DELTA CONVEYANCE PROJECT: DRAFT CERTIFICATION OF CONSISTENCY FOR 2024–2026 PROPOSED GEOTECHNICAL ACTIVITIES

California Department of Water Resources

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Chapter 1
Introduction

This is a certification of consistency for certain preliminary geotechnical investigations to support the planning and design of the Delta Conveyance Project (the 2024–2026 Proposed Geotechnical Activities).

To be clear, this is not a certification of consistency for the Delta Conveyance Project, as described below. This certification of consistency is limited to certain preliminary geotechnical work, described herein, related to the Delta Conveyance Project's planning and design. The California Department of Water Resources (DWR) plans to submit a separate certification of consistency for the implementation of the Delta Conveyance Project at a later date.[1]

The 2024–2026 Proposed Geotechnical Activities are proposed to collect valuable data to refine the Delta Conveyance Project alignment and Delta Conveyance Project design. The 2024–2026 Proposed Geotechnical Activities consist of soil borings, cone penetration tests (CPTs), and water quality tests, as described below. These investigations are expected to yield important data about soil properties and water quality. This data, in turn, will inform the planning and design of the Delta Conveyance Project. Continued planning and design efforts will assist DWR in identifying and applying the applicable provisions of the *Delta Plan* when submitting a certification of consistency for the future implementation of the Delta Conveyance Project.

Planning and design geotechnical data collection from the 2024–2026 Proposed Geotechnical Activities will be important to inform the planning and design of the Delta Conveyance Project as well as future discretionary permitting and funding[2] decisions by DWR and other agencies.[3] Future permitting and funding decisions are prerequisites to DWR's implementation of the Delta Conveyance Project. Because the 2024–2026 Proposed Geotechnical Activities are proposed to inform the planning and design of the Delta Conveyance Project, as well as other future decisions

[1] The Final Environmental Impact Report (Final EIR) for the Delta Conveyance Project (which the California Department of Water Resources [DWR] certified in December 2023) acknowledges that the Delta Conveyance Project is a covered action for purposes of compliance with the Delta Reform Act (DRA). Consistent with this conclusion, DWR will prepare a written certification of consistency with detailed findings as to whether the infrastructure comprised by the Delta Conveyance Project covered action is consistent with applicable *Delta Plan* regulatory policies and will submit that certification to the Delta Stewardship Council (DSC) (California Department of Water Resources 2023a:3E-5).

[2] DWR and participating public water agencies have authorized funding for planning and design of the Delta Conveyance Project. Subsequent funding approvals are required to authorize construction and operations of the Delta Conveyance Project before DWR may initiate implementation and construction of the Delta Conveyance Project (Wat. Code § 85089).

[3] Future permitting and funding decisions required before DWR may move forward with implementation of the Delta Conveyance Project and commence construction include the those under the following authorities: (1) DWR (authorization of funding for construction and operation of the Delta Conveyance Project and acquisition of real property), (2) public water agencies (authorization of funding for construction and operation of the Delta Conveyance Project), (3) Delta Conveyance Design and Construction Authority (authorization of contracts for final design and construction of the Delta Conveyance Project), (4) California Department of Fish and Wildlife (incidental take permit), (5) State Water Resources Control Board (Change in Point of Diversion and Section 401 Water Quality Certification), (6) U.S. Army Corps of Engineers (compliance with Clean Water Act Section 404, Rivers and Harbors Act Section 10, Rivers and Harbors Act Section 14, and National Environmental Protection Act), (7) U.S. Fish and Wildlife Service (compliance with Section 7 of the Endangered Species Act), and (8) National Marine Fisheries Service (compliance with Section 7 of the Endangered Species Act and Marine Mammal Protection Act).

necessary prior to the implementation of the Delta Conveyance Project, and to comply with a state court ruling (as discussed below), DWR is filing this certification of consistency for the 2024–2026 Proposed Geotechnical Activities separately from a certification of consistency for the Delta Conveyance Project itself.

Because the 2024–2026 Proposed Geotechnical Activities only concern data collection, they are completely independent of the implementation of the Delta Conveyance Project itself—and, therefore, they may be analyzed independently.[4] Nothing about this certification of consistency, or the 2024–2026 Proposed Geotechnical Activities themselves, in any way predetermines any future outcomes related to the Delta Conveyance Project—including any future review by the Delta Stewardship Council (DSC) of a future certification of consistency for the implementation of the Delta Conveyance Project. This document does not legally compel or practically presume that the Delta Conveyance Project will be implemented in any particular way—or, indeed, that it will ultimately be implemented at all.

Rather, conducting the 2024–2026 Proposed Geotechnical Activities will ensure that DWR and other agency decisionmakers have sufficient planning and design details to make fully informed permitting and funding decisions necessary before DWR may implement the Delta Conveyance Project. DWR's approach here is also consistent with the DSC's Covered Action Checklist (Checklist) (Attachment 1, *Covered Action Checklist*). The Checklist discourages agencies from "[f]iling a Certification of Consistency prior to finalizing the design and operational elements of the project" (Attachment 1, section titled *Additional Considerations*). Consistent with the Checklist, DWR seeks to complete additional geotechnical data collection and design refinements prior to filing a certification of consistency for the Delta Conveyance Project.

Although this document is not a certification of consistency for the Delta Conveyance Project itself, it may nevertheless be helpful to review the broader context and importance of the Delta Conveyance Project. The Delta Conveyance Project will add two new water intakes along the Sacramento River in the north Delta and convey water through an underground tunnel to a new pumping plant that will lift the water into the existing Bethany Reservoir south of the Sacramento–San-Joaquin Delta (Delta). The Bethany Reservoir is a State Water Project (SWP) facility that connects to the South Bay Aqueduct and the California Aqueduct to provide safe, affordable water to the Bay Area, the Central Coast and Central Valley, and Southern California.

The Delta Conveyance Project is essential to ensuring that California's existing water infrastructure—which was built in the twentieth century and which serves water reaching nearly two-thirds of the state's population and 750,000 acres of farmland—can continue to meet

[4] To be clear, this is not "piecemealing" as one might use that term in the context of the California Environmental Quality Act (CEQA) (California Public Resources Code § 21159.27). Regarding thresholds, DWR is unaware of authority to suggest that "piecemealing" concerns apply outside the CEQA context. But even if they did, such concerns are not present here. This is not a situation where DWR seeks to "allow environmental considerations to become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences" (*Banning Ranch Conservancy v. City of Newport Beach* [2012] 211 Cal.App.4th 1209, 1222 [internal citations omitted]. This certification of consistency in no way diminishes the future review to which the Delta Conveyance Project will be subject; on the contrary, DWR is pursuing this certification of consistency to continue to collect data that may inform a future certification of consistency for the implementation of the Delta Conveyance Project. Indeed, DWR is pursuing this certification of consistency precisely so that a future certification of consistency (for the implementation of the Delta Conveyance Project) will be as thorough and informative as possible. This approach enhances, rather than diminishes, the DSC's and the public's interest in the robust and informed analysis of a proposed action.

Californians' water needs in the face of twenty-first-century threats. Without the Delta Conveyance Project, the state's water supply will continue to rely on aging facilities and levees that are vulnerable to the effects of climate change through increasingly unreliable weather patterns, sea level rise, and potential catastrophic seismic events. Recognizing the critical importance of the Delta Conveyance Project, DWR approved the Delta Conveyance Project in December 2023 after certification of the *Delta Conveyance Project Final Environmental Impact Report* (Final EIR) in compliance with the California Environmental Quality Act (CEQA).

DWR did not originally plan to submit a certification of consistency for these 2024–2026 Proposed Geotechnical Activities. DWR does not understand the 2024–2026 Proposed Geotechnical Activities to constitute "initiating the implementation of" the Delta Conveyance Project.[5] Rather, DWR understands the 2024–2026 Proposed Geotechnical Activities to be preliminary investigations related to the Delta Conveyance Project's planning and design, which DWR understands to be separate from the Delta Conveyance Project's implementation. However, on June 20, 2024, the Sacramento Superior Court (referring to the Delta Reform Act [DRA][6]) enjoined DWR "from undertaking the geotechnical work described in Chapter 3 of the Final EIR," which includes the 2024–2026 Proposed Geotechnical Activities, "prior to completion of the certification procedure that the DRA requires" (Attachment 2, *June 20, 2024, Sacramento Superior Court Ruling*).[7] DWR submits this certification of consistency for the 2024–2026 Proposed Geotechnical Activities to comply with the order of the Superior Court of California, County of Sacramento, while also ensuring that the Delta Conveyance Project (which, as already noted, is of paramount public importance) is not delayed.

So that DWR can undertake the 2024–2026 Proposed Geotechnical Activities in compliance with the June 20, 2024, ruling—thereby allowing DWR to continue to pursue the planning and design of the Delta Conveyance Project in a way that will promote consistency with the *Delta Plan* and otherwise contribute to informed public review and decision making regarding the Delta Conveyance Project—DWR respectfully submits this certification of consistency for the 2024–2026 Proposed Geotechnical Activities.

[5] Wat. Code § 85225.

[6] Sacramento–San Joaquin Delta Reform Act (SB X7-1) (2009).

[7] To be clear, DWR disagrees with the Superior Court's ruling, does not concede the correctness of any aspect of the Superior Court's ruling or waive any arguments to challenge it, and otherwise maintains the position it has taken in litigation over this issue (including DWR's understanding of its obligations under the DRA). DWR is currently challenging the Superior Court's ruling on appeal.

Chapter 2
Development of the Record

The full draft record index is provided in this document as Attachment 3, *Draft Record Index*. No later than 5 calendar days after the DSC has posted a notice of appeal pursuant to California Code of Regulations, Title 23, Section 5023, DWR will submit to the DSC the final record that was before DWR at the time it made its certification.

Chapter 3
Description of Proposed Action

3.1 Government Agency Role

DWR is the project proponent, and lead agency under CEQA, for the Delta Conveyance Project. The Final EIR for the Delta Conveyance Project evaluates potentially significant impacts of the project at multiple development phases, including continued project design and planning activities (such as preconstruction field investigations, including the 2024–2026 Proposed Geotechnical Activities), Delta Conveyance Project construction, Delta Conveyance Project operations, and Delta Conveyance Project maintenance. The ability to collect site-specific geotechnical information (through the 2024–2026 Proposed Geotechnical Activities) would support design and planning of the Delta Conveyance Project in meeting the objectives of the Delta Conveyance Project, including the following: to protect SWP water supply reliability; to address anticipated impacts of sea level rise and climate change on SWP water supplies; to minimize SWP water supply disruption due to seismic risk; and to provide operational flexibility to improve aquatic conditions in the Delta.

3.2 CEQA Compliance

DWR has certified the Final EIR for the Delta Conveyance Project, executed a Notice of Determination documenting project approval of the Delta Conveyance Project, adopted project findings of fact and a statement of overriding considerations, and adopted a Mitigation Monitoring and Reporting Program (MMRP) (California Department of Water Resources 2023b). DWR also specifically considered whether subsequent, additional environmental review was required pursuant to CEQA[8] for the 2024–2026 Proposed Geotechnical Activities in the memo titled *2024–2026 Proposed Geotechnical Activities—Evaluation of Consistency with the Delta Conveyance Project's Final EIR* (Evaluation of Consistency memo) (Attachment 4). The Evaluation of Consistency memo considered the proposed investigations for the years 2024 through 2026, including specific locations, depths, and downhole testing and whether this testing had the potential to result in any new or substantially more severe environmental impacts than those analyzed in the Delta Conveyance Project Final EIR. The Evaluation of Consistency memo finds that the 2024–2026 Proposed Geotechnical Activities are described in Chapter 3, *Description of the Proposed Project and Alternatives*, of the Final EIR, that the potential environmental impacts associated with the activities are disclosed and evaluated in the Final EIR, and that no conditions exist triggering the requirement for subsequent CEQA review.

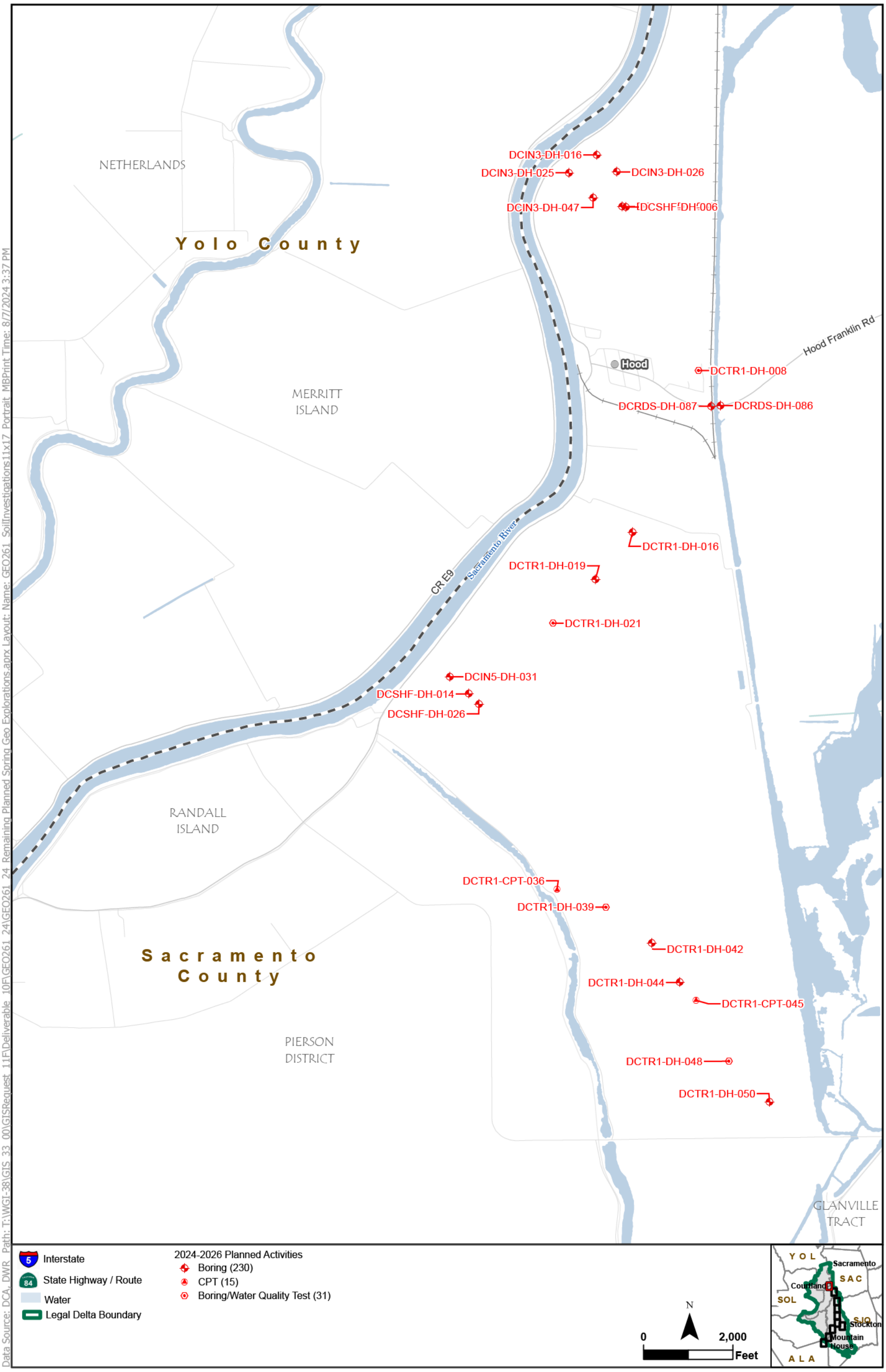
3.3 Location

The 2024–2026 Proposed Geotechnical Activities work is located in Sacramento, San Joaquin, Contra Costa, and Alameda Counties, from north of the town of Hood in the north to Bethany Reservoir in the south.

[8] CEQA Guidelines §§ 15162–15164.

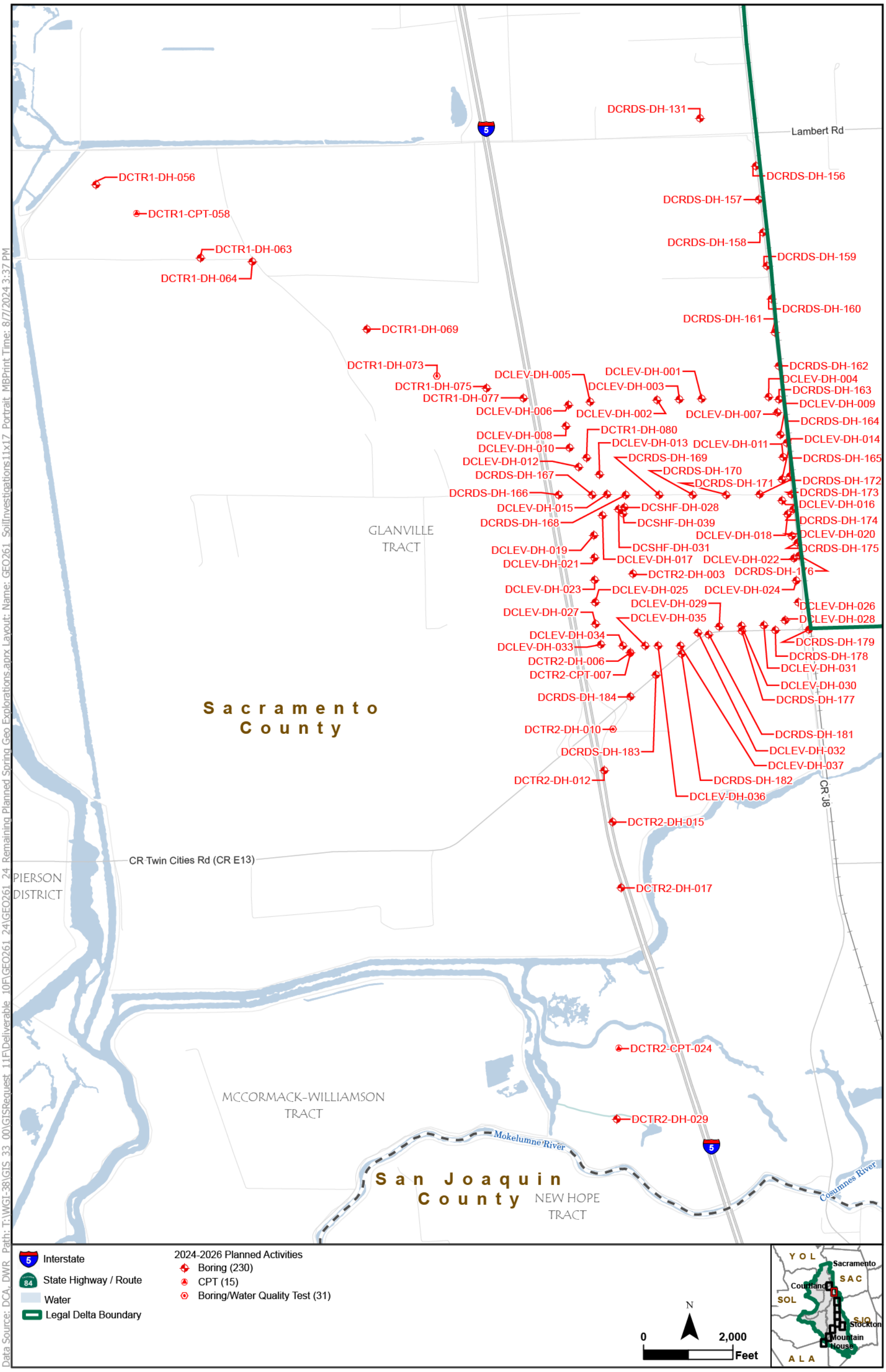
Yolo County
Sacramento County
Solano County
Contra Costa County
San Joaquin County
Alameda County
Courtland
Hood
Ryde
Locke
Walnut Grove
Thornton
Isleton
Rio Vista
Terminous
Lodi
Bethel Island
Oakley
Knightsen
Brentwood
Discovery Bay
Byron
Banks Pumping Plant
Jones Pumping Plant
Mountain House
Holt
Stockton
Port of Stockton
French Camp
Lathrop
Manteca
Tracy
Sacramento River
Cosumnes River
Mokelumne River
San Joaquin River
Calaveras River
Middle River
Old River
1
2
3
4
5
6
7
8
9
10
5
84
12
99
104
4
88
26
120
205
33
Interstate
State Highway / Route
Map Page
Legal Delta Boundary
Water
2024-2026 Planned Activities
Boring (230)
CPT (15)
Boring/Water Quality Test (31)
N
0
3.5
Miles
YOL
SAC
SOL
SJO
ALA
Sacramento
Courtland
Stockton
Mountain House
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Investigation Locations
Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook



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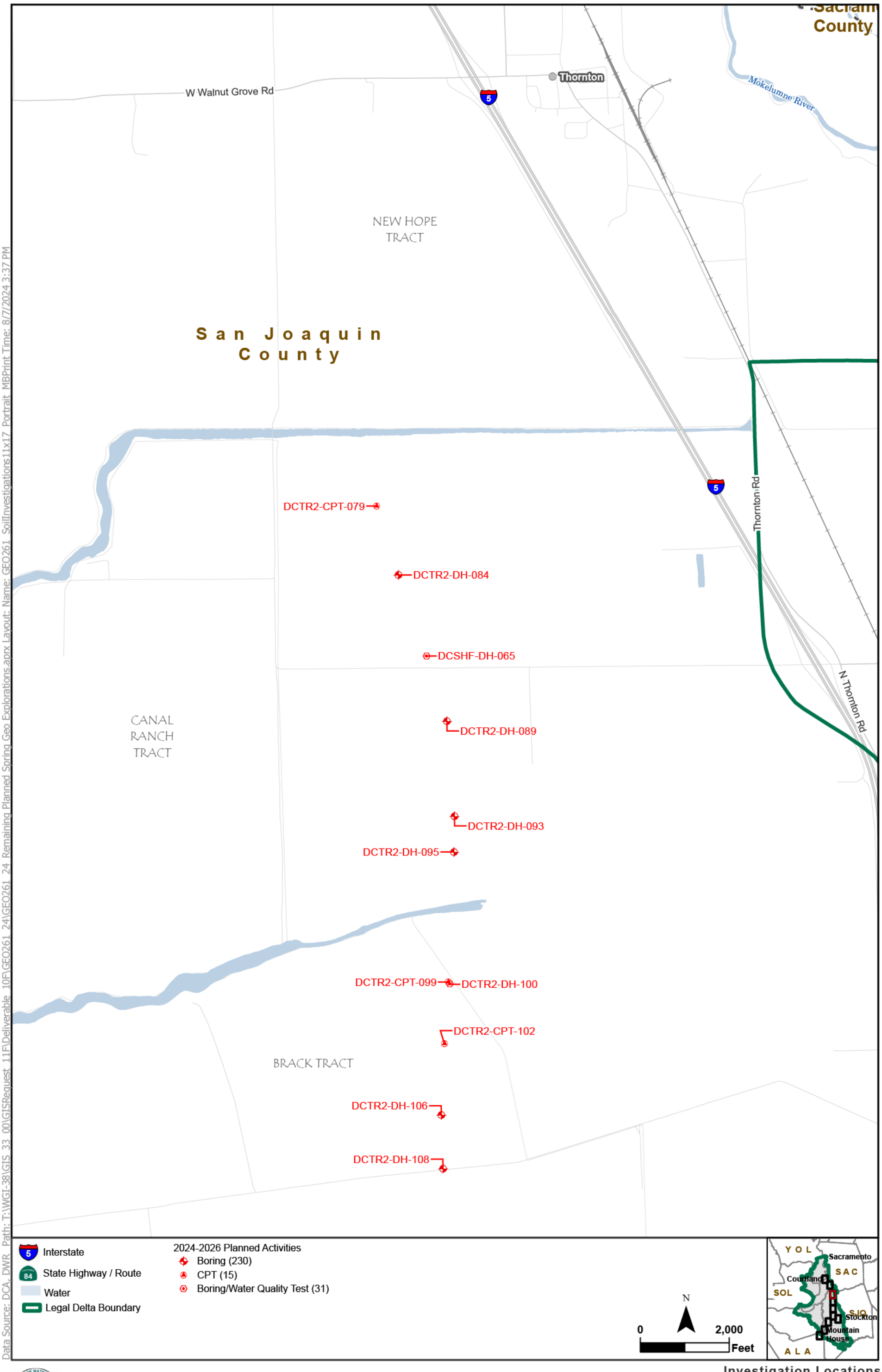
Investigation Locations
Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook
Page 1



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Investigation Locations

Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook
Page 2



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Investigation Locations

Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook

DCTR2-DH-112

BRACK TRACT

DCTR2-DH-116

DCTR2-DH-131

DCTR2-DH-133

TERMINOUS TRACT

DCTR2-DH-137

San Joaquin County

DCSHF-DH-069

DCTR3-DH-004

DCTR3-DH-008

DCTR3-CPT-012

DCTR3-DH-018

SHIN KEE TRACT

DCTR3-DH-020

DCTR3-DH-024

DCTR3-DH-026

KING ISLAND

RIO BLANCO TRACT

5 Interstate

84 State Highway / Route

Water

Legal Delta Boundary

2024-2026 Planned Activities

Boring (230)

CPT (15)

Boring/Water Quality Test (31)

N

0 2,000 Feet

YOL Sacramento SAC Courtland SOL SJO Stockton Mountain House ALA

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Investigation Locations

Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook

TERMINOUS TRACT

RIO BLANCO TRACT

DCTR3-DH-031

DCTR3-DH-035

DCTR3-CPT-037

EMPIRE TRACT

KING ISLAND

DCTR3-DH-042

DCSHF-DH-080

DCSHF-DH-091

BISHOP TRACT

San Joaquin County

DCTR3-DH-049

DCTR3-DH-053

SHIMA TRACT

DCTR3-DH-060

RINDGE TRACT

DCTR3-DH-070

San Joaquin River

DCTR3-DH-075

MCDONALD ISLAND

5 Interstate

84 State Highway / Route

Water

Legal Delta Boundary

2024-2026 Planned Activities

Boring (230)

CPT (15)

Boring/Water Quality Test (31)

N

0 2,000 Feet

YOL Sacramento SAC Courtland SOL SJO Stockton Mountain House ALA

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Investigation Locations

Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook

RINDGE TRACT

MCDONALD ISLAND

WRIGHT-ELMWOOD TRACT

San Joaquin River

DCTR3-DH-087

DCTR3-DH-094

DCRDS-DH-245
DCRDS-DH-246
DCRDS-DH-244
DCRDS-DH-248
DCRDS-DH-253
DCSHF-DH-093
DCSHF-DH-092
DCSHF-DH-103
DCSHF-DH-104
DCSHF-DH-097
DCRDS-DH-255
DCTR3-DH-099
DCRDS-DH-259
DCSHF-DH-098
DCSHF-DH-100
DCRDS-DH-262
DCRDS-DH-268
DCRDS-DH-267
DCRDS-DH-266
DCTR4-DH-004
DCRDS-DH-264
DCRDS-DH-265
DCTR4-DH-006
DCTR4-DH-008
DCRDS-DH-247
DCRDS-DH-250
DCRDS-DH-256
DCRDS-DH-257
DCRDS-DH-241
DCRDS-DH-243
DCRDS-DH-251
DCRDS-DH-252
DCRDS-DH-258
DCRDS-DH-260
DCRDS-DH-263
DCRDS-DH-270
DCRDS-DH-284
DCRDS-DH-285
DCRDS-DH-290

DCTR4-DH-011

LOWER ROBERTS ISLAND

DCTR4-DH-017
DCTR4-DH-020
DCTR4-CPT-024
DCTR4-DH-023
DCTR4-DH-025
DCTR4-DH-029

San Joaquin County

LOWER JONES TRACT

HONKER LAKE TRACT

Holt

Interstate
State Highway / Route
Water
Legal Delta Boundary

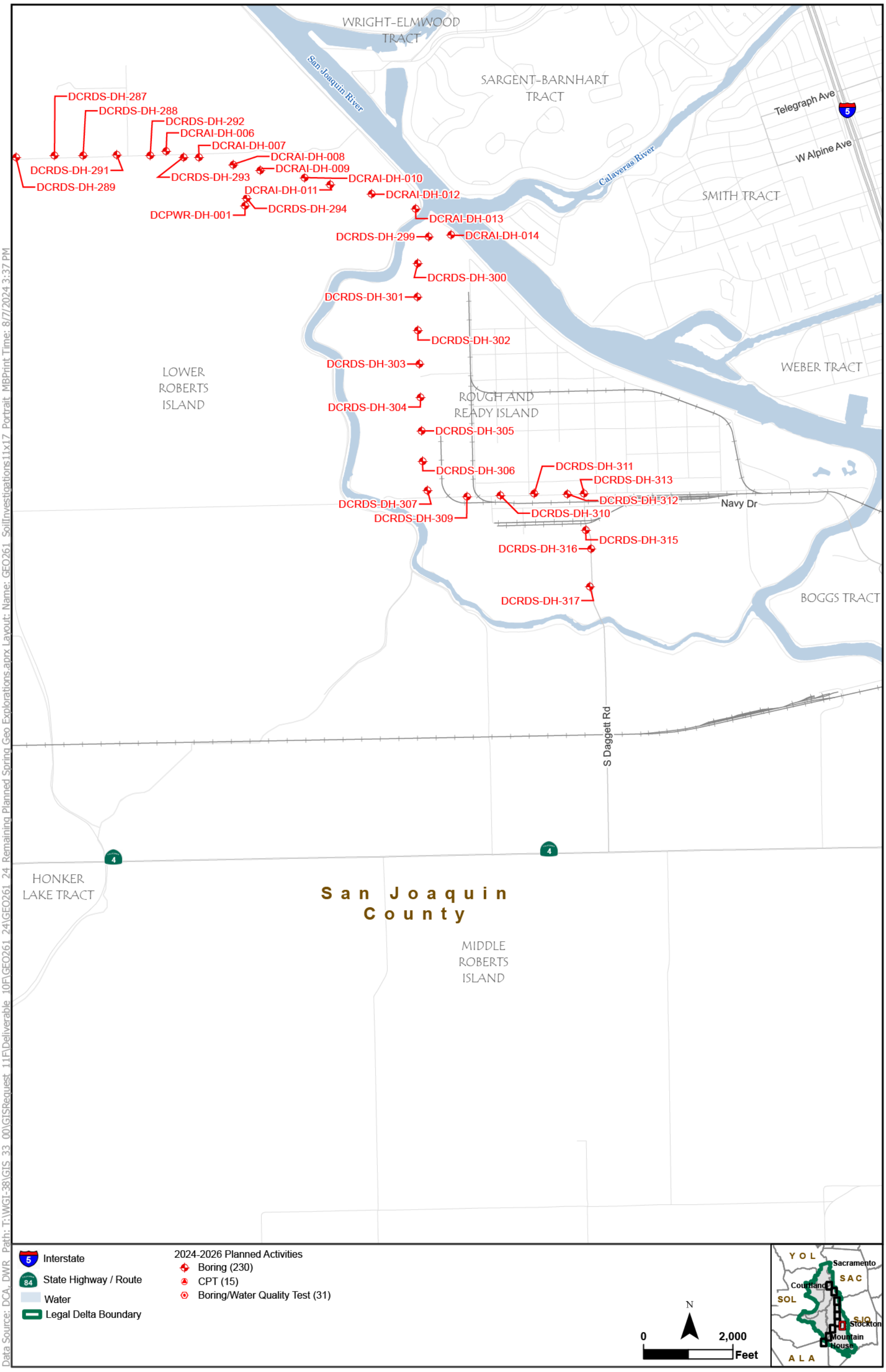
2024-2026 Planned Activities
Boring (230)
CPT (15)
Boring/Water Quality Test (31)

N
0 2,000 Feet

YOL
Sacramento
SAC
Courtland
SOL
SJO
Stockton
Mountain House
ALA

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Investigation Locations
Figure 1. 2024-2026 Proposed Geotechnical Activities Mapbook

3.4 Timeline

This work would commence as soon as possible and conclude by the end of 2026.

