



X A

December 4, 2024

Mr. Paul Stearns, Deputy General Manager  
Del Puerto Water District  
P.O. Box 1596  
Patterson, CA 95363-1596

**RE: Case No. N24-0518  
NOV No. 5033814**

Dear Mr. Stearns:

On Monday, October 21, 2024, staff from the San Joaquin Valley Air Pollution Control District (District) documented evidence of a burn at the property located at Orestimba Rd., Newman, CA 95360. This burn constituted a violation of District Rule(s) 4103.

If you feel the District reached this finding in error or if you have additional information you would like the District to consider, please **contact Esthela Soto at (559) 230-5999** or [Esthela.Soto@valleyair.org](mailto:Esthela.Soto@valleyair.org) and reference Case Number N24-0518. **Para asistencia en Español por favor llame al 559-230-5995.**

California Health & Safety Code (CH&SC) 42402 provides that any person who violates District Rules is liable for a civil penalty, and each day on which a violation occurs constitutes a separate offense. Based on the facts known to the District at the time of this letter, and in consideration of the relevant factors prescribed in CH&SC § 42403, the District has assessed a civil penalty in the amount of \$3,500.00.

The District offers an Illegal Burning Training Course free of charge. If you complete the training course you will receive a credit of \$150 towards the penalty.

If you are paying by check, please make it out to the "San Joaquin Valley Air Pollution Control District" and write "Case No. N24-0518" on your check. You may also pay online by going to [www.valleyair.org](http://www.valleyair.org), and clicking on "Online Bill Payment", then "Make Payments." You will need your case number and mailing address zip code.

Thank you for your attention to resolving this matter.

Sincerely,  
*Clay Bishop*  
Clay Bishop  
Supervising Air Quality Specialist

106

Northern Region Office  
4800 Enterprise Way  
Modesto, CA 95356-8718  
(209) 557-6400

Central Region Office  
1990 E Gettysburg Ave  
Fresno, CA 93726-0244  
(559) 230-5950

Southern Region Office  
34946 Flyover Court  
Bakersfield, CA 93308  
(661) 392-5500

**NOTICE OF VIOLATION** NO. 5033814

**ISSUED TO:**

**NAME:** Del Puerto Water District  
**ADDRESS:** P.O. Box 1596  
**CITY:** Patterson  
**PHONE:** (209) 892-4470

**STATE:** CA

**PERMIT/FACILITY:**  
**PERMITS:**  
**ZIP:** 95363-1596

**OCCURRENCE LOCATION:**

**NAME:** Del Puerto Water District

**ADDRESS:** Orestimaba Rd., APN- 026-020-060-000

Same as Above

**CITY:** Newman

**STATE:** CA

**ZIP:** 95360

**DATE:** October 21, 2024

**TIME:** 3:00 pm

**THIS NOTICE HAS BEEN ISSUED AS A RESULT OF A VIOLATION OF:**

- San Joaquin Valley Unified Air Pollution Control District Rules and Regulation
- California Health and Safety Code / California Code of Regulations

**Rule(s)/Section(s):** 4103 - Open Burning

**Equipment Type (If Applicable):** open burn of almond tree waste

**Description:** Illegal burn of a vegetative waste material

**RECIPIENT NAME:** Paul Stearns

**TITLE:** Deputy General Manager

**SIGNING THIS NOTICE IS  
NOT AN ADMISSION OF GUILT** x



**SIGNATURE**

RETURN A COPY OF THIS NOTICE WITH A WRITTEN DESCRIPTION OF THE IMMEDIATE CORRECTIVE ACTION YOU HAVE TAKEN TO PREVENT A CONTINUED OR RECURRENT VIOLATION.

**THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY,  
YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

ISSUED BY: Lori Sheridan

DATE: Mon October 28, 2024

TIME: 2:41 pm

MAILED/EMAILED

Continued

107



P.O. Box 1596 Patterson, CA 95363-1596

Phone (209) 892-4470 • Fax (209) 892-4469

October 29, 2024

San Joaquin Valley Air Pollution Control District  
4800 Enterprise Way  
Modesto, CA 95356-8718

RE: Violation No. 5033814

Sent via email to:

[Lori.Sheridan@valleyair.org](mailto:Lori.Sheridan@valleyair.org)

To Whom it May Concern,

The Del Puerto Water District, in partnership with the Central California Irrigation District (Districts), have embarked on an extraordinary project to capture flood flows in Orestimba Creek and convey that captured water, as well as other developed waters, into newly constructed recharge basins near Orestimba Road on APN 26-20-60. This \$13,000,000 project will greatly benefit the Delta-Mendota Subbasin and local groundwater dependent communities, like the neighboring city of Newman, as 10% of the water introduced into the recharge ponds will be left behind to replenish supply during dry and critically dry water years and the extracted water will provide the Districts with much needed additional water.

As part of the construction of the pipeline to the recharge ponds, two rows of almond trees were purchased and removed from the westerly neighbor's orchard over the winter of 2023-2024. Those trees were temporarily stockpiled in one of the ponds located on the east side of the District's property. The Districts contacted multiple tree shredding companies to properly dispose of the trees but had difficulty securing a contractor due to scheduling difficulties or lack of interest due to the small size of the job. Unfortunately, someone unbeknownst to the Districts lit the trees on fire on the afternoon of October 21, 2024.

The Districts, as well as the construction contractor for the recharge ponds, have experienced vandalism throughout the construction of the project such as graffiti, breaking in to flow measurement panels to steal batteries, and theft of components from construction equipment.

To immediately prevent any reoccurrence, the Districts have arranged to have the remaining remnants of almond trees that weren't burned shredded and will remove any stumps that are too large to shred by November 8, 2024. On a regular basis, weather permitting, the pond basins are disked, the levees are mowed, and herbicide is applied to keep control of vegetation.

The Districts ask that the San Joaquin Valley Air Pollution District not impose any fines or penalties on the Districts as this was an isolated case, was not authorized or condoned by the Districts, and the Districts have no history of non-compliance.

Sincerely,



Paul Stearns

Deputy General Manager – Water Operations, DPWD

cc: Anthea Hansen, DPWD  
Adam Scheuber, DPWD  
Jarrett Martin, CCID  
Ben Fenters, CCID

109

XA

**Adam Scheuber**

---

**From:** Steve Chedester <stevechedester@sjrecwa.net>  
**Sent:** Tuesday, November 26, 2024 1:37 PM  
**To:** Adam Scheuber; Anthea Hansen  
**Subject:** FW: Water Right Application A033286 of Central California Irrigation District

FYI-  
Have a Happy Thanksgiving!

Steve

**From:** Sahlberg, Ray B <RSahlberg@usbr.gov>  
**Sent:** Tuesday, November 26, 2024 1:00 PM  
**To:** Brown, Greg@Waterboards <Greg.Brown@Waterboards.ca.gov>  
**Cc:** Steve Chedester <stevechedester@sjrecwa.net>; Ben Fenters <bfenters@ccidwater.org>; Andrew J. McClure <amcclure@minasianlaw.com>; Holm, Lisa M <lholm@usbr.gov>  
**Subject:** Water Right Application A033286 of Central California Irrigation District

Mr. Brown -

Reclamation has entered into an agreement with Central California Irrigation District (CCID) to settle its protest of water right application A033286. In consideration of Reclamation's dismissal of its protest, CCID agrees that any permit or license issued pursuant to A033286 shall be subject to State Water Resources Control Board Standard Permit Terms 80, 90, 91, and 93, and CCID will not object to the inclusion of said Terms in any Permit or License issued pursuant to A033286. Please let me know if you have any questions.

- Ray Sahlberg  
U.S. Bureau of Reclamation

110

Blank

X A a

DPWD Share of OCRRP Total Project Costs		
<b>1 AC Pilot</b>		
Jul 2014- Sep 2016	\$ 146,293	Planning/Eng/Bio
	\$ 76,980	Construction
<b>Total</b>	<b>\$ 223,273</b>	
<b>20 AC Pilot</b>		
Nov 2015-Nov 2018	\$ 352,860	Planning/Eng/Bio
	\$ 520,191	Construction
<b>Total</b>	<b>\$ 873,052</b>	
<b>60 AC Expansion</b>		
May 2018-Mar 2025	\$ 2,226,362	Planning/Eng/Bio
	\$ 1,652,723	Land
	\$ 9,899,223	Construction
	\$ 1,200,000	Planned (Finish Electrical and Recovery Wells)
<b>Total</b>	<b>\$ 14,978,308</b>	
<b>Project Total</b>	<b>\$ 16,074,633</b>	

<b>Grants</b>	\$ 404,518	IRWM Grant (Phase 1)
	\$ 809,264	IRWM Grant (Expansion)
	\$ 5,597,986	SWGP
	\$ 1,000,000	SGMA P1R1 (From LBCRRP)
	\$ 2,321,407	SSGP
<b>Grants Total</b>	<b>\$ 10,133,175</b>	

<b>District Funded</b>	<b>\$ 5,941,457</b>
<b>DPWD Portion</b>	<b>\$ 3,148,066</b>
<b>Cost/AC Over 80 AC</b>	<b>\$ 39,350.83</b>

111

Blank

X.B

2175 N California Blvd  
Suite 315  
Walnut Creek, CA 94596  
www.woodardcurran.com

T 800.426.4262  
T 925.627.4100

## MEMORANDUM



**TO:** Chris White, Executive Director, San Joaquin River Exchange Contractors Water Authority  
Anthea Hansen, General Manager, Del Puerto Water District

**FROM:** Andy Neal

**DATE:** December 6, 2024

**RE:** Del Puerto Canyon Reservoir Progress Update for December 2024 Board Meeting

---

Mr. White and 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.

