

X.A.

Agenda - Orestimba Creek Project Mtg.
8:30 -9:00 am
June 9, 2022
MS TEAMS

1. Report on P&P activities-

a. Design update -

i. BOR/TSC/SLDMWA -Culvert Follow up

a. Inspection of culvert- Waiting for final report.

ii. P&P is approximately at 85% design.

1. Good direction provided to P&P last week.

a. SCADA will be installed at 2 locations.

b. Metering requirements -SB 88. Likely an Mag Meter

c. John R -CCID will send a list of items they will need at the electrical sites

2. Geotech staking, boring and potholing.

a. Staking complete.

b. Timing of test hole boring?

i. Underground service alert and landowner coordination is critical. Boring likely in July

ii. Need Stanislaus County permits to be submitted?

b. Environmental/Permitting- update

i. NEPA/CEQA- DONE

ii. CDFW -LSA application- Submitted.

iii. RWQCB (401) application- Submitted.

iv. DWR -DONE

v. COE- (404) application -Submitted.

vi. DWR Encroachment Permit - Submitted. Need to discuss how to move the project up on DWR's schedule. Grant funding issue.

vii. Water Right/Permit applications were uploaded on February 2, 2022. Only correspondence is that we overpaid the fees.

SWRCB staff admitted this was the first application under the

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streamlined process and the published fees on the website are not clear.

viii. Need to begin developing long-term agreements with BOR, SLDMWA and landowners.

c. Other items –

i. June workshop for: Design completion, long-term access agreements, discuss pre-purchase of materials.

2. Grants update- (All)

a. Prop 1 Storm Water Grant, IWRMP Grant- Update

i. SWG agreement- CCID

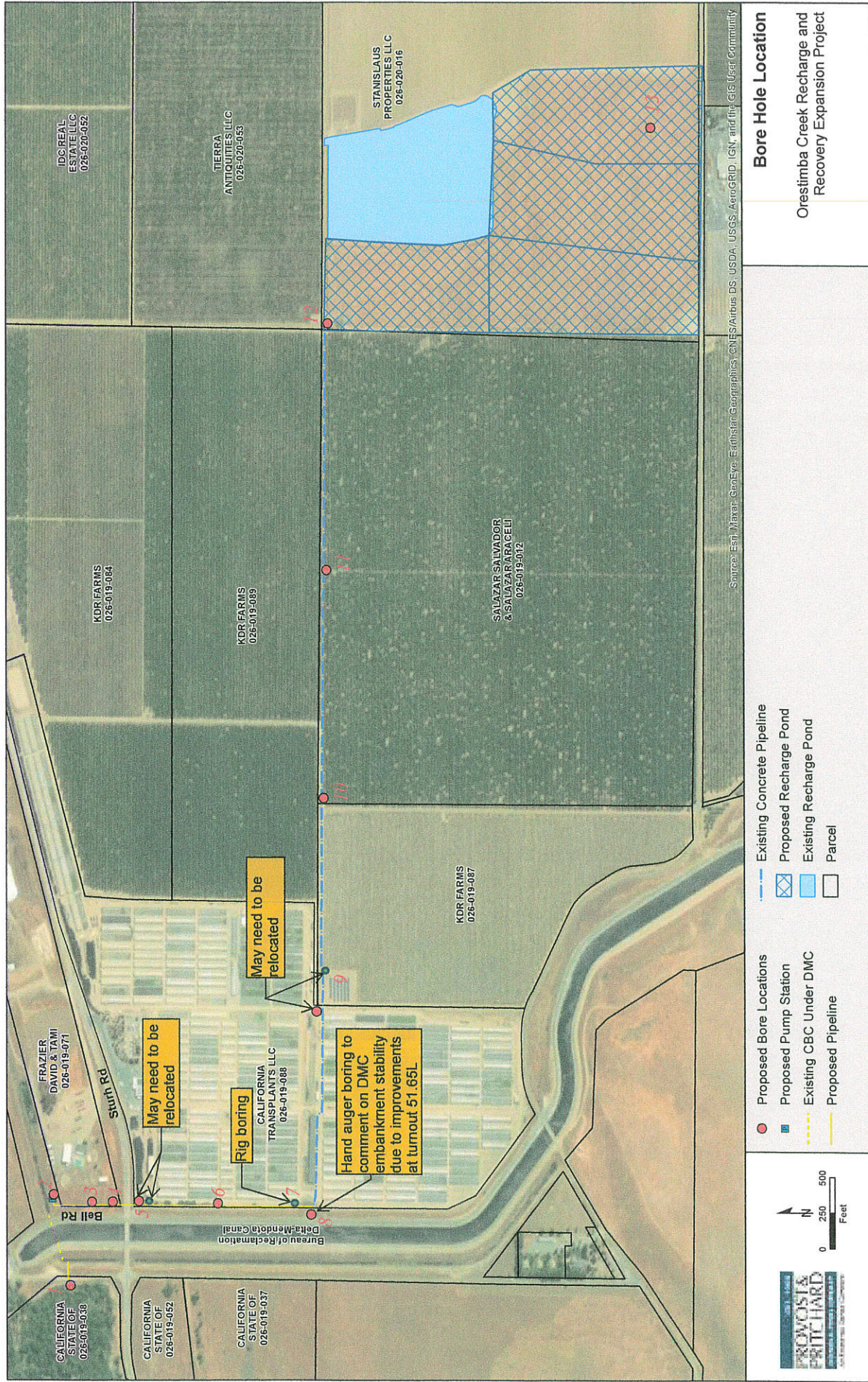
1. Conversation with Spencer earlier this week on budget and schedule. During the last conversation, the end of June is the earliest the funding agreement may be signed.

b. Other Grant opportunities-

i. Looking at Federal funding opportunities through new Infrastructure Bill.

3. Other Items –

EXHIBIT A



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GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

May 24, 2022

In Reply Refer to:
JS: A033286

Central California Irrigation District
Attn: Benjamin Fenters
1335 West I Street
P.O. Box 1231
Los Banos, CA 93635

Dear Mr. Fenters:

WATER RIGHT APPLICATION A033286 TO APPROPRIATE WATER FROM ORESTIMBA CREEK IN STANISLAUS COUNTY

You have received this letter because you are the owner, or the agent for the owner, of a water right application on file with the State Water Resources Control Board (State Water Board). The purpose of this letter is to inform you that the State Water Board is reviewing your application.

The State Water Board's Division of Water Rights (Division) received your application on March 23, 2022, and it was assigned tracking number A033286. The State Water Board maintains a computer database where you may view the current information related to your application. The database can be accessed at the following website:

<https://www.waterboards.ca.gov/ewrims>

After a cursory review of the application and based on California Code of Regulation (CCR), title 23, §1062 the fees provided are sufficient for a standard water right. Please note that as a result of further review a portion of the fee may be eligible for a refund based on CCR §1062(F).

The Permit Streamlining Act requires the State Water Board to determine whether a water right application for a development project is complete within 30 days. (Gov. Code, § 65943.) This requirement does not apply during a year declared by the State Water Board or the Department of Water Resources to be a critically dry year, or during a drought emergency declared by the Governor (Gov. Code, § 65922.1.). On May 10, 2021, Governor Gavin Newsom declared a drought emergency for 41 counties including Stanislaus, Merced, and Tuolumne counties. While the time limits established

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

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MAY 24 2022

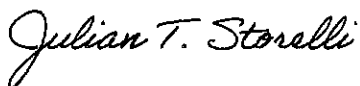
in the Permit Streamlining Act do not apply, the Division is committed to respond to the application in a timely manner.

The addressee indicated at the top of this letter is considered to be the current Official Mail Receiver for this application. The Division requires designation of an Official Mail Receiver to receive all correspondence related to the application. The designated Primary Owner is normally considered the Official Mail Receiver, however if you have designated an Agent, then the Division will consider the Agent to be the Official Mail Receiver. The Division may direct all communication to the Official Mail Receiver without notifying any of the designated owners. You are required to immediately inform the State Water Board of any change in ownership of the application. (Cal. Code Regs., tit. 23, § 830 et seq.) If you would like to change the designation of, or contact information for, the Official Mail Receiver, Agent, or owners, please complete the relevant forms available on the following web site:

https://www.waterboards.ca.gov/water_issues/programs/ewrims/ownership/

I have been assigned as the staff lead on this application. If you have any questions, please contact me at Julian.Storelli@waterboards.ca.gov or (916) 323-0064. Written correspondence or inquiries should be addressed as follows: State Water Resources Control Board, Division of Water Rights, Attn: Julian Storelli, P.O. Box 2000, Sacramento, CA, 95812-2000.

Sincerely,



Julian Storelli, PE
Water Resource Control Engineer
Division of Water Rights

cc: Del Puerto Water District
Attn: Anthea Hansen
17840 Ward Avenue, P.O. Box 1596
Patterson, CA 95363

ec: Central California Irrigation District
Ben Fenters
bfenters@ccidwater.org

Jarrett Martin
jmartin@ccidwater.org

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MAY 24 2022

Mr. Fenters

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Del Puerto Water District
Anthea Hansen
ahansen@delpuertowd.org

Provost & Pritchard Consulting Group
Rick Iger
riger@ppeng.com

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X B.



MEMORANDUM

TO: Anthea Hansen, General Manager, Del Puerto Water District
FROM: Andy Neal
DATE: June 7, 2022
RE: Del Puerto Canyon Reservoir Progress Update for June 2022 Board Meeting

Ms. Hansen:

Below is a summary of our progress on the Del Puerto Canyon Reservoir project.

Project Goals:

- 1) Design, permit, and construct an 82,000 AF south-of-delta reservoir to provide locally-owned and controlled water storage for agricultural and west-side communities water supply.
- 2) Seek to obtain up to 25% federal cost share through the Water Infrastructure Improvements in the Nation (WIIN) Act. A proportional share of the project benefits are the federal benefits.

Design/Engineering Procurement

An initial kickoff meeting with DSOD was held on May 10th in person in Sacramento at DSOD offices. Members from DSOD leadership and technical teams were in attendance with representatives from the DPCR owners, program, and design teams. This meeting was scheduled to begin a highly coordinated design process that will be the foundation for advancing the DPCR project.

Prior to the meeting, the dam design team developed an overview plan of the approach to characterizing the site for geotechnical, geological, and geophysical properties. This high-level overview of our approach was shared with DSOD in advance of the meeting and discussed in detail at the meeting. In parallel, and at the request of DSOD, the team developed a detailed Data Collection Plan to serve as the basis for what work is planned going forward. The work is planned to be broken into two phases, largely based around work that can be performed this year without requiring additional permitting and work that needs to be pushed out to next year and performed under a permit. Our partners at ICF have been consulting with the design team to review investigation areas and determine permit requirements.

The detailed Data Collection Plan (DCP) was delivered to DSOD May 31 and is currently under review. DSOD has acknowledged our schedule aiming to begin drilling in July and is reviewing the DCP accordingly. DSOD staff are working with our team to review the plans chronologically so we can begin drilling per our plans even if they aren't completely done reviewing the entire DCP. Our goal is to get DSOD agreement on boring and other investigation locations so the information we collect serves a dual purpose for our design needs and their design reviews. The schedule of field work defined in the DCP will also be used to plan our environmental monitoring during the investigation work in all phases.

The Technical Review Board (TRB) has been assembled and our team is meeting with the TRB participants June 13 – 14 in Patterson to tour the site and get into the details of work completed and work upcoming on the project. Our team has prepared an agenda and distributed materials for review in advance of the meeting.

Utility Relocation

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PG&E and Stantec have continued to advance the transmission tower relocations to 30% design. PG&E is near completion of 30% engineering documentation. They plan to begin the 60% engineering submittal at the end of June or early July and be completed in Q1 2023. The submittals will be provided to our team for review by PG&E.

At PG&E's request, our team has developed a proposal for geotechnical investigation and recommendations for their transmission relocation design. It is currently under review by PG&E. The proposal is being updated to include WAPA needs for SLTP relocation. Our team is planning to continue access road system design in parallel to PG&E 60% design development

Environmental

Our environmental team has been coordinating with the dam design geotech team regarding permits for exploration work. Detailed conversations are ongoing around borehole locations and environmental monitoring and compliance needs. Related to this, we have resurveyed the eagle nest locations and determined that the nest has moved further away from the project limits of work than last year. This is good news for the project, allowing us to perform work without interfering with the eagle permit restrictions and deferring the eagle take to subsequent years, if needed.

Working with USBR, we have been reviewing the EIS chapters and assisting with comments on the document. It is expected that the EIS will be issued to the remaining cooperating agencies for review the first week of June.

New Road Alignment

No new work to report this month.

Public Outreach

We are developing a communication plan with Ellen Cross to get ahead of upcoming project activities. We anticipate a plan that covers stakeholder engagement across all elements of the DPCR program. In the near term, our communication plan will be tailored to the upcoming geotechnical investigation activities onsite.

Political Outreach and Project Financing

No new work to report this month.

Programmatic

- 1) Weekly client meetings
- 2) Weekly Reclamation meetings
- 3) Weekly internal team meetings
- 4) Bi-weekly internal meetings with the TGP dam design team and clients
- 5) Submitted March invoice and drafted April invoice

X.B.


**Woodard
& Curran**

Progress Report

Del Puerto Canyon Reservoir Program Management

Subject: Joint March and April 2022 Progress Report

Prepared for: Anthea Hansen (DPWD) and Chris White (SJRECWA)

Prepared by: Andy Neal and Katie Cole (Woodard & Curran)

Date: June 7, 2022

Project No.: 0011297.00

This progress report summarizes the work performed by Woodard & Curran and subconsultants for the period through April 29, 2022, for Del Puerto Canyon Reservoir Program Management. Please contact aneal@woodardcurran.com or (925) 627-4114 with any questions.

Work Performed

A summary of work performed during the current reporting period is summarized in the following table.

Task Description	Work Completed This Period
Task 1 Program Management	<ul style="list-style-type: none"> Weekly internal team and external client coordination meetings. Project management tool maintenance (EVA, document management portal, staff management and tracking, sub billing calendar). Budget, schedule, and scoping tracking and updates. Coordination with and management of subcontractors. SJRECWA and DPWD Board Meeting update memos.
Task 2 Agency Coordination and Permitting Plan	<ul style="list-style-type: none"> USBR weekly meetings and preparation. Internal meetings and staff coordination related to permitting and agency coordination efforts.
Task 3 Reservoir Operations Analysis	<ul style="list-style-type: none"> None.
Task 4 Funding	<ul style="list-style-type: none"> None.

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Task Description	Work Completed This Period
<p>Task 5 CEQA/NEPA Project Phase Authorization</p>	<ul style="list-style-type: none"> • Ongoing coordination with Reclamation regarding EIS, Biological Assessment and Section 106 consultation. • Formatted EIS for Reclamation. • Prepared an updated Section 106 cultural resources report, completed internal review and submitted to Reclamation. • Working on Biological Assessment. • Coordinating with design team for permitting of geotechnical exploration work. • Working with legal counsel to assist in responding legal briefs from Friant contractors and Sierra Club. • Obtained project permit for the Golden Eagles take associated with geotechnical exploration; assisting with purchase of mitigation credits. • Publication of the EIS has been delayed again, and Reclamation has not provided updated schedule for publication. In addition to cooperating agency review, the Program team will get an opportunity to review the draft prior to its public release.
<p>Task 6 Validate Facilities</p>	<ul style="list-style-type: none"> • None.
<p>Task 7 Procure Design Consultants</p>	<ul style="list-style-type: none"> • The project owners have selected the TERRA-GeoPentech (TGP) Joint Venture to lead the dam design efforts. • Began compiling list of firms to solicit for a Road RFQ which we are aiming to release later this year.
<p>Task 8 Design Consultant Management</p>	<ul style="list-style-type: none"> • Coordinated with DWR's Division of Safety of Dams (DSOD) to prepare them for our upcoming work. • Prepared for and attended site visit with TGP. • Reviewed schedule and 2022/2023 scope items with TGP. • Recruited members for Technical Review Board (TRB).
<p>Task 9 Conveyance Facilities Preliminary Design</p>	<ul style="list-style-type: none"> • None.
<p>Task 10 USBR Feasibility Report</p>	<ul style="list-style-type: none"> • None.

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Task Description	Work Completed This Period
Task 11 Land-Owner Coordination	<ul style="list-style-type: none"> Coordinated with land owners for site visit and preparing to coordinate for geotechnical work that will begin this summer.
Task 12 Survey/Mapping	<ul style="list-style-type: none"> Set monuments along resolved section of I-5 ROW. Prepared record of survey. Provided ongoing coordination with PG&E to resolve technical issues and submit deliverables.
Task 13 Utility Company Coordination	<ul style="list-style-type: none"> PG&E PM and CM staff determined proposed access road conceptual network is satisfactory for advancing design. Representatives from our teams meet with PG&E, Stantec, and WAPA bi-weekly on Tuesdays. The design teams are continuing to layout out tower location and pad elevations as PG&E is nearing completion of its 30% design package. WAPA has been waiting until the PG&E tower locations are fixed to proceed with their re-alignment of the SLTP. Ongoing efforts continue to advance the PG&E transmission tower relocations to 30% design. PG&E will release the 30% design to the Program team when it is available. Ongoing outreach efforts to Crimson Pipeline have not been successful. Crimson is requiring design plans for the dam and related facilities impacting their pipeline, which won't be ready for months.
Task 14 Outreach Support	<ul style="list-style-type: none"> Continued updates on social media engagement on the project. We continue to engage Ellen Cross (Strategy Driver) in our planning for outreach services.

Budget Status

As of this invoice, 86% of the project budget has been billed (\$8,462,729.07.00 of \$9,894,289). A budget breakdown by task is included in the below table.

Table 1: Budget Breakdown By Task

Task No.	Description	Budget	Previously Billed	Billed This Period	Total Billed to Date	Budget Remaining	% Billed to Date
1	Program Management	\$913,108.01	\$714,966.36	\$30,125.25	\$745,091.61	\$168,016.40	82%
2	Agency Coordination and Permitting Plan	\$726,775.42	\$486,213.53	\$4,801.50	\$491,015.03	\$235,760.39	68%
3	Reservoir Operations Analysis	\$583,833.50	\$373,206.00	\$0.00	\$373,206.00	\$210,627.50	64%
4	Funding Strategy	\$179,000.00	\$6,812.75	\$0.00	\$6,812.75	\$172,187.25	0%
5	CEQA/NEPA Compliance	\$2,366,939.04	\$2,027,093.74	\$27,490.50	\$2,054,584.24	\$312,354.80	87%
6	Validate Facilities	\$2,155,442.87	\$2,155,442.84	\$0.00	\$2,155,442.84	\$0.03	100%
7	Procure Design Consultants	\$424,493.25	\$103,378.30	\$10,551.25	\$113,929.55	\$310,563.70	27%
8	Design Consultant Management	\$70,182.08	\$0.00	\$20,451.25	\$20,451.25	\$49,730.83	0%
9	Conveyance Facilities Preliminary Design	\$1,082,317.94	\$1,082,317.94	\$0.00	\$1,082,317.94	\$0.00	100%
10	USBR Feasibility Study	\$571,778.64	\$571,778.64	\$0.00	\$571,778.64	\$0.00	100%
11	Land Owner Coordination	\$123,021.12	\$44,351.80	\$495.00	\$44,846.80	\$78,174.32	36%
12	Survey/Mapping	\$173,364.88	\$173,364.88	\$0.00	\$173,364.88	\$0.00	100%
13	Utility Company Coordination	\$139,032.25	\$284,677.53	\$21,956.32	\$306,633.85	(\$167,601.60)	221%
14	Outreach Coordination	\$385,000.00	\$322,175.69	\$1,078.00	\$323,253.69	\$61,746.31	84%
Total		\$9,894,289.00	\$8,345,780.00	\$116,949.07	\$8,462,729.07	\$1,431,559.93	86%

Notes:

¹ Task budgets are internally allocated and may be reallocated between tasks based on program need.

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Schedule Status

The Feasibility Report was accepted by the Secretary of Interior and submitted to congress with the determination of feasibility pursuant to the WIIN Act, section 4007(b). Schedule is currently being driven by the EIS schedule; coordination with Reclamation is ongoing.