3.5 Estimated Cost

The estimated cost for this work is $45,000,000.

3.6 Description of 2024–2026 Proposed Geotechnical Activities

3.6.1 Background

Section 3.15, *Field Investigations*, of the Delta Conveyance Project Final EIR describes DWR's "data collection efforts to inform more detailed design and construction" related to the Delta Conveyance Project (California Department of Water Resources 2023a:3-134). The field investigations described in this chapter are divided into three categories: (1) investigations to support the DRW's Rivers and Harbors Act Section 408 permit application to the U.S. Army Corps of Engineers for permission to modify and cross under federally constructed levees, (2) other field investigation activities that will occur prior to the Delta Conveyance Project construction phase, and (3) activities that will occur during the construction phase (California Department of Water Resources 2023a:3-134–3-141). The first two categories include geotechnical investigations and activities: for example, soil borings and CPTs that collect information "used to develop detailed design criteria for structure foundations" and "to determine the specific structural capabilities of the soil" (California Department of Water Resources 2023a:3-135–3-136). The 2024–2026 Proposed Geotechnical Activities consist of a subset of the geotechnical activities described in Section 3.15 of the Final EIR that are proposed to collect data to inform both the alignment and design of the project and the future certification of consistency related to implementation of the Delta Conveyance Project.

The 2024–2026 Proposed Geotechnical Activities will generate information (1) to refine Delta Conveyance Project feature layouts and configurations and to develop design and engineering criteria for Delta Conveyance Project facilities; and (2) to support applications and requests to other agencies for permits, authorizations, or conditional approvals. The information gathered will help maintain the overall program design and construction schedule.

Soil and rock samples obtained from soil borings and soil data from CPTs will be analyzed to determine the engineering properties of the soil and rock to validate and, if needed, to determine modifications to the conceptual design and layout of Delta Conveyance Project features. Soil and water quality tests will be conducted to assess the potential for the presence of high concentrations of metals, organic compounds, dissolved gasses, or other constituents that may be designated as hazardous; this assessment will help determine whether such constituents can be avoided and otherwise ensure that Delta Conveyance Project features and infrastructure are designed, planned, and constructed to allow for required treatment or disposal methods in consideration of the constituents identified.

As explained below, additional geotechnical data would inform the substantial evidence supporting a future certification of the Delta Conveyance Project's consistency with the *Delta Plan*. At DWR's request, the Delta Conveyance Design and Construction Authority (DCA) is currently evaluating a series of potential design or construction innovations that could reduce construction footprints, refine schedules, or improve constructability. Additional subsurface data provides important information for these potential refinements to the Delta Conveyance Project relevant to future consideration by regulatory agencies.

Additional geotechnical data will be used to inform concept and design work submitted to the DSC in a future certification of consistency related to the implementation of the Delta Conveyance Project. The Delta Conveyance Project spans nearly the entire north-south limits of the Delta, extending approximately 48 miles from the two new intakes on the Sacramento River in the north Delta to Bethany Reservoir just outside of the southern Delta. Subsurface conditions in the Delta are highly variable as an interwoven network of historic stream channels overlain in many areas by thick deposits of peat and highly organic soils. More consolidated competent soil deposits are expected at depths approximately coinciding with the intended tunnel depth profile. The exact conditions along the Delta Conveyance Project alignment can only be confirmed through site-specific investigations, which would be used to refine all aspects of below-grade construction, as well as surface configurations for a more thorough and refined representation of the Delta Conveyance Project. Additionally, the conceptual designs prepared to support DWR's evaluation of alternatives as documented in the Final EIR were based on limited information available at the time, resulting in the use of appropriately conservative design assumptions regarding ground conditions and construction approaches that must be verified.

Based on this, the proposed 2024–2026 Proposed Geotechnical Activities will inform the refinement of important Delta Conveyance Project features. These refinements also would inform the record of evidence that the DSC will review for substantial evidence when adjudicating any appeal of DWR's certification of the Delta Conveyance Project's consistency with the *Delta Plan*. For example, the current plan for the tunnel alignment may shift within the corridor identified in the Final EIR depending on soil and other conditions. These modifications may result in new or different parcels or areas within parcels being affected by permanent land easements required for the tunnel or associated with modification of existing features from the ground surface that would require new site access.

Another way to consider the importance of the 2024–2026 Proposed Geotechnical Activities is to consider their ability to further the design of the Delta Conveyance Project. The current stage of Delta Conveyance Project design is "conceptual" and would generally be considered at an approximately 10% design level. The Association for the Advancement of Cost Engineering (AACE) uses a classification system to provide an approximate representation of the relationship between the level of project design and the accuracy of project cost estimates to, in part, assist stakeholders in project decision making. The AACE classification system includes five classes, Class 1 to 5. A "project maturity" table from AACE's *Recommended Practice No. 17R-97, Cost Estimate Classification System* (Association for the Advancement of Cost Engineering International 2020) outlines the class of a project to its level of project definition (i.e., design). Table 2 is adapted from and summarizes relevant portions of the AACE project maturity table.

Table 1. Maturity Level of Delta Conveyance Project

Estimate Class Level	Project Definition
Class 5	0% to 2%
Class 4	1% to 15%
Class 3	10% to 40%
Class 2	30% to 75%
Class 1	65% to 100%

Source: Association for the Advancement of Cost Engineering International 2020.

In relation to the planning process for the Delta Conveyance Project, when DWR commenced preparation of the EIR in January 2020, Delta Conveyance Project design was within the Class 5 (0% to 2%) range for each of the proposed project alternatives. Field investigations completed during preparation of the Delta Conveyance Project EIR, in reliance on the 2020 *Soil Investigations for Data Collection in the Delta. Final Initial Study/Mitigated Negative Declaration* (California Department of Water Resources 2020), enabled DWR to reach an overall approximate 10% design level for each of the proposed project alternatives by December 2023, when DWR certified the Final EIR and approved the Bethany Reservoir Alignment Alternative (Delta Conveyance Project EIR Alternative 5) for further planning and design. However, the majority of tunnel reaches remain at about a 2% level of design development due to lack of subsurface information. Therefore, the facility layouts presented in the Final EIR conservatively overestimate acreage to allow for ground improvement areas to strengthen weak soils, peat soil remediation to reduce greenhouse gas (GHG) emissions, and methods to address potential water quality issues. DWR anticipates that data collected as part of the 2024–2026 Proposed Geotechnical Activities will allow the design for the Bethany Reservoir Alignment Alternative to be between Class 4 and Class 3 by the end of 2026—at which point the Delta Conveyance Project planning will have progressed to an overall approximate 15% to 30% design level. This design level will provide greater specificity regarding all Delta Conveyance Project features, including refining the tunnel route and the location and design of aboveground facilities for a project construction footprint and duration that reflects potential reductions in disturbance to biological resources, land uses, traffic, air quality, and noise. While the Delta Conveyance Project would still remain in the relatively early stages of design, DWR would have more data and refined project details to inform DWR's evaluation and written certification of the Delta Conveyance Project's consistency with the *Delta Plan*.

3.6.2 Overview of 2024–2026 Proposed Geotechnical Activities

The 2024–2026 Proposed Geotechnical Activities are to be completed on properties with landowner approval or, if necessary, through court-ordered entry. Wherever possible, DWR seeks landowners' approval for entry via voluntary temporary entry agreements. Under these agreements, work will be conducted consistent with ongoing landowner operations, and landowners will be compensated as appropriate. Alternatively, where it is not possible to reach an agreement and it is necessary for DWR to enter onto a landowner's property, DWR will file petitions for court-ordered entry. If the court grants the petitions (which would occur after each person who claimed an interest was given a due process opportunity to be heard on all issues), field investigations would occur in a manner consistent with the court's order.

DWR's footprint at each site will be limited. Workspace at each site, not including staging areas, is expected to be approximately 0.022 acres, or 10 feet by 100 feet.

DWR's activities will likewise be limited. The 2024–2026 Proposed Geotechnical Activities will not include all of the geotechnical activities described in Chapter 3 of the Final EIR. In particular, the 2024–2026 Proposed Geotechnical Activities will not include the following: work on levees, overwater activities, activities that involve trenching (e.g., "test trenches"), activities within the West Tracy Fault or Bethany Fault, pile driving, vibratory testing of dynamic properties, potholing, monument installation, test fills for settlement studies, 800-foot inclined boreholes, or ground improvement test zones.

Specifically, the 2024–2026 Proposed Geotechnical Activities include subsurface exploration and testing consisting of one or more of the following:

- Borings with small-diameter (less than 8-inch diameter) auger and/or mud rotary drill and soil and rock sampling.
- CPTs using a truck-mounted rig equipped with a 1-to-2-inch diameter cone.
- Installation and removal of a temporary slotted polyvinyl chloride (PVC) pipe with a small submersible pump and water level transducer inside for water quality testing.

The 2024–2026 Proposed Geotechnical Activities include up to 261 soil borings (including 31 soil borings with water quality tests[9]) and up to 15 CPTs. The information obtained from the 2024–2026 Proposed Geotechnical Activities will inform the continued planning and design of the Delta Conveyance Project, including subsequent investigation programs to support that planning and design.

3.6.3 Soil Borings and CPTs

Borings will be drilled using removable hollow-stem augers with up to an 8-inch diameter or using mud-rotary drilling techniques with up to a 5-inch diameter. The depth of drilling explorations will vary from approximately 15 to 250 feet. Soil samples will be collected from the soil borings for testing. Cuttings and excess drilling fluid will be contained in drums, large containers, or vacuum trucks and disposed of off-site at an appropriate landfill. Drums may be stored on-site during environmental testing, before removal and landfill disposal. Based on the environmental test results, the cuttings and excess drilling fluid will be disposed of by the environmental consultant at an approved location, in accordance with State of California environmental regulations and industry standards. An individual soil boring (250 feet deep) activity can take an average of 9 working days, and a maximum of 11 working days, to complete, while borings less than 50 feet deep will take a maximum of 2 working days to complete. Following completion of each soil exploration, the borehole will be sealed using cement-bentonite grout in accordance with State of California regulations and industry standards.

Drilling equipment is usually mounted on a heavy-duty truck, although track-mounted drilling equipment may be used as required. The specific drill rig mobilized to a site will depend on site-specific access conditions and the purpose and depth of the soil boring. The drill rigs are powered by a 120-to-550-horsepower diesel engine. Track-mounted or rubber tire all-terrain drilling rigs will be

[9] Two of these 31 soil borings with water quality tests are located outside the geographic scope of the "Delta" as defined in the DRA (Wat. Code § 85058).

used, if needed, to minimize access impacts over soft or uneven ground; these rigs will be hauled to the site by a lowboy tractor trailer rig.

In addition to the drill rig, other vehicles at the site during this work may include a water truck, a liftgate truck, a tractor-trailer lowboy truck, and up to 12 additional personnel vehicles. The 12 additional personnel vehicles include vehicles for the geotechnical consultant, traffic control, DWR and DCA engineers, geologists, surveyors, scientists, the biological and cultural resource team, and at least two regulatory agencies. Not all of these vehicles would necessarily be on-site simultaneously.

For CPTs, a 1-to-2-inch-diameter cone-tipped rod is pushed through the ground to measure various parameters including tip resistance, side friction, pore pressure, inclination, and shear wave velocity of the soil layers. The depth of the CPTs will range from approximately 200 feet to 250 feet. Following completion of each of CPT, the hole will be sealed using cement-bentonite grout in accordance with State of California regulations and industry standards. CPTs take an average of 2 days to complete, up to a maximum of 4 days.





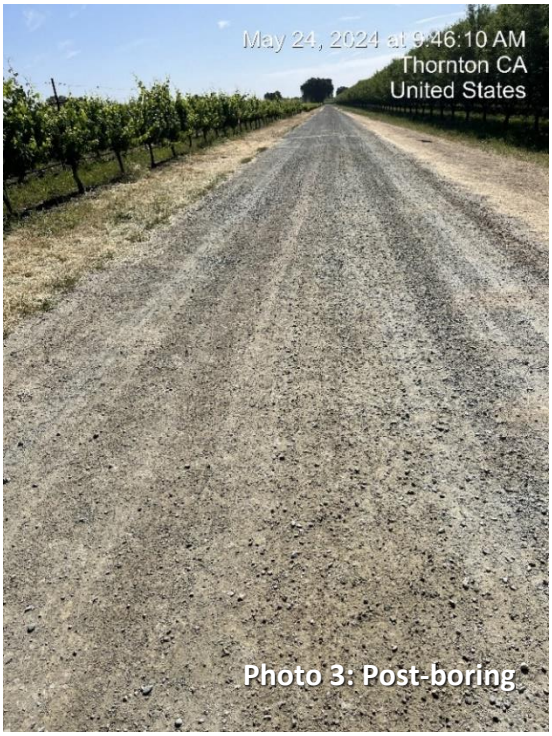


Figure 2. Soil Boring Example Photos 1–3







Figure 3. CPT Example Photos 4–6

3.6.4 Soil Borings with Water Quality Testing

For the 31 soil borings with water quality tests, a temporary PVC pipe will be installed within the borehole following drilling. The PVC pipe will be up to 4 inches in diameter and will be slotted over an interval up to 40 feet in length. The remainder of the PVC pipe will be solid wall. The annular space between the boring and the slotted interval of the PVC pipe will be backfilled with commercially available well pack sand and gravel, while the solid wall section will be backfilled with bentonite to the surface. A submersible pump will be installed in the PVC pipe along with a water-level meter. Accumulated mud and water at the bottom of the temporary PVC pipe would be pumped into a water tank. All mud and groundwater, pumped in preparation for and during the water quality test, will be collected in a water tank and tested for presences of hazardous materials

(environmental testing) by a licensed environmental firm prior to disposal. Based on the environmental test results, the mud and water will be disposed of, by the environmental consultant, at an approved location, in accordance with State of California environmental regulations and industry standards.

As part of the water quality test, DWR and DCA engineers or geologists will measure the groundwater levels and sample the representative groundwater for boron, chloride, sulfate, dissolved gas, hydrogen sulfide and methane, and potentially other water quality constituents.

These field activities will take an average of 3 additional working days with a maximum of 5 days following completion of the soil boring. Following the completion of this water quality sample collection, the temporary PVC casing will be removed, and the drill hole will be backfilled using cement-bentonite grout in accordance with State of California regulations and industry standards.

Vehicles at each site where soil boring with water quality sampling take place may include a water truck and additional personnel vehicles for technical consultants but would not exceed the maximum number of vehicles described previously in Section 3.6.3, *Soil Boring and CPTs*.

3.6.5 2024–2026 Proposed Geotechnical Activities Field Logistics

On completion of borings, CPTs, and water quality testing, the holes will be sealed with cement-bentonite grout. Borings, CPTs, and tests on each site will occur for a duration of 1 day up to 14 workdays. Work is planned for Monday through Friday unless alternative arrangements are made with the landowner and are consistent with all other requirements. Work would take place during daylight hours for up to approximately 10 hours each day except when prohibited by specific Delta Conveyance Project environmental commitments and mitigation measures identified by DWR. The exploration drills used to perform soil borings, water quality, and CPT equipment are vehicle-mounted and powered by a commercial or industrial engine.

The exploration crews will comply with environmental commitments and mitigation measures set forth in the Delta Conveyance Project Final EIR and MMRP and associated mitigation plans including the environmental compliance monitoring plan (Final EIR Appendix 3B, *Environmental Commitments and Best Management Practices*, Environmental Commitment EC-14: *Construction Best Management Practices for Biological Resources*), the Tribal Cultural Resources Management Plan (Final EIR Chapter 32, *Tribal Cultural Resources*, Mitigation Measure TCR-1b: *Plans for the Management of Tribal Cultural Resources*), and Noise Control Plan for the 2024–2026 Proposed Geotechnical Activities (Final EIR Chapter 24, *Noise and Vibration*, Mitigation Measure NOI-1: *Develop and Implement a Noise Control Plan*). Field crews will also adhere to the requirements of the DCA Health and Safety Plan for the Delta Conveyance Project (Delta Conveyance Design and Construction Authority 2024), which is revised every year to address lessons learned and best practices.

Chapter 4
Consistency with the *Delta Plan*

Again, DWR emphasizes that the proposed action covered by this certification of consistency is the 2024–2026 Proposed Geotechnical Activities, rather than implementation of the broader Delta Conveyance Project.

In analyzing an action's consistency with the *Delta Plan*, the first step is to evaluate whether the proposed action (here, the 2024–2026 Proposed Geotechnical Activities), separate from implementation of the Delta Conveyance Project, is a "covered action" within the meaning of the DRA.[10] The DSC's Covered Action Checklist (Attachment 1) provides a stepwise process for determining whether a project is a covered action.

Step 1 of the Checklist states if "the plan, program, or project is exempt from the definition of a 'covered action,'" then it is not a covered action, and "no further steps [are] required." Proposed actions that are exempt from CEQA may be exempt from the definition of a covered action.[11] The CEQA Guidelines provide that basic data collection, research, experimental management, and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource are generally exempt from CEQA where the study is for a project that has not yet been approved, adopted, or funded.[12] While the 2024–2026 Proposed Geotechnical Activities consist of data collection and resource evaluation activities, they are for the purpose of further planning and designing the Delta Conveyance Project as approved in December 2023 after certification of the Final EIR. Because these data collection and resource evaluation activities are for a project that has been approved, CEQA's categorical exemption for information collection is not applicable. Therefore, the 2024–2026 Proposed Geotechnical Activities (a subset of what was described as future field investigations in the Delta Conveyance Project Final EIR) are not exempt pursuant to Water Code Section 85057.5(b).

Step 2, Question 1 of the Checklist asks whether this is "a plan, program, or project as defined pursuant to Public Resources Code section 21065." As defined under California Public Resources Code Section 21065, the 2024–2026 Proposed Geotechnical Activities meet the definition of a CEQA project because they are being undertaken by a public agency and have a potential for resulting in either a direct change in the environment or a reasonably foreseeable indirect physical change in the environment.

Step 2, Question 2 of the Checklist asks whether the project "will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh." The 2024–2026 Proposed Geotechnical Activities would primarily occur within the boundaries of the Delta.

Step 2, Question 3 of the Checklist asks whether the project "will be carried out, approved, or funded by the State or a local public agency." DWR, as a State agency, would be the proponent of the proposed action.

[10] Wat. Code § 85057.5, subd. (a).

[11] Cal. Code Regs., tit. 23, § 5001(jj)(4).

[12] California Code of Regulations [Cal. Code Regs.], tit. 14, § 15306.

Step 2, Question 4 of the Checklist asks whether the project "will have a significant impact on the achievement of one or both of the coequal goals or on the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta." As discussed further in Section 4.1, *Coequal Goals*, the 2024–2026 Proposed Geotechnical Activities, which involve only temporary activities at discrete locations to test soil and water quality conditions, would have no impact (and therefore would not have the potential to result in a significant impact) on the achievement of one or both of the coequal goals or on the implementation of a government-sponsored flood control program.

Step 3 of the Checklist asks whether the proposed action "is covered by one or more of the regulatory policies contained in Chapters 3, 4, 5, and 7 [of the *Delta Plan*]." As discussed further in Section 4.1.4, *Conclusion: Step 2*, the 2024–2026 Proposed Geotechnical Activities are not covered by one or more regulatory *Delta Plan* policies contained in Article 3 of the DSC's regulations codified at California Code of Regulations, Title 23, Sections 5003–5015.

Step 4 of the Checklist says, "In addition to the above policies, the Delta Plan includes a General Policy with four subdivisions that applies to the entire covered action. Note: Policy G P1 does not on its own cause a plan, program, or project to be a covered action." As discussed further in Section 4.2.14, *Conclusion: Step 3 (Article 3 Policies)*, and Section 4.3.2, *Conclusion: Step 4 (Article 2 Policies)*, the 2024–2026 Proposed Geotechnical Activities are consistent with the four general Article 2 subdivisions of DSC's regulations codified at California Code of Regulations, Title 23, Section 5002(a).

4.1 Coequal Goals

As established in Public Resources Code Section 29702 and defined by Section 85054 of the Water Code, the coequal goals for the Delta are providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. A proposed action is considered a covered action only if it will have a significant impact on the achievement of one or both of the coequal goals or on the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta.

4.1.1 Coequal Goal: Providing a More Reliable Water Supply for California

Achieving the coequal goal of providing a more reliable water supply for California means (1) better matching the state's demands for reasonable and beneficial uses of water to the available water supply; (2) reducing regional reliance on water from the Delta watershed for reasonable and beneficial uses, and improving regional self-reliance; and (3) more closely matching water exported from the Delta with water supplies available to be exported.[13] As stated in the *Delta Plan*'s amended Chapter 3, *A More Reliable Water Supply for California* (Delta Stewardship Council 2018:66), the DRA mandates many strategies that the *Delta Plan* must address to improve water supply reliability for California: promote, implement, and invest in water efficiency and conservation; implement and invest in wastewater reclamation and water recycling; increase and invest in desalination and advanced water treatment technologies; promote and implement options for improved water

[13] Cal. Code Regs., tit. 23, § 5001(i)(1).

conveyance; expand and invest in storage; improve water quality to protect human health and the environment; invest in local and regional water supply projects and coordination; and prohibit waste and unreasonable use, consistent with Article X, Section 2 of the California Constitution, and protect public trust resources consistent with the Public Trust Doctrine.

The 2024–2026 Proposed Geotechnical Activities will have no impact on any of the strategies that the DRA mandates for achievement of a more reliable water supply for California and as such would have no impact (and therefore would not have the potential to result in a significant impact) on the achievement of this coequal goal. The proposed action consists of data collection activities, with a minimal footprint. The proposed action will have only temporary impacts, with sites being brought to pre-activity conditions when the relevant geotechnical activity (i.e., the individual boring or CPT) is completed. The proposed action will not include any in-water work, will not affect groundwater, and will not have any water supply impacts.

4.1.2 Coequal Goal: Protecting, Restoring, and Enhancing the Delta Ecosystem

Achieving the coequal goal of protecting, restoring, and enhancing the Delta ecosystem means successfully establishing a resilient, functioning estuary and surrounding terrestrial landscape capable of supporting viable populations of native resident and migratory species with diverse and biologically appropriate habitats, functional corridors, and ecosystem processes.[14] The *Delta Plan*'s amended Chapter 4, *Protect, Restore, and Enhance the Delta Ecosystem*, identifies five core strategies to achieve the coequal goal of protecting, restoring, and enhancing the Delta ecosystem, as set forth in the Delta Reform Act: create more natural, functional flows; restore ecosystem function; protect land for restoration and safeguard against land loss; protect native species and reduce the impact of nonnative invasive species; and improve institutional coordination to support implementation of ecosystem protection, restoration, and enhancement (Delta Stewardship Council 2022a:1).

The 2024–2026 Proposed Geotechnical Activities will have no impact on any of the strategies identified to support the achievement of protecting, restoring, and enhancing the Delta ecosystem and as such would have no impact (and therefore would not have the potential to result in a significant impact) on the achievement of this coequal goal. The proposed action avoids impacts to sensitive habitats and biological resources. The 2024–2026 Proposed Geotechnical Activities consist of temporary soil and water quality testing activities at discrete locations. Due to the limited scope and duration of the work, they will have no impact on the successful establishment of a resilient, functioning estuary and surrounding terrestrial landscape capable of supporting viable populations of native resident and migratory species with diverse and biologically appropriate habitats, functional corridors, and ecosystem processes.

4.1.3 Government-Sponsored Flood Control Program

A government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta means any State or federal strategy, project, approval, funding, or other effort that is intended to reduce the likelihood and/or consequences of flooding of real property and/or improvements, including risks to people, property, and State interests in the Delta.[15]

[14] Cal. Code Regs., tit. 23, §5001(i)(2).

[15] Cal. Code Regs., tit. 23, § 5001(v).

The proposed action (the 2024–2026 Proposed Geotechnical Activities) will not include any work on levees or encroach on any floodplains or floodways. Additionally, the 2024–2026 Proposed Geotechnical Activities will generate minimal traffic and will be conducted in coordination with property owners. Furthermore, DWR is committed to coordinating with local agencies, including reclamation districts, and would collaborate on a case-by-case basis to ensure that the geotechnical activities would not have the potential to affect any ongoing or future efforts intended to reduce the likelihood or consequences of flooding in the Delta. Therefore, the 2024–2026 Proposed Geotechnical Activities will have no impact (and therefore would not have the potential to result in a significant impact) on the achievement of one or both of the coequal goals or on the implementation of any government-sponsored flood control program.