### Dam Design/Engineering

The project's Technical Review Board (TRB) met with the project team on November 18-20. At the meeting the Terra-GeoPentech (TGP) team presented the results of their recent work including their interpretation of field work and lab analytical data developed during the summer and fall. The TRB issued a post-meeting report commending the TGP presentations and general approach and offering suggestions for upcoming work. The TGP team will be focused over the next few months on addressing those suggestions in preparation for submitting documents to the Division of Safety of Dams (DSOD) for review.

### Utility Relocation

The Program team continues to work with the dam and road designers, and PG&E, to coordinate and define adjustments to avoid a potential conflict between the proposed dam spillway and proposed PG&E electrical towers. A key step to resolve concerns is for the project team to develop more detailed access road concepts – an effort with which TYLin has been tasked. At a meeting on December 5, the project team including W&C, TYLin and TGP met with PG&E and their engineering team. TYLin presented work to date, including updated topographic surveys, and several roadway concepts; PG&E and their team provided useful feedback. Next steps were identified to move the work forward.

---

112



### New Road Alignment

Recent work completed includes a new high-precision topographic survey and a field biological assessment. The road designer, TYLin, is using the data to optimize the roadway alignment.

### Environmental

Onsite environmental monitoring continued to support field work related to the program, including survey work and geotechnical explorations discussed above. The team also performed biological assessments of the preferred road relocation alignment and alternates. That information will inform both the roadway design and environmental documentation.

The Program team continues to meet regularly with Reclamation to move the EIS forward. The current work to refine the road alignment and advance its design remain foundational steps that will inform environmental studies.

### Project Financing

The team is coordinating with Reclamation on the latest progress reporting and is working to gain the release of additional WIIN Act funds under the budget authorized by Reclamation.

### 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, TYLin road design team, and clients

113

X B.



P.O. Box 1596 Patterson, CA 95363-1596

Phone (209) 892-4470 • Fax (209) 892-4469

Shelby Hoerner  
Financial Assistance Branch  
Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236-0001

Subject: Agreement No. 4600014987 IRWM Proposition 1 Round 2 Implementation Grant Amendment Request Letter

Dear Ms. Hoerner,

The Del Puerto Water District (DPWD) is requesting an amendment to Agreement No. 4600014987 IRWM Proposition 1 Round 2 Implementation Grant. DPWD is requesting to move budget from Category A to Category D to cover additional costs to implement the project. DPWD is also requesting an extension of the schedule to March 31, 2025 to accommodate the additional work.

Project 1 requests an amendment to the schedule and budget as summarized below:

- Budget: Project 1 is requesting a budget shift of \$15,000 from Category A to Category D due to increased costs in preparing the Geotechnical Interpretive Report (GIR). The project was slightly delayed due to the observance of young kit foxes in the area, requiring the postponement of the cone penetrometer tests (CPTs) to late Summer/early Fall. The delay also required more coordination to ensure viability of the young kit foxes and resulted in an increase in cost for Category D.
- Schedule: Project 1 is requesting a change in the project schedule due to the postponement of the CPTs, pushing the schedule for the GIR and closeout deliverables back. This request would extend Category A and D by 2 months from the original schedule.

If you have any additional questions, please contact me by email at [ahansen@delpuertowd.org](mailto:ahansen@delpuertowd.org) or by phone at (209) 892-4470. Thank you for your consideration of our amendment request.

Sincerely,

Anthea G. Hansen  
General Manager  
Del Puerto Water District

114

Blank

X B.

DEL PUERTO WATER DISTRICT (DPWD) AND  
SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY (SJRECWA)

**DEL PUERTO CANYON RESERVOIR PROJECT  
TECHNICAL REVIEW BOARD MEETING NO. 7**

November 27, 2024

Anthea Hansen, General Manager  
Del Puerto Water District  
PO Box 1596  
Patterson, CA 95363

Subject: Technical Review Board Meeting No. 7, Del Puerto Canyon Reservoir Project,  
November 18-20, 2024

Dear Anthea,

The seventh meeting of the Technical Review Board (TRB or Board) regarding the Del Puerto Canyon Reservoir (DPCR) Project was held at the DPWD Offices, November 18-20, 2024.

The meeting was attended by representatives of the project partners, Del Puerto Water District (DPWD) and San Joaquin River Exchange Contractors Water Authority (SJRECWA), the Program consultant (Woodard & Curran), the Design Team consultants (TERRA/GeoPentech, IEC, InfraTerra, Schnabel), and the TRB. A list of meeting attendees is provided in Attachment A.

The purpose of this meeting was to update the TRB on the project status, discuss new site characterization data, review updates to the geologic and geotechnical characterization, review updates to the preliminary design, and receive TRB comments and recommendations. The meeting was comprised of presentations by the Design Team, discussions by participants, and responses by the TRB to questions posed by the Design Team. The meeting agenda is provided in Attachment B.

The TRB was provided with copies of the draft Geotechnical Data Report (GDR), draft Geotechnical Interpretative Report (GIR), and TRB Review Comment Log prior to the meeting (read-ahead documents are listed in Attachment C). In addition, the TRB was provided with copies of the meeting presentations at the meeting.

This letter report contains the TRB's responses to the questions posed by the Design Team during the meeting. This letter report was finalized after addressing the editorial comments from you and your consultants regarding the draft submitted November 22, 2024.

**Question 1:**

*Do you agree that all the data gaps have been addressed and that once the additional data are collected and the laboratory test results yet to come will provide a complete GDR?*

115

The TRB letter report from Meeting No. 6 summarized several items that warranted consideration for inclusion in the GDR or GIR. They included additional laboratory testing (UU triaxial), a movie of the 3D model, Lugeon plots of the packer test results, CPTs at Saddle Dam 1, and the addition of photographs of the site and outcrops. All have been addressed in the revised GDR and the GIR except for the movie, which is in progress. One additional suggestion for Appendix E of the GDR is to report the Lugeon values, rather than showing "0," for all packer test results that indicated very small flows into the test interval.

Two sonic drill holes were added to investigate the character of the conglomerate downstream of the main dam (MD-23 and MD-24). The borehole logs are included in the updated GDR, while the additional laboratory testing still in progress will be completed soon. Furthermore, a suite of X-ray diffraction and X-ray fluorescence tests will be performed to determine the mineralogy and chemistry of the various rock units and possibly the type of cementation within the conglomerate forming the resistant ridge.

The data gaps previously identified have been addressed and the GDR will be complete with the above additions and be an appropriate reference for the project design and an important Contract Document for the bidders.

**Question 2:**

*Do you agree with our evaluation of the geohazards at the site? Do you have any comments on our estimate of the amount of potential deformations that could occur under the Main Dam and our approach to dealing with actual conditions encountered during the foundation excavation?*

***Landslide Hazards***

The TRB agrees with the landslide-generated wave study conclusions which show that landsliding will not be a significant hazard to the dams or reservoir operations. Landslide-generated waves from these features are unlikely to occur because landslide movements are slow and the estimated wave runup they would produce at the dams would be inconsequential. The approach taken by this study was appropriate in scope and methodology for bounding the potential hazard effect.

The Design Team landslide hazard analysis assessed the general character of the 15 documented large landslides that occur within the reservoir footprint and 22 landslides that partially occur within the reservoir. These mass movements occur primarily within the interbedded claystone and siltstone members of the Moreno Formation and primarily occur on the east facing, east dipping slopes. The Moreno strata, along with the other formations, dip 45 to 50 degrees towards the east. Other mapped landslides include shallow debris flows and deeper earthflows that developed within clayey slope deposits derived from weathered fine-grained rock. No significant landslides exist at the dam foundations. The evaluation program consisted of numerous geotechnical borings to determine landslide thicknesses and sizes. The program focused on providing the necessary data to evaluate mapped landslides and determine if they can remobilize or if new landslides can form during reservoir filling or subsequent operational variations in reservoir level.

The landslides are generally inactive and believed to have formed during the wetter Pleistocene geologic time-period. One of the landslides has been reactivated where Del Puerto Creek is eroding the landslide toe. These are translational (slope and bedding parallel), relatively thin, and low gradient landslides.

*1119*

The landslides do not appear to involve major rock blocks or be rotational. The studies indicate there could be a potential reactivation of some of the larger landslides due to reservoir filling and frequent reservoir level cycling. The rate of movement is slow (creep velocity) for the larger landslides. The newer, smaller landslides or debris flows in the reservoir rim area are generally shallow and would be classified as translational (slope/bedding parallel or debris flow).

The primary concern with landslides in the reservoir is the potential for landslide-generated waves. Analyses for estimating landslide-induced waves showed that the potential wave heights were relatively small, on the order of 5 to 9 feet high at the source and likely significantly smaller upon arrival at either the Main Dam or Saddle Dam 1. The estimated landslide-induced wave heights will not result in overtopping of the dam crests given their 22 feet of freeboard.

### ***Seismic Hazards***

The seismic hazard evaluation used well established technical approaches for characterizing the seismic sources, site conditions, and ground motions in both deterministic and probabilistic frameworks. The deterministic and probabilistic estimates of the seismic hazard at the dam site are dominated by the San Joaquin thrust fault located about 0.8 km east of the dam site, with the dam being on the hanging wall. The recommended scenario spectrum is based on 84<sup>th</sup> percentile spectral values for a magnitude 7.1 event on the San Joaquin fault with adjustments for directivity effects. The recommended scenario spectrum falls between the probabilistic spectra for 2,475-year and 5,000-year return periods and appears comparable to the probabilistic spectrum that would be obtained for a 3,500-year return period. The TRB agrees with the approach and results of the seismic hazard evaluation.

The earthquake acceleration time histories (EATH) for the dynamic analyses were developed using best practices for constraining the selection of seed time histories and for spectral matching of the motions. Seed time histories were screened and evaluated based on magnitude and distance, goodness of fit, scaling factor limits, longest usable period, significant duration, Arias Intensity, and peak ground velocity. The effect of spectral matching on acceleration, velocity, and displacement time histories was checked. The TRB considers the recommended EATH to be appropriate for use in design analyses.