Outstanding Issues

Bureau of Reclamation Coordination

- The draft EIS was originally scheduled to be published in October 2020, with a Record of Decision slated for April 2021, but that schedule continues to slip on the Reclamation side. We received draft EIS for review on 27 November, but Reclamation has informed us that adding in the expanded corridor for the transmission lines will cause the schedule to slip. We are working with Reclamation to include the most recent powerline alignments in the EIS so that the WAPA powerline relocation can be accurately addressed in the EIS. Reclamation had said that Draft EIS would be published in June, but continued schedule slippage appears likely.
- We are continuing to wait for a response confirming our position that the Del Puerto Canyon Reservoir project is under construction, consistent with the requirements in section 4013(2) cited per criteria in section 4011f(2). Our project manager at USBR, Allison Jacobson, has indicated that the letter has been reviewed and there are no objections to our position.

Army Corps Coordination

- The Corps is officially a cooperating agency for the USBR NEPA process. They have designated Reclamation to act on their behalf in the Section 7 consultation. We have a Preliminary Jurisdictional Determination from the Corps, which we have agreed is sufficient for the Project. We had a meeting with the Corps and determined that an Approved Jurisdictional Determination is not needed.

State Water Resources Control Board Coordination

- After the initial water rights application was reviewed by the State Board, additional coordination and analyses were required for the water availability analysis portion of the application. This has required more detailed data collection and analyses to estimate downstream impacts of flow reduction in the Del Puerto Creek. The State Board does not have streamlined guidelines for the requirements of the water availability analyses, and it is unknown what level of detail will be required for completion of the application at this time. The team has developed a strategy for the water availability analysis and drafted a TM which will be presented to the State Board for further discussion before re-submitting the application.

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Utility Company Coordination

- Crimson has not been responsive and the Program team is strategizing on how to get Crimson engaged.
- Stantec team is using received supplemental LiDAR survey files for north and south extents to update their PLS-CAD files needed to submit the 30% for PG&E acceptance end of May 2022. PG&E 60% engineering will follow.

X.B.

**STANDARD AGREEMENT
FOR CONSULTANT SERVICES**

THIS AGREEMENT, made and entered into in the City of Patterson, State of California, this 1st day of April, 2022, ("Effective Date") by and between the DEL PUERTO WATER DISTRICT, a special district of the State of California, hereinafter referred to as "District", and Terra/GeoPentech, a Joint Venture, hereinafter referred to as "Consultant".

This Agreement is made with regard to the following recitals:

A. The District has determined that professional engineering services for the design and related services for an earthen dam, two saddle dams, and the appurtenant structures and facilities should be prepared for the District to analyze the Del Puerto Canyon Reservoir project.

B. Consultant represents that it is qualified, willing and able to provide the services to prepare said document(s).

NOW, THEREFORE, in consideration of this Agreement, and the mutual promises, covenants, and stipulations hereinafter contained, the parties agree as follows:

1. SCOPE OF SERVICES.

Consultant shall undertake and complete the scope of work as set forth and described in the documents attached hereto as Exhibit "A" (the "project"). The Consultant shall perform the services as described in Exhibit "A" in a manner compatible with the standards of its profession, and shall produce a fully complete project that is acceptable to the District.

2. TERM OF AGREEMENT.


This Agreement is effective as of the date first written above and will continue in effect until the District's acceptance of and payment for all services authorized by the District and performed by Consultant, unless terminated earlier in accordance with the provisions of the termination clause in this Agreement.

District hereby gives Consultant notice to proceed with the project in the manner described in Exhibit "A" as of the Effective Date of this Agreement. Consultant shall diligently pursue work on the project.

3. COMPENSATION.

Consultant agrees to accept a sum not to exceed \$21,009,634 as full remuneration for performing all services and furnishing all staffing and materials called for in Exhibit "A" and for performance by Consultant of all of its duties and obligations under this Agreement. The Compensation shall be paid pursuant in the manner and at the times set forth below:

District shall pay Consultant on a time and materials basis for Consultant's actual costs for all work called for in Exhibit "A" to this Agreement. All work to be performed under this Agreement shall be billed at the hourly rates set forth in Exhibit "B" attached hereto. Consultant shall submit monthly invoices to the District which include detailed tasks, hours worked, and billable rates for all work completed. Consultant shall furnish detailed receipts for any out-of-pocket costs paid by Consultant in connection with work performed on this project for which Consultant seeks reimbursement, which out-of-pocket costs shall not be incurred absent the District's prior express written authorization either in this Agreement or other written instrument. District shall remit payment to Consultant within forty-five (45) days of receipt Consultant's invoice.



4. OBLIGATIONS OF CONSULTANT.

Throughout the term of this Agreement, Consultant shall possess, or secure all licenses, permits, qualifications and approvals legally required to conduct business. Consultant hereby confirms that it has and will maintain all of the necessary professional capabilities and experience, as well as all tools, instrumentalities, facilities and other resources necessary to provide the District with the services contemplated by this Agreement. Consultant further warrants that it will follow generally accepted and professional practices to make findings, render opinions, prepare factual presentations, and provide professional advice and recommendations regarding this project.

5. PERFORMANCE BY KEY EMPLOYEE.

Consultant has represented to District that Guilaine Roussel, P.E. will be the person primarily responsible for the performance of the services referred to in this Agreement. District has entered into this Agreement in reliance on that representation by Consultant. Consultant therefore agrees that **sixty-five percent (65%)** or more of the above-named person's time will be devoted to the project that is the subject of this Agreement.

6. OWNERSHIP OF DOCUMENTS/TITLE TO DATA.

Ownership of Documents

All reports, drawings, designs, graphics, working papers and other incidental work or materials furnished hereunder shall become and remain the property of the District, and may be used by the District as it may require without any additional cost to the District. No reports shall be used by the Consultant for purposes other than this Agreement without the express prior written consent of the District.

Title to Data

If, as a part of the Agreement, Consultant is required to produce data such as, but not limited to, drawings, plans, specifications, calculations, model results, flow diagrams, visual aids and other related materials, the originals of all such data generated under this Agreement will be delivered to the District upon the completion or termination of services under the Agreement.

All materials, documents, data or information obtained from the District data files or any District medium furnished to Consultant in the performance of this Agreement will at all times remain the property of the District. Such data or information may not be used or copied for direct or indirect use by Consultant after termination of this Agreement without written consent of the District.

7. NEWS AND INFORMATION RELEASE.

Consultant agrees that it will not issue any news releases in connection with either the award of this Agreement, or any subsequent amendment of or efforts under this Agreement, without first obtaining review and approval of said news releases from District through the District Manager.

8. INTEREST OF CONSULTANT.

Consultant warrants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. Consultant warrants that, in performance of this Agreement, Consultant shall not employ any person having any such interest. Consultant agrees to file a Statement of Economic Interests with the District's Secretary at the start and end of this Agreement if so required at the option of the District.

9. AMENDMENTS.

Both parties to this Agreement understand that it may become desirable or necessary during the execution of this Agreement, for the District or Consultant to modify the scope of services provided for under this Agreement. Any material extension or change in the scope of work shall be discussed with the District and the change and cost shall be memorialized in a written amendment to this Agreement prior to the performance of the additional work.

Until a change order is so executed, the District will not be responsible to pay any charges Consultant may incur in performing such additional services, and Consultant shall not perform and shall not be required to perform any such additional services.

10. INDEPENDENT CONTRACTOR.

All acts of Consultant, its agents, officers, and employees and all others acting on behalf of Consultant relating to the performance of this Agreement, shall be performed as independent contractors and not as agents, officers, or employees of the District. Consultant, by virtue of this Agreement, has no authority to bind or incur any obligation on behalf of the District. Consultant has no authority or responsibility to exercise any rights or power vested in the District. No agent, officer, or employee of the District is to be considered an employee of Consultant. It is understood by both Consultant and the District that this Agreement shall not under any circumstances be construed or considered to create an employer-employee relationship or a joint venture.

Consultant, its agents, officers and employees are and, at all times during the terms of this Agreement, shall represent and conduct themselves as independent contractors and not as employees of the District.

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Consultant shall determine the method, details and means of performing the work and services to be provided by Consultant under this Agreement. Consultant shall be responsible to District only for the requirements and results specified in this Agreement, and, except as expressly provided in this Agreement, shall not be subjected to the District's control with respect to the physical action or activities of the Consultant in fulfillment of this Agreement. Consultant has control over the manner and means of performing the services under this Agreement. Subject to the terms and conditions of Agreement, including those set forth in Section 5 and Section 8, Consultant is permitted to (i) provide services to others during the same period service is provided to the District under this Agreement, and (ii), if necessary, to employ other persons or firms to assist Consultant in fulfilling the terms and obligations under this Agreement.

If in the performance of this Agreement any third persons are employed by Consultant, such persons shall be entirely and exclusively under the direction, supervision, and control of Consultant. All terms of employment including hours, wages, working conditions, discipline, hiring, and discharging or any other term of employment or requirement of law shall be determined by the Consultant.

It is understood and agreed that as an independent contractor and not an employee of the District neither the Consultant nor Consultant's assigned personnel shall have any entitlement as a District employee, right to act on behalf of the District in any capacity whatsoever as an agent, or to bind the District to any obligation whatsoever.

It is further understood and agreed that Consultant must issue W-2 forms or other forms as required by law for income and employment tax purposes for all of Consultant's personnel.

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As an independent contractor, Consultant hereby indemnifies and holds the District harmless from any and all claims that may be made against the District based upon any contention by any third party that an employer-employee relationship exists by reason of this Agreement.

11. ASSIGNMENT.

Neither this Agreement nor any portion thereof shall be subcontracted or assigned without the express prior written consent of the District in each and every instance.

12. PATENT/COPYRIGHT MATERIALS.

Unless otherwise expressly provided in this Agreement, Consultant shall be solely responsible for obtaining the right to use any patented or copyrighted materials in the performance of this Agreement. Consultant shall furnish evidence of such right to use to the District at the request of the District.

13. NOTICES.

Any and all notices permitted or required to be given hereunder shall be deemed duly given and effective (1) upon actual delivery, if delivery is by hand; or (2) five (5) days after delivery into the United States mail if delivery is by postage paid registered or certified (return receipt requested) mail. Each such notice shall be sent to the parties at the address respectively indicated below or to any other address as the respective parties may designate from time to time.

FOR CONSULTANT:	Name:	TERRA / GeoPentech, a Joint Venture
	Address:	350 Sansome Street, Suite 830 San Francisco, CA 94104
	Attention:	Guilaine Roussel, P.E.
	Phone:	(415) 543-0330 Ext.101

FOR DISTRICT: Name: Del Puerto Water District
 Address: P.O. 1596
 Patterson, CA 95363
 Attention: Anthea G. Hansen, General Manager
 Phone: (209) 892-4470

14. INSURANCE REQUIREMENTS.

The Consultant shall provide at its own expense and maintain at all times the following insurance with insurance companies licensed in the State of California and shall provide evidence of such insurance to the District as may be required by the Project Manager of the District. The policies or certificates thereof shall provide that, thirty (30) days prior to cancellation or material change in the policy, notices of same shall be given to the Project Manager of the District by certified mail, return receipt requested, for all of the following stated insurance policies.

(a) Worker's Compensation - in compliance with the statutes of the State of California, plus employer's liability with a minimum limit of liability of \$1,000,000.

(b) General Liability insurance with a minimum limit of liability per occurrence of \$1,000,000 for bodily injury, personal injury and property damage. 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. This insurance shall indicate on the certificate of insurance the following coverages and indicate the policy aggregate limit applying to: premises and operations; broad form contractual; independent consultants and subcontractors; products and completed operations as applicable.

(c) Automobile Liability insurance with a minimum limit of liability per occurrence of \$1,000,000 for bodily injury and property damage. This insurance shall cover any automobile for bodily injury and property damage.

(d) Professional Liability insurance with a minimum limit of \$1,000,000 per claim and policy aggregate. If coverage is on a claims made basis it shall be maintained for at least three (3) years following completion of the work.

If at any time any of said policies shall be unsatisfactory to the District, as to form or substance, or if a company issuing such policy shall be unsatisfactory to the District, the Consultant shall promptly obtain a new policy, submit the same to the Project Manager for approval and submit a certificate thereof as hereinabove provided. Upon failure of the Consultant to furnish, deliver or maintain such insurance and certificates as above provided, this Agreement, at the election of the District, may be forthwith declared suspended, or terminated. Failure of the Consultant to obtain and/or maintain any required insurance shall not relieve the Consultant from any liability under this Agreement, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations of the Consultant concerning indemnification. The District, its agents, officers, employees, and volunteers shall be named as an additional insured on all insurance policies required herein, except Workers' Compensation and Professional Liability. The Workers' Compensation insurer shall agree to waive all rights of subrogation against the District, its agents, officers, employees, and volunteers for losses arising from work performed by Consultant for the District. The Consultant's insurance policy(ies) shall include a provision that the coverage is primary as respects the District; shall include no special limitations to coverage provided to additional insured; and, shall be placed with insurer(s) with acceptable Best's rating of A:VII or with approval of the District's General Manager. The

Consultant must deliver certificates evidencing existence of the insurance listed above to the Project Manager at the time this Agreement is signed.

Consultant shall provide the District with separate endorsements evidencing proof of the District's additional insured status as to both the general liability and automobile liability insurance policies. In addition, Consultant shall provide the District with a Workers Compensation subrogation waiver by way of a separate endorsement. All endorsements referenced above must include the applicable policy number.

For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the District, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

15. TERMINATION OF AGREEMENT.

Termination on Occurrence of Stated Events

This Agreement shall terminate automatically on the date on which any of the following events occur: (1) bankruptcy or insolvency of Consultant, (2) legal dissolution of Consultant, or (3) death of key principal(s) of Consultant.

Termination by District for Default of Consultant

Should Consultant default in the performance of this Agreement or materially breach any of its provisions, and the default remains uncured after ten (10) days following Consultant's receipt from District of written notice of such default, District shall have such rights and remedies available to it as are provided for in law and equity, including without limitation the termination of this Agreement. For the purposes of this section, material breach of

this Agreement shall include but not be limited to any of the following: failure to perform required services or duties, willful destruction of the District's property by Consultant, dishonesty or theft. The terms and conditions of this paragraph shall be subject to the more specific terms of other paragraphs in this Section 15.

Termination by Consultant for Default of District

Should the District default in the performance of this Agreement or materially breach any of its provisions, and the default remains uncured after ten (10) days following District's receipt from Consultant of written notice of such default, Consultant shall have such rights and remedies available to it as are provided for in law and equity, including without limitation the termination of this Agreement. For the purposes of this section, material breach of this Agreement shall include but not be limited to any of the following: failure to cooperate reasonably with Consultant, willful destruction of Consultant's property by the District, dishonesty or theft. The terms and conditions of this paragraph shall be subject to the more specific terms of other paragraphs in this Section 15.

Termination by District for Lack of Budgeted Funds

The District may terminate this Agreement effective July 1 of any given year upon the District's determination to not appropriate sufficient funds for this Agreement for the ensuing fiscal year. In such event the District shall give Consultant not less than 30 days written notice of termination.

Termination for Failure to Make Agreed-Upon Payments

Should the District fail to pay Consultant all or any part of the payments set forth in this Agreement on the date due, at its option Consultant may terminate this Agreement if the failure is not remedied within thirty (30) days after Consultant notifies the

District in writing of such failure to pay. The termination date shall be the effective date of the notice of termination.

Termination by District for Change of Consultant's Tax Status

If the District determines that Consultant does not meet the requirements of federal and state tax laws for independent contractor status, the District may terminate this Agreement by giving written notice to Consultant. The termination date shall be the effective date of the notice.

In the Event of Termination

If this Agreement is terminated pursuant to this Paragraph, Consultant shall cease all its work on the project as of the termination date and shall ensure that its employees, subcontractors and agents are notified of such termination and cease their work. If the District so requests, and at the District's cost, Consultant shall provide sufficient oral or written status reports to make the District reasonably aware of the status of Consultant's work on the project. Further, if the District so requests, and at the District's cost, Consultant shall deliver to the District any work products whether in draft or final form which have been produced to date.

If the Agreement is terminated pursuant to any of the subsections contained in this paragraph, District will pay Consultant an amount based on the work completed in conformance with the terms and conditions of this Agreement on the termination date. If the Agreement is terminated pursuant to the subparagraph entitled Termination by the District for Default of Consultant, Consultant understands and agrees that the District may withhold payment for work performed after Consultant's receipt of a notice of default and prior to the termination date, or which is otherwise unacceptable to the District for failure to conform to the specifications set forth in this Agreement.

16. CERTIFIED PAYROLL REQUIREMENT.

For consultants performing field work on public works contracts on which prevailing wages are required: The Consultant shall comply with the provisions of Section 1776 of the California Labor Code, regarding payroll records, and shall require its subconsultants and subcontractors to comply with that section as may be required by law.

17. INDEMNITY.

The Consultant shall hold the District, its agents, officers, employees, and volunteers, harmless from and save, defend and indemnify them against any and all claims, losses, liabilities, judgments or damages from every cause, including but not limited to injury to person or property or wrongful death, including reasonable costs and expenses of defense of any judicial or administrative action, to the extent arising directly or indirectly out of any negligent or intentional act or omission of Consultant, or its agents, officers, employees, contractors, subcontractors, or volunteers relating to or during the performance of its obligations under this Agreement.

Consultant's obligation to defend, indemnify, and hold the District, its agents, officers, and employees harmless under the provisions of this paragraph is not limited to or restricted by any requirement in this Agreement for Consultant to procure and maintain a policy of insurance.

Consultant shall have no obligation to pay for any of District's defense-related costs prior to a final determination of liability or to pay any amount that exceeds Consultant's finally determined percentage of liability based upon the comparative fault of Consultant.

18. DISPUTE RESOLUTION.

In the event of any dispute between the parties related to this Agreement or the project, the parties agree to first negotiate in good faith toward a resolution with participation by representatives of each party holding sufficient authority to resolve the dispute. If such dispute cannot be resolved in this manner, before any action or litigation is initiated other than as required to secure lien rights, the dispute shall be submitted to mediation using the American Arbitration Association or another mediator as mutually selected by the parties. Such mediation shall be completed within a reasonable period of time following either party's written demand with each party to bear an equal share of the mediation fees and its own respective attorney and consultant fees and costs. If good faith efforts fail to resolve the dispute through this process, the following shall apply.

All claims, controversies, or disputes arising out of, or relating to the formation of this Agreement, or the breach, termination execution, enforcement, interpretation, or validity of this Agreement, including the determination of the scope or applicability of this Agreement provision shall be determined by binding arbitration in Patterson, California by one arbitrator, except as otherwise specified in this Agreement. The American Arbitration Association shall administer the arbitration under its Arbitration Rules then in effect, subject to the modifications of those rules contained in this paragraph. This Agreement to arbitrate shall be specifically enforceable under the prevailing law of any court having jurisdiction, and the award rendered by the arbitrator may be entered in any court having jurisdiction. The appropriate venue for any arbitration or court proceeding relating to or arising out of this provision shall be in Stanislaus County, California.

This paragraph is not intended to and does not waive the claim filing requirements found in California Government Code section 900 et seq. In the event that a timely

and legally sufficient, arbitrable claim is filed by Consultant with the District, and the claim is rejected in whole or in part by the District, this paragraph shall result in the conclusive, final, and binding resolution of all the issues presented in the claim by Consultant so long as any issues presented by the claim are arbitrable. Claims rejected by the District or by operation of law, shall be submitted by Consultant to arbitration pursuant to the Arbitration Rules of the American Arbitration Association within ninety (90) days after mailing of the written rejection by the District to Consultant. Otherwise, the claim or claims shall be deemed waived in their entirety.

The "fast track" rules of the American Arbitration Association shall apply to any claim or counterclaim less than ONE HUNDRED FIFTY THOUSAND AND 00/100 (\$150,000.00) DOLLARS. In arbitration not proceeding under the "fast track" rules, the arbitrator shall have the power to order that depositions be taken and other discovery be made. Both District and Consultant shall have the right, upon written notice, to take no more than three (3) depositions of the other as a matter of right in an arbitration proceeding under the "fast track" rules.

Whether or not the District and Consultant may be engaged in interstate commerce, any controversy or dispute mentioned above shall be determined by, and the parties shall be bound by, the substantive law of the State of California, and not the Federal Arbitration Act at 9 USC Section 1 et seq.

The arbitrator may grant any remedy or relief deemed by the arbitrator just and equitable under the circumstances, whether or not such relief could be awarded in a court of law. The arbitrator shall be empowered to award monetary sanctions against a party for failure of cooperation in the arbitration. The arbitrator shall, in written award, allocate all the costs of the arbitration, including the fees of the arbitrator and the reasonable attorney fees of the

prevailing party, against the party who did not prevail. The prevailing party shall be the party in whose favor the majority of the central issues in the case are resolved.