4.1.4 Conclusion: Step 2

The DSC's Covered Action Checklist (Attachment 1) provides that if the answer to any of the Step 2 questions evaluated here is no, then "the plan, program, or project, for purposes of the Delta Plan, does not meet the definition of [a] Covered Action [and] NO FURTHER STEPS [ARE] REQUIRED." Therefore, because the 2024–2026 Proposed Geotechnical Activities would have no impact (and therefore would not have the potential to result in a significant impact) on the achievement of one or both of the coequal goals or on the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta, the DRA does not require this certification to address Step 3 or to include an evaluation of the regulatory *Delta Plan* policies contained in Article 3 provisions of the DSC's regulations.[16]

Nevertheless, for the sake of thoroughness and to err on the side of facilitating the DSC's informed decision-making process, the analysis that follows additionally considers Step 3 of the Checklist to determine whether the 2024–2026 Proposed Geotechnical Activities are covered by one or more regulatory *Delta Plan* policies contained in Article 3 of the DSC's regulations codified at California Code of Regulations, Title 23, Sections 5003–5015.

4.2 Step 3 Summary of Article 3 Consistency Findings

Table 2. Article 3 *Delta Plan* Policies

***Delta Plan* Policy**	**Policy Description**	**Findings**
WR P1 Cal. Code Regs., tit. 23, § 5003	Reduce Reliance on the Delta through Improved Regional Water Self-Reliance	Does not apply
WR P2 Cal. Code Regs., tit. 23, § 5004	Transparency in Water Contracting	Does not apply
ER P1 Cal. Code Regs., tit. 23, § 5005	Delta Flow Objectives	Does not apply
ER P2 Cal. Code Regs., tit. 23, § 5006	Restore Habitats at Appropriate Elevations	Does not apply

[16] Cal. Code Regs., tit. 23, § 5001(k)(1).

Delta Plan Policy	Policy Description	Findings
ER P3 Cal. Code Regs., tit. 23, § 5007	Protect Opportunities to Restore Habitat	Does not apply
ER P4 Cal. Code Regs., tit. 23, § 5008	Expand Floodplains and Riparian Habitats in Levee Projects	Does not apply
ER P5 Cal. Code Regs., tit. 23, § 5009	Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species	Does not apply
DP P1 Cal. Code Regs., tit. 23, § 5010	Locate New Urban Development Wisely	Does not apply
DP P2 Cal. Code Regs., tit. 23, § 5011	Respect Local Use When Siting Water or Flood Facilities or Restoring Habitats	Does not apply
RR P1 Cal. Code Regs., tit. 23, § 5012	Prioritization of State Investments in Delta Levees and Risk Reduction	Does not apply
RR P2 Cal. Code Regs., tit. 23, § 5013	Require Flood Protection for Residential Development in Rural Areas	Does not apply
RR P3 Cal. Code Regs., tit. 23, § 5014	Protect Floodways	Does not apply
RR P4 Cal. Code Regs., tit. 23, § 5015	Floodplain Protection	Does not apply

Cal. Code Regs. = California Code of Regulations; tit. = title.

4.2.1 WR P1—Reduce Reliance on the Delta through Improved Regional Water Self-Reliance

The following is taken from California Code of Regulations, Title 23, Section 5003.

(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);

(2) That failure has significantly caused the need for the export, transfer, or use; and

(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of... Chapter [2 of Division 6 of title 23 of the California Code of Regulations], this policy covers a proposed action to export water from, transfer water through, or use water in the Delta, but does not cover any such action unless one or more water suppliers would receive water as a result of the proposed action.

(c)

(1) Water suppliers that have done all of the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:

(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and

(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).

(2) Programs and projects that reduce reliance could include, but are not limited to, improvements in water use efficiency, water recycling, stormwater capture and use, advanced water technologies, conjunctive use projects, local and regional water supply and storage projects, and improved regional coordination of local and regional water supply efforts.

4.2.1.1 WR P1 Detailed Findings

As described in *Delta Plan* Policy WR P1, Reduce Reliance on the Delta through Improved Regional Water Self-Reliance, this policy covers a proposed action to export water from, transfer water through, or use water in the Delta. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities, which do not include exporting water from, transferring water through, or using water in the Delta.

4.2.2 WR P2—Transparency in Water Contracting

The following is taken from California Code of Regulations, Title 23, Section 5004.

(1) The contracting process for water from the State Water Project and/or the Central Valley Project must be done in a publicly transparent manner consistent with applicable policies of the California Department of Water Resources and the Bureau of Reclamation referenced below.

(2) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers the following:

(a) With regard to water from the State Water Project, a proposed action to enter into or amend a water supply or water transfer contract subject to California Department of Water Resources Guidelines 03-09 and/or 03-10 (each dated July 3, 2003), which are attached as Appendix 2A; and

(b) With regard to water from the Central Valley Project, a proposed action to enter into or amend a water supply or water transfer contract subject to section 226 of P.L. 97-293, as amended or section 3405(a)(2)(B) of the Central Valley Project Improvement

Act, Title XXXIV of Public Law 102-575, as amended, which are attached as Appendix 2B, and Rules and Regulations promulgated by the Secretary of the Interior to implement these laws.

4.2.2.1 WR P2 Detailed Findings

As described in *Delta Plan* Policy WR P2, Transparency in Water Contracting, this policy covers a proposed action to enter into or amend a water supply or water transfer contract subject to California Department of Water Resources Guidelines 03-09 and/or 03-10 or a proposed action to enter into or amend a water supply or water transfer contract subject to Section 226 of Public Law 97-293, as amended, or to Section 3405(a)(2)(B) of the Central Valley Project Improvement Act, Title XXXIV of Public Law 102-575, as amended. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not include entering into or amending a water supply or water transfer contract.

4.2.3 ER P1—Delta Flow Objectives

The following is taken from California Code of Regulations, Title 23, Section 5005.

(a) The State Water Resources Control Board's Bay Delta Water Quality Control Plan flow objectives shall be used to determine consistency with the Delta Plan. If and when the flow objectives are revised by the State Water Resources Control Board, the revised flow objectives shall be used to determine consistency with the Delta Plan.

(b) For purposes of Water Code sections 85057.5(a)(3) and 5001(j)(1)(E) of this Chapter, the policy set forth in subsection (a) covers a proposed action that could significantly affect flow in the Delta.

4.2.3.1 ER P1 Detailed Findings

As described in *Delta Plan* Policy ER P1, Delta Flow Objectives, this policy covers a proposed action that could significantly affect flow in the Delta. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here would not include in-water work and would not affect flow in the Delta.

4.2.4 ER P2—Restore Habitats at Appropriate Elevations

The following is taken from California Code of Regulations, Title 23, Section 5006.

(a) Habitat restoration must be carried out consistent with Appendix 3, which is Section II of the Draft Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions (California Department of Fish and Wildlife 2011). The elevation map attached as Appendix 4 should be used as a guide for determining appropriate habitat restoration actions based on an area's elevation. If a proposed habitat restoration action is not consistent with Appendix 4, the proposal shall provide rationale for the deviation based on best available science.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that includes habitat restoration.

4.2.4.1 ER P2 Detailed Findings

As described in *Delta Plan* Policy ER P2, Restore Habitats at Appropriate Elevations, this policy covers a proposed action that includes habitat restoration. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not include habitat restoration.

4.2.5 ER P3—Protect Opportunities to Restore Habitat

The following is taken from California Code of Regulations, Title 23, Section 5007.

(a) Within the priority habitat restoration areas depicted in Appendix 5, significant adverse impacts to the opportunity to restore habitat as described in section 5006, must be avoided or mitigated.

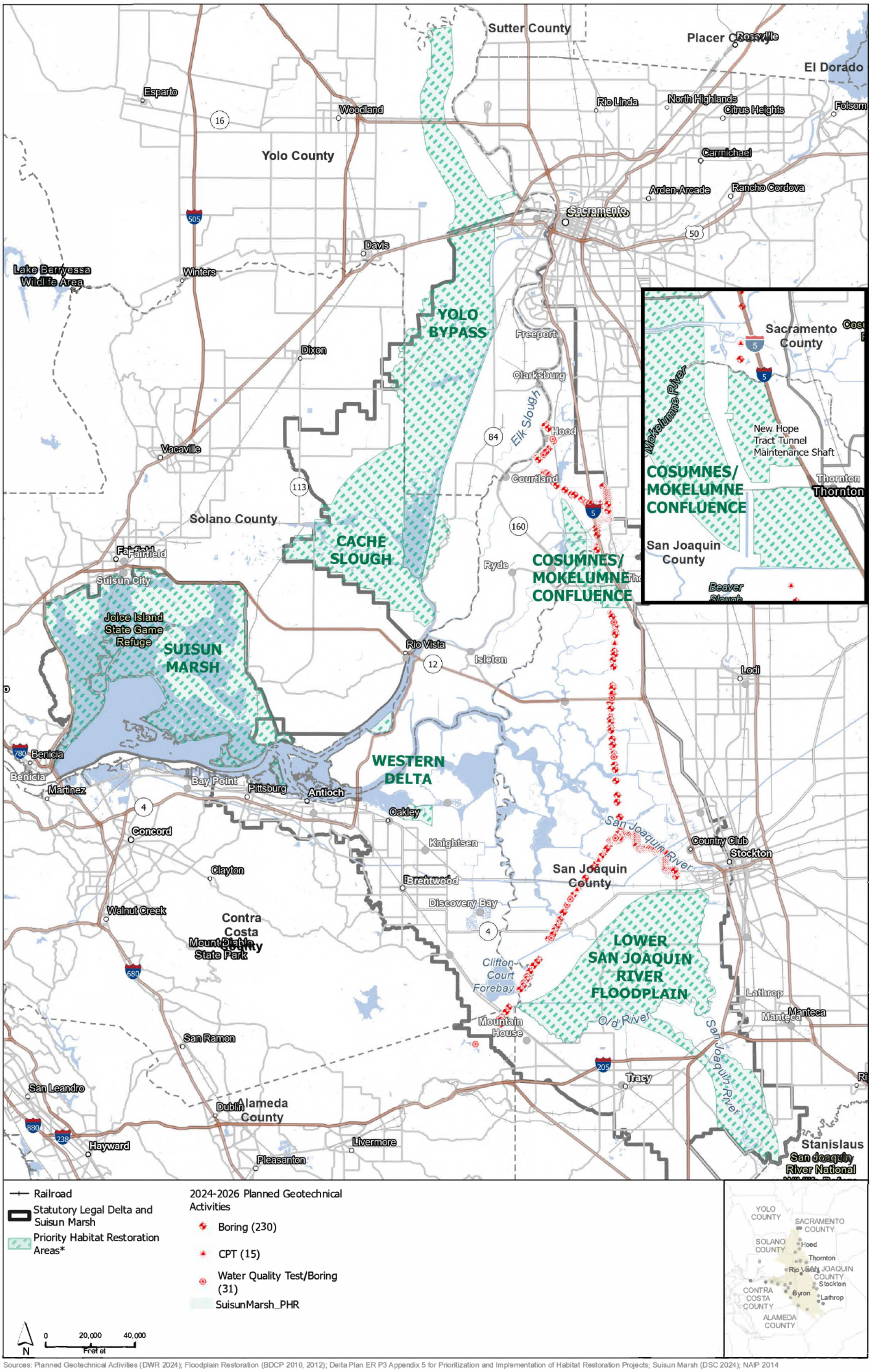
(b) Impacts referenced in subsection (a) will be deemed to be avoided or mitigated if the project is designed and implemented so that it will not preclude or otherwise interfere with the ability to restore habitat as described in section 5006.

(c) Impacts referenced in subsection (a) shall be mitigated to a point where the impacts have no significant effect on the opportunity to restore habitat as described in section 5006. Mitigation shall be determined, in consultation with the California Department of Fish and Wildlife, considering the size of the area impacted by the covered action and the type and value of habitat that could be restored on that area, taking into account existing and proposed restoration plans, landscape attributes, the elevation map shown in Appendix 4, and other relevant information about habitat restoration opportunities of the area.

(d) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions in the priority habitat restoration areas depicted in Appendix 5. It does not cover proposed actions outside those areas.

4.2.5.1 ER P3 Detailed Findings

As described in *Delta Plan* Policy ER P3, Protect Opportunities to Restore Habitat, this policy covers proposed actions in the priority habitat restoration areas depicted in Appendix 5 of the *Delta Plan*. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not include proposed actions in the priority habitat restoration areas depicted in Appendix 5 (Figure 4).



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Sources: Planned Geotechnical Activities (DWR 2024); Floodplain Restoration (BDCP 2010, 2012); Delta Plan ER P3 Appendix 5 for Prioritization and Implementation of Habitat Restoration Projects; Suisun Marsh (DSC 2024); NAIP 2014

ER P3 Priority Habitat Restoration

Figure 4. ER P3 2024-2026 Proposed Geotechnical Activities Overlay Map

Prepared by Crystal Schiffbauer-Bowles;
Reviewed by Connor Block

4.2.6 ER P4—Expand Floodplains and Riparian Habitats in Levee Projects

The following is taken from California Code of Regulations, Title 23, Section 5008.

(a) Levee projects must evaluate and where feasible incorporate alternatives, including the use of setback levees, to increase floodplains and riparian habitats. Evaluation of setback levees in the Delta shall be required only in the following areas (shown in Appendix 8): (1) The Sacramento River between Freeport and Walnut Grove, the San Joaquin River from the Delta boundary to Mossdale, Paradise Cut, Steamboat Slough, Sutter Slough; and the North and South Forks of the Mokelumne River, and (2) Urban levee improvement projects in the cities of West Sacramento and Sacramento.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action to construct new levees or substantially rehabilitate or reconstruct existing levees.

4.2.6.1 ER P4 Detailed Findings

As described in *Delta Plan* Policy ER P4, Expand Floodplains and Riparian Habitats in Levee Projects, this policy covers a proposed action to construct new levees or substantially rehabilitate or reconstruct existing levees. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not include constructing new levees or substantially rehabilitating or reconstructing existing levees. (As already stated, there are no soil borings or CPTs proposed on levees as part of the 2024–2026 Proposed Geotechnical Activities.)

4.2.7 ER P5—Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species

The following is taken from California Code of Regulations, Title 23, Section 5009.

(a) The potential for new introductions of or improved habitat conditions for nonnative invasive species, striped bass, or bass must be fully considered and avoided or mitigated in a way that appropriately protects the ecosystem.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(o)(1)(E) of this Chapter, this policy covers a proposed action that has the reasonable probability of introducing or improving habitat conditions for nonnative invasive species.

4.2.7.1 ER P5 Detailed Findings

As described in *Delta Plan* Policy ER P5, Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species, this policy covers a proposed action that has the reasonable probability of introducing or improving habitat conditions for nonnative invasive species. The 2024–2026 Proposed Geotechnical Activities may consist of mowing, removing a limited number of tree limbs, or trimming bushes for site access, along with driving to and from the activity location and boring into the soil. These activities would result in temporary impacts on agricultural lands and natural habitat; there would be minimal land disturbance occurring primarily in already disturbed areas (such as agricultural roads and staging areas).

Consistent with the environmental commitments and best management practices (BMPs) set forth in Final EIR Appendix 3B, *Environmental Commitments and Best Management Practices*, and specifically the requirements in EC-14: *Construction Best Management Practices for Biological Resources*, DWR will restore disturbed areas to as close to pre-project conditions as possible directly following the completion of the field investigation activity.

Since the level of disturbance associated with the proposed action would be minor and the proposed action includes immediately restoring the temporarily disturbed areas, the proposed action would not have a reasonable probability of improving habitat conditions for nonnative invasive species. Additionally, pursuant to EC-14, a biological monitor will be present during all geotechnical activities. During geotechnical activities, measures that will be implemented for the protection of special-status fish, wildlife, and plant species and their habitats include the requirement that all equipment used during field investigations be cleaned and inspected by the qualified biologist for terrestrial invasive plant and animal species prior to entering the work areas and before moving between work areas (California Department of Water Resources 2023a:3B-29). Consistent with California Invasive Plant Council (Cal-IPC) recommendations, tools used for equipment cleaning would include brushes, brooms, a scraper, an air compressor, a vacuum, or other hand tools. Prior to entering a new site, equipment will be washed at an off-site commercial facility or returned to the company yard for cleaning if the qualified biologist determines that equipment washing is warranted after the on-site cleaning (California Invasive Plant Council 2012). By following Cal-IPC guidance to inspect and clean equipment before entering new areas, the 2024–2026 Proposed Geotechnical Activities would prevent the spread of invasive species and would not have a reasonable probability to introduce nonnative invasive species.

As such, this policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because, in consideration of the scope of and procedures applicable to the 2024–2026 Proposed Geotechnical Activities, the proposed action here does not have a reasonable probability of introducing or improving habitat conditions for nonnative invasive species.

4.2.8 DP P1—Locate New Urban Development Wisely

The following is taken from California Code of Regulations, Title 23, Section 5010.

(a) New residential, commercial, and industrial development must be limited to the following areas, as shown in Appendix 6 and Appendix 7:

(1) Areas that city or county general plans as of May 16, 2013, designate for residential, commercial, and industrial development in cities or their spheres of influence;

(2) Areas within Contra Costa County's 2006 voter-approved urban limit line, except no new residential, commercial, and industrial development may occur on Bethel Island unless it is consistent with the Contra Costa County general plan effective as of May 16, 2013;

(3) Areas within the Mountain House General Plan Community Boundary in San Joaquin County; or

(4) The unincorporated Delta towns of Clarksburg, Courtland, Hood, Locke, Ryde, and Walnut Grove.

(b) Notwithstanding subsection (a), new residential, commercial, and industrial development is permitted outside the areas described in subsection (a) if it is consistent with the land uses designated in county general plans as of May 16, 2013, and is otherwise consistent with this Chapter.

(c) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve new residential, commercial, and industrial development that is not located within the areas described in subsection (a). In addition, this policy covers any such action on Bethel Island that is inconsistent with the Contra Costa County general plan effective as of May 16, 2013. This policy does not cover commercial recreational visitor serving uses or facilities for processing of local crops or that provide essential services to local farms, which are otherwise consistent with this Chapter.

(d) This policy is not intended in any way to alter the concurrent authority of the Delta Protection Commission to separately regulate development in the Delta's Primary Zone.

4.2.8.1 DP P1 Detailed Findings

As described in *Delta Plan* Policy DP P1, Locate New Urban Development Wisely, this policy covers proposed actions that involve new residential, commercial, and industrial development that is not located within the areas described in California Code of Regulations, Title 23, Section 5010(a). This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not include new residential, commercial, or industrial development.

4.2.9 DP P2—Respect Local Use When Siting Water or Flood Facilities or Restoring Habitats

The following is taken from California Code of Regulations, Title 23, Section 5011.

(a) Water management facilities, ecosystem restoration, and flood management infrastructure must be sited to avoid or reduce conflicts with existing uses or those uses described or depicted in city and county general plans for their jurisdictions or spheres of influence when feasible, considering comments from local agencies and the Delta Protection Commission. Plans for ecosystem restoration must consider sites on existing public lands, when feasible and consistent with a project's purpose, before privately owned sites are purchased. Measures to mitigate conflicts with adjacent uses may include, but are not limited to, buffers to prevent adverse effects on adjacent farmland.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve the siting of water management facilities, ecosystem restoration, and flood management infrastructure.

4.2.9.1 DP P2 Detailed Findings

As described in *Delta Plan* Policy DP P2, Respect Local Use When Siting Water or Flood Facilities or Restoring Habitats, this policy covers proposed actions that involve the siting of water management facilities, ecosystem restoration, and flood management infrastructure. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here would only include temporary information collection activities and does not involve the physical placing (siting)

of water management facilities, ecosystem restoration, and flood management infrastructure. The 2024–2026 Proposed Geotechnical Activities will inform the alignment and design of the Delta Conveyance Project, but the preliminary data collection does not commit DWR to site Delta Conveyance Project facilities in the specific investigation locations proposed in the 2024–2026 Proposed Geotechnical Activities.

4.2.10 RR P1—Prioritization of State Investments in Delta Levees and Risk Reduction

The following is taken from California Code of Regulations, Title 23, Section 5012.

(a) Fund levee operation and maintenance. For the purposes of Water Code Section 85306, State investments in levee operation and maintenance of Delta project levees and nonproject levees shall be prioritized as follows:

(1) For project levees, funding should be prioritized to ensure levees are operated and maintained in accordance with Code of Federal Regulations, Title 33, Part 208.10 and applicable federal Operation and Maintenance manuals, active in federal Public Law 84-99 Rehabilitation Program, and consistent with Central Valley Flood Protection Board Resolution No. 2018-06 for Acceptable Operation and Maintenance of the State Plan of Flood Control.

(2) For nonproject levees, funding should be prioritized to ensure levees are operated and maintained to protect the Delta's physical characteristics.

(b) Delta levees investment strategy. The priorities listed in Table 1 and depicted in Delta Plan Appendix P dated August 2021, which is incorporated by reference, shall guide State discretionary investments in the improvement of Delta levees. The California Department of Water Resources' funding decisions are subject to its consideration of the benefits, costs, engineering considerations, and other factors. As the California Department of Water Resources selects levee improvement projects for funding through its levee funding programs, it should fund projects at the Very-High priority islands or tracts, before funding projects at High Priority or Other Priority islands or tracts. If available funds are sufficient to fully fund levee improvement projects at the Very-High Priority islands or tracts, then funds for levee improvement projects on High Priority islands or tracts should be funded and after those projects have been fully funded, then levee improvement projects at Other Priority islands or tracts may be funded.

(c) Annual Report

(1) The California Department of Water Resources shall submit a written annual report, as described in paragraph (2), to the Council, as well as present the report to Council, on State funds distributed or provided by the California Department of Water Resources within the legal Delta. At least 45 days prior to the oral presentation before the Council, and no later than March 1 of each calendar year, the California Department of Water Resources shall submit the written annual report to the Council and make the report publicly available.

(2) The report shall include: (A)A description of all discretionary State funding for levees awarded by the California Department of Water Resources, during the reporting year; including both of the following: (i)Levee improvement. (ii)Levee operation and

maintenance. (B)A list of each levee improvement project proposal submitted to the California Department of Water Resources for funding, regardless of whether the California Department of Water Resources awarded funding to the project; (C)A list of the improvement projects awarded funding, the funding level awarded, the local cost share, and the applicable priority of the island or tract from Table 1 in subsection (b), where the levee improvement project is located; (D)A description, for each awarded project, of changes (when completed) to levee geometry, the specific locations of those changes, and expected changes in the level of flood protection provided or standard achieved; (E) If the California Department of Water Resources awards funds for any levee improvement project that is inconsistent with the priorities identified in subsection (b), the annual report shall identify for each project: how the funding is inconsistent with the priorities, describe why variation from the priorities is necessary, and explain how the funding nevertheless protects lives, property, or other State interests, such as infrastructure, agriculture, water supply reliability, Delta ecosystem, or Delta communities; (F) A summary of the California Department of Water Resources' rationale for levee improvement project proposals submitted, but not awarded funding during the reporting year; and (G) A summary of all previous California Department of Water Resources funded levee improvement project activities completed during the reporting year and location of those activities.

(d) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that involves discretionary State investments in Delta flood risk management, including levee operations, maintenance, and improvements. Nothing in this policy establishes or otherwise changes existing levee standards.

Note: Authority cited: Sections 85210 and 85306, Water Code. Reference: Sections 85020, 85022, 85054, 85057.5, 85300, 85305, 85306, 85307, and 85309, Water Code.

4.2.10.1 RR P1 Detailed Findings

As described in *Delta Plan* Policy RR P1, Prioritization of State Investments in Delta Levees and Risk Reduction, this policy covers a proposed action that involves discretionary State investments in Delta flood risk management, including levee operations, maintenance, and improvements. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here involves no investment in Delta levees or flood risk reduction. In addition, the activities would be funded through contributions from public water agencies that may participate in the Delta Conveyance Project and that have contributed or will contribute funds for the environmental review, planning, permitting and certain preconstruction activities related to design and engineering. The 2024–2026 Proposed Geotechnical Activities do not involve discretionary State investments in Delta flood risk management, including levee operations, maintenance, and improvements.

4.2.11 RR P2—Require Flood Protection for Residential Development in Rural Areas

The following is taken from California Code of Regulations, Title 23, Section 5013.

(a) New residential development of five or more parcels shall be protected through floodproofing to a level 12 inches above the 100-year base flood elevation, plus sufficient

additional elevation to protect against a 55-inch rise in sea level at the Golden Gate, unless the development is located within:

(1) Areas that city or county general plans, as of May 16, 2013, designate for development in cities or their spheres of influence;

(2) Areas within Contra Costa County's 2006 voter-approved urban limit line, except Bethel Island;

(3) Areas within the Mountain House General Plan Community Boundary in San Joaquin County; or

(4) The unincorporated Delta towns of Clarksburg, Courtland, Hood, Locke, Ryde, and Walnut Grove, as shown in Appendix 7.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that involves new residential development of five or more parcels that is not located within the areas described in subsection (a).

4.2.11.1 RR P2 Detailed Findings

As described in *Delta Plan* Policy RR P2, Require Flood Protection for Residential Development in Rural Areas, this policy covers a proposed action that involves new residential development of five or more parcels that is not located within the areas described in California Code of Regulations, Title 23, Section 5013(a). This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not involve new residential development of five or more parcels.

4.2.12 RR P3—Protect Floodways

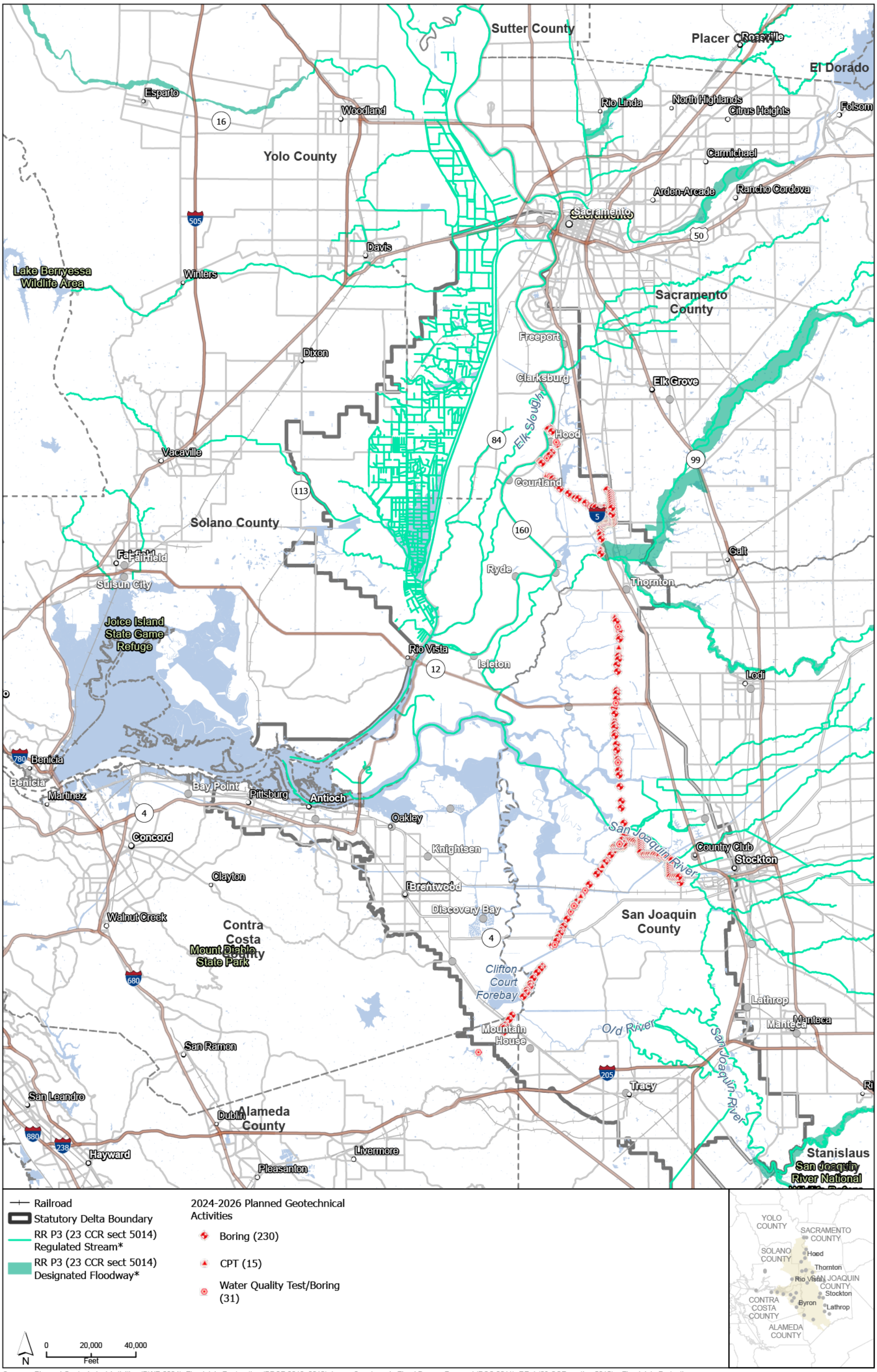
The following is taken from California Code of Regulations, Title 23, Section 5014.