### ***Surface Faulting Hazards***

Fault surface offset estimates for the main trace of the San Joaquin thrust fault were outlined in the GIR with further information presented during the meeting. Other faults are in the area, but the San Joaquin fault is the only fault to potentially affect the site by surface offset. Although the main trace of the fault is outside the footprint of the dam, it is necessary to evaluate its potential displacement offset to identify any potential effect to the embankment, specifically secondary or sympathetic movement beneath the dam because of the main fault movement. Publications of fault characteristics and moment-based calculations were used to estimate the fault length, width, and displacement on the San Joaquin fault. Additional physical evidence was used to support the estimate including seismic reflection lines, vegetation lineaments and other structural features, aerial photography, mapping information from the California Aqueduct and I-5 Freeway, trenching and other information to further evaluate the fault location and potential movement. Once the type of fault, location, and magnitude were estimated, an empirical moment magnitude rupture relation was used to estimate the median average displacement at 3.8 feet. This value was comparable to estimates obtained using other deterministic relationships. The estimated

offset was also compared to the value estimated from probabilistic fault displacement hazard analysis (PFDHA) curves for a 3,500-year return period. The TRB believes the study was thorough and complete, resulting in a reasonable estimate of fault offset on the San Joaquin fault. The TRB agrees that the median deterministic estimate for the fault offset is appropriate considering the probabilistic results.

The Design Team's overall methodology for estimating secondary displacements in the hanging wall consisted of three independent lines of analysis. First, surface geophysics, historical aerial photography, and construction-era exposure mapping near the mapped trace of the San Joaquin fault in the valley alluvium (close to the State Water Project [SWP] aqueduct) were performed to document the type of hanging wall deformations that occur proximal to the main controlling fault. Second, a larger scale, valley-long study of alluvial terraces (mappable landform surfaces) looked at deformations that could be documented using this evidence for a Holocene to late-Pleistocene age time frame (on the order of 3,000-45,000 years before present). The third approach focused on global models for estimating secondary movements, or back thrusting, that typically develop in the hanging wall of thrust and reverse faults.

Overall, the studies showed that faulting deformations associated with the San Joaquin fault appear to be located east of the Main Dam and in the western edge of the valley alluvium. The uplifted older alluvium is underlain by shallow bedrock near the fault tip, where the bedrock layers are warped (deformed) over the fault tip. A distinctive Del Puerto stream bend and multiple terraces across uplifted terraces provide good data that show geomorphic effects exist close to the fault tip, but no correlative deformation exists further west from the mapped fault trace. These data suggest that ground deformation due to an event on the San Joaquin fault would be a broad zone of uplift with surface warping, without significant discrete secondary offsets.

Surface geophysics in the hanging wall close to the fault trace (i.e., east of the SWP) showed no deformation concentrated in the near surface sediments in the approximate upper 150 feet. Geophysics indicates possible deformation in older underlying bedrock or older alluvium, but that is 200 to 250 ft below the ground surface. The historical aerial photographs show a broad, nearly flat and undeformed landform surface west of the SWP.

The Del Puerto valley alluvial terraces in the main dam segment and areas upstream do not show deformation such as localized uplift or overall broad warping. Rather these terraces show normal stream responses due to incision over time of Del Puerto Creek in response to base level changes, most likely in the fault tip area. In this area near the fault, the terraces show a localized downcutting where the stream is responding directly to the landform deformation.

Secondary movements in thrust fault hanging walls were estimated using the global model by Moss et al. (2022) which was developed using case histories of secondary fault movements induced by main thrust fault movements. Their general model shows that, at distances of 0.5 km to 1 km from a main thrust fault, the secondary displacements generally ranged from 0% (no secondary offsets) to 80% of the average displacement on the main fault, with a median ratio of about 50%. The Design Team concluded there is approximately a 30% probability of observing distributed or secondary displacement in the dam foundation footprint, and that if secondary displacement is observed, it would have a median ratio of 50% of the primary displacement. The Design Team accordingly recommended that the design analyses consider the possibility of a potential secondary displacement of 1.9 feet on a discrete plane at the Main Dam based on this median ratio of 50% in combination with the main fault displacement estimate of 3.8

811

feet. The TRB considers this a conservative approach and suggests the Design Team discuss the combined probabilities of the earthquake event, the probability of the estimated primary displacement, the probability that any secondary displacement occurs, the probability of the magnitude ratio for secondary displacement, and the probability that secondary displacements are concentrated on a discrete plane.

The presentation discussed the presence of very old gravels on the hilltops of both the right and left abutment of the Main Dam. These gravels were used in the valley-wide alluvial terrace study and thought to be late to latest Pleistocene in age (25,000 to 113,000 years before present). Geophysics show that the gravels and underlying shallow deposits do not appear to be deformed. Any bedding plane shears in the dam foundation associated with fault movement would also have to deform these gravels. The current plan is to evaluate these gravels in more detail during excavation for the spillway. The TRB believes the approach for estimating potential offset within the foundation is reasonable and that the median deterministic estimate for the offset is appropriate considering the probabilistic results and other sources of conservatism. The TRB suggests that the Design Team consider moving the evaluation of the gravels to the design phase depending on regulatory feedback regarding potential impacts of secondary displacements.

**Question 3:**

*Do you agree we have appropriately established the foundation objectives for the embankments and the engineering properties that will be used in the design analyses?*

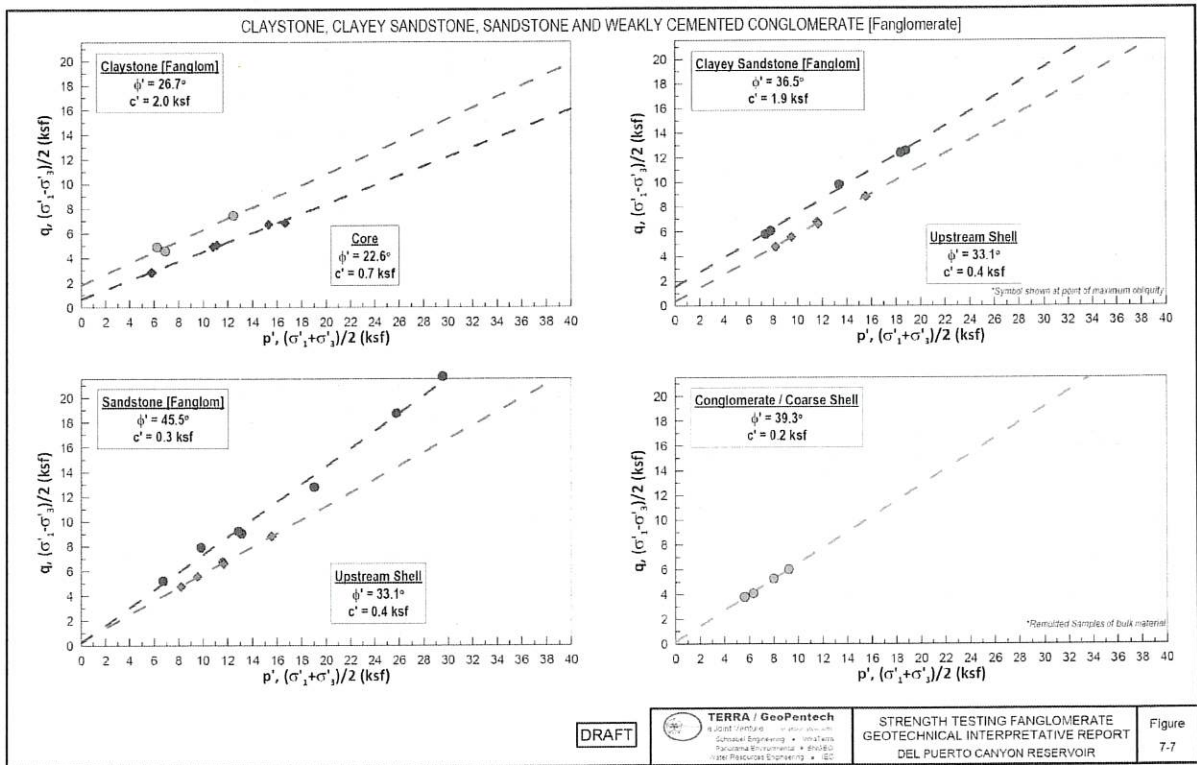
The Design Team has established recommended strength parameters in the GIR for the core and shells of the embankment and the different bedrock units in the foundation. The recommended strength parameters are based on a thorough program of ICU and UU triaxial testing on (1) compacted specimens of different soil blends representing likely borrow sources for the core and shells of the embankment and (2) intact specimens of rock cores from claystone, clayey sandstone, and sandstone units in the dam foundation.

The most recent phase of laboratory testing on compacted specimens focused on five blends (or mixtures) representing likely borrow sources (Blends 10 to 14), and it was informed by the findings from the earlier phase of testing on nine blends representing a wider range of possible borrow sources. Blend 10 was a silty gravel with sand (GM) sourced from weakly cemented conglomerate in the Fanglomerate and considered a likely source for the downstream shell. Blends 11 and 12 were silty sands (SM) sources from the Tesla Sandstone and Moreno Sandstone, respectively, and considered likely sources for the upstream shell. Blends 13 and 14 were fat clays with sand or gravel (CH) sourced from the Moreno Shale and Moreno Claystone, respectively, and considered likely sources for the core. ICU tests were performed to obtain drained and consolidated-undrained shear strength parameters, and UU tests on as-compacted specimens were performed to obtain total stress strength parameters for end-of-construction loading conditions. Blends 11 and 12 produced comparable shear strengths, such that a single (common) strength envelope was developed for these two materials. Similarly, Blends 13 and 14 produced comparable shear strengths, such that a single strength envelope was developed for these two materials. The TRB found the testing program to be well designed and thorough, the laboratory results to be of high-quality, and the developed strength parameters to be reasonable.