Notwithstanding anything in this provision to the contrary, the arbitrator shall have no power to award punitive damages or other damages not measured by the party's actual damages (excluding litigation costs and fees) against any party. This limitation of the arbitrator's powers under this Agreement shall not operate as an exclusion of the issue of punitive damages from this Agreement to Arbitrate sufficient to vest jurisdiction in a court with respect to that issue.

Consultant shall include in all subcontracts a specification whereby the subcontractor consents to being joined in an arbitration between the District and Consultant involving the work of the subcontractor to be joined. Consultant's failure to do so shall be a breach of this Agreement.

The parties hereby waive any rights provided by Title 9.2 of the California Code of Civil Procedure, Section 1296. The arbitrator's award shall be deemed final, conclusive and binding to the fullest extent allowed by California law.

19. ENTIRE AGREEMENT.

This Agreement and its exhibits contain the entire understanding between Consultant and District. Additional or new terms contained in this Agreement which vary from Consultant's proposal are controlling and are deemed accepted by Consultant by shipment of any article or other commencement of performance hereunder. All previous proposals, offers and communications relative to this Agreement, whether oral or written, are hereby superseded except to the extent that they have been incorporated into this Agreement. No future waiver of or exception to any of the terms, conditions, and provisions of this Agreement shall be considered valid unless specifically agreed to in writing by all the parties.

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20. PARTIAL INVALIDITY.

If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

21. WAIVER.

The waiver by any party to this Agreement of a breach of any provision hereof shall be in writing and shall not operate or be construed as a waiver of any other or subsequent breach hereof unless specifically stated in writing.

22. AUDIT.

The District's duly authorized representative shall have access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify Consultant's charges to the District under this Agreement.

Consultant agrees to retain reports, records, documents, and files related to charges under this Agreement for a period of four (4) years following the date of final payment for Consultant services. The District's representative shall have the right to reproduce any of the aforesaid documents.

23. GOVERNING LAW.

This Agreement shall be governed according to the laws of the State of California.

24. HEADINGS NOT CONTROLLING.

Headings used in the Agreement are for reference purposes only and shall not be considered in construing this Agreement.

25. COMPLIANCE WITH LAWS.


Consultant shall ensure compliance with all safety and hourly requirements for employees, in accordance with federal, state, and county safety and health regulations and laws. Consultant shall fully comply with all applicable federal, state, and local laws, ordinances, regulations and permits.

IN WITNESS WHEREOF, the Board of Directors of Del Puerto Water District, a Special District of the State of California, has authorized the execution of this Agreement in duplicate by its General Manager and attestation by its Secretary on the 18th day of May, 2022, and Terra/GeoPentech, a Joint Venture, and has caused this Agreement to be duly executed in duplicate as of the Effective Date.

DEL PUERTO WATER DISTRICT
a Special District

TERRA/GEOPENTECH
a Joint Venture

By 
ANTHEA G. HANSEN, General Manager

By 
Guilaine Roussel, General Partner

By _____
Name Title

ATTEST:

(Seal)

By 
ANTHEA G. HANSEN, Secretary

Consultant's Federal ID #_51-0677636

** Corporations - signature of two (2) officers required or one (1) officer plus corporate seal.*

Partnership - signature of a partner required

Sole Proprietorship - signature of proprietor required

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EXHIBIT A

DEL PUERTO WATER DISTRICT Del Puerto Canyon Reservoir Design of Earthen Dams and Appurtenant Structures

SCOPE OF WORK

The Scope of Work to be provided by Consultant is divided into six main tasks as follows:

- Task 1 – Project Administration
- Task 2 – Design Level Survey
- Task 3 – Geotechnical Evaluation
- Task 4 - Preliminary Design (30% Design)
- Task 5 - Intermediate Design (60% Design)
- Task 6 - Final Design (90%, 95%, and 100% Design)

The following sections describe the work required under each of the main tasks. Unless otherwise indicated in the task description, deliverables will be submitted to the Program Team (as defined in the Request for Proposal dated October 15, 2021). Documents will be submitted in draft form for review and comments, comments addressed, and final versions of the documents submitted.

TASK 1 – PROJECT ADMINISTRATION

TASK 1.1 – REVIEW OF EXISTING PROJECT DOCUMENTS AND OTHER RELEVANT DATA

Consultant will collect and catalog available project documents including but not limited to memoranda, presentations, and reports prepared during the initial and feasibility studies for the project, as well as other relevant published data. Consultant will review the available information so that the benefit from work performed by others in the past can be achieved and data gaps identified as Consultant develops the plan (under Task 3) for geotechnical/geological explorations and testing in support of the design of the dams and appurtenant structures west of Highway 5. The findings of this work will be documented in a short Technical Memorandum.

TASK 1.2 – PREPARATION OF PROJECT WORK PLAN

Consultant will prepare a Project Work Plan that lays out how the project will be completed. The Project Work Plan will include, but not be limited to, team organization and roles and responsibilities of team members; overall project approach, communication protocols within the team and with the Program Team, regulators, and other stakeholders; contractual scope of work; procedures to be followed for cost and schedule monitoring and control, and project reporting; standards for document preparation; document control and project filing; as well as contract administration.

TASK 1.3 – PREPARATION OF PROJECT SCHEDULE

Consultant will develop a project schedule using the Critical Path Method in Primavera P6 that can be used during the course of the project for resource-leveling, schedule and budget tracking, and Earned Value Analysis.

TASK 1.4 – PREPARATION OF QUALITY PLAN

Consultant will develop a Quality Plan for the project that establishes the roles and responsibilities of team members to ensure the quality of the work; identifies the procedures to be followed for checking that the work is accurate and meets the requirements of the task and for ensuring the uniformity of deliverables; and defines project-specific document control procedures.

TASK 1.5 – MEETINGS

Most meetings will be conducted virtually using MS Teams. Unless otherwise noted, meetings would generally be attended by the Contractor's Project Manager, Deputy Project Manager, Technical Leads, and other key personnel as appropriate based on the meeting purpose and agenda. An agenda will be prepared for all meetings and notes, decisions made, and action items distributed to meeting attendees.

Task 1.5.1 – Meetings with Program Team

Project Kick-off Meeting. Consultant will schedule and conduct a project kick-off meeting with the Program Team. This meeting will cover the general approach to the project performance, key issues critical to each stakeholder, standing agenda and schedule for regular progress meetings, format of project decision and action item logs, administrative requirements of the Program Team and the District, and other issues as necessary.

Bi-Weekly Progress Meetings. Consultant will conduct regular bi-weekly meetings with the Program Team. The focus of these meetings will be to (a) review the progress of the work (i.e., action items completed or in progress, work accomplished, and activities scheduled); (b) discuss any issues encountered and their disposal and any issues requiring input or action/decision from the Program Team; and (c) resolve problems as they arise.

All bi-weekly meetings will follow a standing meeting agenda that will be adapted to cover in detail the relevant and important issues at the time of the meeting. A log of action items assigned at the meetings will be maintained and reviewed at each meeting. A log of project decisions made will be prepared and updated as necessary after each meeting.

Risk Workshop. Building on the Dam Risk Register previously developed by the Program Team, the Consultant will conduct a 1-day workshop to brainstorm and identify potential risks from various perspectives and develop approaches to minimize these risks, whether through investigations to gather additional data and avoid surprises during construction, through design details that engineer around these risks, or through focused communications with regulators or other stakeholders. The outcome of this workshop would be an updated Dam Risk Register for the Project.

Task 1.5.2 – Initial Meetings with DSOD

Kick-Off Meeting. Consultant will participate in a kick-off meeting with the Division of Safety of Dams (DSOD) to present Consultant's strategy and general technical approach to the Project; discuss key deliverables that would be submitted to DSOD for review and approval, DSOD

expected review durations and potential opportunities to reduce review times, and establish communication protocols. In conjunction with the Program Team, Consultant will develop a meeting agenda and the strategy and technical approach for the Project to be presented to DSOD and prepare the necessary meeting materials.

Project Geotechnical Data Collection and Laboratory Testing Plan (DCP). Consultant will participate in a meeting to present the DCP to DSOD and obtain their initial comments. Consultant will develop a meeting agenda and meeting materials and prepare meeting notes documenting DSODs initial comments. These notes would be distributed in draft form to meeting participants and finalized upon receipt of comments. Comments received at the meeting will be addressed in the final draft of the DCP submitted to DSOD to expedite their approval of the plan.

TASK 1.6 – PROJECT MONITORING AND CONTROL

These project management activities include but are not limited to: monitoring and control of project activities; scheduling and resource allocation; internal meetings/conference calls with team members; communication with the Program Team; and project document maintenance and control.

Consultant will monitor project progress every week so that potential problems can be identified and corrected on a timely basis and before they can affect our overall performance of the work. Consultant's Project Manager will hold regularly scheduled weekly status meetings with Task Leaders and supporting staff as appropriate to monitor progress and take corrective action, if necessary.

Monthly Progress Reports will be submitted with each invoice. These reports will include the following information:

- Summary of work performed during the previous month;
- Significant issues encountered and their disposition;
- Summary of milestones achieved, project deliverables produced, and meetings held;
- Activities planned for next reporting period; and
- Assessment of work status and progress against schedule and budget based on results of Earned Value Analysis by task; discussion of any variance, as appropriate; and proposed remedial action, if necessary.

Consultant's Project Manager will monitor and control the QA/QC review process and conduct periodic quality audits to verify compliance of the project team with the requirements of the Quality Plan.

<i>Task 1 – Deliverables</i>	Technical Memorandum on Review of Existing Information Project Work Plan Project Schedule Project Quality Plan Meeting Agendas, Materials, and Notes Dam Risk Register Monthly Progress Reports
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TASK 2 – DESIGN LEVEL SURVEY

TASK 2.1 – DEVELOP SCOPE OF SUPPLEMENTAL SURVEY

Consultant will review the topographical information collected as part of the feasibility planning phase of the Project and provided by the Program Team and determine what additional survey information is required to complete the design of the earthen embankments and appurtenant structures. Consultant will then prepare a short work plan for the supplemental survey for review and approval by the Program Team.

TASK 2.2 – COMPLETE SUPPLEMENTAL SURVEY

The supplemental survey will include the following items within the limits of work for the Project:

- treelines, structures, roadways, and other planimetric features;
- existing powerline easements and structures;
- proposed powerline structures and relocated roadways;
- existing and proposed utilities; and
- project benchmarks for construction survey control.

It is expected that portions of the supplemental survey will be completed for the 30% design (e.g., treelines, structures, roadways, and other planimetric features) while others (e.g., proposed powerline structures and relocated roadways) will require coordination with other design teams and will not be required until the 60% design. The installation of semi-permanent project benchmarks for survey control during construction will be performed as the design is finalized.

All surveys will be performed in accordance with the survey and mapping standard established for the Project and provided by the Program Team

TASK 2.3 – INTEGRATE SUPPLEMENTAL SURVEY IN EXISTING DEM

The results of the supplemental survey will be integrated with the existing Digital Elevation Model developed during the feasibility planning phase of the Project. The supplemental surveys will also form the basis for the survey controls provided in the construction drawings.

Task 2 – Deliverables Work Plan for Supplemental Survey
 Electronic Shape Files and Survey Data Tables

TASK 3 – GEOTECHNICAL EVALUATION

TASK 3.1 – GEOTECHNICAL INVESTIGATIONS AND LABORATORY TESTING

Task 3.1.1 – Develop Scope of Geotechnical Explorations and Testing

Leveraging the results of the Consultant's review of the existing data (Task 1.1), Consultant will develop a comprehensive list of data necessary to support the design of the earthen embankments and appurtenant structures.

Consultant will prepare a comprehensive plan for the data collection and laboratory testing for ultimate approval by DSOD. The plan will describe the philosophy and reasoning behind the proposed explorations and field testing; the proposed locations, scope, and types of the proposed explorations; the means, methods, and procedures to be used; and the protection measures that will be implemented to satisfy environmental permit requirements. The plan will also include a

comprehensive laboratory testing program to establish the index and engineering properties of the materials collected during the explorations.

The DCP will be submitted in draft form for review by the Program Team and a draft final will be prepared for review by the Program's Technical review Board (TRB), as defined in the Request for Proposal dated October 15, 2021. Upon addressing TRB comments, a final draft will be prepared for submittal to DSOD. This document will be presented to DSOD at the meeting included in Task 1. Upon receipt and resolution of DSOD comments, the DCP will be finalized. This review process will be followed for all documents submitted to DSOD for review.

Task 3.1.2 - Review Meetings

The draft DCP will be reviewed and discussed with the Program Team. Comments from the Program Team will be addressed, and the draft document will be updated as necessary and submitted as a draft final document for review by the TRB.

Consultant will meet with the TRB to present and discuss the draft final DCP. Upon receipt of TRB comments, Consultant will update the document, as well as the meeting materials, to provide a final draft DCP for review by DSOD.

Task 3.1.3 – Conduct Geotechnical Explorations

Coordinate Field Activities with Program Team, Regulatory Agencies, and Obtain

Permits...Consultant will coordinate their field activities with the US Fish and Wildlife Service (USFWS) and DSOD since they may want to visit the site and observe some of the explorations. Consultant will coordinate the development of temporary access roads for the explorations with the Program Team to consider opportunities to also meet some of the needs for access roads for utility and permanent road relocations and conveyance facility development, if practical.

Consultant will obtain the necessary permits for the explorations from Stanislaus County, including well and boring permits and a grading permit as necessary for the development of temporary access roads. Environmental permits will be obtained by others on the Program Team.

Conduct Explorations. Consultant's geotechnical explorations will include the following:

- test borings
- borehole permeability and packer testing
- borehole geophysical logging
- surface geophysical surveys
- cone penetrometer tests
- test pits
- test trenches
- piezometers and/or observation wells

Task 3.1.4 – Conduct Geological Investigation

Site Reconnaissance and Detailed Mapping. Consultant will conduct geologic field mapping to document geologic and geomorphic conditions within the Project area that bear on the design of the facility. Desktop studies will be conducted initially to provide preliminary geologic interpretations based on review of existing information and GIS-based desktop mapping of topographic data and aerial imagery. The desktop compilation will include identification of

potentially adverse geologic conditions, including existing landslides, potentially unstable slopes with adverse bedding, and areas of soluble mineralization. Field data will then be collected using GPS-enabled tablets, and the results incorporated into the project geologic and geotechnical conceptual model.

Consultant will develop a geodatabase of landslides within the margins of the Del Puerto Reservoir project with data layers including mapped landslides, landslide flanks, headscarps, and internal failure scarps. The landslide inventory database will include type of failure, estimated age, estimated thicknesses, and the underlying geology for each mapped slope failure feature.

Fault Investigation. The San Joaquin fault is mapped along the range front downstream of the main dam. This fault system will likely be considered either potentially active or active under DSOD criteria, depending on pending published results of the study.

Consultant will profile stream terraces along Del Puerto Creek and analyze historic, pre-development aerial photography to develop pre-development terrain models to reconstruct terraces across and downstream of the range front to evaluate faulting and to locate the main trace of the fault. This effort will be integrated with detailed field mapping of stream terraces where preserved along the creek and test pits to develop relative age. Oil industry seismic reflection data will be acquired and reprocessed to characterize the fault.

Electrical resistivity (ERT) surveys combined with refraction (SRT) will be used to evaluate the presence or absence of possible faulting associated with the San Joaquin fault. Fault trenches to expose older fan deposits are also planned.

Task 3.1.5 – Conduct Laboratory Testing

Samples of soil and rock recovered from test borings, test pits, and test trenches will be tested by Consultant in the laboratory for physical and index properties and engineering properties to develop parameters for use in the design engineering analyses.

Task 3.1.6 – Prepare Geological/Geotechnical Data Report and GIS Site Model

Consultant will document the results of the geotechnical explorations, geological investigation, and geotechnical laboratory testing program in a Geotechnical Data Report (GDR). This report will describe the purpose, scope, and implementation of the field explorations and laboratory testing and will summarize the results.

The GDR will include a number of appendices with field exploration logs, field test data sheets, instrumentation installation logs, geophysical logs, detailed geologic maps, laboratory test datasheets, and other relevant data collected during explorations and testing. The GDR will be submitted in draft form to the Program Team for review and, upon receipt of comments, will be updated as appropriate and submitted in final form. In addition, the data collected will be input into the GIS model of the site to be readily available during the Project.

TASK 3.2 – GEOLOGICAL/GEOTECHNICAL CHARACTERIZATION

Task 3.2.1 – Fault and Landslide Hazards

Consultant will determine the location of the San Joaquin fault, confirm the style of deformation (e.g., warping, tilting, or ground rupture), and identify zones of potential primary and secondary deformation relative to the project structures. Fault activity, including estimates of rates of deformation, will be developed from age dating and soil profiles in test pits and fault trenches.

Task 3.2.2 – Ground Motion Study

Consultant will evaluate historic seismicity and Paleo seismicity in the region, and review published data and models on relevant earthquake faults. This work will focus on selecting the appropriate magnitude and distance for scenario events to be implemented in the Deterministic Seismic Hazard Analysis (DSHA) for the site.

Consultant will characterize the ground motions for each dam through a site-specific DSHA using the Next Generation Attenuation – West 2 (NGA-W2) ground motion prediction equations. Scenario events will be evaluated at the 50th or 84th percentile levels using DSOD. The maximum response spectral ordinates from the scenario events considered will be used to define the Seismic Safety Earthquake (SSE) for the main dam and each saddle dam. Directivity effects will be considered in the development of the SSE spectrum, as appropriate, for scenarios that occur within 10 km of the dam sites.

Following the development of the design response spectrum, Consultant will select three earthquake time histories to represent the scenario earthquake that controls the seismic hazard at the site. The selection of seed time histories for the nonlinear dynamic response analyses will be carried out to identify records which have similar magnitude, closest distance, geologic conditions and intensity measures to the events for each scenario spectrum. Screening of records from the PEER Ground Motion database will systematically identify the most appropriate records for analysis based on magnitude, distance, spectral shape, Arias Intensity and significant duration. After the TRB has agreed with the design response spectra and seed time histories, Consultant will spectrally match the time histories to their corresponding target spectra.

Task 3.2.3 – Characterization of Geotechnical Conditions

Consultant will use the GIS model developed as part of the GDR to prepare geotechnical cross-sections depicting subsurface conditions at the dams and appurtenant structures, within potential borrow areas, at the locations of landslides, and along the reservoir rim. The results of geophysical surveys and the mapping of marker beds within the sedimentary rock formations will be used to generalize subsurface conditions in the rock formations between explorations. Laboratory physical and index property tests will be used to confirm visual soil classifications. Field measurements of shear wave velocity, rock permeability based on packer tests, and penetration resistance in soil will be reviewed and summarized by formation, and engineering properties established for design.

Task 3.2.4 – Prepare Geological/Geotechnical Interpretive Report (GIR)

Consultant will document the studies completed under Tasks 3.2.1, 3.2.2, and 3.2.3 above in the GIR. This report will describe the purpose, scope, and approach of the studies and will document the results and their implications for the design of the earthen embankments and appurtenant structures. This report, along with its companion the GDR, is a critical element of the information required for the design. The draft GIR will be presented to, and discussed with, the Program Team, the TRB and DSOD at separate meetings as indicated in Task 3.2.5 below.

Task 3.2.5 – Review Meetings

Review Draft GIR with Program Team. Consultant will review and discuss the draft GIR with the Program Team. Comments from the Program Team will be addressed and the draft document will be updated as necessary and submitted as a draft final document for review by the TRB.

Review draft GIR with TRB and DSOD. Consultant will meet with the TRB to present and discuss the draft final GIR. Upon receipt of TRB comments, Consultant will update the document, as well as the meeting materials, to provide a final draft GIR for review by DSOD. The final draft GIR will be presented to and discussed with DSOD at a separate meeting. DSOD comments will be addressed and the GIR will be finalized.

Task 3 – Deliverables Project Geotechnical Data Collection and Laboratory Testing Plan (DCP)
Geological/Geotechnical Data Report (GDR)
Geological/Geotechnical Interpretative Report (GIR)
Meeting Agendas, Materials, and Notes

TASK 4 – PRELIMINARY DESIGN (30% DESIGN)

TASK 4.1 – DEVELOP DESIGN CRITERIA

Consultant will develop criteria for the design of the earthen embankments and appurtenant structures based on the existing conceptual (10%) design and our understanding of the Project and its risks and challenges. Specific design criteria will be established for each Project facility and feature including:

- geotechnical, geologic, hydrologic, hydraulic, structural, mechanical, and electrical design criteria;
- seismic design criteria; and
- other criteria related the interconnections of the Project facilities to the conveyance facilities east of the bifurcation structure and constraints associated with utility and road relocations and environmental issues.