(a) No encroachment shall be allowed or constructed in a floodway, unless it can be demonstrated by appropriate analysis that the encroachment will not unduly impede the free flow of water in the floodway or jeopardize public safety.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in a floodway that is not either a designated floodway or regulated stream.

4.2.12.1 RR P3 Detailed Findings

As described in *Delta Plan* Policy RR P3, Protect Floodways, this policy covers a proposed action that would encroach in a floodway that is not either a designated floodway or regulated stream. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here would not include any in-water work and would not encroach in a floodway that is not either a designated floodway or regulated stream (Figure 5).



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Sources: Planned Geotechnical Activities (DWR 2024); Floodplain Restoration (BDCP 2010, 2012); Lower San Joaquin Flood Bypass Proposal (DSC 2011); RR 4 (23 CCR section 5015) – Floodplain Protection

RR P3 Regulated Floodway & Stream

Figure 5. RR P3 2024-2026 Proposed Geotechnical Activities Overlay Map

Prepared by Crystal Schiffbauer-Bowles;
Reviewed by Connor Block

4.2.13 RR P4—Floodplain Protection

The following is taken from California Code of Regulations, Title 23, Section 5015.

(a) No encroachment shall be allowed or constructed in any of the following floodplains unless it can be demonstrated by appropriate analysis that the encroachment will not have a significant adverse impact on floodplain values and functions:

(1) The Yolo Bypass within the Delta;

(2) The Cosumnes River-Mokelumne River Confluence, as defined by the North Delta Flood Control and Ecosystem Restoration Project (McCormack-Williamson), or as modified in the future by the California Department of Water Resources or the U.S. Army Corps of Engineers (California Department of Water Resources 2010); and

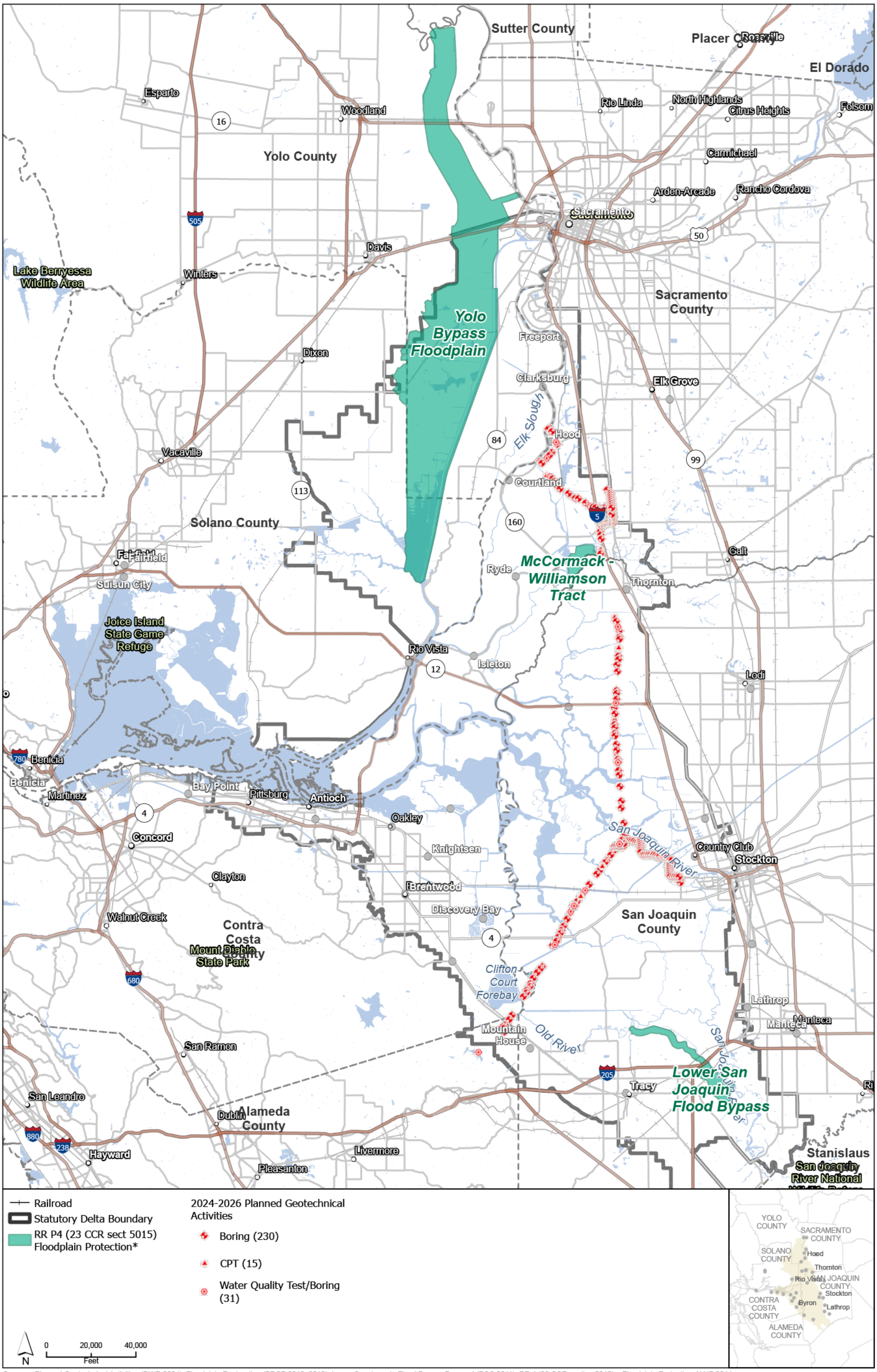
(3) The Lower San Joaquin River Floodplain Bypass area, located on the Lower San Joaquin River upstream of Stockton immediately southwest of Paradise Cut on lands both upstream and downstream of the Interstate 5 crossing. This area is described in the Lower San Joaquin River Floodplain Bypass Proposal, submitted to the California Department of Water Resources by the partnership of the South Delta Water Agency, the River Islands Development Company, Reclamation District 2062, San Joaquin Resource Conservation District, American Rivers, the American Lands Conservancy, and the Natural Resources Defense Council, March 2011. This area may be modified in the future through the completion of this project.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in any of the floodplain areas described in subsection (a).

(c) This policy is not intended to exempt any activities in any of the areas described in subsection (a) from applicable regulations and requirements of the Central Valley Flood Protection Board.

4.2.13.1 RR P4 Detailed Findings

As described in *Delta Plan* Policy RR P4, Floodplain Protection, this policy covers a proposed action that would encroach in any of the floodplain areas described in California Code of Regulations, Title 23, Section 5015(a). This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here would not encroach in any of the floodplain areas described in California Code of Regulations, Title 23, Section 5015(a) (Figure 6).



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Sources: Planned Geotechnical Activities (DWR 2024); Floodplain Restoration (BDCP 2010, 2012); Lower San Joaquin Flood Bypass Proposal (DSC 2011); RR 4 (23 CCR section 5015) – Floodplain Protection; NAIP 2014

Prepared by Crystal Schiffbauer-Bowles;
Reviewed by Connor Block

RR P4 Floodplain Protection
Figure 6. RR P4 2024-2026 Proposed Geotechnical Activities Overlay Map

4.2.14 Conclusion: Step 3 (Article 3 Policies)

The DSC's Covered Action Checklist provides that if the answer to the Step 3 question evaluated above is no, then the proposed action "is not covered by any of the Delta Plan regulatory policies above and therefore [it is] exempt from the Council's regulatory authority [and] NO FURTHER STEPS ARE REQUIRED." Therefore, because the 2024–2026 Proposed Geotechnical Activities are not covered by one or more of the Article 3 regulatory policies evaluated here, the DRA does not require this certification to include an evaluation of the four general Article 2 subdivisions of DSC's regulations.[17]

Nevertheless, for the sake of thoroughness and to err on the side of facilitating the DSC's informed decision-making process, the analysis below additionally considers whether the 2024–2026 Proposed Geotechnical Activities are consistent with the four general Article 2 subdivisions of DSC's regulations.

4.3 Step 4 Summary of Article 2 Consistency Findings

Table 3. G P1 Policies

***Delta Plan* Policy**	**Policy Description**	**Findings**
G P1 (b)(2) Cal. Code Regs., tit. 23, § 5002(b)(2)	Delta Plan Mitigation Measures	Does not apply
G P1 (b)(3) Cal. Code Regs., tit. 23, § 5002(b)(3)	Use of Best Available Science	Does not apply
G P1 (b)(4) Cal. Code Regs., tit. 23, § 5002(b)(4)	Incorporation of Adaptive Management	Does not apply
G P1 (c) Cal. Code Regs., tit. 23, § 5002(c)	Incorporation of Conservation Measures	Does not apply

4.3.1 G P1—Detailed Findings to Establish Consistency with the *Delta Plan*

The following is taken from California Code of Regulations, Title 23, Section 5002.

(a) This policy specifies what must be addressed in a certification of consistency filed by a State or local public agency with regard to a covered action. This policy only applies after a "proposed action" has been determined by a State or local public agency to be a covered action because it is covered by one or more of the regulatory policies contained in Article 3. Inconsistency with this policy may be the basis for an appeal.

(b) Certifications of consistency must include detailed findings that address each of the following requirements:

(1) Covered actions not exempt from CEQA must include applicable feasible mitigation measures identified in the Delta Plan's Program EIR (unless the measure(s) are within

[17] Cal. Code Regs., tit. 23, § 5002(b)(1)–(4).

the exclusive jurisdiction of an agency other than the agency that files the certification of consistency), or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective.

(2) As relevant to the purpose and nature of the project, all covered actions must document use of best available science.

(3) Ecosystem restoration and water management covered actions must include adequate provisions, appropriate to the scope of the covered action, to assure continued implementation of adaptive management. This requirement shall be satisfied through both of the following:

(A) An adaptive management plan that describes the approach to be taken consistent with the adaptive management framework in Appendix 1B, and

(B) Documentation of access to adequate resources and delineated authority by the entity responsible for the implementation of the proposed adaptive management process.

(c) A conservation measure proposed to be implemented pursuant to a natural community conservation plan or a habitat conservation plan that was:

(1) Developed by a local government in the Delta; and

(2) Approved and permitted by the California Department of Fish and Wildlife prior to May 16, 2013 is deemed to be consistent with sections 5005 through 5009 of this Chapter if the certification of consistency filed with regard to the conservation measure includes a statement confirming the nature of the conservation measure from the California Department of Fish and Wildlife.

4.3.1.1 G P1 Detailed Findings

The 2024–2026 Proposed Geotechnical Activities will have no impact on the achievement of the coequal goals or on the implementation of a government-sponsored flood control program and are not covered by one or more of the regulatory policies in Article 3; therefore, DWR does not believe the 2024–2026 Proposed Geotechnical Activities are required to include an assessment of consistency with G P1 (or its sub-policies). Nevertheless, for the sake of thoroughness and to err on the side of facilitating the DSC's informed decision-making process, the analysis below considers the G P1 sub-policies.

4.3.1.2 G P1 (b)(2) Detailed Findings

The 2024–2026 Proposed Geotechnical Activities are consistent with *Delta Plan* Policy G P1 (b)(2) because the 2024–2026 Proposed Geotechnical Activities' environmental commitments and mitigation measures are the same as, equal to, or more effective than the applicable measures identified in the Delta Plan Program Environmental Impact Report (Delta Plan PEIR) at reducing impacts on the environment related to the 2024–2026 Proposed Geotechnical Activities evaluated in the certification of consistency. All of the applicable mitigation measures proposed in the Delta Conveyance Project Final EIR have been adopted and incorporated into the enforceable MMRP for the Delta Conveyance Project.[18] For more information on the specific measures that are applicable

[18] Cal. Code Regs., tit. 23, § 5002(b)(1)–(4).

to, and that will be implemented for, the 2024–2026 Proposed Geotechnical Activities, see the *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan* (Attachment 5). See the section titled *Delta Plan Mitigation Measure Comparison* in this report for a detailed comparison of the 2024–2026 Proposed Geotechnical Activities' environmental commitments and mitigation measures and the corresponding Delta Plan mitigation measures.

The *Delta Plan* and the Delta Conveyance Project are two different individual and separate projects (i.e., a plan vs. a project), and the Delta Plan PEIR broadly evaluates the potential actions that proponents of covered activities could pursue in the Delta. The *Delta Plan* is a long-term management plan for the Delta prepared pursuant to the DRA, which was adopted in 2013 and was last amended in 2024 (Delta Stewardship Council 2013). The Delta Plan PEIR is a programmatic EIR that evaluates the potential effects of the policies and recommendations of the *Delta Plan*, including an evaluation of a broad range of projects that could occur as a result of *Delta Plan* implementation (Delta Stewardship Council 2022b:1-1). The *Delta Plan* and the Delta Conveyance Project have very different scopes and levels of effects on the environment that lead to different mitigation needs. Additionally, the 2024–2026 Proposed Geotechnical Activities include subsurface exploration and testing to help inform the Delta Conveyance Project, but they do not include all of the activities described in Chapter 3, *Description of the Proposed Project and Alternatives,* of the Delta Conveyance Project Final EIR. As such, even if a Delta Plan mitigation measure is applicable to the Delta Conveyance Project, it may not be applicable to the 2024–2026 Proposed Geotechnical Activities.

The section titled *Delta Plan Mitigation Measure Comparison* first considers whether a given Delta Plan impact prompting a specific Delta Plan mitigation measure applies to the 2024–2026 Proposed Geotechnical Activities; then it considers whether that impact is significant for the 2024–2026 Proposed Geotechnical Activities. If the impact is potentially significant, the discussion provides more details on which Delta Conveyance Project Final EIR mitigation measures apply to that impact as well as a determination of whether they are equal to or more effective than the applicable portions of the corresponding Delta Plan mitigation measure. Due to the programmatic nature of the analysis in the Delta Plan PEIR, which considered potential types and locations of reasonably foreseeable actions (e.g., covered actions) that may be proposed in the Delta, it can be expected that the PEIR will identify mitigation measures that are not applicable to some projects. Not all proposed projects required to evaluate consistency with the *Delta Plan* will include every component considered in the impact analysis in the Delta Plan PEIR. This certification evaluates only the 2024–2026 Proposed Geotechnical Activities. Therefore, the Delta Conveyance Project Final EIR may identify impacts for which there are applicable Delta Plan mitigation measures, but when considering just the 2024–2026 Proposed Geotechnical Activities, no impact is likely to occur and therefore the Delta Plan mitigation measure does not apply. Where applicable, the discussion identifies potentially significant impacts of the Delta Conveyance Project evaluated in the Final EIR but explains why DWR does not identify the 2024–2026 Proposed Geotechnical Activities as a contributor to the impact.

Delta Plan Mitigation Measure Comparison

Delta Plan Resource Area: Water Resources

Delta Plan impact: Violate Any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Water Quality

Delta Plan Mitigation Measure: 3-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in no impact (Impact WQ-17), a less-than-significant impact (Impacts WQ-1 through WQ-5, and WQ-7 through WQ-16) and a less-than-significant impact with mitigation (Impact WQ-6) on water quality.

The 2024–2026 Proposed Geotechnical Activities do not contribute to the potentially significant impact identified in the analyses for Impact WQ-6 and do not require implementation of Delta Conveyance Project Mitigation Measures WQ-4: *Contra Costa Water District Interconnection Facility* and WQ-6: *Develop and Implement a Mercury Management and Monitoring Plan* because—as discussed in Attachment 4, *2024–2026 Proposed Geotechnical Activities—Evaluation of Consistency with the Delta Conveyance Project's Final EIR* (Evaluation of Consistency memo), and in Attachment 5, *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan*—the 2024–2026 Proposed Geotechnical Activities will not take place at the Contra Costa Water District Interconnection facility and will not involve the design or construction of the Compensatory Mitigation Plan.

The 2024–2026 Proposed Geotechnical Activities do not involve construction activities associated with terrestrial or aquatic facilities construction, construction preparation, or other general construction activities, including dewatering. Additionally, the 2024–2026 Proposed Geotechnical Activities will not involve overwater activities. The 2024–2026 Proposed Geotechnical Activities are temporary, involve a minimal footprint, and are used to inform project planning; and although geotechnical activities will not affect in-river water quality, DWR will implement Delta Conveyance Project Environmental Commitments EC-2: *Develop and Implement Hazardous Materials Management Plans* and EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans* as part of the general geotechnical activities Health and Safety Plan (Delta Conveyance Design and Construction Authority 2024) to reduce the likelihood of contamination during field investigation activities.

The 2024–2026 Proposed Geotechnical Activities are comparatively short-term and temporary, and they are typically within a small footprint; when completed, holes will be sealed using cement-bentonite grout in accordance with State of California regulations and industry standards to ensure that groundwater water quality will not be contaminated by the borings in a way that would cause surface water quality to be substantially degraded. Therefore, impacts to the specific constituents evaluated in the Final EIR water quality impacts analysis will not occur and no mitigation is required.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 3-1. Therefore, Delta Plan Mitigation Measure 3-1 is not applicable to the 2024–2026 Proposed Geotechnical

Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 3-1 is not required.

Delta Plan Impact: Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge

Delta Plan Mitigation Measure: 3-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts with mitigation (Impacts GW-1 through GW-5) and less-than-significant impacts (Impacts GW-6 through GW-7) on groundwater.

The 2024–2026 Proposed Geotechnical Activities will include water quality testing in boreholes. A steady-state pumping test may occur for up to 4 hours at a flow rate selected to prevent dewatering and resulting in pump cavitation. (The 4-hour duration is specific to the 2024–2026 Proposed Geotechnical Activities; the Potential Future Field Investigations—Bethany Reservoir Alternative technical memorandum [Delta Conveyance Design and Construction Authority 2022] includes up to 10 days in duration. The flow rate would be up to 50 gallons per minute [gpm] specifically for 2024–2026 Proposed Geotechnical Activities; the Potential Future Field Investigations technical memorandum gave up to 1,500 gpm.) A period equal to the pumping test would follow the pumping test, during which the water level would be allowed to recover to the pre-pumping level. Water levels before, during, and following the various tests would be monitored using automated data loggers.

The 2024–2026 Proposed Geotechnical Activities will not involve facility construction, dewatering activities (a potential cause of subsidence in certain soil types and formations and a potential cause of water quality degradation), installation of slurry cut-off walls (a potential cause for groundwater elevation increases) or sheet piles; the activities are temporary with a minimal footprint, and they do not constitute Delta Conveyance Project operations. As such, the 2024–2026 Proposed Geotechnical Activities do not require implementation of Delta Conveyance Project Mitigation Measures GW-1: *Maintain Groundwater Supplies in Affected Areas* and GW-5: *Reduce Potential Increases in Groundwater Elevations Near Project Intake Facilities*. When geotechnical activities are completed, holes will be sealed using cement-bentonite grout in accordance with State of California regulations and industry standards. Therefore, the 2024–2026 Proposed Geotechnical Activities will not affect stream gains or losses, impact elevations, or impact groundwater levels of supply wells, and no mitigation is required.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 3-2. Therefore, Delta Plan Mitigation Measure 3-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 3-2 is not required.

Delta Plan Resource Area: Biological Resources

Delta Plan Impact: Substantial Adverse Effects on Sensitive Natural Communities, including Wetlands and Riparian Habitat

Delta Plan Mitigation Measure: 4-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in no impact (Impact BIO-6), a less-than-significant impact (Impact BIO-52), and less-than-significant impacts with mitigation (Impacts BIO-1 through BIO-5, Impact BIO-7, and Impact BIO-8) on sensitive natural communities.

The 2024–2026 Proposed Geotechnical Activities do not require implementation of Delta Conveyance Project Mitigation Measures CMP: *Compensatory Mitigation Plan*, BIO-2b: *Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities*, and BIO-2c: *Electrical Power Line Support Placement* because, as discussed in the Evaluation of Consistency memo (Attachment 4), the geotechnical activities will not involve construction or placement of powerlines, will avoid take of listed species and habitat loss, and will not involve surface disturbance that would disrupt terrestrial wildlife connectivity and movement and because the investigations will not involve maintenance activities.

Terrestrial biological resources may be temporarily impacted by the 2024–2026 Proposed Geotechnical Activities. To avoid, minimize, or reduce impacts to the terrestrial biological resources analyzed in the Final EIR, DWR will employ applicable environmental commitments and mitigation measures to reduce potential impacts. Specific compliance with Environmental Commitments EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plans*, EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans*, and EC-14: *Construction Best Management Practices for Biological Resources* would reduce potential impacts as described in the *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan* (Attachment 5) by (1) training construction staff on protecting sensitive biological resources, reporting requirements, and the ramifications for not following these measures; (2) implementing spill prevention and containment plans that would avoid material spills that could affect the viability of nearby aquatic and upland habitat; (3) having a biological monitor present to ensure that non-disturbance buffers and all other protective measures are being implemented, where applicable; and (4) avoiding impacts to biological resources by moving investigation locations or abandoning a site altogether.

In addition, the study area contains both aquatic and terrestrial plant species that have been designated as invasive plants or noxious weeds. Although these two descriptive terms are sometimes used interchangeably, it is important to note that there are implications associated with the use of each term. The term *noxious weed* is a designation used by government agencies, such as the U.S. Department of Agriculture and the California Department of Food and Agriculture, for plant species that have been identified as pests by law or regulation. Species labeled *invasive plants* may be considered as such from a scientific perspective because of their ability to spread to areas that are far from their point of introduction. Plant species can also be identified as invasive through recognition by nongovernmental organizations, such as the California Invasive Plant Council (Cal-IPC), which maintains a list of invasive plants that threaten

California's wildlands. The study area does not contain any known populations of noxious weeds identified by the U.S. Department of Agriculture (Final EIR Chapter 13, *Terrestrial Biological Resources*, Section 13.1.5.1, *Definitions*). However, invasive plant species as identified by Cal-IPC are present in all of the natural communities and agricultural areas in the study area (Final EIR Chapter 13, Section 13.1.5.3, *Invasive Plant Species in Natural Communities*). For the 2024–2026 Proposed Geotechnical Activities, those invasive plant species that likely affect the natural communities in the study area primarily include perennial pepperweed, yellow star-thistle, medusahead, purple star-thistle, bar goatgrass, Italian ryegrass, Italian thistle, wild radish, bindweed, fennel, field mustard, and Bermuda grass.

The discussion of Impact BIO-52 evaluates potential impacts of invasive species resulting from construction activities, including geotechnical activities, on established vegetation (Final EIR Chapter 13, pp. 13-432 through 13-435). The removal of established vegetation can create opportunities for the introduction and spread of invasive and noxious plant species into the study area. However, opportunities for the introduction and spread of invasive and noxious plant species are directly proportional to the level of disturbance associated with the activity (Final EIR Chapter 13, p. 13-432). As such, the 2024–2026 Proposed Geotechnical Activities will consist of minor disturbances such as mowing, removal of a few tree limbs, and trimming of bushes for site access, along with driving to and from the activity location and boring into the soil. These minor disturbances would be further minimized by the requirement that the sites be restored to as close to pre-project conditions as possible directly following the completion of the field investigation activity. Furthermore, the Delta Conveyance Project includes environmental commitments and BMPs set forth in Final EIR Appendix 3B, *Environmental Commitments and Best Management Practices*. As previously described, these requirements include EC-14, which requires a biological monitor be present during the geotechnical activities. As a BMP—consistent with the requirement that the on-site biologist ensure protective measures are being implemented as intended for the protection of special-status species, natural communities, and the environment in general (Final EIR Appendix 3B, p. 3B-26)—measures will be implemented for the protection of special-status fish, wildlife, and plant species and their habitats. These measures will include the requirement that all equipment used during geotechnical activities will be cleaned and inspected by the qualified biologist for terrestrial invasive plant and animal species prior to entering the work areas and before moving between work areas (Final EIR Appendix 3B, p. 3B-29). Consistent with Cal-IPC recommendations, tools used for equipment cleaning would include brushes, brooms, a scraper, an air compressor, a vacuum, or other hand tools (California Invasive Plant Council 2012).Prior to entering a new site, equipment will be washed at an off-site commercial facility or returned to the company yard for cleaning if the qualified biologist determines that equipment washing is warranted after the on-site equipment cleaning (California Invasive Plant Council 2012).

In consideration of the minimal footprint for each geological activity, DWR will restore the temporarily disturbed areas and inspect and clean equipment before entering new areas so that the potential for the geotechnical activities to introduce or improve habitat conditions for invasive plants would be less than significant. The Final EIR identifies this as a potential project impact and identifies geotechnical activities as a contributor to this impact. The 2024–2026 Proposed Geotechnical Activities will be temporary, will have a minimal footprint, have been sited to avoid areas such as wetlands, only have the potential for minimal vegetation removal (mowing or trimming of limbs for safety and access reasons), and would not result in the permanent loss of sensitive natural communities.

Delta Plan Mitigation Measure 4-1 includes measures to avoid, minimize, and compensate for reduction in area or habitat quality of sensitive natural communities. These measures consider site selection, design, restoration planning, construction BMPs, and invasive species management. Implementation of Delta Conveyance Project Environmental Commitments EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plans*, EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans*, and EC-14: *Construction Best Management Practices for Biological Resources* include measures regarding construction BMPs, including invasive species considerations. All of the following Delta Conveyance Project mitigation measures consider site selection, design, and restoration planning to avoid, minimize, and compensate for reduction in area or habitat quality of sensitive natural communities.

- Mitigation Measure BIO-2a: *Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants*
- Mitigation Measure BIO-14: *Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp*
- Mitigation Measure BIO-18: *Avoid and Minimize Impacts on Valley Elderberry Longhorn Beetle*
- Mitigation Measure BIO-21: *Avoid and Minimize Impacts on Crotch Bumble Bees*
- Mitigation Measure BIO-22a: *Avoid and Minimize Impacts on California Tiger Salamander*
- Mitigation Measure BIO-23: *Avoid and Minimize Impacts on Western Spadefoot Toad*
- Mitigation Measure BIO-24a: *Avoid and Minimize Impacts on California Red-Legged Frog and Critical Habitat*
- Mitigation Measure BIO-25: *Avoid and Minimize Impacts on Western Pond Turtle*
- Mitigation Measure BIO-26: *Avoid and Minimize Impacts on Special-Status Reptiles*
- Mitigation Measure BIO-30: *Avoid and Minimize Impacts on Giant Garter Snake*
- Mitigation Measure BIO-31: *Avoid and Minimize Impacts on Western Yellow-Billed Cuckoo*
- Mitigation Measure BIO-32: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of California Black Rail*
- Mitigation Measure BIO-33: *Avoid and Minimize Disturbance of Sandhill Cranes*
- Mitigation Measure BIO-34: *Avoid California Least Tern Nesting Colonies and Minimize Indirect Effects on Colonies*
- Mitigation Measure BIO-35: *Avoid and Minimize Impacts on Cormorant, Heron, and Egret Rookeries*
- Mitigation Measure BIO-36a: *Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Raptors and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors*
- Mitigation Measure BIO-36b: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of White-Tailed Kite*

- Mitigation Measure BIO-37: *Conduct Surveys for Golden Eagle and Avoid Disturbance of Occupied Nests*
- Mitigation Measure BIO-39: *Conduct Preconstruction Surveys and Implement Protective Measures to Minimize Disturbance of Swainson's Hawk*
- Mitigation Measure BIO-40: *Conduct Surveys and Minimize Impacts on Burrowing Owl*
- Mitigation Measure BIO-42: *Conduct Surveys and Minimize Impacts on Least Bell's Vireo*
- Mitigation Measure BIO-44: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of Tricolored Blackbird*
- Mitigation Measure BIO-45b: *Avoid and Minimize Impacts on Roosting Bats*
- Mitigation Measure BIO-46: *Conduct Preconstruction Survey for San Joaquin Kit Fox and Implement Avoidance and Minimization Measures*
- Mitigation Measure BIO-47: *Conduct Preconstruction Survey for American Badger*

Implementation of the previously mentioned Delta Conveyance Project environmental commitments and mitigation measures is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 4-1.