The laboratory testing of intact rock samples involved ICU triaxial tests on specimens from claystone, clayey sandstone, and sandstone beds in the Fanglomerate beneath the embankment footprint. The specimens were saturated under confinement, which appears to have eliminated the previously observed

degradation of specimen strength/integrity when saturated without confinement. The stress-strain responses during ICU compression loading were comparable to responses often observed for heavily over-consolidated soils and are consistent with expectations for these types of sedimentary rocks. The effects of sample disturbance due to coring would likely weaken samples, such that the derived strengths are likely conservative. The TRB found the testing program for the intact rocks to also be well-designed and thorough, the laboratory results to be of high-quality, and the developed strength parameters to be reasonable.

The shear strength envelopes for the compacted core materials (Blends 13 and 14) and upstream shell materials (Blends 11 and 12) were compared to those for the different foundation bedrock units. For example, the drained (effective stress) strength envelopes for the core and upstream shell materials are compared to those for claystone, clayey sandstone, and sandstone beds in the Fanglomerate in Figure 7-7 from the GIR as shown below. The fourth plot in this figure (lower right) showing the strength envelope for the downstream shell material (Blend 10) will include a recommended strength envelope for the intact conglomerate materials once the in-progress testing is completed. The results of these comparisons indicate that the intact bedrock materials are as strong or stronger than the overlying embankment materials that are likely to be placed on them. Furthermore, comparisons of tests results for specimens from different boreholes and different depths suggest that the strength properties for the intact bedrock do not show a clear improvement with depth.



The foundation objectives are still being developed, with the discussions at the meeting suggesting an appropriate path forward is emerging. The strength testing for the bedrock units, as discussed above, suggest that excavating to undisturbed rock that is firm and unyielding will provide foundation strengths

120

that generally meet or exceed those for the overlying embankment materials, and that excavating to larger depths will not provide significantly improved foundation strengths. Any locally unsuitable bedrock materials exposed during excavation could be identified by proof rolling or similar observations and subsequently over-excavated. Excavation to undisturbed rock will also provide a surface that can be appropriately prepared for placement of the core and shells, such that control of seepage and internal erosion can be achieved without excavation to greater depths.

Final excavation depths will be at the discretion of the engineer and subject to approval by regulatory personnel. The foundation excavation can be specified using reference elevations/profiles that are expected to reach intact rock and provide the desired foundation and abutment shaping. The specified excavation profiles provide a basis for cost estimating, with final payment based on actual quantities.

The TRB believes that a foundation objective reflective of the above discussed factors and considerations can now be developed.

**Question 4:**

*Do you have any further comments on the preliminary design and suggested revisions to the Technical Memorandum to be considered before the Technical Memorandum is submitted to DSOD?*

***Buried Conduit Design***

The Preliminary (30%) Design Technical Memorandum (TM) should include design concepts and analyses of the Inlet/Outlet Conduit that consider the potential for secondary fault offset (i.e., 1.9 ft offset due to potential back thrusts). As a starting point, the 96-inch conduit encased within a reinforced concrete backfill could be evaluated to assess the allowable range of offsets for a given design criterion establishing reasonable strain limits for the steel conduit. It is anticipated that the stiffness of the encased conduit will spread the strain from the fault offset depending on the relative stiffnesses of the pipe, encasement and surrounding rock/soil. At some offset magnitude, the pipe strains will exceed the design criterion and another mitigation approach may be required. Possible alternative approaches that could be investigated include a pipe within a pipe, a pipe in an open encasement, a stronger encasement, or over-excavation and replacement with backfill that is not as stiff as the surrounding rock. It is important to provide the regulators with a conceptual approach at an early stage in the design process to obtain consensus before advancing the design.

***Foundation Grouting Plan***

The Design Team briefly commented on the drilling and grouting plan for the grout curtain on the center line of the dam foundation. The spacing between the primary and secondary holes on each row is planned for 12 feet with 10 feet between the two rows. Grout holes would be inclined, with the opposing inclinations in the two rows. The depth of all holes is 150 ft regardless of the elevation of the top of the hole. The TRB recommends that additional details are warranted at this design phase, including preliminary recommendations regarding the choice of drilling equipment (rotary or percussion), grouting equipment, grout mixes, grouting stages (ascending or descending), spacing and sequence of drilling, grouting and delay between holes, diameter of the holes, depths of holes based on location, and testing.

121

The TRB suggests that the Design Team consider including some advance recommendations regarding other possible components of the grouting specifications. In particular, the drilling and grouting contractor, and their personnel on site, must have a minimum of 5 years of experience on similar projects. The contractor must perform a testing drilling and grouting program to verify their grout mix designs and equipment for work on this project.

### ***Treatment Plan for High-Take Zone***

Preliminary details for the treatment plan for the high-take feature/zone where it is exposed along the surface of the dam foundation should be included in the Preliminary (30%) Design TM. This would include details for (1) how the feature is shaped, cleaned/excavated, and filled with concrete, (2) the dimensions of the grout cap and how it may span across any surface treatment zones, and (3) the layout, depths, inclinations, sequence, and other details of the procedures for stitch grouting. In addition, the Design Team should evaluate the need for treatment and evaluate possible approaches for grouting in the high-take zone at greater depths (below the stitch grouting).

### ***Slope Protection Alternatives***

Slope protection for both upstream and downstream dam slopes was discussed briefly. The TRB believes a jaw run crushed Panoche sandstone may be acceptable for the downstream dam slope. This would provide a uniform angular product to prevent slope erosion from rain. The Design Team has shown riprap on the full face of the upstream slope. Has the Design Team considered other slope protection options? Examples may be roller compacted concrete, soil cement or concrete armor blocks. Any option should consider costs, schedule, and constructability.

### ***Submittals to DSOD***

The Design Team has proposed providing the GIR, GDR, Preliminary (30%) Design TM, and Design Criteria TM to DSOD as part of the 30% design submittal. There will be minor modifications to each of the documents prior to submittal. The TRB agrees the submittal should include these documents.

It is important to receive DSOD's concurrence or comments on critical aspects of the project that could have a significant impact on the design. Loading conditions including hydrologic, seismicity and potential displacement due to faulting could have significant impacts to the design. The design inflow is critical to the design of the spillway, the seismic load is critical to the design of the embankment and appurtenant structures, and potential displacement within the foundation is critical for design of the embankment and the feasibility of the buried inlet/outlet conduit through the foundation of the dam. Therefore, the TRB recommends that separate reports or TMs addressing the hydrology, seismicity, and surface faulting hazards be submitted to DSOD as soon as possible so feedback on the adequacy of design assumptions can be obtained.

### **Closure:**

The TRB appreciates the advance delivery of the read-ahead documents, the clarity of the Design Team's presentations and the collaborative discussions during the meeting.

*261*

The next full meeting of the TRB is scheduled to be in-person and will be held on either July 8-9 or August 13-14, 2025. The choice between these two dates will be confirmed in early 2025. The purpose of this meeting will be reviewing progress toward 60% design.

The TRB appreciates the opportunity to be of assistance to DPWD and SJRECWA in this assignment.

Respectfully submitted,



Ross W. Boulanger, PhD, PE  
Consulting Engineer  
4237 Dogwood Place  
Davis, California 95618  
Tel: (530) 204-7527  
Email: [rwboulanger@ucdavis.edu](mailto:rwboulanger@ucdavis.edu)



Kerry Cato, PhD, CEG  
Engineering Geologist  
Cato Geoscience, Inc.  
P.O. Box 891930  
Temecula, CA 92589  
Email: [kerry@catogeoscience.com](mailto:kerry@catogeoscience.com)



David-Gutierrez, PE, GE  
Senior Geotechnical Engineer  
GEI Consultants, Inc.  
2868 Prospect Park Drive, Suite 400  
Rancho Cordova, CA 95670  
Tel: (916) 227-9800  
Email: [dgutierrez@geiconsultants.com](mailto:dgutierrez@geiconsultants.com)



Gregg E. Korbin, PhD  
Geotechnical Consultant  
1167 Brown Avenue  
Lafayette, California 94549  
Tel: (925) 284-9017  
Email: [gekorbin@earthlink.net](mailto:gekorbin@earthlink.net)



Mike Pauletto  
Aggregate Industry Specialist and Dam Constructor  
11204 NW 37<sup>th</sup> Court  
Vancouver, WA. 98685  
Tel: (360) 921-4172  
Email: [Mike@mpauletto.com](mailto:Mike@mpauletto.com)

Attachment A: List of Participants  
Attachment B: Agenda for TRB Meeting  
Attachment C: List of Read Ahead Documents

**Attachment A:  
List of Participants**

<b>Name</b>	<b>Organization</b>	<b>Name</b>	<b>Organization</b>
Anthea Hansen	<i>DPWD</i>	Guilaine Roussel	<i>TERRA/GeoPentech</i>
Chris White	<i>SJRECWA</i>	Robert Kirby	<i>TERRA/GeoPentech</i>
Xavier Irias	<i>Woodard &amp; Curran</i>	Andrew Dinsick	<i>TERRA/GeoPentech</i>
		Bob McManus	<i>TERRA Engineers</i>
		Chris Hitchcock	<i>InfraTerra</i>
Ross Boulanger	<i>TRB</i>	Phil Martin (Tuesday)	<i>IEC</i>
Kerry Cato	<i>TRB</i>	Brian Toombs	<i>Schnabel</i>
David Gutierrez	<i>TRB</i>		
Gregg Korbin	<i>TRB</i>		
Mike Pauletto	<i>TRB</i>		