Additional guidelines and standards that will be considered in developing the design criteria and will be incorporated as appropriate include those from such organizations as DSOD, USACE, USBR, AWWA, ACI, ASTM, ASCE, AASHTO, FEMA, and ICC.

Consultant will document the design criteria in a Design Criteria Memorandum (DCM) that will describe the basic layout of the Project features and the rationale behind the selection of the design criteria and provide a comprehensive summary of these criteria. The DCM will be submitted in draft form for review by the Program Team and a draft final will be prepared for review by the TRB. Upon addressing TRB comments, a final draft will be prepared for submittal to DSOD. Upon receipt and resolution of DSOD comments, the DCM will be finalized and submitted to the Program Team.

TASK 4.2 – DESIGN ANALYSES AND REPORTING

A number of engineering analyses will be required to develop the design. The majority of these analyses are required for the intermediate (60%) design and are listed under Task 5. However, some analyses are required for the preliminary design and are listed under this task.

Consultant will document each specific engineering analysis in a Design Memorandum that will be a relatively short document focused on a specific analysis without extraneous information. Ultimately, all the Design Memoranda will be assembled in a compendium and incorporated into the Project Design Report as described in Tasks 5 and 6.

Each Design Memorandum will be prepared in draft form and submitted to the Program Team for review. Most of the Design Memoranda will also be reviewed by the TRB and DSOD; thus, upon addressing Program team comments, a draft final of the memorandum will be prepared for review by the TRB and a final draft that incorporates TRB comments will be submitted to DSOD for review. DSOD comments will be addressed and considered in the design but the memorandum will not be finalized until the 60% design, as indicated under Task 5.

The scope of the engineering design analyses is discussed in the following paragraphs.

Task 4.2.1 – Borrow Area Planning and Utilization

Consultant will expand the search for suitable borrow materials to include overburden soils in the valley, soils within landslide areas, and potential bedrock quarry areas within the reservoir rim where shale or sandstone could be excavated and conditioned for use in the core or shells of the dam. The use of conditioned shale or sandstone may prove to be a desirable alternative to the use of overburden soils because of the uniformity of these materials, the low permeability of conditioned shale, and the high strength of conditioned sandstone for use in the shells of the dam.

Task 4.2.2 – Fault Rupture and Permanent Ground Displacement Hazard Assessment

A key part of Consultant's assessment will be to develop a detailed model of the likely location and style of fault rupture across the San Joaquin fault, that is reviewed and accepted by DSOD. The model must be able to accommodate (explain) any secondary or tertiary fissures or fractures exposed during construction in order to prevent costly delays. The potential for fault rupture and associated permanent ground displacement will be evaluated based on interpretation of the proposed geomorphic mapping, geophysical surveys, and fault trenching. Specifically, the structural model of the fault and possible secondary features will be developed incorporating reprocessed industry seismic data and regional uplift above the fault preserved in stream terrace profiles. Estimates of the amount of displacement across the main San Joaquin fault, and any secondary features, will be developed using accepted empirical relations between earthquake magnitude, fault length, and maximum surface displacement derived from a global earthquake dataset.

Task 4.2.3 – Embankment Cross Sections and Zoning

The width of the central core of the dams and the inclination of their upstream and downstream slopes depends to a large degree on the uniformity, permeability, and strength of the materials available from the borrow areas. Consultant will complete this study after completion of the borrow area utilization study.

Task 4.2.4 – Seepage Analyses for Dams, Cut Slopes, and Reservoir Rim

Seepage of water through the dams and reservoir rim will occur, but it must be understood and controlled to avoid excessive water losses. The consequences of excessive seepage could also include elevated groundwater levels in adjacent properties outside the reservoir rim or downstream of the dam in addition to the loss of use of valuable water. Consultant will investigate current groundwater conditions using piezometers installed at the dam sites and within the reservoir rim. A related issue is seepage through the abutments of the dams that could initiate internal erosion (piping) failures. Analyses of seepage quantities and piezometric levels will be completed using finite element seepage models that consider flow through the zoned earthen dams and within their rock foundations.

Task 4.2.5 – Static and Pseudo-Static Stability Analyses of Dams and Cut Slopes

Consultant will complete stability analyses using limiting equilibrium slope stability programs such as SlopeW. Minimum values of factors of safety must be met for static and pseudo-static stability of the downstream slope of the dams under steady-state flow conditions with a full reservoir, and transient flow conditions within the upstream shell of the dam during rapid drawdown. Similarly, minimum factors of safety are required for cut slopes at the inlet/outlet structure when the reservoir is full under hydrostatic conditions and during rapid drawdown. Groundwater conditions will be based on finite element seepage models.

Task 4.2.6 – Site Access, Site Control, and Coordination with Other Designers and Stakeholders

Compatibility of Consultant's design with that of others for the inlet/outlet conduit east of the bifurcation structure and the relocation of utilities is a critical element of our design to ensure seamless integration of the dams and appurtenant structures into the overall DPCR facility. This study will focus of the logistics of providing an efficient layout of access road throughout the Project area not only for long-term operation and maintenance but also during construction. Consultant will specifically consider the sequencing of construction activities to avoid interference with other construction operations taking place on-site, especially at and around the toe of the main dam.

TASK 4.3 – REVIEW MEETINGS

Task 4.3.1 – Periodic Review Meetings with Program Team

Consultant will hold periodic review meetings with the Program Team to review the ongoing design analyses and discuss technical issues as they arise. These meetings will be rather informal and scheduled as necessary based on the progress of the work, and attendance will be limited to the Project Manager (or Deputy Project Manager) and the lead technical personnel involved in the technical work being discussed. The expected frequency of these meetings is about once every two months.

Task 4.3.2 – Periodic Review Meetings with TRB

Consultant will hold regular review meetings with the TRB to present results of ongoing analyses and obtain critical feedback from the TRB on the results of the analyses and the direction of the work. For planning purposes, it is assumed that these meetings will be held on a quarterly basis.

TASK 4.4 – PRELIMINARY DESIGN

Task 4.4.1 – Confirm and Optimize Layout and Dimensions of Major Components

Consultant will use the results of the design analyses to confirm and optimize the layout, geometry, and dimensions of the major components of the Project including:

- geometry and zoning of earthen embankments given design requirements and borrow material characteristics and availability;
- size, layout, and geometry of dam spillway and energy dissipator – the feasibility of a side-channel spillway will be evaluated as part of this effort;
- inlet/outlet structure location, arrangement, and controls;
- conduit and bifurcation structure; and
- interface between the reservoir and conveyance system east of the bifurcation structure.

The preliminary design will be based on the Project design criteria developed in Task 4.1 and will consider long-term operations and maintenance of the reservoir; instrumentation and controls associated with the inlet/outlet structure and their interface with the operations at the pumps station on the Delta-Mendota Canal; and overall communications between the components of the reservoir and the facilities conveying water between the Canal and the reservoir. The preliminary design will take into account the local, State of California, and DSOD requirements.

Task 4.4.2 – Coordination with Cultural and/or Environmental Assessments

The preliminary design will take into consideration the constraints and requirements associated with cultural and environmental resources, especially if it is determined that borrow areas outside the reservoir inundation area are likely to be required. Mitigation requirements, as necessary, will be integrated into the design and the construction documents. The Consultant's permitting specialists will review background environmental documentation, including the project's approved EIR and EIS, with a focus on the Project Description and Mitigation Monitoring and Reporting Program, to provide feedback to the Consultant's Team early on regarding environmental requirements.

Task 4.4.3 – Prepare Preliminary Design Technical Memorandum

Consultant will prepare a Preliminary Design Technical Memorandum that documents the optimized layout, geometry, and dimensions of the major components of the Project. The memorandum will clearly define the purpose of the various components, describe how the preliminary design meets the Project design criteria, and address such issues as long-term operations and maintenance of the reservoir and its components, instrumentation and controls, interface and communications with the conveyance facilities east of the bifurcation structure, and cultural and environmental mitigation measures, as appropriate.

The Preliminary Design Technical Memorandum will be submitted in draft form for review by the Program Team and a draft final will be prepared for review by the TRB. Upon addressing TRB comments, a final draft will be prepared for submittal to DSOD. Upon receipt and resolution of DSOD comments, the Technical Memorandum will be finalized and submitted to the Program Team.

TASK 4.5 – PREPARE OPINION OF PROBABLE CONSTRUCTION COSTS (OPCC)

Consultant will use the details of the preliminary design to develop an Opinion of Probable Construction Costs (OPCC) in general accordance with the Cost Estimate Classification System described in AACE International Recommended Practice No. 56R-08 (rev. August 7, 2020).

Construction cost estimates will utilize HCSS Heavybid software, a standard in the heavy civil construction industry used by many contractors. The estimate will be set up with California Prevailing wage rates for Stanislaus County and equipment rates that are competitive within the local area.

The estimate will be divided or grouped by disciplines, i.e., excavation, embankment, intake, spillway, tunnels, etc. Initially the estimate is based on quantities extrapolated from the conceptual drawings developed at the 30% design level.

The draft 30% level OPCC will be submitted for review by the Program Team. Comments from the Program Team will be addressed and a final version of the OPCC will be developed and submitted to the Program Team.

Task 4 – Deliverables

Design Criteria Memorandum (DCM)
Design Memoranda
Preliminary Design Technical Memorandum
30% Level OPCC
Meeting Agendas, Materials, and Notes

TASK 5 – INTERMEDIATE DESIGN (60%)

TASK 5.1 – PREPARE HYDROLOGIC AND HYDRAULIC REPORT

Task 5.1.1 – Hydrologic and Hydraulic Analyses

Consultant will conduct hydrologic and hydraulic analyses to:

- develop hydraulic design parameters for stormwater diversion during construction;
- develop a site-specific probable maximum precipitation (PMP) to update probable maximum flood (PMF) estimates to be used in spillway design; and
- evaluate the effects downstream of a potential dam breach and prepare inundation maps and an Emergency Action Plan to satisfy DSOD requirements.

Consultant will review previous studies based on early-stage concept design and update them to reflect final design parameters. The analyses will provide data that will assist with the design of dam outlet, spillway, energy dissipator, and downstream channel.

Consultant's hydraulic analysis will provide input for the design of a physical model of the proposed spillway. The physical model's extent and scale will be developed in consultation with the testing laboratory. The physical model study's test program will be developed based on the configuration of the spillway chute, energy dissipator, and inflow weir.

Task 5.1.2 – Prepare Report

Consultant will document the results of the hydrologic and hydraulic analyses in a report. This report will describe the purpose, scope, and approach for the analyses; document the industry standards followed, the methods/models used and the design storms selected for the analyses; and summarize the results of the analyses. Final parameters for the final design of the spillway and of the storm diversion conduit during construction will be provided.

TASK 5.2 – COMPLETE DESIGN ANALYSES AND ADVANCE DESIGN TO 60% LEVEL

The remainder of the design analyses (as listed below) will be completed under this task as discussed in the introduction to Task 4.2, and design memoranda documenting these analyses will be prepared, reviewed, and finalized. Some of the design memoranda may only be reviewed by the Program Team (e.g., surface drainage or soil erosion and sediment control).

5.2.1 – Landslides and Sedimentation

Consultant will evaluate potentially unstable slopes and existing landslides identified based on desktop and field mapping. Geologic cross-sections will be constructed of identified landslides for slope stability analyses. Mitigation measures will be identified and developed based on the results of these slope stability analyses.

Consultant will also evaluate sedimentation within the reservoir as part of this task. Sources of sedimentation considered will include material transported into the reservoir by Del Puerto

Creek, erodible deposits within the reservoir, and landslide material resulting from instability within the reservoir rim. Consultant will evaluate and design defensive mitigation measures.

Task 5.2.2 – Dam Abutments and Reservoir Rim Stability

Consultant will complete stability analyses to confirm that minimum values of factors of safety are met for static and pseudo-static stability of the dam abutments and reservoir rim under steady-state flow conditions with a full reservoir, and transient flow conditions within the upstream shell of the dam during rapid drawdown. The groundwater conditions for these analyses will be based on the seepage analyses and the stability analyses will be completed using limiting equilibrium slope stability programs such as SlopeW.

Task 5.2.3 – Dynamic Stability and Deformation Analyses of Embankments -

Consultant will develop a 2-D analysis cross-section for each system and a 3-D model of the main dam that appropriately captures the maximum response of the dam for static and seismic loading. Embankment zoning (i.e., shell, core, and drain zones) will be appropriately represented in all models. The location, thickness, and constituents of the foundation materials will also be an important consideration in defining the analysis cross-section.

For each zone of the maximum dam cross-section, embankment fill and foundation material properties will be developed for the various geologic units, including: unit weight, effective stress friction angle, undrained strength ratio, shear-wave velocity, and other properties, as needed.

Both the 2-D and 3-D numerical models will be developed using the finite difference code FLAC (FLAC 8.0, Itasca, 2015) and FLAC3D, respectively. The FLAC model will include a finite-difference mesh, the size of which will be constrained based on kinematic and wave-passage considerations. The model will be defined with an adequately deep base to capture the effect of foundation materials on the response of the dam. The model will have a compliant base so that seismic energy can leave the system as needed during loading. For the purpose of the development of this scope of work Consultant assumed that a Mohr-Coulomb soil model will be used for each material type. Based on Consultant's review of the embankment materials, it is not anticipated that an advanced constitutive model (e.g., UBCSAND or PM4SAND) will be needed for this analysis.

Consultant will evaluate the performance of the embankment under seismic loading conditions based on fully coupled, nonlinear deformation analyses using the FLAC models and the steady-state seepage conditions calculated above. This portion of the analysis will include the necessary model validation efforts, including single element simulations and comparisons with two-dimensional response models from QUAD4MU. These validation efforts will be used to constrain the strain-compatible, equivalent linear properties (i.e., reduced shear modulus and damping ratio) for each material zone in the FLAC model. Embankment stability at the end of shaking will be assessed in each case.

The performance of the embankment will be evaluated through inspection of total calculated displacement, calculated shear strains, crest settlement (including additional seismic settlement, if appropriate). If applicable, the displacement pattern and shear strains will be assessed with respect to internal erosion potential. Specific emphasis during this process will be placed on the implication of results of the analysis for safety/risk and discussion of potential parametric cases that would provide additional value to the project.

Task 5.2.4 – Dynamic Stability and Deformation Analyses of I/O Cut Slopes

Consultant will evaluate the performance of the cut slopes for the I/O works under seismic loading conditions using a 2-D fully coupled, nonlinear deformation analysis in FLAC. Consultant anticipates using the same time histories and material property characterization that are used in Task 5.2.3. The performance of the slope will be evaluated through inspection of total calculated displacement, calculated shear strains, displacement pattern, and impact on the structural systems that are being designed and constructed around the cut slopes.

Task 5.2.5 – Design of Foundation Treatment (Including Grouting)

Consultant's design of foundation material treatment for both the main dam and Saddle Dam 1 will include removal of all overburden and weathered rock down to competent formational material; this may require the over-excavation of 10 to 15 feet of rock in certain areas of the foundation. Additionally, portions of the cemented conglomerate outcrop along the centerline of the main dam may need over-excavation to facilitate construction of the compacted fill embankment, particularly the clay core. It is anticipated that seepage control measures for the main dam will include a grout curtain that extends approximately 150 feet vertically along the length of the core and approximately 100 feet deep at Saddle Dam 1. This element of work presents the potential for significant challenges due to the low permeability and small fracture rate of the silty sandstone of the Valley Springs Formation at the main dam and of the possible shale of the Moreno formation at the saddle dam. The field investigation program has accounted for significant logging and in-situ testing of the foundation rock to support design calculations and concept development of this seepage control measure. Consultant will consider alternative solutions such as angled drilling and grouting of the especially robust conglomerate layer that interacts with the footprint of the dam core as a means of reducing the risk of costly construction delays in the installation of the grout curtain at the main dam.

Task 5.2.6 – Structural Design of Inlet/Outlet Structure

The inlet/outlet will have plan dimensions of approximately 800 ft by 28 ft and average bearing pressures as high as 20 kips/sf at the base. Consultant anticipates the Inlet/Outlet structure will be a large cast-in-place concrete structure that is founded on rock. The design of this rigid structure will likely require pinning the structure to the foundation rock using drilled anchors with steel hooks that terminate in the structure's mat foundation. Since this is anticipated to be a wet and dry structure, joints will be water-stopped, and careful attention will be paid to the concrete mix design and reinforcing detailing to control cracking. Consultant will follow LFRD design standards along with CI 318 and 351, IBC 2021, ASCE 716.

Task 5.2.7 – Mechanical Design of I/O Gates, Controls, and Instrumentation

Consultant's design will likely include screened or bar-rack inlets at three or more locations serving the upper, mid and lower pool levels of the Inlet/Outlet structure. If screened inlets are chosen, they would be cleaned by air backwash. Each inlet would be controlled by a butterfly valve located in the dry accessway. At the base of the structure, a connection to the 84-in. diameter fill/draw conduit is made. This connection is gated with a bonneted knife gate. Knife gates are also provided at the bottom of the screened water conduit and the low-level outlet. The low-level outlet will draw from the low point of the reservoir through the excavated inlet channel.

The equipment planned for the inlet/outlet structure includes hydraulically actuated knife gates at the base of the structure, hydraulically actuated butterfly valves at the inlets, a hydraulic power

unit, ventilation for the access tunnel, lighting, local controls for valves and gates, and security at the service building. If screened inlets are selected over barrack inlets, a compressor/receiver and air piping are also necessary.

The controls for the Inlet/Outlet structure should be located in the pump station and controlled by the pump station, with an HMI screen located in the service building at the top of the inlet/outlet structure. A fiber connection is anticipated between the pump station, bifurcation structure and inlet/outlet. All sensitive mechanical, electrical and controls equipment will be located in the secure service building, well above max pool level. All valves, actuators and piping in the dry accessway portion of the structure, and below full pool level, are not intended for immersed service, though they will survive rare events without substantial damage.

Task 5.2.8 – Structural Design of Spillway, Energy Dissipator, and Bifurcation Structure

Consultant will perform the structural design of the spillway in accordance with DSOD and other published guidelines and codes. The ogee shaped mass concrete control section will be evaluated for stability in accordance with applicable load cases including normal, flood and seismic. For preliminary sizing, it is assumed that full uplift will be applied under the base of the ogee. As design is developed, Consultant will evaluate if a reduction in uplift pressure can be applied based on drainage. The design of the reinforced concrete structures will be performed in accordance with the requirements of the American Concrete Institute (ACI) 350-06, "Code Requirements for Environmental Engineering Concrete Structures and Commentary." This includes the approach sidewalls, chute slabs and training walls, and stilling basin structure. Various load cases will be evaluated to consider fluid, soil, surcharge, and seismic loads. It is expected that the majority of the spillway will be excavated into rock on the right abutment of the dam and lateral loads will be evaluated accordingly. Drain design will be performed along the sidewalls and under the chute to collect and safely convey seepage and prevent the buildup of large hydrostatic forces on the concrete spillway.

Design of concrete chute spillways requires the implementation of defensive measures to protect against slab jacking and other potential failure modes for these types of spillways. Consultant will use guidance from Reclamation to develop joint details including waterstops, dowels across the joints, supported joints, proper drainage, and anchoring into rock as appropriate.

Consultant will develop a 3D finite element (FE) model with the geometry of each structure. Each model will include an appropriate portion of the soil/rock surrounding the structures to capture the soil structure interaction. Depending on the complexity of the analysis, ANSYS and/or LS-Dyna software will be used. The effect of the water inside the structures will be included using the added mass approach to capture the hydrodynamic effects. Six sets of acceleration time histories will be used for the analysis. The acceleration histories will be applied at the soil/rock boundary of the FE model. Postprocessing of the results will extract the demands in the critical sections of each structure and the demands will be compared to the element capacities.

If the soil/rock around the spillway is subject to permanent ground displacements (PGD), analysis will be performed for the prescribed PGD. For the long/linear structures that could be subject to uneven transient ground deformations due to seismic wave propagation, analysis will be performed to compute strains in the structure from transient ground displacements using established approaches with consideration to peak ground velocity.

If the demand to capacity ratios of the structural elements is high, the structure will be redesigned by increasing the reinforcement and/or changing the thickness of the overstressed elements. The FE model will be updated to reflect the changes and the dynamic analyses redone. Detailed calculation package will be prepared describing the FE model, the analysis results, and all critical checks and calculations.

Structural analyses for the bifurcation structure will be performed in tandem with the hydraulic design. The size and layout of the piping, valves and other equipment will be developed during the early stages of design. Once the geometry and hydraulics are finalized and the subsurface conditions are better understood, structural analyses will be completed to provide appropriate restraint and encasement of the conduits in this critical area.