Delta Plan Impact: Substantial Adverse Effects on Special-Status Species

Delta Plan Mitigation Measure: 4-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts with mitigation (Impacts AQUA-1 through AQUA-7 and AQUA-20) and less-than-significant impacts (Impacts AQUA-8 through AQUA-19). However, as the 2024–2026 Proposed Geotechnical Activities will not involve in-water or over-water activities, potential impacts on fish and aquatic resources are less than significant without mitigation for these activities. Therefore, the associated Delta Conveyance Project mitigation measures relevant to fish and aquatic resources do not apply to the 2024–2026 Proposed Geotechnical Activities.

The Final EIR also concludes the Delta Conveyance Project will result in less-than-significant impacts with mitigation (Impacts BIO-9 through BIO-14, BIO-16, BIO-18, BIO-20 through BIO-42, and BIO-44 through BIO-48) and no impacts (Impacts BIO-15, BIO-17, BIO-19, BIO-43, BIO-49, and BIO-50) on special-status species.

Terrestrial biological resources may be temporarily impacted by the 2024–2026 Proposed Geotechnical Activities. To avoid, minimize, or reduce impacts to the terrestrial biological resources analyzed in the Final EIR, DWR will employ applicable environmental commitments and mitigation measures that reduce potential impacts. Specific compliance with EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plans*, EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans*, and EC-14: *Construction Best Management Practices for Biological Resources* (among other commitments) would reduce potential impacts as described in the *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan* (Attachment 5) by (1) training construction staff on protecting sensitive biological resources, reporting requirements, and the ramifications for not following these

measures; (2) implementing spill prevention and containment plans that would avoid material spills that could affect the viability of nearby aquatic and upland habitat; (3) having a biological monitor present to ensure that non-disturbance buffers and all other protective measures are being implemented, where applicable; and (4) avoiding impacts to biological resources by moving investigation locations or abandoning a site altogether.

The 2024–2026 Proposed Geotechnical Activities do not require implementation of Delta Conveyance Project Mitigation Measures CMP: *Compensatory Mitigation Plan*, BIO-2b: *Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities*, BIO-2c: *Electrical Power Line Support Placement*, BIO-22b: *Avoid and Minimize Operational Traffic Impacts on Wildlife*, BIO-24b: *Compensate for Impacts on California Red-Legged Frog Habitat Connectivity*, BIO-45a: *Compensate for the Loss of Bat Roosting Habitat on Bridges and Overpasses*, AES-4b: *Minimize Fugitive Light from Portable Sources Used for Construction*, and AES-4c: *Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences* because, as discussed in the Evaluation of Consistency memo (Attachment 4), the geotechnical activities will not involve construction or placement of powerlines, will only take place in the daytime (will not require lighting), will avoid take of listed species and habitat loss, and will not involve surface disturbance that would disrupt terrestrial wildlife connectivity and movement and because the investigations will not involve maintenance activities.

The 2024–2026 Proposed Geotechnical Activities will be temporary, will have a minimal footprint, have been sited to avoid areas such as wetlands, only have the potential for minimal vegetation removal (mowing or trimming of limbs for safety and access reasons), and would not result in the permanent loss of sensitive natural communities.

Delta Plan Mitigation Measure 4-2 includes avoiding habitats of special-status species both spatially and temporally, conducting surveys, establishing buffers, construction monitoring, relocating special-status species (when necessary), and compensating for impacts. As discussed, the 2024–2026 Proposed Geotechnical Activities will avoid take of listed species and habitat loss and will not require relocation of listed species or compensatory mitigation for impacts to special-status species. Implementation of Delta Conveyance Project Environmental Commitments EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plans*, EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans*, and EC-14: *Construction Best Management Practices for Biological Resources* include BMPs regarding general avoidance, buffers, and monitoring. The following Delta Conveyance Project mitigation measures include species-specific commitments regarding spatially and temporally avoiding habitat of special-status species, conducting surveys, establishing buffers, and monitoring construction.

- Mitigation Measure BIO-2a: *Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants*
- Mitigation Measure BIO-14: *Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp*
- Mitigation Measure BIO-18: *Avoid and Minimize Impacts on Valley Elderberry Longhorn Beetle*
- Mitigation Measure BIO-21: *Avoid and Minimize Impacts on Crotch Bumble Bees*
- Mitigation Measure BIO-22a: *Avoid and Minimize Impacts on California Tiger Salamander*

- Mitigation Measure BIO-23: *Avoid and Minimize Impacts on Western Spadefoot Toad*
- Mitigation Measure BIO-24a: *Avoid and Minimize Impacts on California Red-Legged Frog and Critical Habitat*
- Mitigation Measure BIO-25: *Avoid and Minimize Impacts on Western Pond Turtle*
- Mitigation Measure BIO-26: *Avoid and Minimize Impacts on Special-Status Reptiles*
- Mitigation Measure BIO-30: *Avoid and Minimize Impacts on Giant Garter Snake*
- Mitigation Measure BIO-31: *Avoid and Minimize Impacts on Western Yellow-Billed Cuckoo*
- Mitigation Measure BIO-32: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of California Black Rail*
- Mitigation Measure BIO-33: *Avoid and Minimize Disturbance of Sandhill Cranes*
- Mitigation Measure BIO-34: *Avoid California Least Tern Nesting Colonies and Minimize Indirect Effects on Colonies*
- Mitigation Measure BIO-35: *Avoid and Minimize Impacts on Cormorant, Heron, and Egret Rookeries*
- Mitigation Measure BIO-36a: *Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Raptors and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors*
- Mitigation Measure BIO-36b: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of White-Tailed Kite*
- Mitigation Measure BIO-37: *Conduct Surveys for Golden Eagle and Avoid Disturbance of Occupied Nests*
- Mitigation Measure BIO-39: *Conduct Preconstruction Surveys and Implement Protective Measures to Minimize Disturbance of Swainson's Hawk*
- Mitigation Measure BIO-40: *Conduct Surveys and Minimize Impacts on Burrowing Owl*
- Mitigation Measure BIO-42: *Conduct Surveys and Minimize Impacts on Least Bell's Vireo*
- Mitigation Measure BIO-44: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of Tricolored Blackbird*
- Mitigation Measure BIO-45b: *Avoid and Minimize Impacts on Roosting Bats*
- Mitigation Measure BIO-46: *Conduct Preconstruction Survey for San Joaquin Kit Fox and Implement Avoidance and Minimization Measures*
- Mitigation Measure BIO-47: *Conduct Preconstruction Survey for American Badger*

Implementation of the previously mentioned Delta Conveyance Project environmental commitments and mitigation measures is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 4-2.

Delta Plan Impact: Substantial Adverse Effects on Fish or Wildlife Species Habitat

Delta Plan Mitigation Measure: 4-3

2024–2026 Proposed Geotechnical Activities Assessment

See the previous discussion for Delta Plan Mitigation Measures 4-1 and 4-2. The Delta Conveyance Project impacts referenced in the those discussions also considered potential adverse effects on fish or wildlife species habitat.

Delta Plan Mitigation Measure 4-3 includes site selection and design for avoidance of substantial reductions in fish and wildlife habitat as well as compensation for loss of fish and wildlife habitat. Implementation of the Delta Conveyance Project environmental commitments and mitigation measures referenced in the previous discussions of Delta Plan Mitigation Measures 4-1 and 4-2 is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 4-3.

Delta Plan Impact: Interfere Substantially with the Movement of Any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors

Delta Plan Mitigation Measure: 4-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact BIO-53) on migration and wildlife corridors.

Terrestrial biological resources may be temporarily impacted by the 2024–2026 Proposed Geotechnical Activities. To avoid, minimize, or reduce impacts to the terrestrial biological resources analyzed in the Final EIR, DWR will employ applicable environmental commitments and mitigation measures that reduce potential impacts. Specific compliance with EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plans*, EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans*, and EC-14: *Construction Best Management Practices for Biological Resources* (among other commitments) would reduce potential impacts as described in the *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan* (Attachment 5) by (1) training construction staff on protecting sensitive biological resources, reporting requirements, and the ramifications for not following these measures; (2) implementing spill prevention and containment plans that would avoid material spills that could affect the viability of nearby aquatic and upland habitat; (3) having a biological monitor present to ensure that non-disturbance buffers and all other protective measures are being implemented, where applicable; and (4) avoiding impacts to biological resources by moving investigation locations or abandoning a site altogether.

The 2024–2026 Proposed Geotechnical Activities do not require implementation of Delta Conveyance Project Mitigation Measures CMP: *Compensatory Mitigation Plan*, BIO-2b: *Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities*, BIO-22b: *Avoid and Minimize Operational Traffic Impacts on Wildlife*, AES-4b: *Minimize Fugitive Light from Portable Sources Used for Construction*, and AES-4c: *Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences* for Impact BIO-53 because, as discussed in the Evaluation of Consistency memo (Attachment 4), the

geotechnical activities will not involve construction or placement of powerlines, will only take place in the daytime (will not require lighting), will avoid take of listed species and habitat loss, and will not involve surface disturbance that would disrupt terrestrial wildlife connectivity and movement and because the investigations will not involve maintenance activities.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 4-4. Therefore, Delta Plan Mitigation Measure 4-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 4-4 is not required.

Delta Plan Impact: Conflict with Any Local Policies or Ordinances Protecting Biological Resources or the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Protection Plan

Delta Plan Mitigation Measure: 4-5

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts with mitigation (Impact BIO-54 and Impact BIO-55) on local policies or ordinances protecting biological resources or the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat protection plan.

Terrestrial biological resources may be temporarily impacted by the 2024–2026 Proposed Geotechnical Activities. To avoid, minimize, or reduce impacts to the terrestrial biological resources analyzed in the Final EIR, employing applicable environmental commitments and mitigation measures will reduce potential impacts. Specific compliance with Environmental Commitments EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plan*s, EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans*, and EC-14: *Construction Best Management Practices for Biological Resources* (among other commitments) would reduce potential impacts as described in the *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan* (Attachment 5) by (1) training construction staff on protecting sensitive biological resources, reporting requirements, and the ramifications for not following these measures; (2) implementing spill prevention and containment plans that would avoid material spills that could affect the viability of nearby aquatic and upland habitat; (3) having a biological monitor present to ensure that non-disturbance buffers and all other protective measures are being implemented, where applicable; and (4) avoiding impacts to biological resources by moving investigation locations or abandoning a site altogether.

The 2024–2026 Proposed Geotechnical Activities do not require implementation of Delta Conveyance Project Mitigation Measures CMP: *Compensatory Mitigation Plan* or AG-1: *Preserve Agricultural Land* for Impacts BIO-54 and BIO-55 because, as discussed in the Evaluation of Consistency memo (Attachment 4), the geotechnical activities will not involve construction or maintenance, will avoid take of listed species and habitat loss, and will not permanently convert Important Farmland.

Delta Plan Mitigation Measure 4-5 states that prior to construction, the project proponent will evaluate impacts to trees or other biological resources protected by local policies and ordinances and abide by any permit requirements associated with these policies and ordinances. The following Delta Conveyance Project mitigation measures are meant to reduce, avoid, or minimize construction impacts on special-status species habitat as analyzed in Final EIR Chapter 13, *Terrestrial Biological Resources*, and therefore are not expected to conflict with local policies or ordinances protecting biological resources.

- Mitigation Measure BIO-2a: *Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants*
- Mitigation Measure BIO-14: *Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp*
- Mitigation Measure BIO-18: *Avoid and Minimize Impacts on Valley Elderberry Longhorn Beetle*
- Mitigation Measure BIO-22a: *Avoid and Minimize Impacts on California Tiger Salamander*
- Mitigation Measure BIO-24a: *Avoid and Minimize Impacts on California Red-Legged Frog and Critical Habitat*
- Mitigation Measure BIO-25: *Avoid and Minimize Impacts on Western Pond Turtle*
- Mitigation Measure BIO-26: *Avoid and Minimize Impacts on Special-Status Reptiles*
- Mitigation Measure BIO-30: *Avoid and Minimize Impacts on Giant Garter Snake*
- Mitigation Measure BIO-31: *Avoid and Minimize Impacts on Western Yellow-Billed Cuckoo*
- Mitigation Measure BIO-32: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of California Black Rail*
- Mitigation Measure BIO-33: *Avoid and Minimize Disturbance of Sandhill Cranes*
- Mitigation Measure BIO-35: *Avoid and Minimize Impacts on Cormorant, Heron, and Egret Rookeries*
- Mitigation Measure BIO-36a: *Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Raptors and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors*
- Mitigation Measure BIO-36b: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of White-Tailed Kite*
- Mitigation Measure BIO-39: *Conduct Preconstruction Surveys and Implement Protective Measures to Minimize Disturbance of Swainson's Hawk*
- Mitigation Measure BIO-40: *Conduct Surveys and Minimize Impacts on Burrowing Owl*
- Mitigation Measure BIO-44: *Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of Tricolored Blackbird*
- Mitigation Measure BIO-47: *Conduct Preconstruction Survey for American Badger*

Implementation of the Delta Conveyance Project mitigation measures referenced previously is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 4-5.

Delta Plan Resource Area: Delta Flood Risk

Delta Plan Impact: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner which would Result in Flooding On- or Off-site

Delta Plan Mitigation Measure: 5-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact FP-2) on flood protection.

The 2024–2026 Proposed Geotechnical Activities do not involve excavation, grading, or stockpiling that could have the potential to block, reroute, or temporarily detain and impound surface water in existing drainages and velocities. The 2024–2026 Proposed Geotechnical Activities, therefore, not cause alterations in drainage patterns or impact flood protection.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 5-1. Therefore, Delta Plan Mitigation Measure 5-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 5-1 is not required.

Delta Plan Impact: Create or Contribute Runoff Water which would Exceed the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Substantial Additional Sources of Polluted Runoff

Delta Plan Mitigation Measure: 5-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts (Impact FP-2, Impact WQ-16, Impact PH-2, Impact PH-3, and Impact PH-5) associated with runoff water, drainage systems, water quality, and polluted runoff.

With regard to Delta Conveyance Project Impact FP-2, the 2024–2026 Proposed Geotechnical Activities do not involve excavation, grading, or stockpiling that could have the potential to block, reroute, or temporarily detain and impound surface water in existing drainages and velocities. The 2024–2026 Proposed Geotechnical Activities would, therefore, not cause alterations in drainage patterns or impact flood protection.

With regard to Delta Conveyance Project Impact WQ-16, geotechnical activities are comparatively short-term and temporary, and they are typically within a small footprint; when completed, holes will be sealed using cement-bentonite grout in accordance with State of California regulations and industry standards to ensure that groundwater water quality will not be contaminated by the borings in a way that would cause surface water quality to be substantially degraded. Therefore, impacts to the specific constituents evaluated in the Final EIR water quality impacts analysis will not occur because of the 2024–2026 Proposed Geotechnical Activities.

With regard to Delta Conveyance Project Impact PH-2, Impact PH-3, and Impact PH-5, ground-disturbing activities as part of 2024–2026 Proposed Geotechnical Activities or exposure of disturbed sites immediately following geotechnical activities could result in precipitation-related soil erosion and runoff to surface waterbodies in the study area. Any existing trace metals, pesticides, other contaminants, or organic matter in the soil could incrementally increase concentrations in surface water. However, this potential effect on water quality would be temporary and fairly localized to areas of construction. The development and implementation of site-specific erosion and sediment control plans (Delta Conveyance Project Environmental Commitment EC-4a: *Develop and Implement Erosion and Sediment Control Plans*) for the 2024–2026 Proposed Geotechnical Activities would minimize the potential for this impact by controlling erosion and runoff to surface water and ensure that activities would not substantially increase or substantially mobilize legacy organochlorine pesticides or methylmercury during the geotechnical activities. The 2024–2026 Proposed Geotechnical Activities will not occur over water and thus will not contribute to an increase in cyanobacterial harmful algal blooms (CHABs). The 2024–2026 Proposed Geotechnical Activities do not involve facilities management. For these reasons, the impact of 2024–2026 Proposed Geotechnical Activities is less than significant because they do not have the potential to create or contribute to runoff that would exceed capacity of existing stormwater systems or to create a substantial additional source of polluted runoff.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 5-2. Therefore, Delta Plan Mitigation Measure 5-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 5-2 is not required.

Delta Plan Impact: Expose People or Structures to a Significant Risk of Loss, Injury or Death Involving Flooding, Including Flooding as a Result of the Failure of a Levee or Dam

Delta Plan Mitigation Measure: 5-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact GEO-5) regarding the loss of property, personal injury, or death from structural failure resulting from project-related ground motions.

The 2024–2026 Proposed Geotechnical Activities will not introduce very-high-pressure fluids into the ground. During geotechnical drilling, the downhole drilling fluid pressures are limited to those required to balance the soil and water pressures at depths less than 200 feet, typically less than 150 pounds per square inch (psi). (Less than 25 psi of additional pressure could be exerted by increasing boring depths by 50 feet.) In contrast, downhole drilling fluid pressures used to stimulate oil and gas production often exceed 9,000 psi.

The 2024–2026 Proposed Geotechnical Activities would occur in areas subject to ground shaking. However, because the investigators would not be working in structures, the likelihood of an injury caused by a strong earthquake event occurring while the investigations are being conducted is low; and because the investigation activities would not trigger an earthquake, the investigations are unlikely to cause a loss of property, personal injury, or death from strong earthquake-induced ground shaking. Given the infrequency of strong ground shaking in the

project area, the likelihood that earthquake-induced liquefaction would occur at the time that personnel are conducting geotechnical activities is low. Further, the personnel would not be in any structures during the investigations; therefore, they would not be subject to liquefaction-induced structural hazards and damage should a strong earthquake occur.

The 2024–2026 Proposed Geotechnical Activities would involve a variety of ground-disturbing activities. However, none of these activities are likely to cause an increase in the hazard settlement or slope failure. Geotechnical activities would involve conducting geotechnical investigations along the alignments for the intakes, tunnels, shafts, levees, rail, powerlines, asphalt overlays, and roadways. The soil borings would be drilled to create a 4-to-8-inch-diameter hole from which soil samples would be recovered. The CPTs would involve hydraulically pressing a 1-to-2-inch-diameter cone-tipped rod into the ground. The water quality testing would involve installing a temporary PVC pipe within the borehole. The PVC pipe will be up to 4 inches in diameter and will be slotted over an interval up to 40 feet in length. The remainder of the PVC pipe will be solid wall. The annular space between the boring and the slotted interval of the PVC pipe will be backfilled with commercially available well pack sand and gravel, while the solid wall section will be backfilled with bentonite to the surface. Based on DWR's 30 years of well drilling and deep-soil investigations in the Delta, none of the investigations are likely to cause a ground vibration sufficiently strong enough to initiate liquefaction or ground settlement. The 2024–2026 Proposed Geotechnical Activities would, therefore, result in a less-than-significant impact regarding the loss of property, personal injury, or death from structural failure resulting from project-related ground motions.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 5-4. Therefore, Delta Plan Mitigation Measure 5-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 5-4 is not required.

Delta Plan Impact: Place within a 100-Year Flood Hazard Area Structures which Would Impede or Redirect Flood Flows, or Inundation by Seiche, Tsunami, or Mudflow

Delta Plan Mitigation Measure: 5-5

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact GEO-6) on geology and seismicity. The 2024–2026 Proposed Geotechnical Activities would not increase the hazard of a seiche or tsunami occurring in the project area because the locations of the geotechnical activities would not be sufficient to generate seiche waves and are beyond the reach of tsunami waves. The 2024–2026 Proposed Geotechnical Activities would, therefore, result in a less-than-significant impact regarding loss of property, personal injury, or death from seiche or tsunami.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 5-5. Therefore, Delta Plan Mitigation Measure 5-5 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 5-5 is not required.

Delta Plan Resource Area: Land Use and Planning

Delta Plan Impact: Physical Division of an Established Community

Delta Plan Mitigation Measure: 6-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in no impact (Impact LU-3) on physical division of an established community. The 2024–2026 Proposed Geotechnical Activities may temporarily interfere with the existing land uses, such as agricultural operations, in the vicinity where sampling is taking place. Field investigation work is not expected to result in a change to the underlying land use of any properties because all affected areas would be returned to as close to pre-activity conditions as possible. Similarly, the 2024–2026 Proposed Geotechnical Activities would not result in permanent incompatibilities with land use plans, policies, or designations, nor would investigations result in the permanent conversion of lands to another land use. Activities such as the geotechnical activities are generally allowed in all land use designations by policy and regulation. They also would be compatible with the applicable land use policies in the study area that have been adopted to avoid and mitigate environmental effects.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 6-1. Therefore, Delta Plan Mitigation Measure 6-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 6-1 is not required.

Delta Plan Impact: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Delta Plan Mitigation Measure: 6-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact LU-2) on land use and planning. The 2024–2026 Proposed Geotechnical Activities may temporarily interfere with the existing land uses, such as agricultural operations, in the vicinity where sampling is taking place. The 2024–2026 Proposed Geotechnical Activities are not expected to result in a change to the underlying land use of any properties, because all affected areas would be returned to as close to pre-activity conditions as possible. Similarly, the 2024–2026 Proposed Geotechnical Activities would not result in permanent incompatibilities with land use plans, policies, or designations, nor would investigations result in the permanent conversion of lands to another land use. Activities such as the geotechnical activities are generally allowed in all land use designations by policy and regulation. They also would be compatible with the applicable land use policies in the study area that have been adopted to avoid and mitigate environmental effects. The 2024–2026 Proposed Geotechnical Activities would, therefore, result in a less-than-significant impact regarding incompatibility with applicable land use designations, goals, and policies adopted for the purpose of avoiding or mitigating environmental effects as a result of the activities.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 6-2. Therefore, Delta Mitigation Measure 6-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 6-2 is not required.

Delta Plan Resource Area: Agriculture and Forestry Resources

Delta Plan Impact: Conversion of Farmland to Nonagricultural Use

Delta Plan Mitigation Measure: 7-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact AG-1) on conversion of farmland to nonagricultural use. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on agricultural land would be less than significant, as the geotechnical activities will not convert Important Farmland, land subject to Williamson Act contract, or land in Farmland Security Zones. As the 2024–2026 Proposed Geotechnical Activities will have a less-than-significant impact, Delta Conveyance Project Mitigation Measure AG-1: *Preserve Agricultural Land* is not applicable.

The 2024–2026 Proposed Geotechnical Activities may have temporary impacts on existing agricultural lands. The geotechnical activities analyzed under this resource in the Final EIR include geotechnical and hydrogeologic sampling and other construction test projects supporting geotechnical analysis. These investigations would be used to refine project alignment and design and to more specifically identify appropriate construction methodologies given existing site conditions. Although these geotechnical activities may temporarily interfere with agricultural operations in the vicinity where sampling is taking place, field investigation work is not expected to result in conversion of agricultural properties to nonagricultural use. Any proposed investigation activities that occur on agricultural lands would be grouted with materials from the full depth to 5 feet (1.5 meters) below the surface, with the final 5 feet of topsoil replaced to return the affected area to as close to pre-activity conditions as possible. The various geotechnical activities involving hydrogeologic sampling and other test projects would be used to more specifically identify the appropriate groundwater monitoring programs that may be required in the construction phase. Given that groundwater elevations are not expected to change because of 2024–2026 Proposed Geotechnical Activities (Attachment 4, Section 3.2.5, *Groundwater [Final EIR Chapter 8]*), groundwater levels would not prevent agricultural uses on neighboring properties mapped as Important Farmland.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 7-1. Therefore, Delta Plan Mitigation Measure 7-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 7-1 is not required.

Delta Plan Impact: Conflict with Existing Zoning for Agricultural Use or a Williamson Act Contract

Delta Plan Mitigation Measure: 7-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact AG-2) on conversion of farmland to nonagricultural use. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on agricultural land would be less than significant, as the geotechnical activities will not convert Important Farmland, land subject to Williamson Act contract, or land in Farmland Security Zones. As the 2024–2026 Proposed Geotechnical Activities will have a less-than-significant impact, Delta Conveyance Project Mitigation Measure AG-1: *Preserve Agricultural Land* is not applicable.

The geotechnical activities may have temporary impacts on existing agricultural lands. The geotechnical activities analyzed under this resource in the Final EIR include geotechnical and hydrogeologic sampling and other construction test projects supporting geotechnical analysis. These investigations would be used to refine project alignment and design and to more specifically identify appropriate construction methodologies given existing site conditions. Although these geotechnical activities may temporarily interfere with agricultural operations in the vicinity where sampling is taking place, field investigation work is not expected to result in conversion of agricultural properties to nonagricultural use. Any proposed investigation activities that occur on agricultural lands would be grouted with materials from the full depth to 5 feet (1.5 meters) below the surface, with the final 5 feet of topsoil replaced to return the affected area to as close to pre-activity conditions as possible. The various geotechnical activities involving hydrogeologic sampling and other test projects would be used to more specifically identify the appropriate groundwater monitoring programs that may be required in the construction phase. Given that groundwater elevations are not expected to change because of 2024–2026 Proposed Geotechnical Activities (Attachment 4, Section 3.2.5, *Groundwater [Final EIR Chapter 8]*), groundwater levels would not prevent agricultural uses on neighboring properties mapped as Important Farmland.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 7-2. Therefore, Delta Plan Mitigation Measure 7-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 7-2 is not required.

Delta Plan Impact: Conflict with Existing Zoning for, or Cause Rezoning of, Forestland, Timberland, or Timberland Zoned for Timberland Production

Delta Plan Mitigation Measure: 7-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the study area contains no forests used for timber production or areas designated as a Timberland Production Zone (Final EIR Chapter 15, *Agricultural Resources*, p. 15-1). The 2024–2026 Proposed Geotechnical Activities will be temporary, will have a minimal footprint, and would not require any zoning changes, and the site will be returned to pre-activity conditions after the investigation is completed.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 7-3. Therefore, Delta Plan Mitigation Measure 7-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 7-3 is not required.

Delta Plan Impact: Loss of Forestland or Conversion of Forestland to Nonforest Use

Delta Plan Mitigation Measure: 7-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the study area contains no forests used for timber production or areas designated as a Timberland Production Zone. The 2024–2026 Proposed Geotechnical Activities will be temporary, will have a minimal footprint, and would not require any zoning changes, and the site will be returned to pre-activity conditions after the investigation is completed.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 7-4. Therefore, Delta Plan Mitigation Measure 7-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 7-4 is not required.

Delta Plan Resource Area: Aesthetics

Delta Plan Impact: Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and its Surroundings in Non-Urbanized Areas

Delta Plan Mitigation Measure: 5.2-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in significant and unavoidable impacts (Impact AES-1 and Impact AES-2) on aesthetics and visual resources. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant. As the 2024–2026 Proposed Geotechnical Activities will have a less-than-significant impact, Delta Conveyance Project Mitigation Measures AES-1a: *Install Visual Barriers between Construction Work Areas and Sensitive Receptors*, AES-1b: *Apply Aesthetic Design Treatments to Project Structures*, and AES-1c: *Implement Best Management Practices in Project Landscaping Plan* are not applicable.