*he/*

**Attachment B:  
Agenda for TRB Meeting**

**DEL PUERTO CANYON  
RESERVOIR**

**DESIGN OF EARTHEN DAMS  
AND APPURTENANT STRUCTURES**

**TECHNICAL REVIEW BOARD  
Meeting No. 7  
November 18 to 20, 2024  
Patterson, CA**

**AGENDA**

**November 18, 2024**

- 9:00 AM Meet at the Office of Del Puerto Water District - 17840 Ward Ave, Patterson, CA 95363
- 9:30 AM Welcome and Introductory Remarks by Project Partners
- 9:40 AM Meeting Agenda and Objectives
- Project Status
  - Questions for TRB
- 10:00 AM New Data Collected since July TRB Meeting
- CPTs at Saddle Dam 1
  - Sonic Borings and Piezometers Downstream of Conglomerate Ridge
- 11:00 AM Geohazards Evaluation (Section 3 of GIR)
- 12:30 PM Lunch
- 1:30 PM Update to Geotechnical Characterization (Sections 5 to 7 of GIR)
- 3:30 PM Conclusions of Site Characterization and Implications for Preliminary Design
- Resolved technical issues
  - Key issues remaining
- 4:30 PM Meeting Close
- 6:00 PM Group Dinner – TBD

**November 19, 2024**

- 9:00 AM Meet at the Office of Del Puerto Water District - 17840 Ward Ave, Patterson, CA 95363
- 9:30 AM Updates on Preliminary Design
- 12:30 PM Lunch
- 1:30 PM Six-Month Look Ahead
- 2:00 PM Review of TRB Comment Log (Review of Responses to Previous TRB Comments)
- 3:00 PM Concluding Comments by Partners and Program Team
- 3:30 PM TRB Closed-Door Session



TRB Meeting 7 – Page 1 of 2

125

**November 20, 2024 (Virtual Session)**

- 8:30 AM TRB Closed-Door Session (Continued)
- 11:00 AM Presentation of TRB Findings and Comments
- 12:30 PM Closing Statements and Schedule of Next TRB Meeting



12/1

**Attachment C:  
List of Read Ahead Documents**

Geotechnical Interpretive Report (GIR) – Draft, November 2024

- DPCR-GIR\_Draft\_11-12-2024.pdf

Geotechnical Data Report (GDR) – Final Draft, November 2024

- DPCR-GDR\_Final Draft\_Rev 2.pdf
- Appendix A - Final Draft GDR\_Rev\_1.pdf
- Appendix B - Final Draft GDR\_Rev\_1.pdf
- Appendix C - Final Draft GDR\_Rev\_1.pdf
- Appendix D - Final Draft GDR\_Rev\_0.pdf
- Appendix E - Final Draft GDR\_Rev\_2.pdf
- Appendix F - Final Draft GDR\_Rev\_1.pdf
- Appendix G - Final Draft GDR\_Rev\_2.pdf
- Appendix H - Final Draft GDR\_Rev 0.pdf

DPCR – TRB Review Comment Log – Updated October 21, 2024

- DPCR - TRB Review Comment Log\_10-21-2024.docx

*Blank*



# Progress Report

## Del Puerto Canyon Reservoir Program Management

**Subject:** October 2024 Progress Report

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

**Prepared by:** Xavier Irias and Kent Tran (Woodard & Curran)

**Date:** November 26, 2024

**Project No.:** 0011297.00

This progress report summarizes the work performed by Woodard & Curran and subconsultants for the period between September 30, 2024 and October 30, 2024 for Del Puerto Canyon Reservoir Program Management. Please contact [aneal@woodardcurran.com](mailto: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
<p><b>Task 1</b> Program Management</p>	<ul style="list-style-type: none"> <li>Weekly internal team and external client coordination meetings.</li> <li>Project management tool maintenance (EVA, document management portal, staff management and tracking, sub billing calendar).</li> <li>Budget, schedule, and scoping tracking and updates.</li> <li>Coordination with and management of subcontractors.</li> <li>Preparation of Monthly Board report.</li> </ul>
<p><b>Task 2</b> Agency Coordination and Permitting Plan</p>	<ul style="list-style-type: none"> <li>USBR weekly meetings and preparation.</li> <li>Internal meetings and staff coordination related to permitting and agency coordination efforts.</li> <li>Environmental pre-clearances for field work by road and dam teams.</li> <li>Environmental monitoring during field work.</li> </ul>

Task Description	Work Completed This Period
<p><b>Task 3</b> Reservoir Operations Analysis</p>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Task 4</b> Funding</p>	<ul style="list-style-type: none"> <li>• Coordination with client about reporting materials and potential amendment</li> </ul>
<p><b>Task 5</b> CEQA/NEPA</p>	<ul style="list-style-type: none"> <li>• Biological resource surveys of the roadway relocation alignment.</li> <li>• Review of resource survey results with ICF, TYLin; coordination meetings with ICF, TYLin.</li> <li>• Worked on Partially Recirculated Revised Draft EIR (PRRDEIR).</li> <li>• Continued work on the EIS including development of construction information and figures for the 40-TAF and Ingram Canyon alternatives.</li> </ul>
<p><b>Task 6</b> Validate Facilities</p>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Task 7</b> Procure Design Consultants</p>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Task 8</b> Design Consultant Management</p>	<ul style="list-style-type: none"> <li>• Coordinated field work and environmental monitoring with ICF, TYLin and TGP.</li> </ul>
<p><b>Task 9</b> Conveyance Facilities Preliminary Design</p>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Task 10</b> USBR Feasibility Report</p>	<ul style="list-style-type: none"> <li>• None</li> </ul>

129

Task Description	Work Completed This Period
<b>Task 11</b> Land-Owner Coordination	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Task 12</b> Survey/Mapping	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Task 13</b> Utility Company Coordination	<ul style="list-style-type: none"> <li>• Reviewed Crimson billing and ongoing management.</li> </ul>
<b>Task 14</b> Outreach Support	<ul style="list-style-type: none"> <li>• None</li> </ul>

## Budget Status

As of this invoice, 85% of the project budget has been billed (\$10,454,600.08 of \$12,255,825.13). 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	\$1,120,574.94	\$969,581.36	\$6,883.75	\$976,465.11	\$144,109.83	87%
2	Agency Coordination and Permitting Plan	\$1,295,643.56	\$1,222,478.89	\$27,858.98	\$1,250,337.87	\$45,305.69	97%
3	Reservoir Operations Analysis	\$383,833.50	\$374,161.00	\$0.00	\$374,161.00	\$9,672.50	97%
4	Funding Strategy	\$71,000.00	\$52,587.25	\$198.75	\$52,786.00	\$18,214.00	74%
5	CEQA/NEPA Compliance	\$3,682,278.92	\$2,618,264.43	\$31,571.95	\$2,649,836.38	\$1,032,442.54	72%
6	Validate Facilities	\$2,155,442.87	\$2,155,442.84	\$0.00	\$2,155,442.84	\$0.03	100%
7	Procure Design Consultants	\$141,333.05	\$141,333.05	\$0.00	\$141,333.05	\$0.00	100%
8	Design Consultant Management	\$567,016.51	\$204,850.07	\$730.00	\$205,580.07	\$361,436.44	36%
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	\$94,420.07	\$57,067.05	\$0.00	\$57,067.05	\$37,353.02	60%
12	Survey/Mapping	\$173,364.88	\$173,364.88	\$0.00	\$173,364.88	\$0.00	100%
13	Utility Company Coordination	\$515,007.06	\$386,206.35	\$547.50	\$386,753.85	\$128,253.21	75%
14	Outreach Coordination	\$401,813.19	\$377,375.40	\$0.00	\$377,375.40	\$24,437.79	94%
	Total	\$12,255,825.13	\$10,386,809.15	\$67,790.93	\$10,454,600.08	\$1,801,225.05	85%

**Notes:**

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

131

## **Schedule Status**

Work through the billing period was focused on continuing support for the field work associated with the roadway relocation and dam.

The upcoming work in the month of November will be focused on processing data collected during the field work. Key information includes updated topography which will help refine roadway alignments and earthwork quantities, updated geotechnical information to inform the dam design. Additionally, results of biological resource surveys will be used to refine the roadway alignment to minimize environmental effects.

## **Outstanding Issues**

### CEQA litigation

- A Court decision upheld most of the analysis in the EIR, but directed that certification be set aside because the road relocation was not sufficiently defined. The Project team has identified a preferred road alignment and will prepare a revised CEQA document evaluating impacts of the road.

### Bureau of Reclamation Coordination

- Based on extensive comments from cooperating agencies on Reclamation's draft EIS, Reclamation developed a new approach for the EIS by which W&C will draft a new EIS with substantial detail on alternatives including Ingram Canyon. We have started work on EIS and are currently focused on developing a description of the physical features associated with the Ingram Canyon alternative and updating the analysis to account for the selected alignment for relocation of Del Puerto Canyon Road.
- We continue to await written confirmation that Reclamation concurs with 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 our letter has been reviewed and there are no objections to our position.

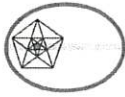
### State Water Resources Control Board Coordination

- 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.

#### Utility Company Coordination

- Woodard & Curran continues to work with Crimson to relocate the Crimson pipeline, and is sharing project data with the Crimson team to facilitate their work.



# TERRA / GeoPentech

a Joint Venture  
235 Montgomery Street, Suite 1025  
San Francisco, CA 94104  
415-543-0330

X B

# Progress Report

<b>DEL PUERTO CANYON RESERVOIR</b>	Progress Report No.: PR-29
<b>DESIGN OF DAMS AND APPURTENANT STRUCTURES</b>	Prepared by: G. Roussel
Reporting Period: September 28, 2024 through October 25, 2024	Date: 11/21/2024

## ACTIVITIES DURING REPORTING PERIOD

### Task 1 – Project Administration

- Prepared for and attended biweekly status meeting with Program Team, prepared meeting notes, and maintained action item list.
- Prepared progress report (including Earned Value Analysis) and submitted with invoice.
- Held weekly internal status meetings with TGP technical staff involved in the work to monitor progress and address issues, as necessary.
- Provided direction to TGP staff for prioritizing and re-scheduling activities and resolved logistics issues as they arose.