It is expected that a bridge will be provided over the proposed spillway. Consultant will evaluate the loading needs for the bridge and develop preliminary structural layout for the bridge and abutment supports. Consultant has assumed that a pre-fabricated bridge will be specified for this span and that supports will be structurally tied into the spillway training walls on both sides of the spillway.

Task 5.2.9 – Design of Tunnel

Consultant will develop the design of the tunnel to convey the I/O Conduit carrier pipe based on geotechnical information gathered and conduit size determined in earlier phases of the project. This information will allow a suitable tunnel size to be determined and an appropriate, cost-effective initial support to be designed. Ground conditions are expected to vary along the final tunnel alignment. Consultant will address this concern by designing multiple variations of the chosen ground support type, each tailored to support the ground conditions anticipated to be encountered.

Consultant will evaluate the constructability of the current 1,500-ft radius connecting the two tangent sections of the alternative tunnel alignment which may present site distance restrictions on the Contractor. Consultant will review and develop an appropriate radius for the alternative alignment considering the geotechnical and construction aspects of the project.

A Geotechnical Baseline Report (GBR) will be developed specifically for the tunnel that will become part of the contract documents for construction.

Task 5.2.10 – Dam and Reservoir Surveillance Instrumentation

Consultant will select the instrumentation for the surveillance of the dams and reservoir that will include a number of instruments and sensors to monitor deformations, settlement, pore water pressures, flows, water elevation, and seismicity. The instruments are likely to include but not be limited to: inclinometer and Sondex casings, surface monuments, piezometers, weirs and flumes, observation wells, seismographs, and staff gauges.

The instruments will be strategically located based on the results of the geotechnical evaluation and design analyses – at a minimum in the dams, dam foundations, and dam abutments, downstream of the dams, under and around the spillway, and around the reservoir rim.

Seismographs are likely to be located on the dam embankments and in the free field. Instruments and sensors will be selected based on their proven longevity and Consultant's experience. Consultant will provide redundancy in the instrument types will be provided for sensors that cannot be easily replaced. Special attention will be given in selecting the location

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and installation procedures for the instruments to avoid drilling in the completed (or partially completed) dams and/or creating potential seepage paths within the embankments.

Consultant will also consider an automated data acquisition system for instruments that are compatible with such a system (e.g., vibrating wire sensors) and design the system so that it can be tied into the SCDA system at the pumping plant if desired.

Task 5.2.11 – Surface Drainage

Consultant's design of surface drainage will consider that the slopes of the dams and dam abutments and cut slopes for the inlet/outlet facility and the spillway are large areas that will be subjected to significant runoff during rainstorms. These surfaces must be protected from surface erosion and surface runoff quantities estimated and safely routed to suitably lined drainage ditches at the groin of the dam and the abutment and similar areas at the spillway and inlet/outlet facility.

Task 5.2.12 – Soil Erosion and Sediment Control

Consultant will design a soil erosion and sediment control program for the Project. Soil erosion and sediment control is an important design issue on any construction site, especially when the site is as large as that of the Project and vulnerable to intense rain storms following long period of hot and dry weather. The design features are expected to require at least one sediment control basin downstream of the main dam to capture surface runoff during construction of the dam and spillway. The design of such a basin will be a challenge given the space constraints at the toe of the dam. Other sediment control basins or sediment traps will be required downstream of the Saddle Dams and at the borrow areas depending upon their layout and utilization plan.

Additional sediment control measures may include diversion dikes, check dams, straw or hay bales, silt fences and wattles, as appropriate. Consultant will take into careful consideration the environmental requirements of the permits in the selection of the various components of the soil erosion control program.

Task 5.2.13 – Permanent Road Design and Civil Engineering

Permanent roads are required to allow access to the dam and appurtenant structures for surveillance, operations, maintenance and repair. Consultant will develop the layout and design of these roads will be developed considering the requirements of all stakeholders.

Task 5.2.14 – Refine Design of Embankments and Appurtenant Structures

Consultant will refine the design of the earthen embankments and appurtenant structures based on the comments received on the preliminary design and on the results of the hydrologic and hydraulic analyses and of the design analyses described above. The details of the design of the major components of the Project will be developed to a level sufficient to prepare construction drawings and allow regulatory review and comments.

Task 5.2.15 – Update Design Analyses and Studies Based on Refined Design

Consultant will update some of the design analyses performed for the 30% design (Task 4), as necessary, based on the refinements made to the design and the comments from the TRB and/or DSOD on the 30% design.

Task 5.2.16 – Revise Design Memoranda as Appropriate

Consultant will revise the design memoranda prepared at the 30% design level, as necessary, based on the updated analyses and the comments received from DSOD on the final drafts, and the documents will be finalized.

TASK 5.3 – PREPARE DESIGN REPORT

Consultant will document the design of the earthen embankments and appurtenant in a Design Report that will become part of the permanent Project record and will be submitted to DSOD to review and final approval.

The Design Report will consist of a compendium of all the design memoranda prepared during the course of the design that will be preceded by a summary of the design analyses highlighting critical technical information and regulatory requirements and a brief description of the major components of Project and their key features.

TASK 5.4 – PREPARE 60% CONSTRUCTION DOCUMENTS

Consultant will prepare construction documents including contract documents, construction drawings, and technical specifications suitable for competitive bidding and will advance these documents to the 60% level. These documents will take into account local, State of California, and DSOD requirements and will be sufficient for regulatory review and comments.

The construction drawings will include general, civil, mechanical, structural, electrical, architectural, and instrumentation and controls drawings with all necessary details for construction. The drawings will be prepared in AutoCAD 2022.

The technical specifications will be prepared in standard Construction Specification Institute (CSI) format. The contract documents will be based on the contractual requirements of the District.

Consultant will prepare a Stormwater Pollution Prevention Plan (SWPPP) consistent with Federal, State, and local regulations. This plan will include all measures to be implemented before the start of construction, during construction, and after completion of construction. The plan will be consistent with the requirements of the Project Section 404 permit as they relate to staging operations and erosion control.

Consultant will update the OPCC developed at the 30% design level to incorporate revised quantities and new scope items that were added based on the details included in the 60% design. The OPCC will be in general accordance with the Cost Estimate Classification System described in AACE International Recommended Practice No. 56R-08 (rev. August 7, 2020). The OPCC will be submitted in draft form for review by the Program Team. Comments from the Program Team will be addressed and a final version of the OPCC will be developed and submitted to the Program Team.

The 60% construction documents will be submitted to the Program Team for review in electronic format. Bluebeam, or similar software, will be used to provide comments on construction documents as it facilitates efficient on-line collaboration and handling of comments.

TASK 5.5 - REVIEW MEETINGS

Task 5.5.1 – Periodic Meetings with Program Team

Consultant will hold periodic review meetings with the Program Team to review the on-going design and preparation of construction drawings and specifications to discuss technical issues as they arise. These meetings would be rather informal and scheduled as necessary based on the progress of the work and attendance would be limited to the Project Manager (or Deputy Project Manager) and the lead technical personnel involved in the technical work being discussed. Meeting agenda, materials, and notes will be prepared for each meeting.

Task 5.5.2 – Review of 60% Design with TRB and DSOD

Consultant will hold review meetings with the TRB and DSOD to present the 60% design documented in the Design Report and obtain their feedback and comments. Meeting agenda, materials, and notes will be prepared for each meeting.

Task 5.5.3 – Review of 60% Construction Documents

Consultant will hold review meetings with the TRB and DSOD to discuss the 60% construction drawings and technical specifications and obtain their feedback and comments. Meeting agenda, materials, and notes will be prepared for each meeting.

TASK 5.6 – PERMITTING

Consultant will prepare and submit permit applications based on the 60% design to DSOD, CalOSHA, California Regional Water Quality Control Board (CRWQCB), and Stanislaus County to begin the permitting review process. In addition, Consultant will collect the data needed for the more complex permits that will be acquired by the Program Team, including USACE and California Department of Fish and Wildlife (CDFW) permits. Consultant's permitting specialists will provide a list of the data needed and will review drawings to check that quantities, lengths, widths, acreages and fills are adequately and accurately shown. They will work with the Program Team to refine the data needs for the permit applications and work through strategies to modify designs for ease of permitting, where needed.

Task 5 – Deliverables

- Hydrologic and Hydraulic Report
- Design Report
- 60% Construction Documents
- 60% Level OPCC – Draft and Final
- Meeting Agendas, Materials, and Notes

TASK 6 – FINAL DESIGN (90%, 95%, AND 100% DESIGN)

TASK 6.1 – ADVANCE DESIGN TO 90% LEVEL

Consultant will address comments received on the 60% level design and finalize the design of the earthen embankments and appurtenant structures. The details of the design will be brought to the level necessary for construction.

Consultant will, as necessary, update specific aspects of the analyses based on the additional level of detail incorporated into the final design. Changes are not expected to be necessary in the analyses associated with the critical design elements (e.g., the stability analyses or deformation analyses). However, some adjustments in the layout, dimensions, and

characteristics of some of the elements of the Project may be necessary based on final adjustments in the design of the conveyance facilities beyond the reservoir and their interface with the Project and/or additional constraints imposed by the regulators upon their initial review of the Project's permit applications (e.g., additional restrictions placed on the Project for the protection of environmental resources).

Consultant will update the design memoranda affected by the updates of the analyses, if any, and by the details incorporated in the final design as appropriate.

The Design Report will be revised as necessary to incorporate the changes in the analyses and design memoranda. The revised Design Report will be submitted in draft form for review by the Program Team and will be finalized upon receipt and resolution of comments, from the Program Team.

TASK 6.2 – PREPARE 90% CONSTRUCTION DOCUMENTS

Consultant will update the 60% drawings, technical specifications, and contract documents to address comments received on the 60% documents, incorporate changes made in the final design, and add any additional details required for construction of the Project. The documents will be inclusive of the drawings and technical specifications required for bidding and construction. Consultant will also update the Stormwater Pollution Prevention Plan (SWPPP) based on the comments received on the 60% level submittal and to incorporate the details of the final design. The 90% construction documents will be submitted to the Program Team for review in electronic format. The documents will be presented in review meetings to the TRB and DSOD as indicated below.

TASK 6.3 – PREPARE 95% CONSTRUCTION DOCUMENTS

Consultant will address comments received on the 90% documents and advance the documents to the 95% level for submittal to DSOD. The 95% construction documents will be complete and essentially ready for bidding. The documents will be submitted to the Program Team for final review and submittal to DSOD for their final review and approval.

TASK 6.4 – PREPARE 100% CONSTRUCTION DOCUMENTS

Consultant will address any final comments from the Program Team and DSOD and prepare the documents in final form for construction bidding. The drawings will be signed by the appropriate registered engineers. The final construction documents will be submitted to the Program Team in both electronic PDF format and hard copies. For planning purposes, the paper copy submittal will include the complete set of technical specifications, including the SWPPP, and three sets of full-size and half-size construction drawings.

TASK 6.5 – REVIEW MEETINGS

Task 6.5.1 – Periodic Meetings with Program Team

Consultant will hold periodic review meetings with the Program Team to review the on-going design and preparation of construction drawings and specifications to discuss technical issues as they arise. These meetings will be rather informal and scheduled as necessary based on the progress of the work and attendance would be limited to the Project Manager (or Deputy Project Manager) and the lead technical personnel involved in the technical work being discussed and the development of the construction documents. Meeting agenda, materials, and notes will be prepared for each meeting.

Task 6.5.2 – Review of 90% Construction Documents

Consultant will hold review meetings with the TRB and DSOD to discuss the 90% construction drawings and technical specifications and obtain their feedback and comments. Meeting agenda, materials, and notes will be prepared for each meeting.

TASK 6.6 – PREPARE OPINION OF PROBABLE CONSTRUCTION COSTS (OPCC)

Consultant will update the Opinion of Probable Construction Costs (OPCC) developed at the 60% design to include the details of the 90% design, in general accordance with the Cost Estimate Classification System described in AACE International Recommended Practice No. 56R-08 (rev. August 7, 2020). Budgetary quotes for specialty subcontracted items and materials will be solicited to support the estimate at the 90% level.

The 90% OPCC will be updated to take into account any comments from the Program team on the 90% OPCC and design adjustments made for the 100% construction documents. The 100% level OPCC will be similar to what a Contractor would produce for their bid proposal on the Project and will be submitted for review by the Program Team. Comments from the Program Team will be addressed and the final OPCC will be developed and submitted to the Program Team.

TASK 6.7 – PERMITTING

Consultant will update the permit applications, if necessary, based on the 90% design and submit the revisions to DSOD, CalOSHA, CRWQCB, and Stanislaus County to obtain the permits and ensure any changes in data or information needed for the permits being acquired by the Program Team are provided, including any figure updates.

<i>Task 6 – Deliverables</i>	Design Report (Revised) 90%, 95%, and 100% Construction Documents 90% Level OPCC 100% Level OPCC Meeting Agendas, Materials, and Notes
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EXHIBIT B

DEL PUERTO WATER DISTRICT Del Puerto Canyon Reservoir Design of Earthen Dams and Appurtenant Structures

COMPENSATION

Compensation for services provided in Exhibit A, SCOPE OF SERVICES, shall be in accordance with the methods and specific amounts described in this Exhibit.

1. District shall pay Consultant only the actual costs incurred, subject to the agreed cost ceiling. Consultant certifies that the cost and pricing information used herein are complete, current and accurate.
2. District will issue a series of task order authorizations (TOs) to Consultant with a specific authorized scope of services, schedule, cost specified in each TO. The scope of services authorized by a given TO and the associated schedule and cost will depend upon the results and progress achieved in previous TOs, the required interface with components of Del Puerto Canyon Reservoir being designed by others, and the available funding at the time the TO is issued.
3. Compensation for Consultant services authorized shall be on a time and materials basis. District shall pay Consultant for actual hours worked on the project by Consultant personnel based on the following Hourly Billing Rates by Labor Classification:

Labor Classification	Hourly Billing Rate, \$
Principal Engineer/Geologist/Scientist	271.00
Senior Engineer/Geologist/Scientist	215.00
Project Engineer/Geologist/Scientist	185.00
Senior Staff Engineer/Geologist/Scientist	156.00
Staff Engineer/Geologist/Scientist	140.00
Level III CADD/Technician/Project Assistant	148.00
Level II CADD/Technician/ Project Assistant	118.00
Level I CADD/Technician/ Project Assistant	89.00

District will pay all Consultant personnel at the above hourly billing rates according to their labor classification for all work on the project, including any work performed on overtime or on holidays or weekends.

The above fixed hourly rates by labor classification shall be defined as providing full compensation to Consultant for direct salaries, wages and payroll burden, profit, and indirect and overhead expenses which include but are not limited to:

- Clerical and/or accounting work.
- Postage for priority, certified or registered mail. Extraordinary postage, overnight delivery, or messenger delivery charges must be approved in advance.
- Routine in-house copying.
- Telephone charges, including cellular phone, modem and telecopier/FAX charges.
- Office space lease.
- Office supplies.
- Computer equipment.
- Computer usage charges.
- Books, publications and periodicals.
- Insurance.
- Miscellaneous hand tools or equipment rental.
- Safety training, seminars or continuing education.
- Utilities.
- Inadequately described or miscellaneous expenses.

The above items are illustrative, rather than exhaustive.

4. Subconsultant and Subcontractor Services

Subconsultant services shall be billed at cost plus a 5 percent markup applied to subconsultant labor only.

Subconsultants labor shall be billed at the following Hourly Rates by Labor Classification, as defined in Article 3 above:

InfraTerra, Inc.

Labor Classification	Hourly Billing Rate, \$
Principal Engineer/Geologist/Scientist	262.00
Senior Engineer/Geologist/Scientist	206.00
Project Engineer/Geologist/Scientist	180.00
Senior Staff Engineer/Geologist/Scientist	107.00
Staff Engineer/Geologist/Scientist	146.00

Labor Classification	Hourly Billing Rate, \$
Level III CADD/Technician/Project Assistant	102.00
Level II CADD/Technician/Project Assistant	89.00

Schnabel Engineering, LLC

Labor Classification	Hourly Billing Rate, \$
Principal Engineer/Geologist/Scientist	280.00
Senior Engineer/Geologist/Scientist	220.00
Project Engineer/Geologist/Scientist	165.00
Senior Staff Engineer/Geologist/Scientist	145.00
Staff Engineer/Geologist/Scientist	125.00
Level III CADD/Technician/Project Assistant	130.00
Level II CADD/Technician/ Project Assistant	110.00
Level I CADD/Technician/Project Assistant	85.00

ENGEO

Labor Classification	Hourly Billing Rate, \$
Principal Engineer/Geologist/Scientist	336.00
Senior Engineer/Geologist/Scientist	256.00
Project Engineer/Geologist/Scientist	165.00
Senior Staff Engineer/Geologist/Scientist	145.00
Staff Engineer/Geologist/Scientist	155.00
Level III CADD/Technician/ Project Assistant	130.00
Level II CADD/Technician/Project Assistant	110.00

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Water Resources Engineering, Inc.

Labor Classification	Hourly Billing Rate, \$
Principal Engineer/Geologist/Scientist	308.00
Senior Engineer/Geologist/Scientist	182.00
Project Engineer/Geologist/Scientist	163.00
Staff Engineer/Geologist/Scientist	115.00
Level III CADD/Technician/Project Assistant	154.00

Integrated Engineering & Construction

Labor Classification	Hourly Billing Rate, \$
Principal Engineer/Geologist/Scientist	286.00
Senior Engineer/Geologist/Scientist	221.00
Project Engineer/Geologist/Scientist	156.00
Senior Staff Engineer/Geologist/Scientist	117.00
Staff Engineer/Geologist/Scientist	91.00
Level III CADD/Technician/Project Assistant	117.00
Level II CADD/Technician/Project Assistant	91.00
Level I CADD/Technician/Project Assistant	65.00

Panorama Environmental, Inc.

Labor Classification	Hourly Billing Rate, \$
Principal	264.00
Manager	202.00
Senior Environmental Scientist	170.00
Planner	123.00
Analyst	94.00
GIS III	159.00
GIS II	148.00
GIS I	123.00

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O'Dell Engineering

Labor Classification	Hourly Billing Rate, \$
Principal	230.00
Senior Land Surveyor	189.00
Senior Surveyor 2	182.00
Senior Surveyor 1	161.00
Surveyor 2	144.00
Survey Field Crew (2 pers.) "Prevailing Wages"	370.00
Project Assistant	96.00

Subcontractor services shall be billed at cost plus a 5 percent markup.

5. Other Direct Costs

Other Direct Costs shall be billed at cost, without markup. These costs include, but are not limited to the following:

- Automobile expenses for personnel-owned vehicles at 58.5 cents per mile.
- Automobile expenses for company-owned vehicles at \$120/day.
- District will pay for necessary and reasonable travel expenses provided the travel is approved in advance by District, and providing that:
 - ✓ Each expense is separately identified (air fare, hotel, rental car) with an amount and the date(s) when incurred. Confirming documents are required.
 - ✓ Charged mileage for vehicle mileage shall not exceed the current allowable Internal Revenue Service rate.
 - ✓ Air travel is coach or economy rate for refundable tickets. Business and first-class rates will not be reimbursed.
 - ✓ Lodging accommodations are moderately priced.
 - ✓ Meal charges are reasonable. Reimbursement for meals will only be made in conjunction with out-of-town travel.
 - ✓ Rental cars are intermediate or compact class only, unless being used on-site off-road or otherwise approved in advance by District. Fuel for rental cars is a reimbursable expense.

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DEL PUERTO WATER DISTRICT
Del Puerto Canyon Reservoir
Design of Earthen Dams and Appurtenant Structures

TASK ORDER 01

1. PURPOSE

DEL PUERTO WATER DISTRICT, a special district of the State of California, hereinafter referred to as "District", has entered into a Consultant Agreement (Agreement) with Terra/GeoPentech, a Joint Venture, hereinafter referred to as "Consultant", effective the 1st day of April, 2022. The Agreement is for professional engineering services required for the design of earthen dams and appurtenant structures at Del Puerto Canyon Reservoir. The scope of services covered by the Agreement is described in Exhibit A of the Agreement.

District authorizes work by Consultant through a series of Task Orders (TOs) each with a specific authorized scope of services, schedule, cost. The scope of services authorized by a given TO and the associated schedule and cost depends upon the results and progress achieved in previous TOs, the required interface with components of Del Puerto Canyon Reservoir being designed by others, and the available funding at the time the TO is issued.