The 2024–2026 Proposed Geotechnical Activities would require the use of heavy equipment such as drill rigs, CPT trucks, grout trucks, water trucks, and work vehicles and staff to perform the geotechnical activities. These elements would temporarily be visible in the viewshed of all affected viewers wherever such geotechnical activities would occur. However, the 2024–2026 Proposed Geotechnical Activities will not have visible permanent facilities and would not substantially degrade the existing visual character or quality of public views and their surroundings in nonurbanized areas; nor would they have a significant impact on scenic vistas visible from the identified work areas. And although geotechnical activities may be visible from State Route 160 (a State scenic highway), due to the short-term nature of the activities, the geotechnical activities will not result in any long-term or permanent changes to scenic resources

visible from State Route 160. Impacts on aesthetic and visual resources resulting from execution of the 2024–2026 Proposed Geotechnical Activities would be less than significant because they are short-term or temporary, will not result in any long-term or permanent changes to scenic resources visible from a scenic highway, and will not involve permanent features and because holes will be backfilled to pre-project conditions. Delta Conveyance Project Mitigation Measures AES-1a, AES-1b, and AES-1c do not apply to the 2024–2026 Proposed Geotechnical Activities because they relate specifically to long-term construction, the construction of permanent structures, and postconstruction reclamation. The 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 5.2-1. Therefore, Delta Plan Mitigation Measure 5.2-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 5.2-1 is not required.

Delta Plan Resource Area: Visual Resources

Delta Plan Impact: Substantial Degradation of Visual Qualities

Delta Plan Mitigation Measure: 8-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in significant and unavoidable impacts (Impact AES-1 and Impact AES-2) on aesthetics and visual resources. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant. As the 2024–2026 Proposed Geotechnical Activities will have a less-than-significant impact, Delta Conveyance Project Mitigation Measures AES-1a: *Install Visual Barriers between Construction Work Areas and Sensitive Receptors*, AES-1b: *Apply Aesthetic Design Treatments to Project Structures*, and AES-1c: *Implement Best Management Practices in Project Landscaping Plan* are not applicable.

The 2024–2026 Proposed Geotechnical Activities would require the use of heavy equipment such as drill rigs, CPT trucks, grout trucks, water trucks, and work vehicles and staff to perform the geotechnical activities. These elements would temporarily be visible in the viewshed of all affected viewers wherever such geotechnical activities would occur. However, the 2024–2026 Proposed Geotechnical Activities will not have visible permanent facilities and would not substantially degrade the existing visual character or quality of public views and their surroundings in nonurbanized areas; nor would they have a significant impact on scenic vistas visible from the identified work areas. And although geotechnical activities may be visible from State Route 160 (a State scenic highway), due to the short-term nature of the activities, the geotechnical activities will not result in any long-term or permanent changes to scenic resources visible from State Route 160. Impacts on aesthetic and visual resources resulting from execution of the 2024–2026 Proposed Geotechnical Activities would be less than significant because they are short-term or temporary, will not result in any long-term or permanent changes to scenic resources visible from a scenic highway, and will not involve permanent features and because holes will be backfilled to pre-project conditions. Delta Conveyance Project Mitigation Measures AES-1a, AES-1b, and AES-1c do not apply to the 2024–2026 Proposed Geotechnical Activities because they relate specifically to long-term construction, the construction of permanent

structures, and postconstruction reclamation. The 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 8-1. Therefore, Delta Plan Mitigation Measure 8-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 8-1 is not required.

Delta Plan Impact: Adverse Effects on Scenic Vistas and Scenic Resources

Delta Plan Mitigation Measure: 8-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact AES-3) on aesthetics and visual resources. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant. As the 2024–2026 Proposed Geotechnical Activities will have a less-than-significant impact, Delta Conveyance Project Mitigation Measures AES-1a: *Install Visual Barriers between Construction Work Areas and Sensitive Receptors*, AES-1b: *Apply Aesthetic Design Treatments to Project Structures*, and AES-1c: *Implement Best Management Practices in Project Landscaping Plan* are not applicable.

The 2024–2026 Proposed Geotechnical Activities would require the use of heavy equipment such as drill rigs, CPT trucks, grout trucks, water trucks, and work vehicles and staff to perform the geotechnical activities. These elements would temporarily be visible in the viewshed of all affected viewers wherever such geotechnical activities would occur. However, the 2024–2026 Proposed Geotechnical Activities will not have visible permanent facilities and would not substantially degrade the existing visual character or quality of public views and their surroundings in nonurbanized areas; nor would they have a significant impact on scenic vistas visible from the identified work areas. And although geotechnical activities may be visible from State Route 160 (a State scenic highway), due to the short-term nature of the activities, the geotechnical activities will not result in any long-term or permanent changes to scenic resources visible from State Route 160. Impacts on aesthetic and visual resources resulting from execution of the 2024–2026 Proposed Geotechnical Activities would be less than significant because they are short-term or temporary, will not result in any long-term or permanent changes to scenic resources visible from a scenic highway, and will not involve permanent features, and because holes will be backfilled to pre-project conditions. Delta Conveyance Project Mitigation Measures AES-1a, AES-1b, and AES-1c do not apply to the 2024–2026 Proposed Geotechnical Activities because they relate specifically to long-term construction, the construction of permanent structures, and postconstruction reclamation. The 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 8-2. Therefore, Delta Plan Mitigation Measure 8-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 8-2 is not required.

Delta Plan Impact: New Sources of Substantial Light or Glare

Delta Plan Mitigation Measure: 8-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact AES-4) on aesthetics and visual resources. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on aesthetics and visual resources would be less than significant without mitigation.

The 2024–2026 Proposed Geotechnical Activities would require the use of heavy equipment such as drill rigs, CPT trucks, grout trucks, water trucks, and work vehicles and staff to perform the geotechnical activities. These elements would temporarily be visible in the viewshed of all affected viewers wherever such geotechnical activities would occur. However, the 2024–2026 Proposed Geotechnical Activities will not have visible permanent facilities and would not substantially degrade the existing visual character or quality of public views and their surroundings in nonurbanized areas; nor would they have a significant impact on scenic vistas visible from the identified work areas. And although geotechnical activities may be visible from State Route 160 (a State scenic highway), due to the short-term nature of the activities, the geotechnical activities will not result in any long-term or permanent changes to scenic resources visible from State Route 160. Geotechnical activities would take place during the day and would not require the use of bright lights, which would otherwise negatively affect nighttime views of and from the field investigation areas. It is anticipated that glare reflecting from vehicles and equipment would be minimal when taken in the broader field of view. Therefore, the 2024–2026 Proposed Geotechnical Activities would not result in a temporary or permanent increase in glare. Impacts on aesthetic and visual resources resulting from execution of the 2024–2026 Proposed Geotechnical Activities would be less than significant because they are short-term or temporary, will not result in any long-term or permanent changes to scenic resources visible from a scenic highway, and will not involve permanent features, and because holes will be backfilled to pre-project conditions. Delta Conveyance Project Mitigation Measures AES-1a: *Install Visual Barriers between Construction Work Areas and Sensitive Receptors*, AES-1b: *Apply Aesthetic Design Treatments to Project Structures*, and AES-1c: *Implement Best Management Practices in Project Landscaping Plan* do not apply because they relate specifically to lighting for nighttime work and the 2024–2026 Proposed Geotechnical Activities will only take place during the daytime. Delta Conveyance Project Mitigation Measures AES-1a, AES-1b, and AES-1c do not apply to the 2024–2026 Proposed Geotechnical Activities as they relate specifically to long-term construction, the construction of permanent structures, and postconstruction reclamation.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 8-3. Therefore, Delta Plan Mitigation Measure 8-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 8-3 is not required.

Delta Plan Resource Area: Air Quality

Delta Plan Impact: Construction and Operations of Projects Could Conflict with an Applicable Air Quality Plan, Contribute Substantially to an Air Quality Violation, and/or Result in a Cumulatively Considerable Net Increase of Nonattainment Pollutants

Delta Plan Mitigation Measure: 9-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts with mitigation (Impact AQ-1, Impact AQ-2, and Impact AQ-3) and a less than-significant impact (Impact AQ-4) on air quality. However, the 2024–2026 Proposed Geotechnical Activities' temporary impact on air quality and GHG emission would be less than significant without mitigation.

The 2024–2026 Proposed Geotechnical Activities assume approximately 1 CPT and 4 boring drill rigs operating on the same day within Contra Costa or Alameda Counties, 2 CPTs and 6 boring drill rigs operating on the same day in San Joaquin County, and 1 CPT and 4 boring drill rigs operating on the same day in Sacramento County. Note that several of the borings are shallow (i.e., 15 feet deep) and it is assumed that the same drill rig could be used to drill more than one of these borings on the same day.

The criteria pollutant and precursor thresholds for the Sacramento Metropolitan Air Quality Management District (SMAQMD), the San Joaquin Valley Air Pollution Control District (SJVAPCD), the Bay Area Air Quality Management District (BAAQMD), and the Yolo-Solano Air Quality Management District (YSAQMD) are listed in Final EIR, Chapter 23, *Air Quality and Greenhouse Gases*, Table 23-9. Tables 3, 4, and 5 in the Evaluation of Consistency memo (Attachment 4), conclude that the criteria pollutant and precursor emissions thresholds will not be exceeded for SMAQMD, SJVAPCD, and BAAQMD because of the geotechnical activities. It should be noted that emissions calculations for SMAQMD are from employee transportation through Sacramento County and that no geotechnical activities are to occur in Sacramento County. The 2024–2026 Proposed Geotechnical Activities emissions calculations for SJVAPCD and BAAQMD include on-the-ground field investigation locations within these counties, as well as employee transportation within and through these counties. Calculations consider the depth of land borings, activity duration, and short-term sampling of water quality. An air quality analysis was not calculated for YSAQMD because the geotechnical activities will not occur in Yolo or Solano Counties.

Criteria pollutants generated from the 2024–2026 Proposed Geotechnical Activities would not exceed established thresholds in the Sacramento Valley Air Basin, San Joaquin Valley Air Basin, and San Francisco Bay Area Air Basin; thus, Delta Conveyance Project Mitigation Measures AQ-1: *Offset Construction-Generated Criteria Pollutants in the Sacramento Valley Air Basin*, AQ-2: *Offset Construction-Generated Criteria Pollutants in the San Joaquin Valley Air Basin*, and AQ-3: *Offset Construction-Generated Criteria Pollutants in the San Francisco Bay Area Air Basin* would not apply.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 9-1. Therefore, Delta Plan Mitigation Measure 9-1 is not applicable to the 2024–2026 Proposed Geotechnical

Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 9-1 is not required.

Delta Plan Resource Area: Air Quality

Delta Plan Impact: Construction and Operations of Projects Could Create Objectionable Odors Affecting a Substantial Number of People

Delta Plan Mitigation Measure: 9-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact AQ-8) regarding objectionable odors.

Due to the remote and temporary nature of the 2024–2026 Proposed Geotechnical Activities and the distance to receptors, geotechnical activities are not likely to contribute to objectionable odor emissions, and the impact would be less than significant.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 9-2. Therefore, Delta Plan Mitigation Measure 9-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 9-2 is not required.

Delta Plan Impact: Construction or Operation of Projects Could Expose Sensitive Receptors to Substantial Pollutant Concentrations

Delta Plan Mitigation Measure: 9-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact AQ-5) and less-than-significant impacts (Impact AQ-6 and Impact AQ-7) on air quality.

The 2024–2026 Proposed Geotechnical Activities' temporary impact on air quality and GHG emission would be less than significant and Delta Conveyance Project Mitigation Measure AQ-5: *Avoid Public Exposure to Localized Particulate Matter and Nitrogen Dioxide Concentrations* would not apply because the 2024–2026 Proposed Geotechnical Activities would not exceed established thresholds for pollutant concentrations.

Criteria pollutant concentrations are estimated for major construction components (e.g., intakes) based on representative local meteorological conditions. Only the modeled maximum pollutant concentration in each air district with surface construction is reported (Final EIR Chapter 23, *Air Quality and Greenhouse Gases*, pp. 23-132 through 23-150). Similarly, health risks along the conveyance alignment were estimated based on representative local meteorological conditions. The health risks shown in Final EIR Chapter 23, Table 23-64 represent the highest modeled off-site risk within each air district, which typically occurs at the receptor closest to the construction footprint (Final EIR Chapter 23, pp. 23-150 through 23-159). Due to the remote and temporary nature of the geotechnical activities and the distance to receptors, geotechnical activities are not likely to contribute to exceedances of criteria

pollutants, toxic air contaminants, asbestos, lead-based paint, fungal spores that cause Valley fever, and odor emissions. Implementation of Delta Conveyance Project Environmental Commitments EC-7: *Off-Road Heavy-Duty Engines* and EC-13: *DWR Best Management Practices to Reduce GHG Emissions* would minimize construction emissions through implementation of the on-site controls.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 9-3. Therefore, Delta Plan Mitigation Measure 9-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 9-3 is not required.

Delta Plan Resource Area: Cultural Resources

Delta Plan Impact: Disturbance or Destruction of Prehistoric and Historic-Era Archaeological Resources

Delta Plan Mitigation Measure: 10-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in significant and unavoidable impacts (Impact CUL-3 and Impact CUL-4) on cultural resources and requires implementation of Delta Conveyance Project Mitigation Measures CUL-3a: *Prepare and Implement an Archaeological Resources Management Plan*, CUL-3b: *Conduct Cultural Resources Sensitivity Training*, and CUL-3c: *Implement Archaeological Protocols for Field Investigations*. The 2024–2026 Proposed Geotechnical Activities will not impact any recorded cultural resources, due to the planned field investigation distances to cultural resources features that have been recorded within 0.25 mile from the proposed 2024–2026 Proposed Geotechnical Activities locations. Furthermore, as proposed, 2024–2026 Proposed Geotechnical Activities will be relocated or, if necessary, abandoned to avoid potential impacts to cultural resource features that may be identified during site clearance investigations (Table 1 in the Evaluation of Consistency memo [Attachment 4]). Currently inaccessible resources may also be significant under other California Register of Historic Resources (CRHR) criteria. Similarly, because buried human remains are isolated resources that may not be associated with larger deposits, their distribution and depth cannot be estimated. With the large acreages subject to disturbance by the Delta Conveyance Project, it makes exhaustive sampling to identify all buried and isolated human remains technically and economically infeasible. For these reasons, as analyzed in the Final EIR, there exists the potential that such resources may be damaged or exposed before they can be discovered through inventory or monitoring, thus making cultural resource impacts significant and unavoidable, even with mitigation.

Delta Plan Mitigation Measure 10-1 includes archaeological surveys prior to ground-disturbing activities, surveys for presence of cultural landscapes and traditional cultural properties, additional investigations if archaeological resources are identified during surveys, strategies to avoid or protect identified CRHR-eligible archaeological resources or cultural landscapes and properties, Section 106 consultation (if federal agencies are participants), consultation with Native Americans identified by the California Native American Heritage Commission (NAHC), and investigations to identify submerged cultural resources (consult with State Lands Commission as needed). Delta Conveyance Project Environmental Commitment EC-6: *Conduct*

Cultural Resources Awareness Training and Mitigation Measure CUL-3b support identification of and avoidance of archaeological resources. Delta Conveyance Project Mitigation Measure CUL-3c includes a process for archaeological records review and surveys and, if necessary, a threshold for Mitigation Measure CUL-3a that includes strategies for treatment of identified cultural resources. Implementation of the previously mentioned Delta Conveyance Project environmental commitments and mitigation measures is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 10-1.

Delta Plan Impact: Discovery of Unrecorded Human Remains

Delta Plan Mitigation Measure: 10-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact CUL-5) on human remains and requires implementation of Delta Conveyance Project Mitigation Measures CUL-3a: *Prepare and Implement an Archaeological Resources Management Plan*, CUL-3b: *Conduct Cultural Resources Sensitivity Training*, CUL-3c: *Implement Archaeological Protocols for Field Investigations,* and CUL-5: *Follow State and Federal Law Governing Human Remains If Such Resources Are Discovered during Construction*. The 2024–2026 Proposed Geotechnical Activities will not impact any recorded cultural resources, due to the planned field investigation distances to cultural resources features that have been recorded within 0.25 mile from the proposed 2024–2026 Proposed Geotechnical Activities locations. Furthermore, as proposed, 2024–2026 Proposed Geotechnical Activities will be relocated or, if necessary, abandoned to avoid potential impacts to cultural resource features that may be identified during site clearance investigations (Table 1 in the Evaluation of Consistency memo [Attachment 4]). Currently inaccessible resources may also be significant under other CRHR criteria. Similarly, because buried human remains are isolated resources that may not be associated with larger deposits, their distribution and depth cannot be estimated. With the large acreages subject to disturbance by the Delta Conveyance Project, it makes exhaustive sampling to identify all buried and isolated human remains technically and economically infeasible. For these reasons, as analyzed in the Final EIR, there exists the potential that such resources may be damaged or exposed before they can be discovered through inventory or monitoring, thus making cultural resource impacts significant and unavoidable, even with mitigation.

Delta Plan Mitigation Measure 10-2 includes identification, evaluation, and disposition of Native American human remains in a process that includes coordination with the county coroner and the California NAHC. Delta Conveyance Project Mitigation Measure CUL-5 includes the same identification, evaluation, and disposition process. In addition, the Final EIR requires implementation of Delta Conveyance Project Environmental Commitment EC-6: *Conduct Cultural Resources Awareness Training* and Mitigation Measure CUL-3b in conjunction with Delta Conveyance Project Mitigation Measure CUL-3c. Implementation of the previously mentioned Delta Conveyance Project environmental commitments and mitigation measures is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 10-2.

Delta Plan Impact: Disturbance or Destruction of Historic Buildings, Structures, and Linear Features

Delta Plan Mitigation Measure: 10-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in significant and unavoidable impacts (Impact CUL-1 and Impact CUL-2) on built-environment resources. The 2024–2026 Proposed Geotechnical Activities will not impact any built-environment historical resources, due to the planned field investigation distances to cultural resources features that have been recorded within 0.25 mile from the proposed 2024–2026 Proposed Geotechnical Activities locations. Furthermore, as proposed, the 2024–2026 Proposed Geotechnical Activities will be relocated or, if necessary, abandoned to avoid potential impacts to cultural resource features that may be identified during site clearance investigations (Table 1 in the Evaluation of Consistency memo [Attachment 4]). Therefore, the 2024–2026 Proposed Geotechnical Activities' impact would be less than significant and Delta Conveyance Project Mitigation Measures CUL-1a: *Avoid Impacts on Built-Environment Historical Resources through Project Design*, CUL-1b: *Prepare and Implement a Built-Environment Treatment Plan in Consultation with Interested Parties*, and CUL-2: *Conduct a Survey of Inaccessible Properties to Assess Eligibility and Determine Whether These Properties Will Be Adversely Affected by the Project* would not be required for impacts to built-environmental resources.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 10-3. Therefore, Delta Mitigation Measure 10-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 10-3 is not required.

Delta Plan Impact: Disturbance or Destruction of Cultural Landscapes and Traditional Cultural Properties

Delta Plan Mitigation Measure: 10-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in significant and unavoidable impacts (Impact CUL-1 and Impact CUL-2) on built-environment resources. The 2024–2026 Proposed Geotechnical Activities will not impact any built-environment historical resources, due to the planned field investigation distances to cultural resources features that have been recorded within 0.25 mile from the proposed 2024–2026 Proposed Geotechnical Activities locations. Furthermore, as proposed, 2024–2026 Proposed Geotechnical Activities will be relocated or, if necessary, abandoned to avoid potential impacts to cultural resource features that may be identified during site clearance investigations (Table 1 in the Evaluation of Consistency memo [Attachment 4]). Therefore, the 2024–2026 Proposed Geotechnical Activities' impact would be less than significant and Delta Conveyance Project Mitigation Measures CUL-1a: *Avoid Impacts on Built-Environment Historical Resources through Project Design*, CUL-1b: *Prepare and Implement a Built-Environment Treatment Plan in Consultation with Interested Parties*, and CUL-2: *Conduct a Survey of Inaccessible Properties to Assess Eligibility and Determine Whether These Properties Will Be Adversely Affected by the Project* would not be required for impacts to built-environmental resources.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 10-4. Therefore, Delta Plan Mitigation Measure 10-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 10-4 is not required.

Delta Plan Resource Area: Geology and Soils

Delta Plan Impact: Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Rupture of a Known Earthquake Fault

Delta Plan Mitigation Measure: 11-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact GEO-1) regarding rupture of a known earthquake fault.

The 2024–2026 Proposed Geotechnical Activities will not introduce very-high-pressure fluids into the ground. During geotechnical drilling, the downhole drilling fluid pressures are limited to those required to balance the soil and water pressures at depths less than 200 feet, typically less than 150 pounds psi. (Less than 25 psi of additional pressure could be exerted by increasing boring depths by 50 feet.) In contrast, downhole drilling fluid pressures used to stimulate oil and gas production often exceed 9,000 psi.

The 2024–2026 Proposed Geotechnical Activities would occur in areas subject to ground shaking. However, because the investigators would not be working in structures, the likelihood of an injury caused by a strong earthquake event occurring while the investigations are being conducted is low; and because the investigation activities would not trigger an earthquake, the investigations are unlikely to cause a loss of property, personal injury, or death from strong earthquake-induced ground shaking. Given the infrequency of strong ground shaking in the project area, the likelihood that earthquake-induced liquefaction would occur at the time that personnel are conducting geotechnical activities is low. Further, the personnel would not be in any structures during the investigations; therefore, they would not be subject to liquefaction-induced structural hazards and damage should a strong earthquake occur.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-1. Therefore, Delta Plan Mitigation Measure 11-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-1 is not required.

Delta Plan Impact: Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death due to Strong Ground Motion Associated with Seismic Shaking

Delta Plan Mitigation Measure: 11-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts (Impact GEO-2 and Impact GEO-3) regarding ground motion associated with seismic shaking.

The 2024–2026 Proposed Geotechnical Activities would occur in areas subject to ground shaking. However, because the investigators would not be working in structures, the likelihood of an injury caused by a strong earthquake event occurring while the investigations are being conducted is low; and because the investigation activities would not trigger an earthquake, the investigations are unlikely to cause a loss of property, personal injury, or death from strong earthquake-induced ground shaking. Given the infrequency of strong ground shaking in the project area, the likelihood that earthquake-induced liquefaction would occur at the time that personnel are conducting geotechnical activities is low. Further, the personnel would not be in any structures during the investigations; therefore, they would not be subject to liquefaction-induced structural hazards and damage should a strong earthquake occur.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-2. Therefore, Delta Plan Mitigation Measure 11-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-2 is not required.

Delta Plan Impact: Construction and Operations of Projects Could Be Located on a Geologic Unit or Soil That Is Unstable, or That Would Become Unstable as a Result of the Project, and Potentially Result in Loss of Bearing Value, Lateral Spreading, Subsidence, Liquefaction or Collapse

Delta Plan Mitigation Measure: 11-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts (Impact SOILS-3 and Impact SOILS-4) on soils.

The 2024–2026 Proposed Geotechnical Activities would involve a variety of ground-disturbing activities, which would be of limited extent and duration. Soil borings would use augers to sample 4-to-8-inch-diameter holes, and CPTs would involve 1-to-2-inch-diameter rods pushed into the ground. The water quality testing would involve installing temporary PVC pipes, up to 4 inches in diameter, within 4-to-8-inch-diameter boreholes.

The 2024–2026 Proposed Geotechnical Activities would not contribute to potential subsidence due to their limited extent. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to subsidence, the use of which would reduce the potential hazard of subsidence to acceptable limits meeting design standards, causing this impact to be less than significant. The geotechnical activities would not be constrained by expansive or corrosive soils, and the investigations would not increase the hazard of such soils to life and property. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to expansion or corrosion, the use of which would describe the hazards and recommend the measures that should be implemented to ensure that the facilities are constructed to withstand expansion and contraction and to conform to applicable State and federal standards, such as the California Building Code.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-3. Therefore, Delta Plan Mitigation Measure 11-3 is not applicable to the 2024–2026 Proposed Geotechnical

Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-3 is not required.

Delta Plan Impact: Construction of Projects Could Result in Substantial Soil Erosion or the Loss of Topsoil

Delta Plan Mitigation Measure: 11-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts (Impact SOILS-1 and Impact SOILS-2) on soils.

The 2024–2026 Proposed Geotechnical Activities would involve a variety of ground-disturbing activities, which would be of limited extent and duration. Soil borings would use augers to sample 4-to-8-inch-diameter holes, and CPTs would involve 1-to-2-inch-diameter rods pushed into the ground. The water quality testing would involve installing temporary PVC pipes, up to 4 inches in diameter, within 4-to-8-inch-diameter boreholes.

The disturbances caused by the geotechnical activities would be of limited extent and are expected to result in minimal increases in water and wind erosion rates. To prevent accelerated water or wind erosion from occurring, DWR would incorporate applicable aspects of Delta Conveyance Project Environmental Commitment EC-4b: *Develop and Implement Stormwater Pollution Prevention Plans (SWPPP).* Federal statutes and regulations require discharges to waters of the United States comprised of stormwater associated with construction activity to obtain National Pollutant Discharge Elimination System permit coverage (except operations that result in disturbance of less than 1 acre of total land area and that are not part of a larger common plan of development or sale)[19]. All geotechnical activities will disturb less than 1 acre of total land area. Therefore, a stormwater pollution prevention plan is not required for the geotechnical activities. DWR will implement Delta Conveyance Project Environmental Commitment EC-14: *Construction Best Management Practices for Biological Resources*, specific to the geotechnical activities. BMPs that would contribute to reductions in soil erosion would include implementing speed limits, preventing trash and debris from falling onto roads, establishing parking areas and using established ingress and egress points, having a policy of no pets allowed, using appropriate erosion control substitutes not made of plastic monofilament netting, and restoring temporarily affected areas to pre-Project conditions within 1 year. In consideration of the limited scope of the 2024–2026 Proposed Geotechnical Activities and implementation of these BMPs, the geotechnical activities would result in minimal losses of topsoil.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-4. Therefore, Delta Plan Mitigation Measure 11-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-4 is not required.

[19] Order WQ 2022-0057-DWQ NPDES NO. CAS000002.

Delta Plan Impact: Construction of Projects Could Lead to Impacts Associated with the Presence of Expansive Soils

Delta Plan Mitigation Measure: 11-5

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact SOILS-4) on soils.

The 2024–2026 Proposed Geotechnical Activities would involve a variety of ground-disturbing activities, which would be of limited extent and duration. Soil borings would use augers to sample 4-to-8-inch-diameter holes, and CPTs would involve 1-to-2-inch-diameter rods pushed into the ground. The water quality testing would involve installing temporary PVC pipes, up to 4 inches in diameter, within 4-to-8-inch-diameter boreholes.

The 2024–2026 Proposed Geotechnical Activities would not contribute to potential subsidence due to their limited extent. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to subsidence, the use of which would reduce the potential hazard of subsidence to acceptable limits meeting design standards, causing this impact to be less than significant. The geotechnical activities would not be constrained by expansive or corrosive soils, and the investigations would not increase the hazard of such soils to life and property. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to expansion or corrosion, the use of which would describe the hazards and recommend the measures that should be implemented to ensure that the facilities are constructed to withstand expansion and contraction and to conform to applicable State and federal standards, such as the California Building Code.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-5. Therefore, Delta Plan Mitigation Measure 11-5 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-5 is not required.

Delta Plan Impact: Operation of Projects Could Result in Impacts Associated with the Occurrence of Nuisance Water in Adjacent Areas Due to Leakage

Delta Plan Mitigation Measure: 11-6

2024–2026 Proposed Geotechnical Activities Assessment

Delta Plan Mitigation Measure 11-6 applies to construction of canals, storage reservoirs, and other surface impoundments or restoration projects.

The 2024–2026 Prosed Geotechnical Activities do not include any of those features; thus, the Delta Plan Mitigation Measure 11-6 is not applicable.

The 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-6. Therefore, Delta Plan Mitigation Measure 11-6 is not applicable to the 2024–2026 Proposed Geotechnical Activities,

and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-6 is not required.

Delta Plan Impact: Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Landslides

Delta Plan Mitigation Measure: 11-7

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact GEO-4) on slope instability.

The 2024–2026 Proposed Geotechnical Activities will not introduce very high-pressure fluids into the ground. During geotechnical drilling, the downhole drilling fluid pressures are limited to those required to balance the soil and water pressures at depths less than 200 feet, typically less than 150 psi. (Less than 25 psi of additional pressure could be exerted by increasing boring depths by 50 feet.) In contrast, downhole drilling fluid pressures used to stimulate oil and gas production often exceed 9,000 psi.