### Task 3 – Geotechnical Evaluation

- Completed interpretation of results of Cone Penetrometer Tests (CPTs) in the area of Saddle Dam 1.
- Completed two sonic borings in the downstream area of the Main Dam and installed multi-level grouted-in piezometers in the boreholes.
- Temporarily reinforced section of ranch road along Del Puerto Creek that was badly damaged by the rains last winter to prevent further damage while it was being used by a fork lift to shuttle drill spoils from the borings. After completion of sonic borings, removed BMPs and trench plates installed to temporarily reinforced ranch road along the creek.
- Selected specimens from sonic borings and assigned laboratory tests, and sent samples of the rock collected in Phase 2 for X-ray diffraction and X-ray fluorescence to evaluate mineralogy and chemical properties.
- Continued work on Fault Rupture and Permanent Ground Displacement Hazard Assessment for inclusion in final draft GIR.
- Updated subsurface cross-sections in the Main Dam and Saddle Dam 1 areas for inclusion in the final draft GIR.
- Continued update of 3-D model of subsurface conditions and interpretation of data for inclusion in the final draft GIR.
- Updated TRB comment log and provided document to the TRB before the meeting scheduled for November 18<sup>th</sup> to 20<sup>th</sup>.

### Task 4 – Preliminary Design (30% Design)

- Continued updating stability analyses with new information on strength of rock.
- Continued analyses of seepage in the Main Dam area.
- Continued updating the layout of the Inlet/Outlet structure and spillway for inclusion in the final draft Preliminary Design Technical Memorandum.

## SIGNIFICANT ISSUES ENCOUNTERED / ADDRESSED

No new issues encountered.

134

**ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD (thru November 29, 2024)**

**Task 1 – Project Administration**

- Prepare for and attend biweekly status meetings with Program Team, prepare meeting notes, and maintain action item list.
- Monitor weekly progress and address issues, as necessary.
- Provide logistical direction to TGP Team as project needs and requirements evolve.
- Address special requests from Program Team.

**Task 3 – Geotechnical Evaluation**

- Update GDR with all new information gathered to date (e.g., results of CPTs and sonic borings), address TRB comments on interim draft document, and submit final draft GDR to TRB ahead of meeting.
- Complete interpretation of laboratory test results and finalize input parameters for engineering analyses of the embankments for inclusion in final draft GIR.
- Complete subsurface cross-sections for inclusion in final draft GIR.
- Complete work on Fault Rupture and Permanent Ground Displacement Hazard Assessment and integrate in the GIR.
- Review and address comments from the TRB on interim draft GIR and submit final draft document to TRB ahead of meeting.

**Task 4 – Preliminary Design (30% Design)**

- Update draft Design Criteria Memorandum supporting preliminary design.
- Continue analyses of seepage in the Main Dam area.
- Update the design of the major components of the reservoir based on the new information gathered to date and on comments from the TRB received at January 2024 meeting of the Board.
- Start updating the Preliminary Design Technical Memorandum.
- Prepare presentation materials for TRB meeting and participate in meeting.
- Start addressing TRB comments on material presented at the meeting.

**PROGRESS AND COST TO DATE**

Work on the project is authorized by Task Orders that assign partial budgets to the various Tasks as the project progresses. The following table provides a summary of the cost and progress by Task for work authorized under Task Orders 01 & 03 to 05, as of October 25, 2024.

ACTIVITY	Estimate for Task Orders 01 & 03 to 05	Prior Billed (\$)	Current Billed (\$)	Total Billed (\$)	Remaining Budget (\$)	Percent Spent	Percent Complete
Task 1 - Project Administration	810,555	503,354	5,678	509,032	301,523	62.8%	76%
Task 3 - Geotechnical Evaluation	8,094,581	7,231,871	392,124	7,623,995	470,586	94.2%	96%
Task 4 - Preliminary (30%) Design	1,330,906	884,847	36,805	921,652	409,254	69.2%	59%
<b>TOTAL</b>	<b>10,236,042</b>	<b>8,620,072</b>	<b>434,607</b>	<b>9,054,679</b>	<b>1,181,363</b>	<b>88.5%</b>	<b>89%</b>

135

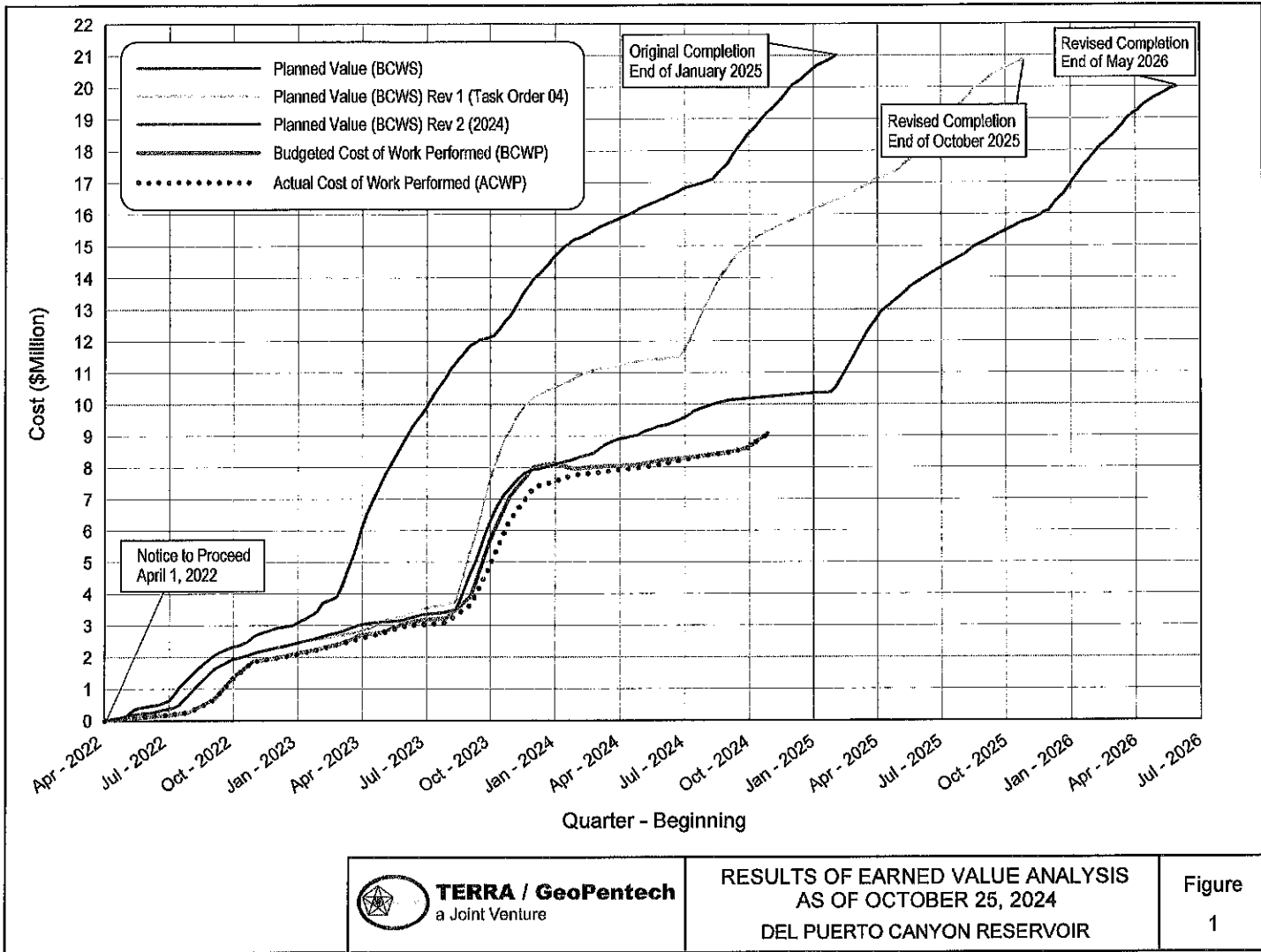
The results of the Earned Value Analysis (EVA) for the project as of October 25, 2024 are listed in the following table and are shown graphically on Figure 1. The latest planned value takes advantage of the savings that were achieved in the Phase 2 explorations and reallocates budgets to cover the cost of the CPTs and the sonic borings and complete some design analyses that were not previously authorized by Task Order 03, without the need for additional funding through 2024.

<b>Actual Cost of Work Performed (ACWP)</b>	<b>Budgeted Cost of Work Performed (BCWP)</b>	<b>Budgeted Cost of Work Scheduled (BCWS)</b>	<b>Cost Variance (BCWP - ACWP)</b>	<b>Schedule Variance (BCWP - BCWS)</b>
\$9,054,679	\$9,079,736	\$10,237,494	\$25,057	(\$1,157,759)

The EVA is based on an Estimate-to-Complete (ETC) by subtask and indicates that the work planned and currently underway will be completed within the budget authorized by Task Orders 01 & 03 to 05. This work includes the CPTs, the sonic borings, and some design analyses that were not formally authorized by Task Order 03, as indicated above.

Considering the delay in the start of the CPTs and sonic borings caused by environmental issues, the difficulties we have encountered with the sonic borings, and the remaining laboratory testing, the final draft GDR and GIR submitted to the TRB will not be quite complete but sufficient for their review and comments. After the TRB meeting, we will address TRB comments and complete final drafts of the GDR, GIR, and Preliminary Design Technical Memorandum for submittal to DSOD in early 2025, and continue some of the design analyses that are currently in progress. Considering the work that remains to be done and our ongoing spending level, we continue to estimate that the remaining authorized budget may be spent by the end of March 2025, at which point a new Task Order would be required to proceed in earnest with the 60% design.