2. SCOPE OF SERVICES

Attachment 1 provides a summary work breakdown structure for the services to be provide by Consultant under Task Order 01. It also includes an estimate of the level of effort and cost for the work through the duration of the Task Order. The work to be performed under this Task Order falls into Tasks 1, 3, and 4 of the overall scope of services described in Exhibit A of the Agreement. All subtasks under these major tasks are listed in Attachment 1 for completeness but as shown a number of the subtasks have no level of effort or cost because they will be part of a subsequent Task Order.

3. PERIOD OF PERFORMANCE

Task Order 01 covers services by Consultant from April 1, 2022 through December 31, 2022.

4. COMPENSATION

Compensation for Consultant's services shall be as described in the Agreement. Services shall be billed on a times and material basis in accordance with the billing rates and other provisions of Exhibit B of the Agreement. Invoices shall be submitted on a monthly basis with the costs divided among the three major tasks listed in Attachment 1. Invoice shall be accompanied by a progress report that documents the work performed under each task.

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ACCEPTANCE

DEL PUERTO WATER DISTRICT
a Special District

By: Anthea G. Hansen
Anthea G. Hansen, General
Manager

6/3/22
Date

TERRA/GEOPENTECH
a Joint Venture

By: Guilaine Roussel
Guilaine Roussel, General Partner

May 15, 2022
Date

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ACTIVITY		Team Hours by Labor Category											Labor Total	Expenses & Subcontractors	Total Labor & Expenses
		Engineer/Geologist/Scientist					CADD/Tech/Project Assistant								
		Principal	Senior	Project	Sr. Staff	Staff	III	II	I	Hours	Amount				
TASK 1	PROJECT ADMINISTRATION														
1.1	REVIEW OF EXISTING PROJECT DOCUMENTS AND OTHER RELEVANT DATA														
1.2	PREPARATION OF PROJECT WORK PLAN - Complete	56	8	48								112	25,767		25,767
1.3	PREPARATION OF PROJECT SCHEDULE - Complete	15	74	48								137	29,276		29,276
1.4	PREPARATION OF PROJECT QUALITY PLAN - Complete	44	42	48								134	30,074		30,074
1.5	MEETINGS	337	134	83	14					62		631	149,924		149,924
1.6	PROJECT MONITORING AND CONTROL	446	220		15					596		1,279	263,984		263,984
	TASK 1 - SUBTOTAL	898	478	227	30					658		2,292	499,025		499,025
TASK 3	GEOTECHNICAL EVALUATION														
3.1	DEVELOP SCOPE OF GEOTECHNICAL EXPLORATIONS AND TESTING - Complete	486	98	226						8		832	200,475		200,475
3.2	TEMPORARY SITE ACCESS / ROAD GRADING / BRUSH CLEARING	1		2								3	745	70,821	71,566
3.3	TEST BORINGS	91	104	792	338					10		1,335	253,097	889,209	1,142,306
3.4	SURFACE GEOPHYSICAL SURVEYS														
3.5	CONE PENETROMETER TESTS	2		4								6	1,282	30,030	31,312
3.6	TEST PITS	12	50	4								74	15,684	12,285	27,969
3.7	TEST TRENCHES	12	150	4						12		228	43,872	22,050	65,922
3.8	SITE RECONNAISSANCE AND DETAILED MAPPING	84	156	68						40	32	404	81,305	7,371	88,676
3.9	FAULT INVESTIGATIONS														
3.10	LABORATORY TESTING	38	12	32						96		179	34,595	82,139	116,734
3.11	GEOLOGICAL/GEOTECHNICAL DATA REPORT (GDR)	97	69	129	95					49	5	445	87,132	2,169	89,300
3.12	FAULT AND LANDSLIDE HAZARDS	88	116	48						60	24	336	69,621		69,621
3.13	GROUND MOTION STUDY	84	68	40								192	44,800		44,800
3.14	CHARACTERIZATION OF GEOTECHNICAL CONDITIONS	144	60	140	80							424	90,312		90,312
3.15	GEOLOGICAL/GEOTECHNICAL INTERPRETATIVE REPORT (GIR)														
	TASK 3 - SUBTOTAL	1,140	883	1,489	513	170	169	93				4,458	922,920	1,116,073	2,038,993

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ACTIVITY		Team Hours by Labor Category										Total Labor & Expenses	
		Engineer/Geologist/Scientist				CADD/Techn/Project Assistant				Labor Total			
		Principal	Senior	Project	Sr. Staff	Staff	III	II	I				
TASK 4	PRELIMINARY DESIGN (30% DESIGN)										Hours	Amount	Expenses & Subcontractors
4.1	DEVELOP DESIGN CRITERIA - Complete	278	242	252	160					18	950	204,539	204,539
4.2	BORROW AREA PLANNING AND UTILIZATION	143	73	193	104	30	11	7			562	112,271	112,271
4.3	FAULT RUPTURE AND PERMANENT GROUND DISPLACEMENT HAZARD ASSESSMENT	143	211	14		29	43				440	96,923	96,923
4.4	EMBANKMENT CROSS SECTIONS AND ZONING												
4.5	SEEPAGE ANALYSES FOR DAMS, CUT SLOPES, AND RESERVOIR RIM												
4.6	STATIC STABILITY ANALYSES FOR DAMS AND CUT SLOPES												
4.7	SITE ACCESS, SITE CONTROL AND COORDINATION WITH OTHER DESIGNERS AND STAKEHOLDERS												
4.8	REVIEW MEETINGS	124	33	9	9						175	45,047	45,047
4.9	PRELIMINARY DESIGN (30% DESIGN)												
4.10	PREPARE OPINION OF PROBABLE CONSTRUCTION COSTS (OPCC)												
TASK 4 - SUBTOTAL		689	558	469	273	58	54	7	18		2,126	458,780	458,780
GRAND TOTAL		2,727	1,920	2,185	816	228	882	101	18		8,877	1,880,725	2,996,799

Note: Unless otherwise indicated, only a portion of the work required to complete a subtask will be completed as part of Task Order 01. The remainder of the work required to complete the subtask will be authorized by a subsequent Task Order.

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Del Puerto Water District

Services Agreement

THIS AGREEMENT for services is between Del Puerto Water District ("District") and Ross William Boulanger ("Consultant"). Consultant's address is 4237 Dogwood Place, Davis, CA 95618, telephone (530) 204-7527. Consultant is a [] corporation, [] partnership, [X] sole proprietor.

1. The Agreement. District and Consultant agree that Consultant shall provide consulting services and shall perform these services for District on the terms and conditions herein set forth in connection with the Del Puerto Canyon Reservoir Project ("Project") being developed by the District in conjunction with the San Joaquin River Exchange Contractors. The specific scope of services, and any special performance conditions are defined in Attachment A - Scope of Work. The following documents are attached hereto and are a part of this Agreement:

Attachment A - Scope of Work

Attachment B - Consultant's Rates and Charges

This Agreement, including said attachments, constitutes the entire agreement between the parties and supersedes any prior proposals, representations, or understandings. This Agreement may be modified only by a written amendment signed by each party.

2. Time of Performance. Unless otherwise stated in Attachment A, Consultant is authorized to commence performance of this Agreement upon its execution by District. Consultant shall complete all services covered by this Agreement no later than December 31, 2023, unless this date is extended by District in writing. At the District's discretion, the District may extend the term of the Agreement. Should the District elect to extend this Agreement through December 31, 2025, there shall be no change to the terms and conditions of this Agreement (other than to the time of performance).
3. Payment. Consultant shall at convenient intervals not more frequent than monthly submit itemized statements of services performed at the rates and charges in Attachment B. District shall pay for work satisfactorily performed within thirty (30) days after receipt of a statement. Without the prior written approval of the District, the total amount payable by District for Consultant's services pursuant to this Agreement shall not exceed \$20,000 for the period from the agreement's effective date through December 31, 2022.
4. Consultant an Independent Contractor. Consultant shall perform the consulting services under the Agreement as an independent contractor and not as an employee of District. Consultant shall be wholly responsible for the methods of performance. District shall have no right to supervise or control Consultant's performance but shall have the right to observe it. Consultant shall work closely with District in performing the services.

5. Insurance.

A. Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverage:

(1) Comprehensive Automobile Liability Insurance providing bodily injury liability and property damage, to protect Consultant and District against all liability arising out of the use of any owned, leased, passenger or commercial automobile, limits of liability shall not be less than \$100,000 combined single limit and \$300,000 aggregate.

B. All policies shall provide thirty days' advance written notice to Del Puerto Water District of reduction or nonrenewal of coverage or cancellation of coverage for any reason.

C. Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of four years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

D. Before commencing any work under this Agreement, Contractor shall furnish to District certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to District, in form evidencing all coverage set forth above. Failure to maintain insurance shall constitute a material breach of this Agreement.

E. Approval of the insurance by District shall not reduce or decrease the liability of Contractor hereunder.

F. If a subcontractor will be used to complete any portion of this agreement the Contractor shall ensure that the subcontractor obtains all necessary insurance, which shall name District, and their respective directors, officers, agents and employees and the Contractor as Additional Insureds.

6. Payment of Prevailing Wages. If any personnel of Consultant or a subcontractor of Consultant performs work under the Agreement for which a general prevailing wage has been determined by the Director of the Department of Industrial Relations, Consultant or subcontractor shall pay the prevailing wage for such work and shall comply with all applicable provisions of the California Labor Code Section relating to public works (Section 1720 et. seq.). Copies of such wage rates are on file at the District's principal office. For questions regarding this section, Consultant should visit

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www.dir.ca.gov/oprl/pwd/index.htm or call the Department of Industrial Relations at 1-415-703-4774.

The general prevailing wage rates for such work which establish minimum wages for this Agreement shall be posted by Consultant in a prominent place at the site where such work is performed. Consultant shall comply with all of the provisions of Section 1775 of the Labor Code relative to penalties paid to the District regarding wage under- payments to workers employed under this Agreement, and Consultant shall comply with all of the provisions of Section 1776 of the Labor Code regarding payroll records requirements.

7. Abandonment by Consultant. In the event the consultant ceases performing services under this Agreement or otherwise abandons the project prior to completing all of the services described in this Agreement, Consultant shall, without delay, deliver to District all materials and records prepared or obtained in the performance of this Agreement, and shall be paid for the reasonable value of the services performed up to the time of cessation or abandonment, less a deduction for any damages or additional expenses which District incur as a result of such cessation or abandonment, such as expenses associated with obtaining substitute services.
8. Records and Documents. Upon request, and at no additional charge, Consultant shall deliver to District all records, data, and reports prepared or obtained in the performance of the Agreement, which shall become and remain the property of District. This includes, but is not limited to, all materials and records of a finished nature, such as final plans, specifications, and maps prepared or obtained in the performance of this Agreement, and all materials of a preliminary nature, such as survey notes, sketches, preliminary plans, computations and other data prepared or obtained in the performance of this Agreement.
9. Right to Audit. Consultant shall permit District and its authorized representatives to examine, re-examine, make excerpts, transcribe and copy Consultant's books, documents, papers, materials, payrolls, records, accounts, computer disks, tapes and any and all data relevant to the Agreement at any reasonable time within three years after final payment under the Agreement. Consultant shall also permit District and its authorized representatives to audit and verify statements, invoices, or bills submitted by Consultant pursuant to the Agreement. Consultant shall provide such assistance as may be reasonably required in the course of such examination and audit.
10. Safety and Compliance with Laws and Regulations. In performing this Agreement, Consultant shall comply with all applicable laws, statutes, ordinances, rules and regulations whether federal, state or local in origin, and shall also comply with any safety procedures provided by the District. Additionally, Consultant will comply with restrictions pertaining to

protection of sensitive plants or animals at the Project site, and access restrictions imposed by property owners at the Project site.

11. Breach, Error and Omission. In the event that Consultant fails to perform any of the services described in this Agreement or otherwise breaches this Agreement, District shall have the right to pursue all remedies provided by law or equity. Consultant shall exercise the same degree of care, skill, and diligence in the performance of the Agreement as would be exercised by a reasonable professional performing similar work under similar circumstances, and shall, at no cost to District, re-perform services which fail to satisfy this standard of care. In addition, any costs incurred by the District (including but not limited to additional design and administrative costs, to the extent that such costs are recoverable under California law) and used to correct deficiencies caused by the Consultant's errors and omissions shall be borne solely by the Consultant up to the total compensation amount received by the consultant. The District is relying upon the Consultant's qualifications concerning the services furnished under this agreement, and therefore the fact that the District have accepted or approved the Consultant's work shall in no way relieve the Consultant of these responsibilities.
12. Endorsement on Plans. All work of an engineering nature shall bear the stamp and signature of an engineer registered in the State of California.
13. Confidentiality. Consultant shall treat any information it may come to have relating to the Agreement with confidence, revealing information to third parties only with prior written approval of District.
14. Assignment. The Agreement shall not be assignable or transferable in whole or in part by Consultant, whether voluntarily, by operation of law, or otherwise; provided, however, that Consultant with the prior written consent of District may subcontract that portion of the services for which Consultant does not have the facilities to perform so long as Consultant receives written approval from the District of the qualifications of the subcontractor or sub-consultant qualifications prior to execution of this Agreement. Any other purported assignment, transfer, or subcontracting shall be void. Nothing in the Agreement shall be construed to give any right or benefit to anyone other than District and Consultant.
15. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

16. Termination. District may terminate this Agreement at any time by thirty (30) days prior written notice to Consultant. Upon termination, District shall pay Consultant for all amounts due for services rendered up to the date of termination.

IN WITNESS THEREOF, the parties hereto have made and executed this Agreement as of the date of the final signature below.

DISTRICT

Date: _____
By: Anthea C. Hansen
Name: Anthea Hansen
Title: General Manager, Del Puerto
Water District

CONSULTANT:

Date: 4/26/2022
By: R. W. Boulanger
Name: Ross Boulanger
Title: Independent contractor

ATTACHMENT A

SCOPE OF WORK

Any work or services in addition to the work or services described in this Attachment shall be performed by Consultant according to the rates or charges listed in Attachment B. In the event that no rate or charge is listed for a particular type of extra work, Consultant shall not be entitled to compensation for extra work unless a written authorization or Amendment describing the work and payment terms has been executed by the District prior to the commencement of the extra work.

The scope of work covers Consultant's service as a member of the Project Technical Review Board (TRB). The work in the initial scope includes a site visit, one meeting of the Technical Review Board (TRB) and as-needed services until December 31, 2022. The scope of work will be amended for additional meetings and services.

The TRB chair is Ross Boulanger. The chair will provide the same services as other TRB members and will additionally coordinate meetings and work product on behalf of the TRB.

Services to be provided by Consultant as a member of the Technical Review Board (TRB) during the design phase of the project include:

1. Review of prior design documents and environmental and feasibility studies associated with the Project. The Consultant shall highlight any anticipated design and construction challenges associated with the Project based on their review of the documents. The Consultant's billable time for this effort is anticipated to be one day (8 hours).
2. Participation in a site visit to the Project site with other TRB members and the District's designer to assess the site's characteristics as they pertain to the proposed Project. The site visit may be scheduled to occur directly before any scheduled meetings in the interest of efficiency.
3. Review of relevant data, reports, and design documents associated with the design and construction of the project and provided to the Consultant by District through their designer, Terra/GeoPentech (TGP). Among the documents will be those pertaining to the proposed geotechnical and geological investigation plan.

The Consultant shall participate in one (1) meeting of the TRB as part of the initial scope. Additional TRB meetings will be addressed by amendment to the Agreement and will be scheduled at regular intervals during the design so that TRB comments and input can be addressed and incorporated into the design as necessary. The following activities are anticipated for each meeting:

- A. At least one week prior to the meeting, the consultant will receive a briefing document that summarizes the key information related to the meeting. The briefing document may also contain a list of specific questions that the District would like the TRB to address, and an agenda for the meeting. The Consultant may request additional information from the District if needed to perform an adequate review. The Consultant's billable time for review of the briefing document and related materials is anticipated to be one day (8 hours) per meeting, but this will vary depending on the meeting agenda and subject.
- B. The TRB shall meet for one-day period (8 hours) at a site designated by the District. The meeting duration will depend on the agenda to be covered. Each TRB member will be compensated for their travel time and other direct costs (e.g., rental car, hotel, meals etc. associated with their travel). The District will provide the following to the Consultant for each meeting: a person to prepare draft minutes of joint-session meetings of the TRB, the District, and others; and a private meeting room in which the TRB can conduct its work. The Consultant will participate in the following TRB activities for each meeting that the Consultant is requested to attend:
- i The District's Design consultant (or other designee) will make a presentation to summarize the design document as it relates to the meeting agenda. During this presentation, the TRB will ask questions as necessary.
 - ii The TRB shall meet independently to discuss the issues, develop answers to the questions posed by the District, and develop comments and recommendations that the TRB deems appropriate. The design documents will be available to the TRB for their review, as needed.
 - iii The TRB shall present their findings and recommendations to the District at the conclusion of the meeting and answer questions as necessary to clarify TRB findings and recommendations.
 - iv The TRB shall summarize their findings and recommendations in a brief written report to the District. A final report shall be submitted to the District within ten (10) days after completion of the meeting. Reports of the TRB are to be signed by each Consultant. The Consultant's billable time for the final report preparation and signing is anticipated to be 4 hours, except the Consultant designated as chair for which the time is anticipated to be 8 hours.
4. Consultant shall also provide services, on an as-needed basis, including but not limited to supporting the District at meetings with DSOD, conference calls, supporting the District in litigation if required, conducting technical reviews as requested by the District, and be available as an expert witness exclusively to the District during the period of performance.

A. At least one week prior to a scheduled conference call, participating members of the TRB will receive a briefing document that summarizes the key information related to the conference call. The briefing document will also contain a list of specific questions that the District would like the TRB to address, and an agenda for the conference call. The TRB member may request additional information from the District if needed to perform an adequate review. The TRB Member's billable time for review of the briefing document and related materials is anticipated to be 4 hours per conference call, but this will vary depending on the meeting agenda and subject. Each conference call is anticipated to last a maximum of two hours.

B. The TRB shall summarize their findings and recommendations in a brief written report to the District within five days after the conference call. Consultant's billable time for the written report is anticipated to be 2 hours, except for the Consultant serving as TRB chair, whose billable time is anticipated to be 4 hours.

The period of performance for this scope of work is until December 31, 2022.

ATTACHMENT B

Consulting Services Agreement
Between District and
Consultant

CONSULTANT'S RATES AND CHARGES

1. Hourly Labor Rate

Member independent Technical Review Board

\$300 per hour

This rate includes project and indirect expenses. Overtime rate is the same as direct rate.

2. Direct Expenses

Consultant will be reimbursed for out-of-pocket expense associated with meals, lodging, and transportation on the basis of actual costs incurred during the course of the work. Receipts for expenses (greater than \$25) shall be submitted by Consultant together with invoices for work performed.

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Dear Aithya,

Thank you for your recent purchase of mitigation credits for golden eagles. With your support, we will be able to fix power poles to prevent eagle electrocutions through partnerships with utilities.

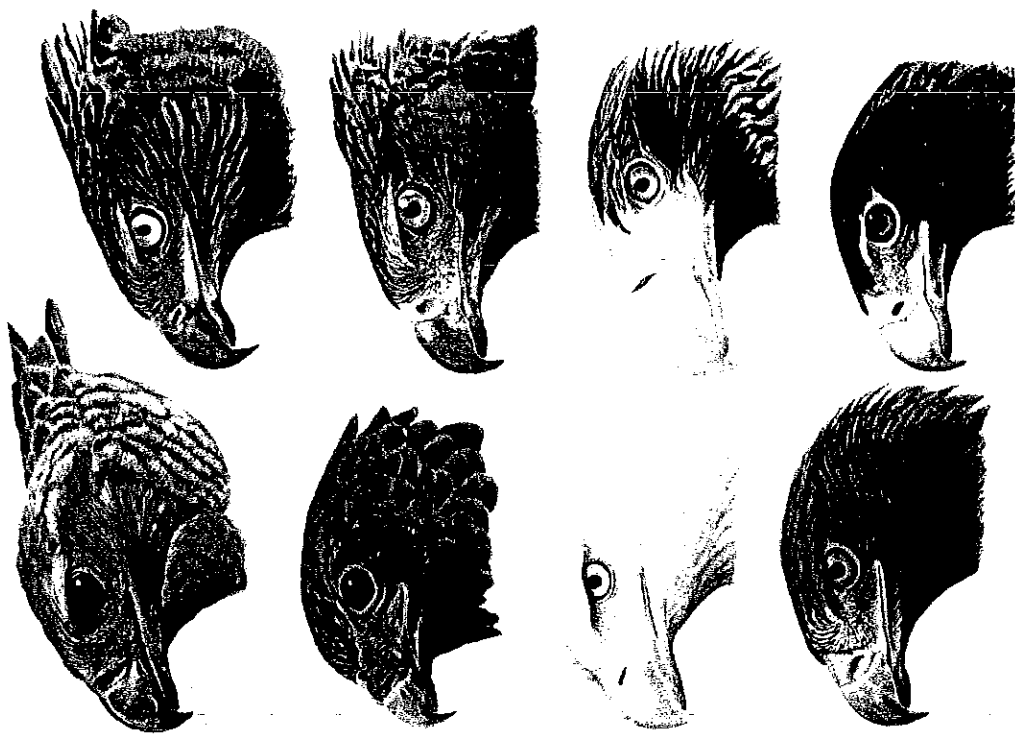
Please let us know if we can be of assistance to the Del Puerto Water District again!