The 2024–2026 Proposed Geotechnical Activities would occur in areas subject to ground shaking. However, because the investigators would not be working in structures, the likelihood of an injury caused by a strong earthquake event occurring while the investigations are being conducted is low; and because the investigation activities would not trigger an earthquake, the investigations are unlikely to cause a loss of property, personal injury, or death from strong earthquake-induced ground shaking. Given the infrequency of strong ground shaking in the project area, the likelihood that earthquake-induced liquefaction would occur at the time that personnel are conducting geotechnical activities is low. Further, the personnel would not be in any structures during the investigations; therefore, they would not be subject to liquefaction-induced structural hazards and damage should a strong earthquake occur.

The 2024–2026 Proposed Geotechnical Activities would involve a variety of ground-disturbing activities. However, none of these activities are likely to cause an increase in the hazard settlement or slope failure. Geotechnical activities would involve conducting geotechnical investigations along the alignments for the intakes, tunnels, shafts, levees, rail, powerlines, asphalt overlays, and roadways. The soil borings would be drilled to create a 4-to-8-inch-diameter hole from which soil samples would be recovered. The CPTs would involve hydraulically pressing a 1-to-2-inch-diameter cone-tipped rod into the ground. The water quality testing would involve installing a temporary PVC pipe within the borehole. The PVC pipe will be up to 4 inches in diameter and will be slotted over an interval up to 40 feet in length. The remainder of the PVC pipe will be solid wall. The annular space between the boring and the slotted interval of the PVC pipe will be backfilled with commercially available well pack sand and gravel, while the solid wall section will be backfilled with bentonite to the

surface. Based on DWR's 30 years of well drilling and deep-soil investigations in the Delta, none of the investigations are likely to cause a ground vibration sufficiently strong enough to initiate liquefaction or ground settlement.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-7. Therefore, Delta Plan Mitigation Measure 11-7 is not applicable to the 2024–2026 Proposed Geotechnical

Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-7 is not required.

Delta Plan Impact: Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Waste Water Disposal Systems Where Sewers Are Not Available for the Disposal of Waste Water

Delta Plan Mitigation Measure: 11-8

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact SOILS-5) regarding wastewater.

The 2024–2026 Proposed Geotechnical Activities would not involve construction or use of an on-site wastewater disposal system, which would otherwise require soil excavation and installation of septic tanks and wastewater disposal infrastructure. Therefore, Mitigation Measure SOILS-5 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and the impact would be less than significant.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-8. Therefore, Delta Plan Mitigation Measure 11-8 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-8 is not required.

Delta Plan Impact: Substantial Risks to Life or Property Due to Construction of Project Facilities on High Organic Matter Soils

Delta Plan Mitigation Measure: 11-9

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact SOILS-3) on soils.

The 2024–2026 Proposed Geotechnical Activities would involve a variety of ground-disturbing activities, which would be of limited extent and duration. Soil borings would use augers to sample 4-to-8-inch-diameter holes, and CPTs would involve 1-to-2-inch-diameter rods pushed into the ground. The water quality testing would involve installing temporary PVC pipes, up to 4 inches in diameter, within 4-to-8-inch-diameter boreholes.

The 2024–2026 Proposed Geotechnical Activities would not contribute to potential subsidence due to their limited extent. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to subsidence, the use of which would reduce the potential hazard of subsidence to acceptable limits meeting design standards, causing this impact to be less than significant. The geotechnical activities would not be constrained by expansive or corrosive soils, and the investigations would not increase the hazard of such soils to life and property. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to expansion or corrosion, the use of which would describe the hazards and recommend the measures that should be implemented to ensure that the facilities are constructed to withstand expansion and

contraction and to conform to applicable State and federal standards, such as the California Building Code.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 11-9. Therefore, Delta Mitigation Measure 11-9 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 11-9 is not required.

Delta Plan Resource Area: Paleontological Resources

Delta Plan Impact: Destruction of Paleontological Resources or Unique Geological Features

Delta Plan Mitigation Measure: 12-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (PALEO-2) and a less-than-significant impact with mitigation (Impact PALEO-1) on paleontological resources.

The activities being performed as part of the 2024–2026 Proposed Geotechnical Activities will occur in soil types that are unlikely to destroy paleontological resources, will not involve tunnel construction or ground improvements, and will not involve trenching along faults. The impacts to paleontological resources as a result of the 2024–2026 Proposed Geotechnical Activities are less than significant, and no mitigation is required. Most investigations would occur in young surficial sediments and would disturb a small area, and therefore they would be unlikely to destroy paleontological resources. Although soil borings would be deep, the diameter of the bore is small, and the bore holes would be unlikely to destroy unique paleontological resources. The 2024–2026 Proposed Geotechnical Activities are data collection efforts that do not involve tunnel construction or ground improvement and thus would be unlikely to destroy unique paleontological resources.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 12-1. Therefore, Delta Plan Mitigation Measure 12-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 12-1 is not required.

Delta Plan Resource Area: Mineral Resources

Delta Plan Impact: Loss of Availability of a Known Mineral Resource that Would Be of Value to the Region and Residents of the State

Delta Plan Mitigation Measure: 13-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in no impacts (Impact MIN-1, Impact MIN-2, Impact MIN-3, and Impact MIN-4) on mineral resources.

The 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 13-1. Therefore, Delta Plan Mitigation Measure 13-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 13-1 is not required.

Delta Plan Impact: Loss of Availability of a Locally Important Mineral Resource Recovery Site Delineated on a Local General Plan, Specific Plan, or Other Land Use Plan

Delta Plan Mitigation Measure: 13-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in no impacts (Impact MIN-1, Impact MIN-2, Impact MIN-3, and Impact MIN-4) on mineral resources.

The 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 13-2. Therefore, Delta Plan Mitigation Measure 13-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 13-2 is not required.

Delta Plan Resource Area: Hazards and Hazardous Materials

Delta Plan Impact: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials or through Reasonably Foreseeable Upset and Accident Conditions involving the Release of Hazardous Materials into the Environment

Delta Plan Mitigation Measure: 14-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact HAZ-2) and a less-than-significant impact (Impact HAZ-1) on hazards and hazardous materials.

Accidental release of these materials could result in a safety hazard to human health or the environment. Geotechnical and hydrogeologic testing would result in soil disturbance and the possibility of encountering contaminated soils that could be hazardous to human health or the environment. Compliance with applicable laws and regulations would reduce potential impacts resulting from the transport, handling, use, and disposal of these materials. Consistent with applicable laws and regulations, the transport, use, and disposal of hazardous materials would comply with regulations enforced by regulatory agencies such as Certified Unified Program Agencies (CUPAs) and California Division of Occupational Safety and Health (Cal/OSHA). Implementation of Delta Conveyance Project environmental commitments such as Environmental Commitment EC-2: *Develop and Implement Hazardous Materials Management Plans* and EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans* would reduce the potential for hazardous materials effects by identifying known hazardous materials sites, designing protocols for reducing hazardous materials exposure, and treating and disposing of hazardous substances at construction sites. The 2024–2026 Proposed Geotechnical Activities do not include property acquisition or the construction (excavation) of facilities.

Therefore, Delta Conveyance Project Mitigation Measure HAZ-2: *Perform a Phase I Environmental Site Assessment Prior to Construction Activities and Remediate* is not applicable.

The 2024–2026 Proposed Geotechnical Activities would not result in a safety hazard involving airports, are not associated with property acquisition, and do not directly conflict with emergency plans and evacuation routes.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 14-1. Therefore, Delta Plan Mitigation Measure 14-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 14-1 is not required.

Delta Plan Impact: Result in Ground-Disturbing Activities That Could Encounter Previously Unidentified Contaminated Soil and/or Groundwater That Could Expose Construction Workers and the Environment to Risks Associated with Hazardous Materials

Delta Plan Mitigation Measure: 14-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact HAZ-2) and a less-than-significant impact (Impact HAZ-1) on hazards and hazardous materials.

Accidental release of these materials could result in a safety hazard to human health or the environment. Geotechnical and hydrogeologic testing would result in soil disturbance and the possibility of encountering contaminated soils that could be hazardous to human health or the environment. Compliance with applicable laws and regulations would reduce potential impacts resulting from the transport, handling, use, and disposal of these materials. Consistent with applicable laws and regulations, the transport, use, and disposal of hazardous materials would comply with regulations enforced by regulatory agencies such as CUPAs and Cal/OSHA. Implementation of Delta Conveyance Project environmental commitments such as Environmental Commitment EC-2: *Develop and Implement Hazardous Materials Management Plans* and EC-3: *Develop and Implement Spill Prevention, Containment, and Countermeasure Plans* would reduce the potential for hazardous materials effects by identifying known hazardous materials sites, designing protocols for reducing hazardous materials exposure, and treating and disposing of hazardous substances at construction sites. The 2024–2026 Proposed Geotechnical Activities do not include property acquisition or the construction (excavation) of facilities. Therefore, Delta Conveyance Project Mitigation Measure HAZ-2: *Perform a Phase I Environmental Site Assessment Prior to Construction Activities and Remediate* is not applicable.

The 2024–2026 Proposed Geotechnical Activities would not result in a safety hazard involving airports, are not associated with property acquisition, and do not directly conflict with emergency plans and evacuation routes.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 14-2. Therefore, Delta Plan Mitigation Measure 14-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 14-2 is not required.

Delta Plan Impact: Create Vector Habitat that would Pose a Significant Public Health Hazard

Delta Plan Mitigation Measure: 14-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact PH-1) on public health.

Ground-disturbing activities as part of 2024–2026 Proposed Geotechnical Activities or exposure of disturbed sites immediately following geotechnical activities could result in precipitation-related soil erosion and runoff to surface waterbodies in the study area. Any existing trace metals, pesticides, other contaminants, or organic matter in the soil could incrementally increase concentrations in surface water. However, this potential effect on water quality would be temporary and fairly localized to areas of construction. The development and implementation of site-specific erosion and sediment control plans for the geotechnical activities would minimize the potential for this impact by controlling erosion and runoff to surface water and ensure that activities would not substantially increase or substantially mobilize legacy organochlorine pesticides or methylmercury during the geotechnical activities. The geotechnical activities will not occur over water and thus will not contribute to an increase in CHABs. Geotechnical activities will not expose sensitive receptors to new sources of electromagnetic fields because geotechnical activities do not involve the construction, operations, or maintenance of permanent aboveground and underground transmission lines. The 2024–2026 Proposed Geotechnical Activities do not involve facilities management. As such, Delta Conveyance Project Mitigation Measure PH-1b: *Develop and Implement a Mosquito Management Plan for Compensatory Mitigation Sites on Bouldin Island and at I-5 Ponds* is not applicable to the geotechnical activities. However, Delta Conveyance Project Mitigation Measure PH-1a: *Avoid Creating Areas of Standing Water During Preconstruction Future Field Investigations and Project Construction* does apply.

Delta Plan Mitigation Measure 14-3 includes freshwater habitat management in coordination with DFG and local mosquito and vector control agencies to help minimize mosquito production, maintenance of permanent ponds to increase waterfowl diversity yet decrease introduction of vectors, tidal management focusing on residual tidal and floodwaters in remaining depressions and cracked ground, and design of ecosystem restoration areas and surface water storage facilities to minimize standing water. The 2024–2026 Proposed Geotechnical Activities do not include construction of facilities including freshwater habitat, tidal habitat, or water storage facilities. However, Delta Conveyance Project Mitigation Measure PH-1a likewise seeks to eliminate areas of standing water that could be potentially suitable for mosquito breeding. Delta Conveyance Project Mitigation Measure PH-1a includes avoiding leaving uncovered containers that can accumulate water, storing building materials under cover that does not collect water, grading all work areas to drain, filling in potholes and other areas where water is likely to accumulate, routinely removing garbage and debris that may collect water, and periodically pumping out water from areas where water could accumulate for several days. Implementation of Delta Conveyance Project Mitigation Measure PH-1a is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 14-3.

Delta Plan Impact: Increase Safety Hazards for People Residing in or Working in the Project Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or within 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

Delta Plan Mitigation Measure: 14-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact HAZ-5) on hazards and hazardous materials.

The 2024–2026 Proposed Geotechnical Activities would occur primarily within the footprint of the individual alternative and would not include structures that would impede airspace. Geotechnical activities would not result in a safety hazard involving airports. Geotechnical activities would not substantially conflict with emergency response plans. Geotechnical activities would not result in a safety hazard involving airports.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 14-4. Therefore, Delta Plan Mitigation Measure 14-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 14-4 is not required.

Delta Plan Impact: Expose People or Structures to a Significant Risk of Loss, Injury or Death involving Wildland Fires

Delta Plan Mitigation Measure: 14-5

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact HAZ-7) on hazards and hazardous materials.

The 2024–2026 Proposed Geotechnical Activities would not substantially conflict with emergency response plans. Geotechnical activities would involve the presence of personnel and equipment, both of which could inadvertently start a fire (e.g., smoking, sparks from equipment). Compliance with applicable laws and regulations regarding fire prevention and safety and Delta Conveyance Project Environmental Commitment EC-5: *Develop and Implement a Fire Prevention and Control Plan* would include provisions such as consultation with fire agencies, spark arrestors on construction equipment, and maintaining appropriate fire suppression equipment to further reduce impacts related to wildland fires. The potential for the geotechnical activities to expose people or structures to a substantial risk of wildland fire would be less than significant.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 14-5. Therefore, Delta Plan Mitigation Measure 14-5 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 14-5 is not required.

Delta Plan Resource Area: Noise

Delta Plan Impact: Exposure of Sensitive Receptors to Excessive Temporary, Short-term Construction Noise

Delta Plan Mitigation Measure: 15-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact NOI-1) on noise.

The 2024–2026 Proposed Geotechnical Activities will generate temporary noise during the geotechnical activities but will not include ongoing operations or noise from operations. Geotechnical activities will comply with Delta Conveyance Project Mitigation Measure NOI-1: *Develop and Implement a Noise Control Plan* (where applicable). As described in the noise plan for the 2024–2026 Proposed Geotechnical Activities, noise impacts resulting from the 2024–2026 Proposed Geotechnical Activities will be reduced to less than significant with mitigation.

The geotechnical activities will occur at a given location for a short amount of time during daytime hours and would cease once the testing is complete. The geotechnical activities would not add sensitive uses that would be affected by aircraft noise, and workers would not be exposed to excessive airport noise. DWR developed the *Noise Control Plan for 2024–2026 Proposed Geotechnical Activities* (California Department of Water Resources 2024),compliance with Mitigation Measure NOI-1 so as not to exceed noise thresholds near sensitive resources during the 2024–2026 Proposed Geotechnical Activities. If sound-level monitoring data shows that an exceedance has the potential to occur near one or more sensitive receptors, DWR will either abandon the activity, relocate the activity to a location that will not exceed noise-level thresholds, revise the work schedule to avoid exceeding the noise-level thresholds, or coordinate with the affected residents for short-term relocation assistance. Measures related to pile-driving testing are not applicable since this activity is not proposed as part of the geotechnical activities.

Delta Plan Mitigation Measure 15-1 includes limiting hours of noise generation, locating equipment away from sensitive receptors, properly maintaining of equipment, limiting idling of equipment, conducting traffic noise analysis at haul routes, incorporating noise barriers (if needed), and avoiding or minimizing use of equipment known to generate high levels of groundborne vibration near sensitive receptors. As discussed under Delta Plan Mitigation Measure 15-2, geotechnical activities will not generate significant groundborne vibrations. The detailed description of 2024–2026 Proposed Geotechnical Activities in the *2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan* (Attachment 5) includes a limitation of activities to daytime hours and a minimum proximity to residences or sensitive receptors. Delta Conveyance Project Environmental Commitment EC-13: *DWR Best Management Practices to Reduce GHG Emissions* includes commitments on proper maintenance of equipment and to minimize idling time of equipment. Delta Conveyance Project Mitigation Measure NOI-1 would reduce noise levels at the impacted receptor locations through preconstruction actions, sound-level monitoring, best noise-control practices, and installation of noise barriers, as applicable. Implementation of the activities as described, including environmental commitments in conjunction with Delta Conveyance Project Mitigation Measure

NOI-1, is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 15-1.

Delta Plan Impact: Temporary and Short-term Exposure of Sensitive Receptors to Excessive Groundborne Vibrations

Delta Plan Mitigation Measure: 15-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact NOI-2) on groundborne vibrations.

The geotechnical activities will occur at a given location for a short amount of time during daytime hours and would cease once the testing is complete. The geotechnical activities would not cause noticeable vibration levels at the nearest residences. Vibrations from heavy equipment are not expected to produce perceptible levels of vibration inside of the nearest residences or to have the potential to result in building damage. Measures related to pile-driving testing are not applicable since this activity is not proposed as part of the geotechnical activities.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 15-2. Therefore, Delta Plan Mitigation Measure 15-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 15-2 is not required.

Delta Plan Impact: Long-Term Exposure of Sensitive Receptors to Excessive Noise from Operations

Delta Plan Mitigation Measure: 15-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a significant and unavoidable impact (Impact NOI-1) on noise.

The 2024–2026 Proposed Geotechnical Activities will generate temporary noise during the geotechnical activities but will not include ongoing (i.e., long-term) operations or noise from operations. See the discussion under Delta Plan Mitigation Measure 15-2 regarding short-term noise impacts.

The 2024–2026 Proposed Geotechnical Activities do not include operations (long-term noise exposure), will occur at a given location for a short amount of time during daytime hours, and would cease once the testing is complete. The 2024–2026 Proposed Geotechnical Activities will be temporary, will have a minimal footprint, and will not include operations. As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 15-3. Therefore, Delta Plan Mitigation Measure 15-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 15-3 is not required.

Delta Plan Resource Area: Population and Housing

Delta Plan Impact: Displace Substantial Numbers of Existing Housing and/or People, Necessitating the Construction of Replacement Housing Elsewhere

Delta Plan Mitigation Measure: 16-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR does not identify housing displacement as a potential project impact. Direct growth inducement is a function of the highest projected employment during the peak construction period. The Final EIR analyses reveal that project construction would not induce substantial new housing development as a result of peak employment projections.

The 2024–2026 Proposed Geotechnical Activities, which involve short-term, temporary activities with minimal personnel, would not contribute to direct growth inducement. Indirect growth inducement is a function of the construction of new or modified infrastructure (e.g., new roads, levee modifications) and water deliveries associated with Delta Conveyance Project operations. The 2024–2026 Proposed Geotechnical Activities do not involve construction or operations and thus will not impact indirect growth inducement.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 16-1. Therefore, Delta Plan Mitigation Measure 16-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 16-1 is not required.

Delta Plan Resource Area: Public Services

Delta Plan Impact: Need for New or Physically Altered Governmental Facilities to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Fire Protection and Emergency Medical Services, Police Protection, Schools, or Libraries

Delta Plan Mitigation Measure: 17-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact UT-1) on public services and utilities.

Although the 2024–2026 Proposed Geotechnical Activities would require workers (as incorporated into the data in Table 21-1 in Final EIR Chapter 21, *Public Services and Utilities*), the construction worker population is assumed to come from the existing labor force, which is already served by existing law enforcement, fire department, hospitals, schools, and other public services in the project area. For the 2024–2026 Proposed Geotechnical Activities, these workers would be temporary and are not anticipated to relocate to the study area; thus there would not be a need for construction of new or expanded infrastructure or services related to police protection, fire protection, hospitals, schools, or other public services for either the larger Delta Conveyance Project or for the geotechnical activities. Investigations would not require or result in the relocation or construction of service system infrastructure (e.g., water and wastewater services, stormwater drainage). The 2024–2026 Proposed Geotechnical Activities will not require electric power or telecommunications. As per the analysis in the Final EIR, the project

would not cause any exceedance of landfill capacity or exceed any State or local standards. All holes will be backfilled per regulatory standards and returned to existing conditions.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 17-1. Therefore, Delta Plan Mitigation Measure 17-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 17-1 is not required.

Delta Plan Resource Area: Recreation

Delta Plan Impact: Impair, Degrade, or Eliminate Recreation Facilities and Activities

Delta Plan Mitigation Measure: 18-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact REC-1) on recreation.

The 2024–2026 Proposed Geotechnical Activities would take a short period of time and are not likely to displace recreationists to other parks at such a level as to degrade facilities or experiences at those facilities. The 2024–2026 Proposed Geotechnical Activities would be used to refine project alignment and design and to more specifically identify appropriate construction methods addressed in the final design documents and help establish geological and groundwater monitoring programs for the design and construction phases of the Delta Conveyance Project. The 2024–2026 Proposed Geotechnical Activities will not require the construction or expansion of recreation facilities.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 18-1. Therefore, Delta Plan Mitigation Measure 18-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 18-1 is not required.

Delta Plan Impact: Increase the Use of Existing Recreational Facilities Such That Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated

Delta Plan Mitigation Measure: 18-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact REC-1) on recreation. The conclusion regarding a less-than-significant impact on recreation from the Final EIR remains unchanged, as the execution of the 2024–2026 Proposed Geotechnical Activities will not result in any new potentially significant impacts or a substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for recreation resources that could result in any new potentially significant impacts.

The 2024–2026 Proposed Geotechnical Activities would take a short period of time and are not likely to displace recreationists to other parks at such a level as to degrade facilities or

experiences at those facilities. The 2024–2026 Proposed Geotechnical Activities would be used to refine project alignment and design and to more specifically identify appropriate construction methods addressed in the final design documents and help establish geological and groundwater monitoring programs for the design and construction phases of the Delta Conveyance Project.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 18-2. Therefore, Delta Plan Mitigation Measure 18-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 18-2 is not required.

Delta Plan Impact: Require the Construction or Expansion of Recreation Facilities which Might Have an Adverse Physical Effect on the Environment

Delta Plan Mitigation Measure: 18-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact REC-2) on recreation.

The 2024–2026 Proposed Geotechnical Activities would take a short period of time and are not likely to displace recreationists to other parks at such a level as to degrade facilities or experiences at those facilities. The 2024–2026 Proposed Geotechnical Activities would be used to refine project alignment and design and to more specifically identify appropriate construction methods addressed in the final design documents and help establish geological and groundwater monitoring programs for the design and construction phases of the Delta Conveyance Project. The 2024–2026 Proposed Geotechnical Activities will not require the construction or expansion of recreation facilities.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 18-3. Therefore, Delta Plan Mitigation Measure 18-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 18-3 is not required.

Delta Plan Resource Area: Traffic and Transportation

Delta Plan Impact: Construction- and Operations-related Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System, Taking into Account All Modes of Transportation

Delta Plan Mitigation Measure: 19-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact TRANS-2) on traffic and transportation.

The 2024–2026 Proposed Geotechnical Activities remain consistent with the calculations and analyses presented in the Final EIR. In fact, the degree of impact for the 2024–2026 Proposed Geotechnical Activities is less than disclosed in the Final EIR.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 19-1. Therefore, Delta Plan Mitigation Measure 19-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 19-1 is not required.

Delta Plan Impact: Potential Increase in Hazards Related to a Design Feature

Delta Plan Mitigation Measure: 19-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact TRANS-3) on traffic and transportation. However, the 2024–2026 Proposed Geotechnical Activities do not include the construction of permanent project features. Therefore, the 2024–2026 Proposed Geotechnical Activities' impact would be less than significant, and Delta Conveyance Project Mitigation Measure TRANS-1: *Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan* would not apply under Delta Conveyance Project Impact TRANS-3.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 19-2. Therefore, Delta Plan Mitigation Measure 19-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 19-2 is not required.

Delta Plan Impact: Potential Reduction in Adequate Emergency Access

Delta Plan Mitigation Measure: 19-3

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact TRANS-4) on traffic and transportation.

The 2024–2026 Proposed Geotechnical Activities remain consistent with the calculations and analyses presented in the Final EIR (Table 2 in the Evaluation of Consistency memo [Attachment 4]). Overall, effects from the 2024–2026 Proposed Geotechnical Activities would generally have negligible effects on the circulation systems because of the limited nature of these activities. The 2024–2026 Proposed Geotechnical Activities will not involve overwater activities and, therefore, do not have the potential to affect marine navigation. For these reasons, the 2024–2026 Proposed Geotechnical Activities will result in a less-than-significant impact with respect to emergency access, and Delta Conveyance Project Mitigation Measure TRANS-1: *Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan* would not apply under Impact TRANS-4.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 19-3. Therefore,

Delta Plan Mitigation Measure 19-3 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 19-3 is not required.

Delta Plan Impact: Construction- and Operations-Related Conflict with Adopted Policies, Plans, or Programs Regarding Bicycle or Pedestrian Facilities

Delta Plan Mitigation Measure: 19-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact TRANS-2) on traffic and transportation.

The 2024–2026 Proposed Geotechnical Activities remain consistent with the calculations and analyses presented in the Final EIR. In fact, the degree of impact for the 2024–2026 Proposed Geotechnical Activities is less than disclosed in the Final EIR.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 19-4. Therefore, Delta Plan Mitigation Measure 19-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 19-4 is not required.

Delta Plan Resource Area: Utilities and Service Systems

Delta Plan Impact: Generate Solid Waste That Would Exceed the Permitted Capacity of Local Landfills or Cause Conflicts with Federal, State, and Local Statutes and Regulations Related to Solid Waste

Delta Plan Mitigation Measure: 20-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact (Impact UT-4) on utilities and service systems.

The 2024–2026 Proposed Geotechnical Activities would not cause any exceedance of landfill capacity or exceed any State or local standards. All holes will be backfilled per regulatory standards and returned to existing conditions.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 20-1. Therefore, Delta Plan Mitigation Measure 20-1 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 20-1 is not required.

Delta Plan Impact: Create a Public Health Hazard from Utility Disruption

Delta Plan Mitigation Measure: 20-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in less-than-significant impacts (Impact UT-2 and Impact UT-3) on utilities and service systems.

Although the 2024–2026 Proposed Geotechnical Activities would require workers (as incorporated into the data in Table 21-1 in Final EIR Chapter 21, *Public Services and Utilities*), the construction worker population is assumed to come from the existing labor force, which is already served by existing law enforcement, fire department, hospitals, schools, and other public services in the project area. For the 2024–2026 Proposed Geotechnical Activities, these workers would be temporary and are not anticipated to relocate to the study area; thus there would not be a need for construction of new or expanded infrastructure or public services for either the larger Delta Conveyance Project or the geotechnical activities. Investigations would not require or result in the relocation or construction of service system infrastructure (e.g., water and wastewater services, stormwater drainage). The 2024–2026 Proposed Geotechnical Activities will not require electric power or telecommunications.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 20-2. Therefore, Delta Plan Mitigation Measure 20-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 20-2 is not required.

Delta Plan Resource Area: Climate Change and Greenhouse Gas Emissions

Delta Plan Impact: Construction and Operations of Projects Could Result in an Increase in GHG Emissions That May Have a Significant Impact on the Environment

Delta Plan Mitigation Measure: 21-1

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR concludes the Delta Conveyance Project will result in a less-than-significant impact with mitigation (Impact AQ-9) on GHG emissions. Table 6 in the Evaluation of Consistency memo (Attachment 4), provides the anticipated GHG emissions calculations for the geotechnical activities Table 7 in the Evaluation of Consistency memo (Attachment 4) includes the real-time calculations for the 2024 activities that were completed as well as the projected GHG emissions for the geotechnical activities and compares these to the Final EIR calculations (Table 23-74 in Final EIR Chapter 23, *Air Quality and Greenhouse Gases*). These calculations show that the estimated GHG projections from the Final EIR would be reduced with the revised geotechnical activities for emissions in years 1 and 2. The 2024–2026 Proposed Geotechnical Activities are not expected to result in a change to the underlying land use of any properties, because all affected areas would be returned to as close to pre-activity conditions as possible and thus would not impact global climate change from land use changes. Revised calculations (Table 7 in the Evaluation of Consistency memo [Attachment 4]) indicate that GHG emissions from 2024–2026 Proposed Geotechnical Activities would not be significant. However, GHG emissions are considered cumulatively and as such would require implementation of the

applicable portions of Delta Conveyance Project Mitigation Measure AQ-9: *Develop and Implement a GHG Reduction Plan to Reduce GHG Emissions from Construction and Net CVP Operational Pumping to Net Zero*.