134



RESULTS OF EARNED VALUE ANALYSIS  
AS OF OCTOBER 25, 2024  
DEL PUERTO CANYON RESERVOIR

Figure  
1

X.C

**DISCUSSION ITEMS**

**ITEM 2.1: DISSOLUTION WORK PLAN**

**RESPONSIBLE/LEAD STAFF MEMBER:**

Taryn Ravazzini, Executive Director  
Chuck Gardner, Program Manager

**DISCUSSION:**

Taryn Ravazzini, Executive Director, and Chuck Gardner, Program Manager, will present a status of Authority program-level activities. Monthly standing updates noted in the presentation include status of Authority contract authorizations and budget. Additionally, as requested by the Board at the November 13, 2024 meeting, staff has prepared a work plan to dissolve the Authority, for the Board’s consideration.

Activities of the dissolution process are delineated by Board, Legal, Financial, and Programmatic activities. Key milestones within the plan include Board adoption of the resolution to terminate the Authority, subsequent member ratification, CCWD submittal of accounting records and transfer of remaining funds, reimbursement of WIFIA loan application funds, Board approval of final accounting and closeout report, distribution of remaining funds, and completion of the FY25 audit. Some work can be completed concurrently, while other tasks can only be completed once member agencies have completed ratification of the Board action to terminate the Authority.

Staff will incorporate any Board feedback into the work plan and will begin implementation with direction from the Board and formally under Action Item 3.1 in this agenda.

**ALTERNATIVES:**

For discussion purposes.

**FISCAL ANALYSIS:**

None.

**ENVIRONMENTAL REQUIREMENTS:**

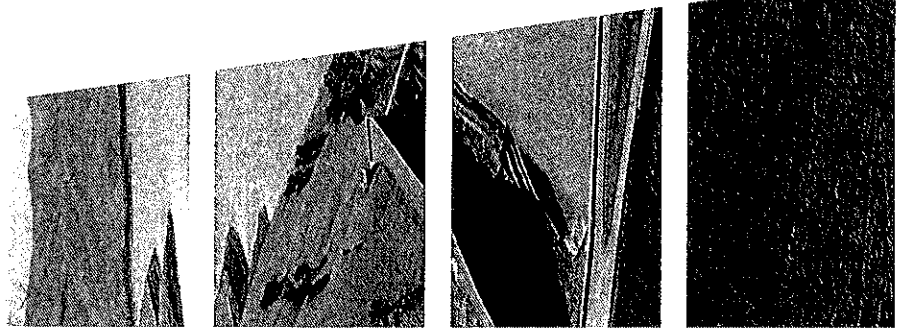
Not applicable.

**EXHIBITS/ATTACHMENTS:**

- Dissolution Work Plan Presentation
- Authority Dissolution Work Plan Schedule



# Dissolution Process



**LVR JPA Meeting:**  
CCWD notice to JPA



**Member Home Board Meeting:**  
Ratify JPA Decision to dissolve



**LVR JPA Meeting:**  
Membership vote to dissolve

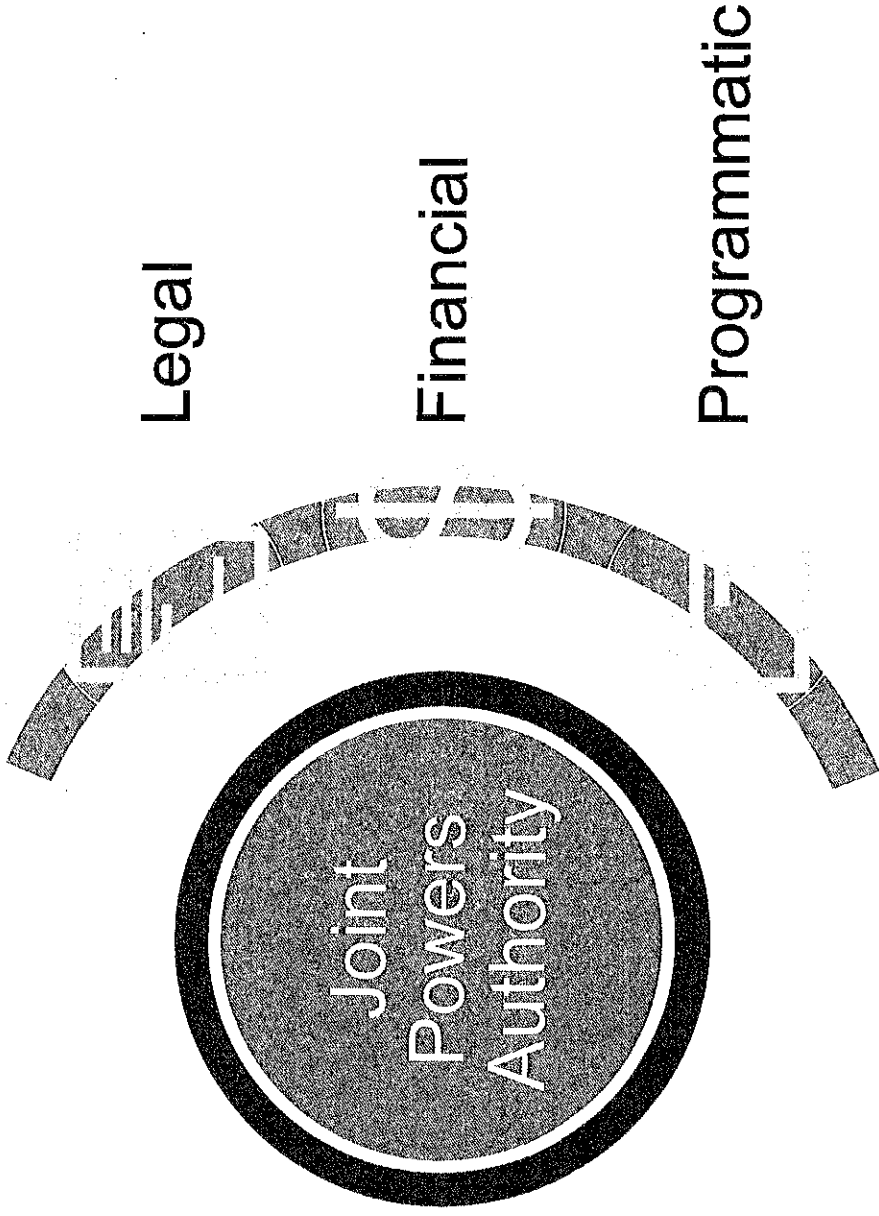
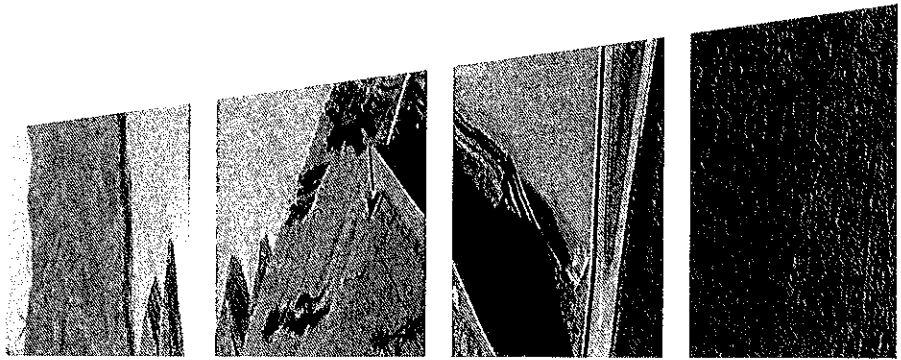


**LVR JPA & CCWD Staff:**  
Commence dissolution activities





# Dissolution Activities

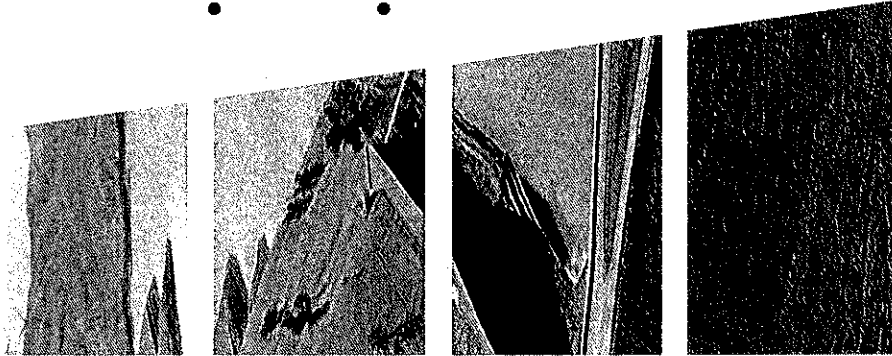


140



# Key Legal Activities

- JPA Board takes initial action (75% vote requirement) to terminate the JPA Agreement; then ratification by Members' home boards (75% vote requirement) [action by resolution]
- File JPA Notice of Termination with CA Secretary of State, and provide notice to State Controller, LAFCOs
- File JPA termination status with CA Secretary of State's Registry of Public Agencies



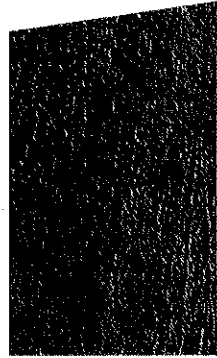
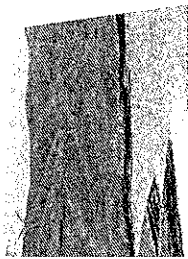
141



# Key Legal Activities (continued)



- Directors, Alternate Directors and applicable staff file Form 700 “Leaving Office Statements” within 30 Days of Termination
- Notice Interested Agencies/Entities
- Project record and document retention – determine appropriate repository

