL Rio staff finalized UWCD annual Consumer Confidence Report for 2023 and had it distributed to stakeholders by posting on website and mailing copies to various customers.
- El Rio operators set up fall-arrest equipment to safely enter and perform reconnaissance inspection for OH pipeline access vault on St. John's Hospital property.
- El Rio operators started to dismantle an obsolete crane support structure located at southeast corner of facility.
- El Rio staff prepared the temporary office trailer for removal and transferred furnishings into new break room. Staff also poured a cement pad to replace a portion of the roadway that was compromised during installation of the new modular home and demolition of the old modular home.
- Assisted GSE Construction Co. and VCFD with final safety inspection of Iron/Manganese Plant fire alarm equipment.

- **Pleasant Valley County Water District (PVCWD)**

- PVCWD received United's surface water supply, surface supply from Conejo Creek Project, and received highly treated recycled water from the City of Oxnard's Advanced Water Purification Facility (AWPF).
- 12% sodium hypochlorite injection continues at Saticoy's Moss Screen facilities for quagga mussel control.

- **Pumping Trough Pipeline (PTP)**

- During the month of May, the PTP system demand was met primarily with surface water.
- El Rio operators exercised isolation valves that will be needed during replacement of flow meters in the near future.
- El Rio operators performed monthly operational tests for PTP emergency generators.

**Agenda Item: 4.3 Operations and Maintenance Department Monthly Report
Information Item**

- **Control Systems**

- 06/04 - Participated in Lake Piru Facilities Improvement Project
- 06/05 - Control Systems Team Participated in the Workplace Violence Safety Training
- 06/10 - New Spectrum Fiber Install Completed
- 06/11 - Set up New Neat Conference System for the New Breakroom Trailer
- 06/12 - Created SharePoint List for IP Address Tracking
- 06/13 - Created SharePoint List for Subnet Tracking
- 06/19 - Fiber Install for New Trailer has been completed

- **Lake Piru Water System**

- All chlorine residuals and turbidity readings for the drinking water system were within proper ranges for May.
- Monthly pH, turbidity and coliform samples were obtained for Lake Piru, as part of the Long Term 2 Enhanced Surface Water Treatment Rule compliance monitoring.
- Basic maintenance and inspections are ongoing and continuing.
- The State Water Board will be performing a Sanitary Survey on the Lake Piru Water Treatment System on Wednesday, July 10. O&M staff is currently preparing for their arrival.

2. Operations and Maintenance Projects Update

- El Rio completed the annual DDW Inventory and Water Supply report.
- El Rio operators continued with 90-day testing of Fe/Mn Plant per directive from DDW.
- El Rio operators made repairs to Saticoy Moss Screen NaOCL injection system.
- Staff performed weed abatement at PTP and PV reservoirs.
- El Rio staff assisted safety contractor with finalizing CalARP/Process Safety Management Program documents.
- UWCD staff started to develop a plan to automate isolation valves that will serve as a pressure relief station for the Iron/Manganese Plant raw water pipeline.
- El Rio operator made operational adjustments to comply with Voltus Demand Respond energy curtailment for OH well field.

3. Other Operations and Maintenance Activities

- Monthly bacteria samples were obtained for the PTP system.
- Monthly meter readings were obtained for OH, PTP and PV pipelines.
- Staff completed and electronically transmitted the monthly OH Surface Water Treatment Rule report to the State Water Resources Control Board Division of Drinking Water.
- Static water levels were obtained for all El Rio, Saticoy, and PTP wells.
- Weed abatement continued throughout the district.
- Saticoy and SFD staff United to help the Recreation Team with clean-up tasks in preparation for the Independence Day Holiday.

**Agenda Item: 4.3 Operations and Maintenance Department Monthly Report
Information Item**

- Staff from various departments participated in DWR's Functional Exercise on Thursday, June 6.
- Saticoy Staff assisted El Rio with repairs to El Rio's Pond 10 inlet pipe.

4. Safety and Training

- Staff attended a safety meeting that focused on heat exhaustion.
- Tailgate safety meetings were conducted at all individual O&M field locations and the topics included refresher training on equipment used at the various O&M locations; specifically, tailgate safety meetings were conducted prior to every commencement of maintenance activities at the Freeman Diversion.