Thank you!

Libby Mojica
Program Director

X.B.

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"Harpy Eagle (*Harpia harpyja*), Crowned Hawk-Eagle (*Stephanoaetus coronatus*),
 Bateleur (*Terathopius ecaudatus*), Martial Eagle (*Polemaetus bellicosus*),
 Bald Eagle (*Haliaeetus leucocephalus*), Steller's Sea-Eagle (*Haliaeetus pelagicus*),
 Golden Eagle (*Aquila chrysaetos*), and Verreaux's Eagle (*Aquila verreauxii*)"

Original illustration by Bryce W. Robinson

ORNITHOLOGI

X.C.



TREASURER MONTHLY REPORT

MULTI-PARTY AGREEMENT STATUS

Amendment No. 3 to the Multi-party Cost Share Agreement (MPA) was executed on November 1, 2021 and the first invoice of \$448,560 per agency was sent out in January 2022.

MAY 26, 2022

UPCOMING ACTIVITIES

May 23 at 1:00 p.m. – Finance workshop on LVE operations and capacity sharing via Teams (with LAP Staff and Clean Energy Capital)

Finance Committee Members:

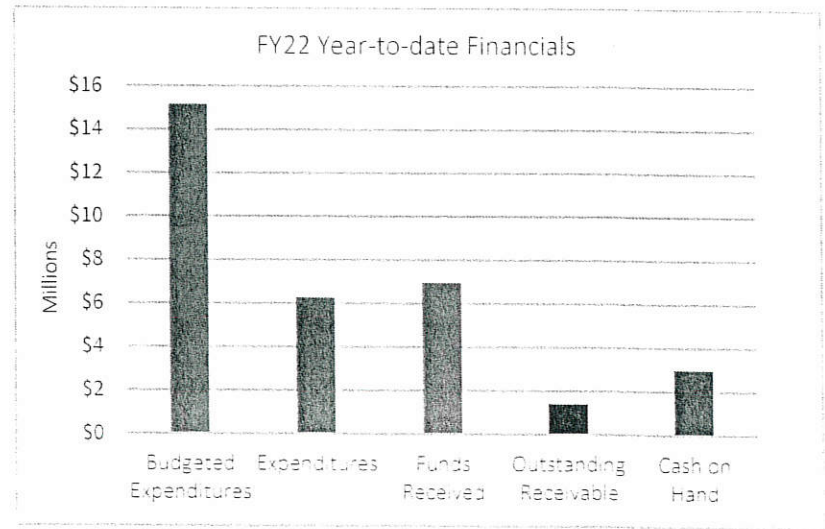
Chair: Anthea Hansen, SLDMWA

Vice-Chair: Paul Sethy, ACWD

John Coleman, EBMUD

Linda LeZotte, SCVWD

The following chart provides an overview of the MPA expenditures through April 30, 2022. The in-kind services, funds received, outstanding receivable, and cash on hand are shown through April 30, 2022. All LAPs remain in good standing on progress payments and the Project cash on hand remains positive.



ACRONYM KEY

MPA – Multiparty Agreement

CCWD – Contra Costa Water District

LAP – Local Agency Partners

CWC – California Water Commission

MPA Summary to Date:

MPA Cost: \$50,187,865 (total through Amendment No. 3)

Expenditures:

CCWD: \$22,404,394 (includes consultants and legal services)

LAP: \$4,498,459 (in-kind services)

Total: \$26,902,852

Funds Received:

CWC: \$12,162,516

LAP: \$11,606,362 (cash contributions)

LAP: \$4,498,458 (in-kind services)

Total: \$28,267,337

Outstanding Receivable:

CWC: \$956,347

LAP: \$448,560

Cash on Hand: \$2,992,837

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FEDERAL FUNDING STATUS

The FY22 Continuing Resolution that went into effect September 30, 2021 included \$50 million in Federal funding for the Project. This is in addition to the \$14 million that was appropriated in FY21. A funding agreement with Reclamation for the FY21 cost share provided to the LAPs (50 percent or approximately \$7 million) has been executed.

Future Federal funding requests include the remainder of the maximum federal share of 25 percent of the total project cost (approximately \$160 million). Some portion of the federal funding share may be available in the Bipartisan Infrastructure Law (the Infrastructure Investment and Jobs Act that was signed on November 15, 2021).

STATE FUNDING STATUS

The Project qualified for funding under the Water Storage Investment Program and received an adjusted Maximum Conditional Eligibility Determination of \$477,558,343 from the California Water Commission (CWC) on March 16, 2022. This amount reflects an additional inflation adjustment of 1.5 percent and an increase in over \$7 million from the previous award.

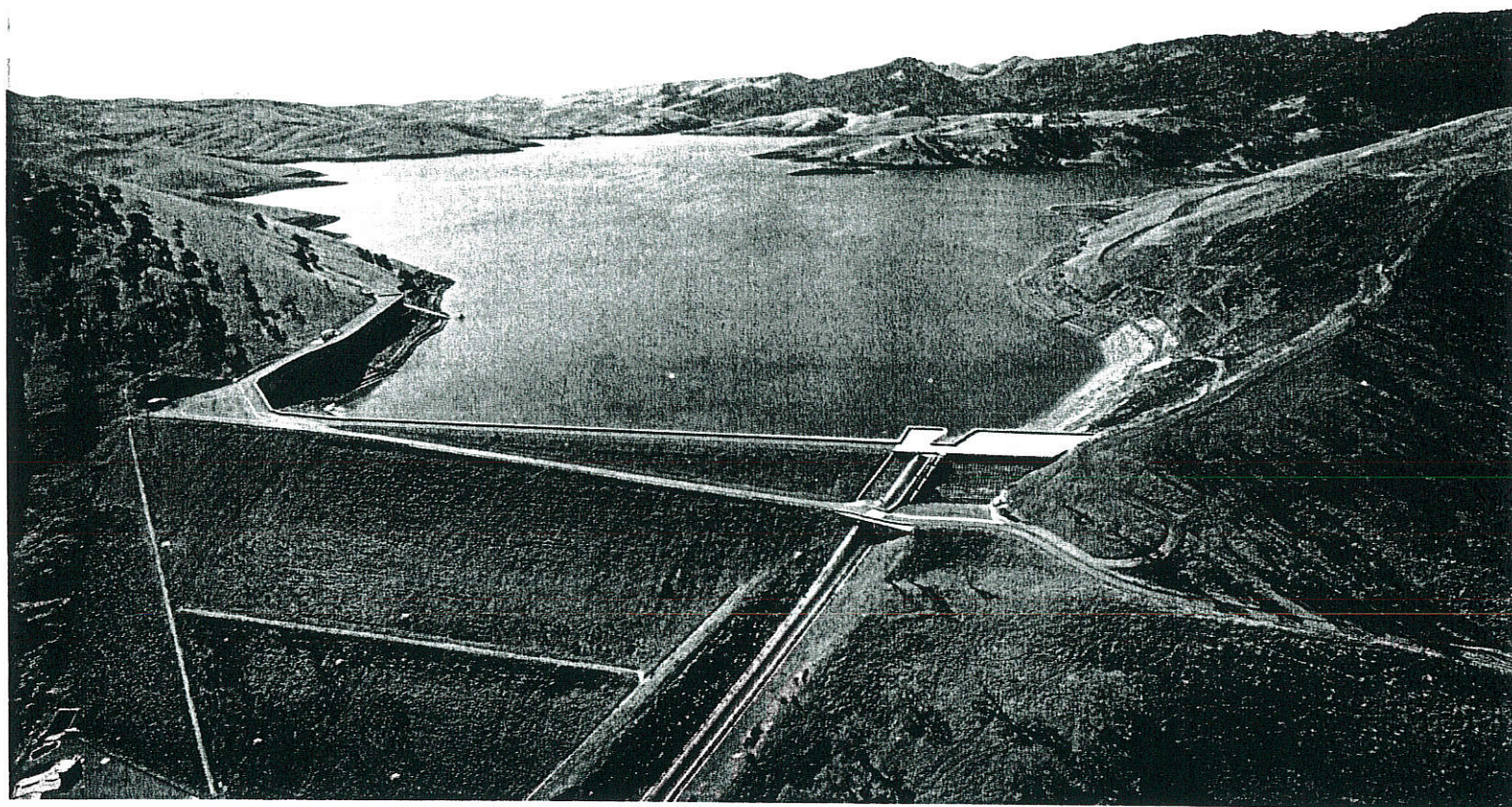
The Early Funding Agreement with the CWC provides for a cost share of 50 percent of eligible costs through December 31, 2022. An amendment is being developed to extend the agreement through December 31, 2023 and include additional funds that can be approved as a result of the inflation adjustments.

Early Funding Agreement Summary to Date:

Total Budget:	\$45,900,000
Total Program Funding:	\$22,950,000 (50 percent cost share)
Total Billed To Date:	\$26,902,852 (59% spent to date)
Total Amount Remaining:	\$18,997,148
Total Retention To Date:	\$441,684
Outstanding Invoices:	\$517,848

X.C.

Los Vaqueros Reservoir Joint Powers Authority



Proposed FY23 Budget

(July 1, 2022 – June 30, 2023)

LOS
VAQUEROS
RESERVOIR
EXPANSION
PROJECT

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Background Information

The Los Vaqueros Reservoir Joint Powers Authority (JPA) was formed in October 2021 to provide governance of the Phase 2 Los Vaqueros Reservoir Expansion Project (Project). The eight agencies which make up the JPA include: Alameda County Water District, Contra Costa Water District, East Bay Municipal Utility District, Grassland Water District, San Francisco Public Utilities Commission, San Luis & Delta-Mendota Water Authority, Santa Clara Valley Water District, and Zone 7 Water Agency. The main purposes of the JPA are to ensure sufficient stable funding for the Project, including local cost shares, and to ensure that costs are reasonable, and that cost allocations are equitable and transparent.

THE PROJECT

The Project will enhance Bay Area and Central Valley water supply reliability, develop water supplies for wildlife refuges, and improve water quality while protecting Delta fisheries and providing additional Delta ecosystem benefits. Figure 1 shows a map of the Project location and benefits. When completed, it will increase the Los Vaqueros Reservoir's capacity from 160,000 acre-feet to 275,000 acre-feet and add new and modified conveyance facilities to provide environmental, water supply reliability, operational flexibility, water quality, and recreational benefits. Figure 2 shows a schematic of existing, modified, and new facilities that comprise the Project.

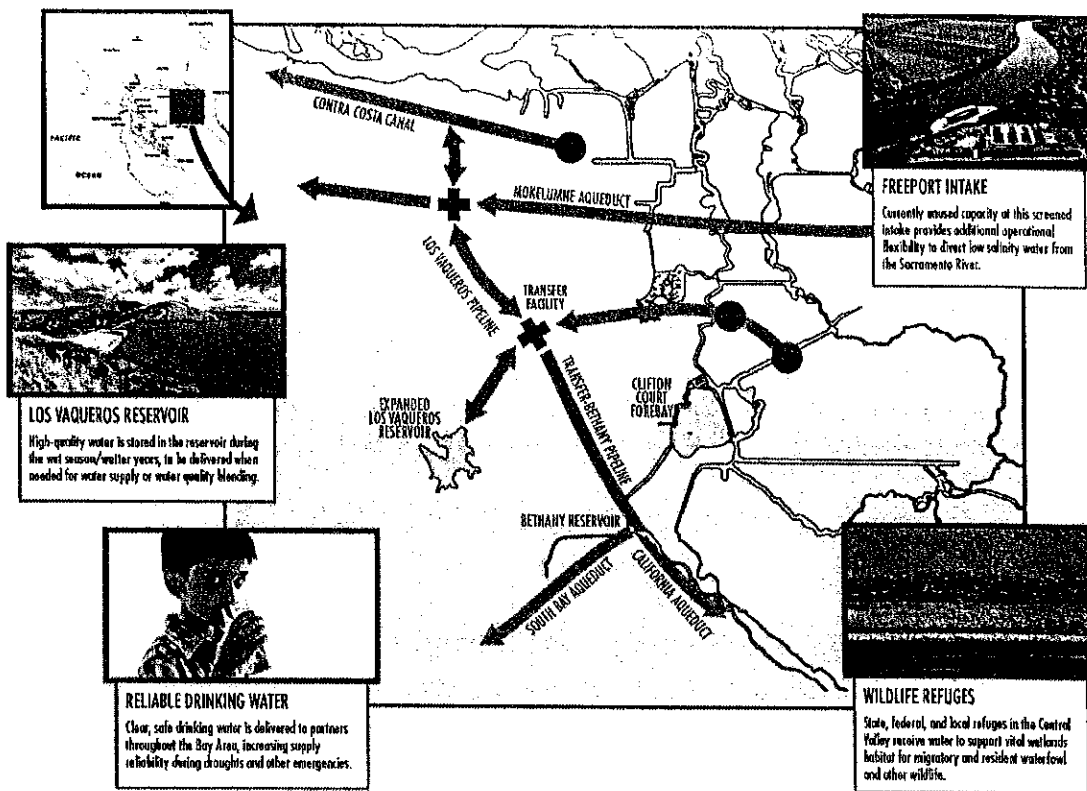


Figure 1 Location of Phase 2 Los Vaqueros Reservoir Expansion Project and Benefits

Contra Costa Water District (CCWD) currently serves as the Interim Administrator under contract to the JPA. Ultimately, administration services provided by CCWD will be replaced by a new Executive Director and other services procured by the JPA. These services include preparation of JPA Board materials, public outreach, website maintenance, banking, financial audits, and grant administration. CCWD will continue to provide technical services to the JPA as required.

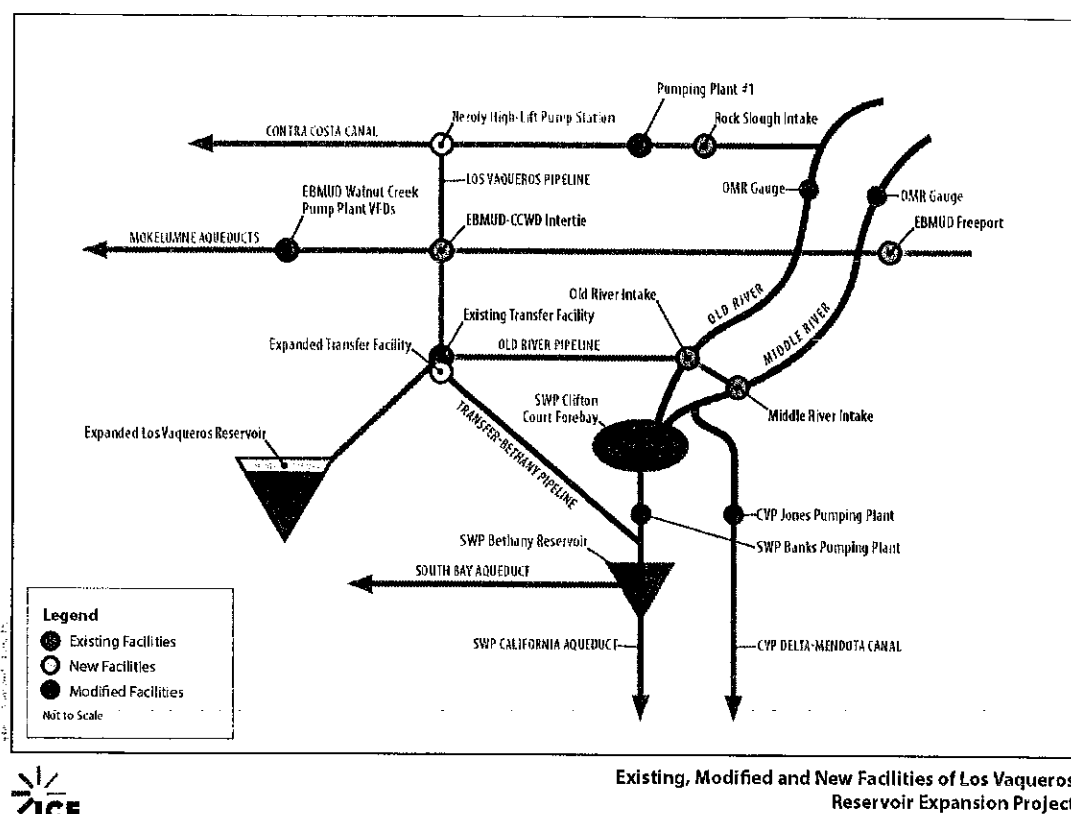


Figure 2 Schematic of Phase 2 Los Vaqueros Reservoir Expansion Project Facilities

Activities currently underway include permitting, facilities design, and agreement development, while also pursuing additional funding for the Project. The Project has been conditionally awarded \$477 million of Proposition 1 funds from the California Water Commission, and recently received an additional \$50 million in federal appropriations. The remainder of the project costs will be covered by additional federal funding, JPA Member contributions, and financing. Construction may begin as early as late 2023, pending necessary reviews, approvals, and funding, and is anticipated to continue through 2030. Additional information is available at losvaquerosjpa.com.

The Board Members, officers, interim contractors, and anticipated contractors to the JPA (JPA services) are summarized below.

Board Members

Alameda County Water District Director

Paul Sethy, Treasurer

Alternate Director

Jonathan Wunderlich

East Bay Municipal Utility District Director

John Coleman

Alternate Director

Lesa McIntosh

San Francisco Public Utilities Commission

Director

Dennis Herrera

Alternate Director

Steve Ritchie

Valley Water

Director

Gary Kremen

Alternate Director

Linda J. LeZotte

Contra Costa Water District Director

TBD

Alternate Director

Ernesto Avila

Grassland Water District Director

Ellen Wehr, Secretary

Alternate Director

Ricardo Ortega

San Luis & Delta-Mendota Water Authority

Director

Anthea Hansen, Vice Chair
(Del Puerto Water District)

Alternate Director

Jose Gutierrez
(Westlands Water District)

Zone 7

Director

Angela Ramirez Holmes, Chair

Alternate Director

Sandy Figuers

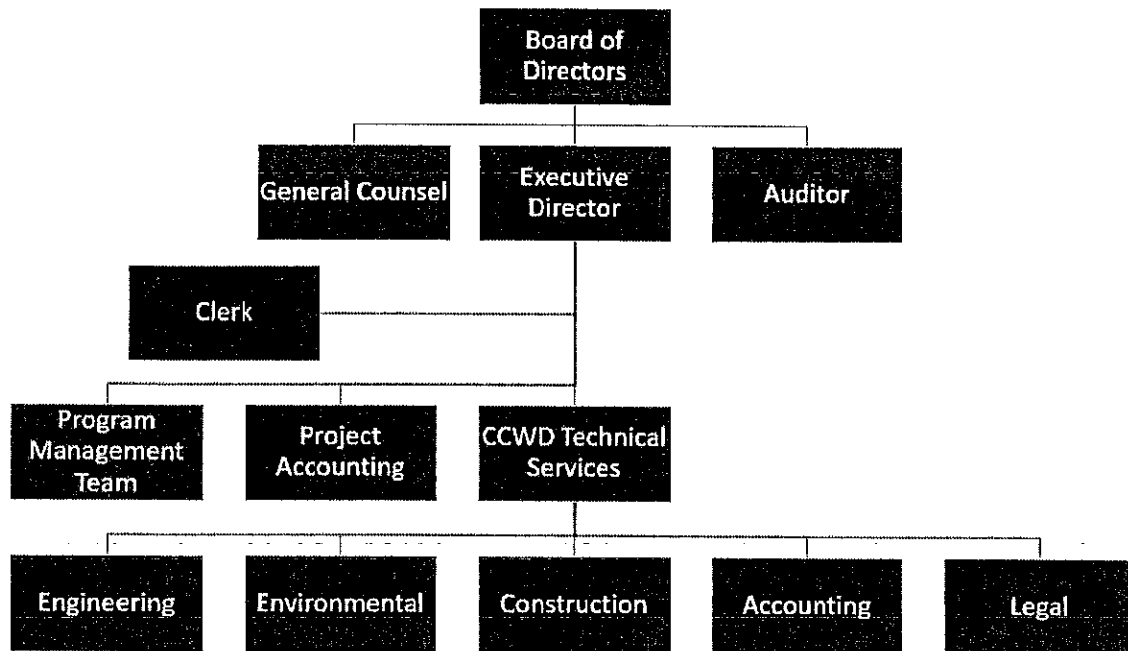
Department of Water Resources

Ex-Officio

Department of Water Resources (DWR) is anticipated to appoint a non-voting member, pursuant to Water Code Section 79759(b))

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Organizational Chart



Interim Contractors to the JPA

Jim Ciampa – Interim General Counsel

Rose Perea – Interim Clerk to the Board

Marguerite Patil – Interim Administrator

Maureen Martin – Deputy Interim Administrator

Key Milestones

During the first full fiscal year of the JPA, many significant milestones are anticipated to lay the foundation for JPA work in years to come. During FY23 the following milestones are anticipated:

- Complete recruitment and selection process and execute contract with an Executive Director
- Competitively procure Program Management Consultant
- Procure banking and other financial services
- Transition administration services from CCWD to the JPA
- Execute an Interim Funding Agreement between the JPA and its Members
- Execute a Technical Services Agreement with CCWD
- Execute a Service Agreement between the JPA and its Members
- Apply for a Water Infrastructure Finance and Innovation Act (WIFIA) Loan
- Complete permitting of the Project
- Continue design of key Project facilities
- Prepare for California Water Commission (CWC) final funding award hearing

Source of Funds

Approximately \$22.5 million of state, federal, and local funding is expected in FY23. Table 1 below shows a summary of the sources of funds. Figure 3 shows the relative contribution of the various sources of funds anticipated in FY23.