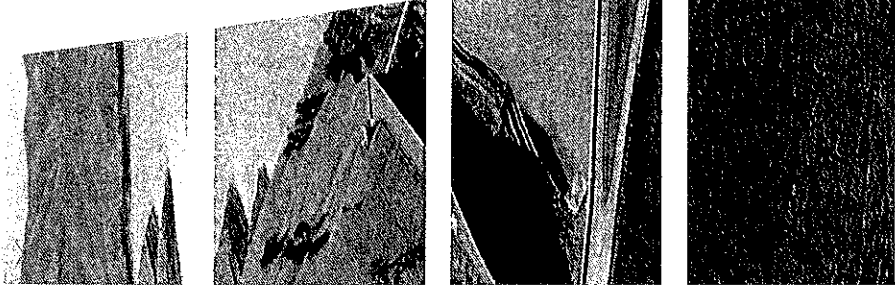


142



# Financial Activities

- State and Federal Noticing
- CCWD Funding and Expenditures Reconciliation
- Vendor Cancellations
- Collect/Pay Remaining Invoices – Sync with Final Audit
- Client Trust Account (Post Dissolution Expenses)
- Prepare Final Accounting and Closeout Report
- Distribute Remaining Funds to Member Agencies
- FY24 and FY25 Audit Finalization
- Bank Account Closure





# Programmatic Activities

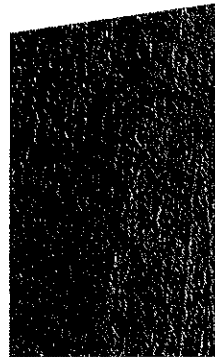
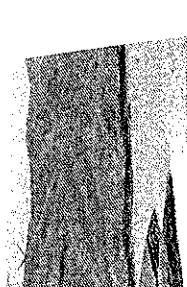
- Board Meeting Facilitation
- Member Agency Noticing
- Committee Closeout
- Formal Notifications to Involved Agencies (CWC, Reclamation, EPA etc.)
- Vendor and Contract Closeout
- Website, Social Media, Systems, and Registration Termination
- Document Control and Record Transition

144



# Key Drivers of Dissolution Schedule

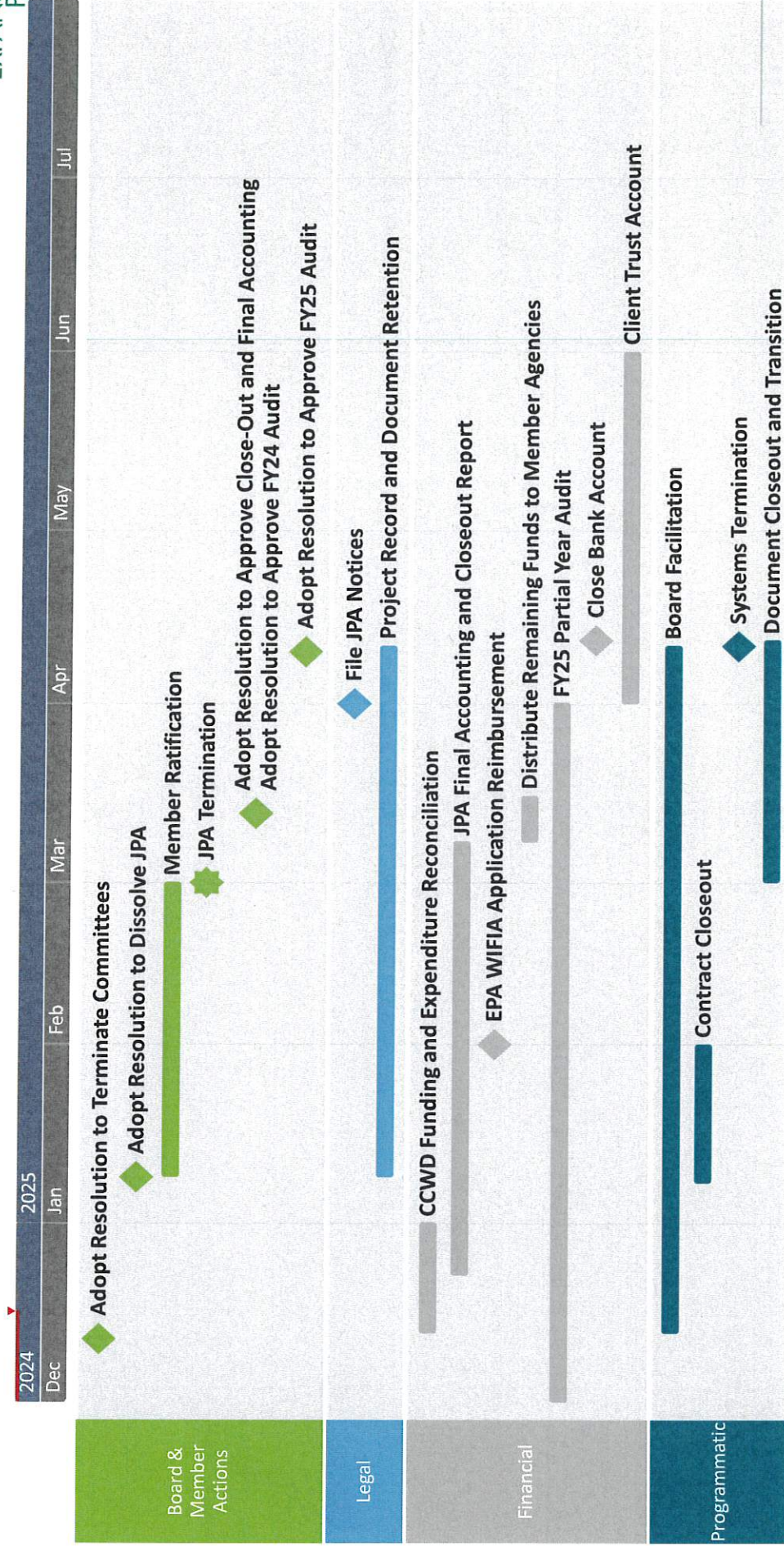
- Agency Ratification
- Financial Reconciliation and Transfer of Remaining Funds from CCWD
- Reimbursement of EPA Application Fees
- FY25 Audit



145



# LVR JPA Dissolution Timeline



148

Blank

XF

**Anthea Hansen**

---

**From:** Anthea Hansen  
**Sent:** Monday, December 16, 2024 11:02 AM  
**To:** William Wong  
**Cc:** Jeff Daniels; Ben Koehler; Carrie Del Boccio  
**Subject:** USBR Grant Opportunities

Hi Will,

As I have been mentioning, money is available under the WIIN Act for Title XVI planning and projects. The third and final round of funding has application due in April 7, 2025. I highly encourage us to pursue this funding for upgrades to the Modesto facility. Please review the information on the USBR website at : <https://www.usbr.gov/watersmart/title/index.html>. Carrie and I stand ready to assist the City of Modesto in whatever role necessary to support this pursuit of funding; I personally can commit to putting this as a priority in 1Q 2024 on my schedule. My understanding is that all we need now is a completed application and work towards a Feasibility Report on the project, which can be submitted at a later date.

I am thinking that we should “go for broke” with this request, as its anyone’s guess if these funds will continue to be authorized by the incoming Congress under the new Administration.

Merry Christmas!

Sincerely,  
Anthea

*Anthea G. Hansen*

*General Manager*

*Del Puerto Water District*

*PH 209-892-4470/FAX 209-892-4469*

147

Blank

X. F

**Anthea Hansen**

---

**From:** Anthea Hansen  
**Sent:** Tuesday, December 17, 2024 2:52 PM  
**To:** William Wong  
**Cc:** Jeff Daniels; Ben Koehler; Carrie Del Boccio  
**Subject:** RE: USBR Grant Opportunities

Hi Will,

Aside from reading the NOFO and finding something that would make us think it would not, I believe the best strategy is to submit the application and get a feasibility study done to support it. If advanced membrane technology results in a capacity increase that has a favorable cost-benefit ratio, I think it stands to reason that it could get funded. I don't think there is anyone we could "ask" at USBR, rather I would look to Carrie and our consulting teams to provide their opinion.

Would you like to set up a meeting soon to discuss, including WC and Carollo? Maybe after the New Year early the week of the 5<sup>th</sup>?

Sincerely,  
Anthea

*Anthea G. Hansen*  
General Manager  
Del Puerto Water District  
PH 209-892-4470/FAX 209-892-4469

**From:** William Wong <WWong@modestogov.com>  
**Sent:** Tuesday, December 17, 2024 1:16 PM  
**To:** Anthea Hansen <ahansen@delpuertowd.org>  
**Cc:** Jeff Daniels <jdaniels@modestogov.com>; Ben Koehler <bkoehler@modestogov.com>; Carrie Del Boccio <cdelboccio@woodardcurran.com>  
**Subject:** RE: USBR Grant Opportunities

We need to see if the membrane replacement/treatment capacity increase project can qualify for this.

**From:** Anthea Hansen <ahansen@delpuertowd.org>  
**Sent:** Monday, December 16, 2024 11:02 AM  
**To:** William Wong <WWong@modestogov.com>  
**Cc:** Jeff Daniels <jdaniels@modestogov.com>; Ben Koehler <bkoehler@modestogov.com>; Carrie Del Boccio <cdelboccio@woodardcurran.com>  
**Subject:** USBR Grant Opportunities

**External Email:** Please use caution when clicking links and/or opening attachments.

147 A

Hi Will,

As I have been mentioning, money is available under the WIIN Act for Title XVI planning and projects. The third and final round of funding has application due in April 7, 2025. I highly encourage us to pursue this funding for upgrades to the Modesto facility. Please review the information on the USBR website at : <https://www.usbr.gov/watersmart/title/index.html>. Carrie and I stand ready to assist the City of Modesto in whatever role necessary to support this pursuit of funding; I personally can commit to putting this as a priority in 1Q 2024 on my schedule. My understanding is that all we need now is a completed application and work towards a Feasibility Report on the project, which can be submitted at a later date.

I am thinking that we should “go for broke” with this request, as its anyone’s guess if these funds will continue to be authorized by the incoming Congress under the new Administration.

Merry Christmas!

Sincerely,  
Anthea

*Anthea G. Hansen*  
General Manager  
Del Puerto Water District  
PH 209-892-4470/FAX 209-892-4469

147. B.  