STATE FUNDING

The Project is qualified for up to \$477,558,343 of state funding through the Water Storage Investment Program administered by the California Water Commission (CWC). In 2018, CCWD executed an Early Funding Agreement with the CWC that provides for a state cost share of 50 percent of eligible costs, up to a maximum of \$23,877,917, through December 31, 2023. It is estimated that approximately \$4.1 million will be provided by the CWC in FY23 through the Early Funding Agreement. The non-state cost share is provided by federal and local funding. It is anticipated that the funds available under the Early Funding Agreement will be fully encumbered in FY23. The CWC is invoiced monthly, and payments are in arrears. CCWD will collect state funds until the term of the Early Funding Agreement expires.

FEDERAL FUNDING

Although over \$50 million has been appropriated by Congress for construction of the Project, it is assumed that only funding for pre-construction activities will be available in FY23. In 2022, CCWD executed an Assistance Agreement with Reclamation to fund a portion of pre-construction activities. The Assistance Agreement provides for a federal cost share of 24 percent of eligible costs through December 31, 2023. The budget of the Assistance Agreement is for \$29,957,575, including \$7,189,818 in Reclamation cost share (24%) and \$22,767,757 in non-Federal cost share (76%). Non-Federal cost share is provided by state and local funding. Reclamation is invoiced quarterly, and payments are in arrears. It is anticipated that approximately \$5.1 million will be provided by Reclamation in FY23. CCWD will collect federal funds in FY23 until the term of the Assistance Agreement expires or until such a time that the Assistance Agreement could be transferred to the JPA.

The JPA anticipates applying for a Water Infrastructure Finance and Innovation Act (WIFIA) loan in FY23 for up to \$675 million; if the application is accepted, it is anticipated that the loan would close in future fiscal years beyond FY23.

LOCAL FUNDING

The JPA Members have been contributing funds to the Project since 2017 through a series of local cost share agreements between CCWD and other JPA Members. The Multiparty Cost Share Agreement was executed in 2019 and has been amended multiple times. The term of Amendment No. 3 covers local funding for expenses incurred through December 31, 2022. It is anticipated that Amendment No. 4 will be executed to extend the term through June 30, 2023. It is anticipated that JPA Members collectively will contribute \$10.8 million in FY23. It is anticipated that the JPA Members will be invoiced at the beginning (July 2022) and mid-cycle (January 2023) of FY23. CCWD, as Interim Administrator of the JPA, will collect local funds in FY23 until CCWD is able to transfer administrator services to the JPA and the Interim Funding Agreement among the JPA Members has been executed.

RE-BUDGET FROM FY22

A portion of funds that have been collected by CCWD for the Project in the previous fiscal years from state, federal, and local sources remain unspent. The unspent funding collected for the Project will be re-budgeted into FY23. Approximately \$2.53 million is anticipated to be re-budgeted.

Table 1 Source of Funds in FY23

Source	FY23
State	\$4,100
Federal	\$5,100
Local	\$10,800
Carryover (re-budget) funding from FY22	\$2,530
Total	\$22,530

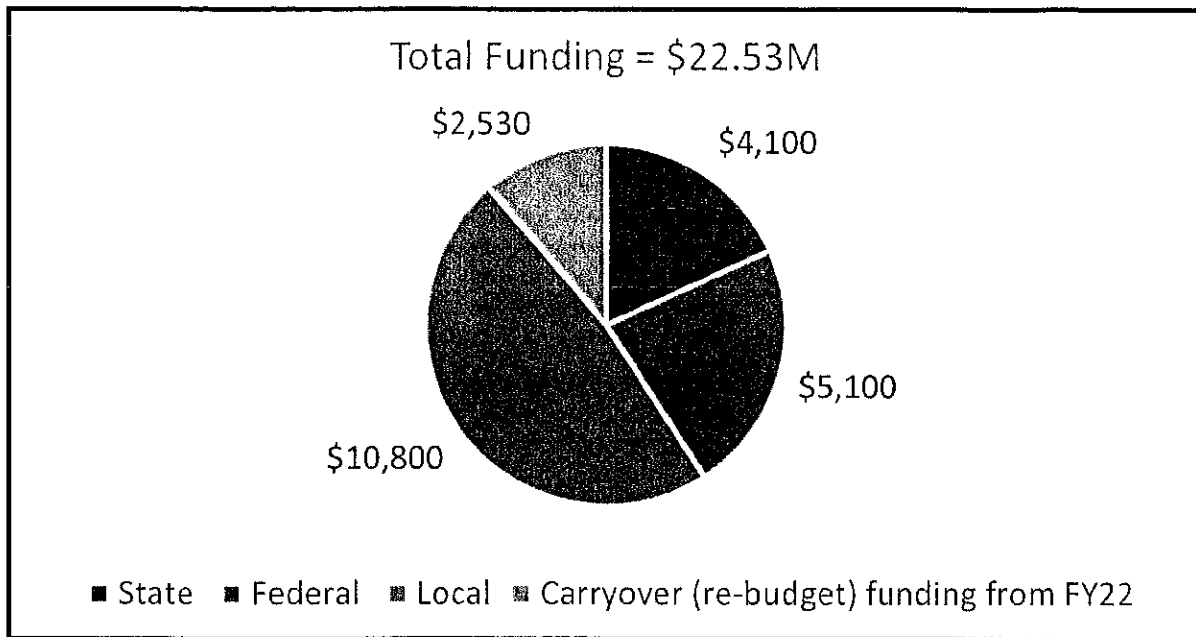


Figure 3 – Source of Funds in FY23 (\$1000)

Use of Funds

Approximately \$22.53 million in expenditures are expected in FY23. The use of funds includes services procured by the JPA (JPA Services), services procured and managed by CCWD (CCWD Services), CCWD Labor, and contingency. Table 2 below shows a summary of the use of funds. Figure 4 below shows the relative contribution of the various use of funds anticipated in FY23.

JPA SERVICES

One of the first services the JPA will procure in FY23 is an Executive Director. It is anticipated that the Executive Director will begin by December 2022 and the budget reflects expenses for six months in FY23. Once the contract with the Executive Director has been executed, it is anticipated that the JPA will competitively procure a program management consultant and other services such as banking, financial advisor, project accounting, and auditor. Development and execution of the Service Agreement to finalize the allocation of Project benefits and costs to the JPA Members is also anticipated in FY23. The JPA anticipates applying for a WIFIA loan in FY23 for up to \$675 million; there are non-refundable fees associated with obtaining an indicative credit rating for the JPA and fees to apply for a WIFIA loan which are included in the budget. Total expenditures in FY23 for JPA services is anticipated to be \$1.39 million.

CCWD SERVICES AND LABOR

CCWD is responsible for the planning, permitting, design and construction of all facilities built and operated by CCWD described in Exhibit B of the JPA Agreement. CCWD, has and will continue to hire consultants and staff to advance the Project, consistent with CCWD's procurement and hiring process. Permit applications have been submitted and it is anticipated permits will be issued in FY23. Design will continue to advance for the Pumping Plant No. 1 Replacement and Transfer-Bethany Pipeline in FY23. It is anticipated that dam design will be completed early in FY23. CCWD will continue to use CCWD's legal counsel to review key permits and contracts held by CCWD (i.e., water rights, etc.). It is anticipated that \$13.4 million will be expended on CCWD Services in FY23.

The budget for CCWD staff managing services, conducting technical work, and advancing the Project in FY23 is \$6.4 million. CCWD employees direct bill hours to the Project. Taxes, benefits, and indirect costs are applied to direct billed hours.

CONTINGENCY

A contingency amount of \$1.34 million is included in the budget for FY23. This represents approximately 10 percent of the total services. Contingency will be used to address changes to the Project while continuing to meet key milestones and could be applied to JPA Services, CCWD Services, or CCWD Labor.

Table 2 Use of Funds in FY23

Expenditures	FY23 Total (\$1000)
JPA Services:	
Executive Director	\$150
Program Management	\$400
WIFIA Loan Application Fee	\$100
Credit Rating	\$100
Insurance	\$30
Financial Advisor	\$350
CPA and Auditor	\$120
General Counsel	\$140
<i>JPA Services Subtotal</i>	\$1,390
CCWD Services	\$13,400
CCWD Labor	\$6,400
Contingency	\$1,340
Total	\$22,530

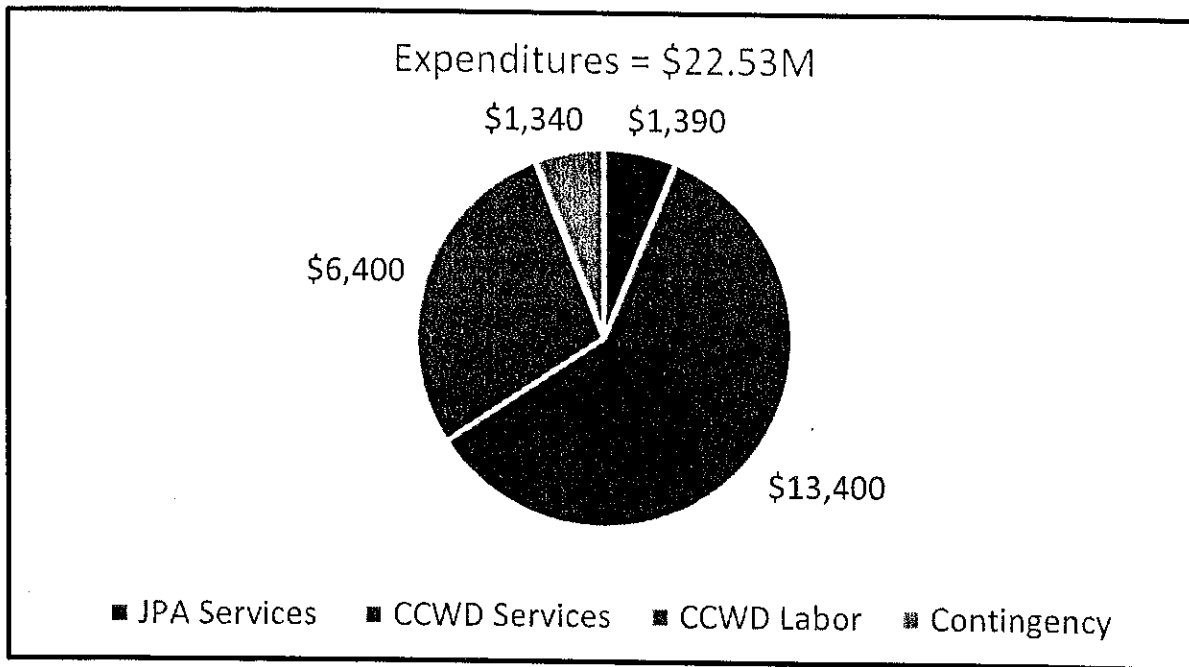


Figure 4 - Use of Funds in FY23 (\$1000)

Capital

All the costs for development of the Project are currently identified as capital costs through FY23. Project development expenditures will be categorized as capital until the Project become operational. It is anticipated that the development phase will continue through FY23. Construction is expected to begin as early as late 2023. Partial operation of the Project is not expected to commence until 2027 at the earliest. Until such time that the Project becomes operational, all development and construction expenses, and JPA administrative services are considered capital expenditures. Table 3 below summarizes the capital budget in FY23. Figure 5 shows the preliminary schedule of pre-construction activities leading up to the CWC final award hearing. Figure 6 shows the preliminary construction schedule of the project facilities.

Table 3 Capital Budget

Capital Budget	FY23 Total
JPA Services	\$1,390
CCWD Services	\$13,400
CCWD Labor	\$6,400
Contingency	\$1,340
Total	\$22,530

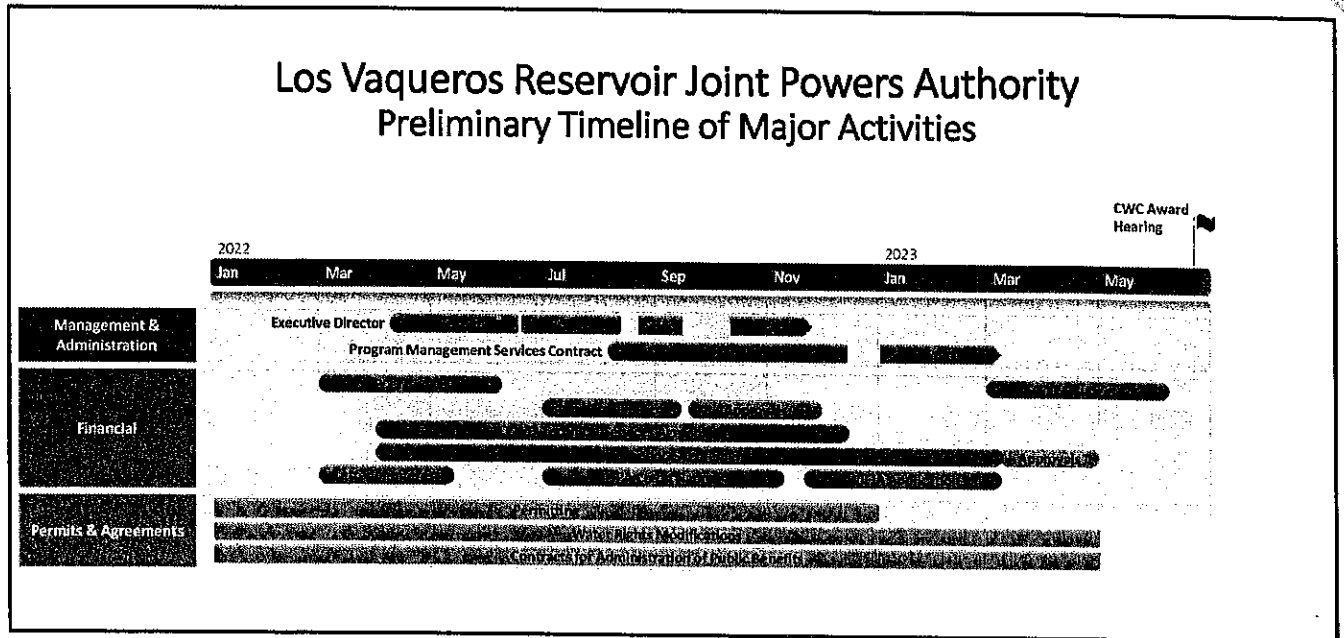


Figure 5 Preliminary Pre-Construction Schedule Phase 2 Los Vaqueros Reservoir Expansion Project

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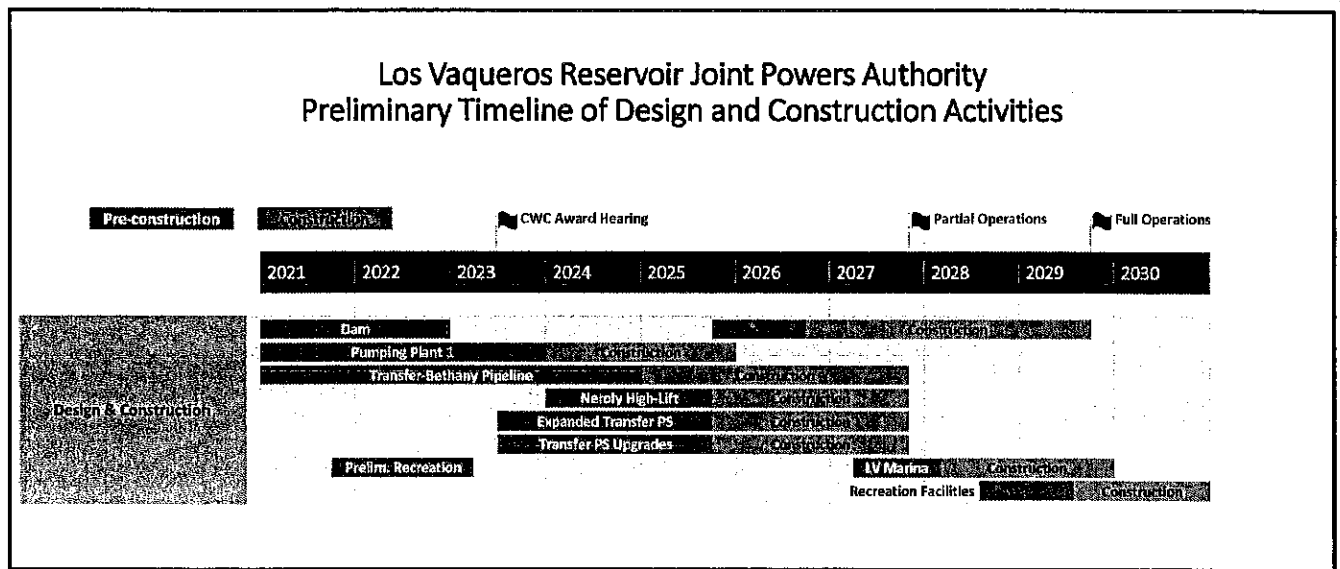


Figure 6 Preliminary Construction Schedule of the Phase 2 Los Vaqueros Reservoir Expansion Project

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Operating

It is anticipated that the development phase will continue through FY23. Construction is expected to begin in late 2023 or early 2024. Partial operation of the Project is not expected to commence until 2027 at the earliest. Until such time that the Project becomes operational and begins to deliver water to JPA Members, expenses will be capitalized and there will be no operating expenses of the JPA.

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X. D.

Anthea Hansen

From: Pablo Arroyave <pablo.arroyave@sldmwa.org>
Sent: Friday, June 10, 2022 9:42 AM
To: jfbwjsoares@elite.net; hughbennett32@gmail.com; John F. Bennett; Lea Emmons; Stephanie Reyna-Hiestand; Nick Janes; Rick Gilmore; k.geyer@bbid.org; Russ Freeman; 'Jose Gutierrez'; Anthea Hansen; Vincent Gin; Dana Jacobson; Aaron Baker; ckao@valleywater.org; Jeff F. Cattaneo; Ara Azhderian; Chase Hurley; Michael Gardner; Steve Stadler; Lon Martin
Cc: Jessica Alwan
Subject: Response Needed: Sisk Dam Raise Tech team.
Attachments: Draft Principles of Agreement - Sisk Raise-v10.docx
Importance: High

All: There is a need for the activity agreement members to interact regularly with Hallmark Group over the next several months to further work on the operation and cost share agreements and other project issues. The first discussion we will have will focus on the Ops document we sent to Reclamation in April, 2022 (attached).

I know not all participants will be able to regularly engage in these meetings. However, please designate one team member from your organization to be your representative and let me know who that is by next Wednesday, 6/15/22. Thanks

Pablo R. Arroyave
Chief Operating Officer
209-832-6230



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