Delta Plan Mitigation Measure 21-1 includes implementation of GHG BMPs, designing for energy efficiency, using renewable energy, creating water efficient landscaping, reusing and recycling demolition waste, following transportation BMPs, purchasing carbon-offsets (if necessary), using SmartWay truck technology, developing a tire inflation program, using blended cements, and enforcing anti-idling policies. As discussed, the 2024–2026 Proposed Geotechnical Activities would not include design, construction, or demolition of facilities and would not require use of blended cements. While portions of Delta Plan Mitigation Measure 21-1 are not applicable to the 2024–2026 Proposed Geotechnical Activities, Delta Conveyance Project Environmental Commitment EC-13: *DWR Best Management Practices to Reduce GHG Emissions* includes reuse and recycling of demolition waste, transportation BMPs, use of SmartWay truck technology, a tire inflation program, use of blended cements, and anti-idling enforcement. Additionally, Delta Conveyance Project Mitigation Measure AQ-9 includes a plan with emissions quantity and reduction commitments, GHG reduction strategies (including designing for energy efficiency, using renewable energy, and purchasing carbon offsets), and implementation and enforcement. Implementation of the activities as described, including environmental commitments in conjunction with Delta Conveyance Project Mitigation Measure AQ-9, is the same as, equal to, or more effective than the applicable portions of Delta Plan Mitigation Measure 21-1.

Delta Plan Resource Area: Climate Change and Greenhouse Gas Emissions

Delta Plan Impact: Conflict with Operations of Proposed Facilities due to Climate Change and Sea Level Rise

Delta Plan Mitigation Measure: 21-2

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR does not identify this as a potential project impact for the Delta Conveyance Project. The 2024–2026 Proposed Geotechnical Activities will be temporary, have a minimal footprint, and will not include construction or operations of facilities. The geotechnical activities will occur in the near-term and are of a temporary nature. Impacts of geotechnical activities are analyzed based on conditions in 2020 and would not be affected by climate change. Furthermore, all affected areas would be returned to as close to pre-activity conditions as possible.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 21-2. Therefore, Delta Plan Mitigation Measure 21-2 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 21-2 is not required.

Delta Plan Impact: Conflict with Operations of Proposed Facilities due to Climate Change and Sea Level Rise

Delta Plan Mitigation Measure: 21-4

2024–2026 Proposed Geotechnical Activities Assessment

The Final EIR does not identify this conflict with facilities operations due to climate change as a potential project impact for the Delta Conveyance Project. The 2024–2026 Proposed Geotechnical Activities will be temporary, will have minimal footprint, and will not include construction or operations of facilities. The geotechnical activities will occur in the near-term and are of a temporary nature. Impacts of geotechnical activities are analyzed based on conditions in 2020 and would not be affected by climate change. Furthermore, all affected areas would be returned to as close to pre-activity conditions as possible.

As discussed, the 2024–2026 Proposed Geotechnical Activities will not result in a potentially significant impact requiring implementation of Delta Plan Mitigation Measure 21-4. Therefore, Delta Plan Mitigation Measure 21-4 is not applicable to the 2024–2026 Proposed Geotechnical Activities, and a comparison of Delta Conveyance Project mitigation measure(s) to Delta Plan Mitigation Measure 21-4 is not required.

4.3.1.3 G P1 (b)(3) Detailed Findings

Summary

The DCA has implemented and will continue to implement the best available science in the development of the Delta Conveyance Project facilities design. DCA obtained records from a number of previously conducted geotechnical investigations completed by DWR, local utilities, regional natural gas utilities, and Caltrans throughout the Delta. Subsequently, the Delta Conveyance geotechnical investigation program was developed to provide additional information needed to design and construct Delta Conveyance Project facilities because conditions in the Delta are highly variable with relatively few investigations along the Bethany Reservoir Alignment. The DCA compared the known geotechnical investigation results to the Delta Conveyance Project feature locations to determine the need for additional field investigations to provide results along the tunnel and to be in compliance with the California Building Code at the intakes and Bethany Complex structures with either soil borings or CPTs, as already described. Based on the information obtained, known conditions in the project area, and experience on similar projects, the overall geotechnical investigation program, including a description of future investigations, is discussed in the Potential Future Field Investigations—Bethany Reservoir Alternative technical memorandum in the Delta Conveyance Project Engineering Project Report (Delta Conveyance Design and Construction Authority 2022). As the field investigation results are completed, this information will be used to develop the foundation design criteria for both the tunneling and intakes and the Bethany Complex structures.

Purpose of Geotechnical Investigations

As a result of multiple complex geologic processes, ground conditions in the Delta vary widely. Geotechnical investigations, including soil borings and CPTs, are used to validate and refine the conceptual design of project features. The main objective of these investigations is to define the

nature and spatial variability of the subsurface stratigraphy for all project features in order to mitigate construction and operational risks. The analyses will accomplish the following aims.

1. Define soil deposit extents, depths, thicknesses, physical characteristics, maximum and average clast sizes, and groundwater conditions.
2. Determine engineering properties of soil deposits, such as grain size, plasticity, density, strength, abrasivity, deformation characteristics, swell potential, permeability, corrosivity, and resistance to seismic shaking for facility design.
3. Evaluate liquefaction potential and develop ground motion parameters for seismic design.
4. Provide data to define requirements for tunnel boring machines (TBMs), including soil abrasivity, strength, and cementation, to estimate wear rates, TBM penetration rates, and overall utilization, and to develop proactive TBM maintenance requirements to reduce the risk of unplanned shutdowns.
5. Identify suitable locations along the tunnel alignment for TBM maintenance.
6. Obtain groundwater-level data and quality for tunnel and shaft lining design, evaluate face support pressure requirements during TBM operation, and identify the potential for artesian pressures affecting shaft, tunnel, and pumping plant design.
7. Evaluate the likelihood for hazardous gases like methane and hydrogen sulfide that will pose environmental and physical risks to the project and construction personnel and develop necessary safety measures.
8. Determine the potential impact of tunneling to the existing levees.
9. Define the presence and limits of zones of impacted soil and groundwater quality to minimize risks to agricultural, domestic, and municipal water wells in the vicinity.

The current design has sought to minimize surface and subsurface impacts from tunnel construction work shafts by maximizing tunnel drive lengths to the practical limit and by conducting thorough shaft-siting studies. In the absence of data from the currently planned subsurface exploration program, the following risks may be unidentified and unmitigated.

- The risk of highly abrasive, strong, or oversized clasts causing damage or unanticipated wear to the TBMs resulting in a stuck drive. This may in turn require the construction of an unplanned shaft to repair the TBM or the introduction of cementitious grout into the ground ahead of the TBM to facilitate repair from inside the TBM. Any unplanned facilities or zones of low-permeability grout may in turn impact adjacent landowners and result in additional GHG emissions and heavy truck traffic.
- The risk of unanticipated high artesian groundwater conditions resulting in a failure to adequately support the ground during tunneling and potentially excessive leakage of groundwater into the completed tunnel. These outcomes would have implications to local landowners in the form of ground settlement and potential for reduced well yields.
- The risk of encountering zones of impacted water quality resulting in reusable tunnel material that is high in boron, salt, metals, or other deleterious substances that either preclude suitable postconstruction agronomic site restoration or, worse, impact local and regional surface and groundwater quality due to runoff. The risk may also manifest itself in a reduced lifespan and watertightness of structural concrete shaft and pumping plant liners.

- The risk of significant ground disturbance at depth resulting from a seismic event on one of the faults local to the Delta, such as the West Tracy Fault, causing partial or total collapse of the tunnel. This would in turn likely result in a large sinkhole and the potential for release of water into the subsurface. In a less catastrophic scenario, the ground movements experienced by the tunnel where it crosses faults may impact the watertightness of the tunnel lining, in turn introducing water into the tunnel and potentially reducing local well yields.
- The risk of thick sequences of coarse Sacramento River alluvium containing cobbles or boulders interrupting the continuous nature of planned groundwater isolation features at the intakes. This in turn could prevent the ability to empty the sediment basins behind the intakes without the use of deep dewatering wells, which in turn may negatively impact the regional and localized access to groundwater resources and recharge to the river. It may also introduce higher river head during periods of flood to the near surface soils adjacent to the intakes. This could result in surface seepage or flooding.

Geotechnical explorations conducted to date for the project and those currently planned use state-of-the-practice methods and techniques to collect samples and *in situ* data. Specifically, they use mud rotary methods operated by highly experienced field crews that prevent the uncontrolled entry of soil into the borehole and disturbance of the adjacent soils. Soil sampling is continuous using a 134-millimeter-sleeved drilling system, which allows collection of an undisturbed column of soil. *In situ* testing includes pressure meter and downhole shear wave velocity measurements to obtain the most accurate engineering properties on the in-place undisturbed soils. Water quality sampling involves proper development of temporary cased boreholes to allow discrete and targeted sampling of water quality at and adjacent to the planned tunnel horizon.

The rigorous attention to exploration techniques ensures that the parameters developed from the *in situ* and laboratory testing of field samples are the most accurate obtainable values. This avoids unnecessary design conservatism associated with values obtained on disturbed soils samples. The unnecessary conservatism involved with erroneously low design values also minimizes waste, impacts to the public, and GHG emissions and serves as a basis for the most economical project.

The proposed geotechnical investigation involves drilling borings and performing CPTs. The number and spacing of soil borings are based on expert experience on tunneling projects with similar ground conditions, averaging 1,000 feet apart along the tunnel reaches (per U.S. Department of Transportation Federal Highway Administration *Technical Manual for Design and Construction of Road Tunnels—Civil Elements*) (Hung et al. 2009). The tunnel invert and the bottom of the tunnel shafts would vary in elevation from -140 to -164 feet (North American Vertical Datum of 1988) with an excavated diameter of about 40 feet. Borings for the shaft extend 100 feet below the shaft bottom, while tunnel borings extend at least one tunnel diameter below the invert at that location. CPTs are planned in between soil borings to assist in the interpretation of ground conditions between borings. A subsequent phase of geotechnical investigation will be required for the final design of the Delta Conveyance Project tunnel to fill gaps and confirm assumptions from the preliminary design.

Soil investigations for design of surface project features are required by Section 1803.5.11 of the 2022 California Building Code (CBC), which requires a "geotechnical investigation" for any structure determined to be in Seismic Design Category C, D, E, or F in accordance with CBC Section 1613. Per the latest American Society of Civil Engineers (ASCE) codes (ASCE 7-22, which will be adopted in the next update of CBC), the Seismic Design Category for the Delta Conveyance Project is category D (American Society of Civil Engineers 2021). This was estimated based on the ground motions at the Bethany Reservoir Pumping Plant. For the facilities to the north, where the ground motions are

lower, the Seismic Design Category could be lower and would still require geotechnical investigation. Section 11.8 of ASCE 7-22 requires that a geotechnical investigation report be submitted for Seismic Design Category C through F structures. The report shall include foundation design and evaluations of geologic and seismic hazards that require site-specific soil data. The information collected through the Delta Conveyance geotechnical investigation program will inform the development of this required geotechnical investigation report.

Geotechnical investigations will always be required for any projects within any Seismic Design Category. The data could be from previously conducted or from new investigations.

Geotechnical investigation results will also be used to determine numerous design issues, including (1) the feasibility of using vibratory piles versus driven piles and the locations of the piles as part of the foundations for the intakes and structures at the Bethany Complex; (2) the need for ground improvement to reduce the risk of liquefaction or to improve soil strength to avoid conditions such as settlement or lateral spreading; (3) the need for groundwater dewatering to provide a drier area during construction at elevations below existing ground surface; and (4) depth of cutoff walls at the intakes and Bethany Reservoir Surge Basin. Without such geotechnical investigations, design criteria could be overly conservative and could result in more construction disturbance than is actually needed (i.e., increased truck trips, noise, GHG emissions or air quality impacts). For example, without geotechnical investigations, a conservative approach would be to assume that piles need to be driven. However, if geotechnical investigation results indicate that the soils where the piles would be installed are not dense or very hard soils or are gravels, vibratory piles would be considered.

4.3.1.4 G P1 (b)(4) Detailed Findings

As described in *Delta Plan* Policy G P1 (b)(4), Incorporation of Adaptive Management, this policy covers ecosystem restoration and water management covered actions. This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here is not an ecosystem restoration or water management project. The 2024–2026 Proposed Geotechnical Activities are temporary data collection activities that would inform planning and design of the Delta Conveyance Project.

4.3.1.5 G P1 (c) Detailed Findings

As described in *Delta Plan* Policy G P1 (c), Conservation Measure, this policy covers a conservation measure proposed to be implemented pursuant to a state natural community conservation plan (NCCP) or a federal habitat conservation plan (HCP). This policy is not applicable to the 2024–2026 Proposed Geotechnical Activities because the proposed action here does not include a conservation measure proposed to be implemented pursuant to an NCCP or HCP.

4.3.2 Conclusion: Step 4 (Article 2 Policies)

As already demonstrated, the 2024–2026 Proposed Geotechnical Activities are consistent with the four general Article 2 subdivisions of DSC's regulations. Furthermore, as explained in the DSC's Covered Action Checklist, where a proposed action does not require further analysis after Step 3, as is the case for the 2024–2026 Proposed Geotechnical Activities, an inconsistency with any of the

four general Article 2 subdivisions of DSC's regulations would not, by itself, render a certification of consistency inadequate.[20]

[20] Cal. Code Regs., tit. 23, § 5002(a). Inconsistency with this policy is a basis for an appeal only if the proposed action "is covered by one or more of the regulatory policies contained in Article 3."

Chapter 5
Conclusion

As the findings discussed here show, the 2024–2026 Proposed Geotechnical Activities are consistent with the *Delta Plan* for two independent reasons. First, with only temporary impacts in discrete locations, the 2024–2026 Proposed Geotechnical Activities will have no impact on the achievement of one or both of the coequal goals or on the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta. Second, the 2024–2026 Proposed Geotechnical Activities are not covered by one or more of the regulatory Delta Plan policies contained in Article 3 provisions of the Delta Stewardship Council's regulations. In addition, the 2024–2026 Proposed Geotechnical Activities are consistent with the four general Article 2 subdivisions of DSC's regulations. Accordingly, DWR submits this certification of consistency for the 2024–2026 Proposed Geotechnical Activities.

Chapter 6
References Cited

American Society of Civil Engineers. 2021. *ASCE 7-22—Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. December. Reston, VA.

Association for the Advancement of Cost Engineering International. 2020. *Recommended Practice No. 17R-97, Cost Estimate Classification System*. Revised: August 7, 2020. Available: https://web.aacei.org/docs/default-source/rps/17R-97.pdf. Accessed: July 15, 2024.

California Department of Water Resources. 2020. *Soil Investigations for Data Collection in the Delta. Final Initial Study/Mitigated Negative Declaration*. SCH# 2019119073. July. Sacramento, CA.

California Department of Water Resources. 2023a. *Delta Conveyance Project Final Environmental Impact Report*. December. (ICF 103653.0.003.) Sacramento, CA. Prepared by ICF, Sacramento, CA.

California Department of Water Resources. 2023b. *Delta Conveyance Project Mitigation Monitoring and Reporting Program.* December. (ICF 103653.0.003.) Sacramento, CA. Prepared by ICF, Sacramento, CA.

California Department of Water Resources. 2024. *Noise Control Plan for 2024–2026 Proposed Geotechnical Activities*. September. Sacramento, CA.

California Invasive Plant Council. 2012. *Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors*. Cal-IPC Publication 2012-1. California Invasive Plant Council, Berkeley, CA. Available: http://www.cal-ipc.org. Accessed: August 20, 2024.

Delta Conveyance Design and Construction Authority. 2022. Potential Future Field Investigations—Bethany Reservoir Alternative (Final Draft). Technical Memorandum. In Attachment: Technical Memoranda, *Volume 1: Delta Conveyance Final Draft Engineering Project Report—Bethany Reservoir Alternative*. May 2022. Sacramento, CA.

Delta Conveyance Design and Construction Authority. 2024. *DCA Universal Health and Safety Plan for the Delta Conveyance Project (Final Draft).* Prepared by AECOM, Sacramento, CA. May.

Delta Stewardship Council. 2013. *The Delta Plan*. Originally published September 1, 2013. Amended April 2018, July 2019, March 2020, June 2022, January 2024, and February 2024. Sacramento, CA. Available: http://www.deltacouncil.ca.gov/delta-plan. Accessed: July 15, 2024.

Delta Stewardship Council. 2018. Chapter 3,. In *The Delta Plan*. Originally published September 1, 2013; Amended April 2018. Available: https://deltacouncil.ca.gov/pdf/delta-plan/2018-04-26-amended-chapter-3.pdf. Accessed: August 21, 2024.

Delta Stewardship Council. 2022a. Chapter 4. In *The Delta Plan*. Amended June 2022. Available: https://deltacouncil.ca.gov/pdf/delta-plan/2022-06-29-chapter-4-protect-restore-and-enhance-the-delta-ecosystem.pdf. Accessed: August 21, 2024.

Delta Stewardship Council. 2022b. *Delta Plan Ecosystem Amendment Final Program Environmental Impact Report*. SCH# 202050219. June. Available: https://deltacouncil.ca.gov/pdf/delta-plan/2022-06-10-final-peir-eco-amendment.pdf. Accessed: July 15, 2024.

Hung, C. J., J. Wisniewski, J. Monsees, and N. Munfah. 2009. *Technical Manual for Design and Construction of Road Tunnels—Civil Elements*. U.S. Department of Transportation Federal Highway Administration. Publication No. FHWA-NHI-10-034. December. Available: https://rosap.ntl.bts.gov/view/dot/50019/dot_50019_DS1.pdf. Accessed: July 15, 2024.

Attachment 1

Covered Action Checklist

Covered Actions Checklist

This checklist is a discretionary tool for state and local agencies to use in determining whether a plan, program, or project is a "Covered Action" (Delta Plan Chapter 2), as defined in the Delta Reform Act (Water Code section 85057.5(a)).

Note: the responsibility for making this determination rests with the certifying agencies, subject to judicial review.

Covered Action Title:

STEP 1: Determine if the plan, program, or project is exempt from the definition of a "covered action".

THE PLAN, PROGRAM OR PROJECT:

1. Is the plan, project, or program exempt from the definition of a covered action?

For specific details on what is statutorily exempt from regulation as a "covered action" refer to:

(Water Code section 85057.5 (b.)), included in (Appendix F of the Delta Plan) and (Chapter 2 of the Delta Plan)

☒ Yes ☐ No

If "YES", the plan, program, or project is exempt from the Council's regulatory authority – NO FURTHER STEPS REQUIRED.

If "NO", the plan, program or project is not exempt from the definition of a covered action – PROCEED TO STEP 2.

STEP 2: Determine if the plan, program, or project meets all four "Screening Criteria" listed below.

THE PLAN, PROGRAM OR PROJECT:

1. Is this a plan, program, or project as defined pursuant to Public Resources Code section 21065;

This criteria would be met if the plan, program, or project meets the definition of a project under the California Environmental Quality Act (CEQA) Public Resources Code section 21065 that defines the term "project" for purposes of potential CEQA review.

☒ Yes ☐ No

2. Will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh;

This criteria would be met if, for example, water intended for use upstream of the statutory Delta or Suisun March were transferred through the statutory Delta or Suisun Marsh (pursuant for example, to a water transfer longer than 1 year in duration).

☒ Yes ☐ No

3. Will be carried out, approved, or funded by the State or a local public agency;

This criteria would be met if the plan, program, or project is (a) an activity directly undertaken by any state or local public agency,

(b) An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more state or local public agencies, or (c) An activity that involves the issuance to a person of lease, permit, license, certificate, or other entitlement for use by one or more state or local public agencies.

☒ Yes ☐ No

4. Will have a significant impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta;

“Significant Impact” means a substantial positive or negative impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and state interests in the Delta, that is directly or indirectly caused by a project on its own or when the project’s incremental effect is considered together with the impacts of other closely-related past, present, or reasonably foreseeable future projects. The coequal goals and government-sponsored flood control programs are further defined in Chapters 3, 4, and 7.

The following categories of projects will not have a significant impact for this purpose:

- Ministerial” projects exempted from CEQA, pursuant to Public Resources Code Section 21080(b)(1);
- “Emergency” projects exempted from CEQA, pursuant to Public Resources Code Section 21080(b)(2)-(4);
- Temporary water transfers of up to one year in duration. This provision shall remain in effect only through December 31, 2016, and as of January 1, 2017, is repealed, unless the Council acts to extend the provision prior to that date.;

- Other projects exempted from CEQA, unless there are unusual circumstances indicating a reasonable possibility that the project will have a significant impact under Water Code Section 85057.5(a)(4). Examples of unusual circumstances could arise in connection with, among other things:
    - Local government general plan amendments for the purpose of achieving consistency with the Delta Protection Commission's Land Use and Resource Management Plan; and,
    - Small-scale habitat restoration projects, as referred to in CEQA Guidelines 15333, proposed in important restoration areas, but which are inconsistent with the Delta Plan's policy related to appropriate habitat restoration for a given land elevation.

☐ Yes ☒ No

If "NO" to any in step 2 above, the plan, program, or project, for purposes of the Delta Plan, does not meet the definition of Covered Action, NO FURTHER STEPS REQUIRED.

If "YES" to all four in step 2 above, then the plan, program or project is considered, for purposes of the Delta Plan, a Proposed Action – PROCEED TO STEP 3.

STEP 3: Determine if the Proposed Action is covered by one or more Delta Plan regulatory policies below - the final Screening Criteria.

THE PROPOSED ACTION:

1. Is covered by one or more of the regulatory policies contained in Chapters 3, 4, 5, and 7;

DELTA PLAN CHAPTER 3

WR P1 / Cal. Code Regs., tit. 23, § 5003: This policy covers all Proposed Actions that would export water from, transfer water through, or use water in the Delta, but does not cover any such action unless one or more water suppliers would receive water as a result of the proposed action.

WR P2 / Cal. Code Regs., tit. 23, § 5004: This policy covers all Proposed Actions that involve water supply or water transfer contracts from the State Water Project (SWP) and/or the Central Valley Project (CVP).

DELTA PLAN CHAPTER 4

ER P1 / Cal. Code Regs., tit. 23, § 5005: This policy covers all Proposed Actions that could significantly affect flow in the Delta.

ER P2 / Cal. Code Regs., tit. 23, § 5006: This policy covers all Proposed Actions that include habitat restoration.

ER P3 / Cal. Code Regs,. tit. 23, § 5007: This policy covers all Proposed Actions in the priority habitat restoration areas depicted in Appendix 5. It does not cover actions outside those areas.

ER P4 / Cal. Code Regs,. tit. 23, § 5008: This policy covers all Proposed Actions that would construct new levees or substantially rehabilitate or reconstruct existing levees.

ER P5 / Cal. Code Regs,. tit. 23, § 5009: This policy covers all Proposed Actions that have the reasonable probability of introducing, or improving habitat conditions for nonnative invasive species.

DELTA PLAN CHAPTER 5

DP P1 / Cal. Code Regs,. tit. 23, § 5010: This policy covers all Proposed Actions that involve new residential, commercial, and industrial development that is not located within the areas described in Appendix 6 (page 63) and Appendix 7 (page 81). In addition, this policy covers any such action on Bethel Island that is inconsistent with the Contra Costa County general plan effective as of the date of the Delta Plan's adoption. This policy does not cover commercial recreational visitor-serving uses or facilities for processing of local crops or that provide essential services to local farms, which are otherwise consistent with this chapter.

DP P2 / Cal. Code Regs,. tit. 23, § 5011: This policy covers all Proposed Actions that involve the siting of water management facilities, ecosystem restoration, and flood management infrastructure.

DELTA PLAN CHAPTER 7

RR P1 / Cal. Code Regs,. tit. 23, § 5012: This policy covers all Proposed Actions that involve discretionary State investments in Delta flood risk management, including levee operations, maintenance, and improvements.

RR P2 / Cal. Code Regs,. tit. 23, § 5013: This policy covers all Proposed Actions that involve new residential development of five or more parcels that are not located within the following areas:

(1) Areas that city or county general plans, as of the date of the Delta Plan's adoption, designate for development in cities or their spheres of influence;

(2) Areas within Contra Costa County's 2006 voter-approved urban limit line, except Bethel Island;

(3) Areas within the Mountain House General Plan Community Boundary in San Joaquin County; or

(4) The unincorporated Delta towns of Clarksburg, Courtland, Hood, Locke, Ryde, and Walnut Grove, as shown in Appendix 7 (page 81).

RR P3 / Cal. Code Regs,. tit. 23, § 5014: This policy covers all Proposed Actions that would encroach in a floodway that is not either a designated floodway or regulated stream.

RR P4 / Cal. Code Regs,. tit. 23, § 5015: This policy covers all Proposed Actions that would encroach in any of the floodplain areas described below:

(1) The Yolo Bypass within the Delta;

(2) The Cosumnes River-Mokelumne River Confluence, as defined by the North Delta Flood Control and Ecosystem Restoration Project (McCormack-Williamson), or as modified in the future by the Department of Water Resources or the U.S. Army Corps of Engineers (Department of Water Resources 2010a); and,

(3) The Lower San Joaquin River Floodplain Bypass area, located on the Lower San Joaquin river upstream of Stockton immediately southwest of Paradise Cut on lands both upstream and downstream of the Interstate 5 crossing. This area is described in the Lower San Joaquin River Floodplain Bypass Proposal, submitted to the Department of Water Resources by the partnership of the South Delta Water Agency, the River Islands Development Company, Reclamation District 2062, San Joaquin Resource Conservation District, American Rivers, the American Lands Conservancy, and the Natural Resources Defense Council, March 2011. This area may be modified in the future through the completion of this project.

☐ Yes ☒ No

If "NO" to Step 3 above, the "proposed action" is not covered by any of the Delta Plan regulatory policies above and therefore exempt from the Council's regulatory authority - NO FURTHER STEPS ARE REQUIRED.

If "YES" to Step 3 above, the "proposed action" is covered by one or more of the Delta Plan regulatory policies above and is therefore referred to as a "Covered Action". A Certification of Consistency must be filed with the DSC - PROCEED TO NEXT STEP.

STEP 4: Review Delta Plan general regulatory policy in preparation for filing a Certification of Consistency.

In addition to the above policies, the Delta Plan includes a General Policy with four subdivisions that applies to the entire covered action. Note: policy G P1 does not on its own cause a plan, program, or project to be a covered action.

G P1 / Cal. Code Regs., Tit. 23 SECTION 5002: This policy specifies what must be addressed in a certification of consistency and consists of four subdivisions:

(G P1 (b)(1) Cal. Code Regs., Tit. 23 SECTION 5002 (b), (1)): This subdivision specifies that in some cases, a covered action may be determined to be consistent with the Delta

Plan on the whole, despite inconsistency with individual regulatory policies if the action is consistent with the coequal goals.

G P1 (b) (2) Cal. Code Regs., tit. 23, § 5002, subd. (b)(2).: This subdivision specifies when a covered action must include either applicable, feasible mitigation measures (defined in the Delta Plan's Program EIR section 2.3) or equally effective substitute mitigation measures.

G P1 (b) (3) Cal. Code Regs., tit. 23, § 5002, subd. (b)(3).: This subdivision requires that all covered actions must document use of best available science, as relevant to the purpose and nature of the project.

G P1 (b) (4)Cal. Code Regs., tit. 23, § 5002, subd. (b)(4).This subdivision requires that ecosystem restoration and water management covered actions must include adequate provisions, appropriate to the scope of the covered action, that include: (1) an adaptive management plan consistent with Appendix 1B (page 7) of the Delta Plan; and (2) documentation of access to adequate resources and authority to implement a proposed adaptive management process.

FINAL STEP: File a Certification of Consistency with detailed findings demonstrating consistency with the Delta Plan.

1. Click here to file a Certification of Consistency with the Delta Stewardship Council**, with detailed findings, and a list of the materials constituting the record, demonstrating that the covered action is consistent with the Delta Plan.**

The State or local agency that proposes to undertake a covered action, prior to initiating the implementation of that covered action, is required to file a Certification of Consistency with the Delta Stewardship Council using the online form found on the Delta Stewardship Council's website. Detailed findings, together with a list of the materials relied upon to reach those findings, must be included to demonstrate how the covered action is consistent with all relevant policies of the Delta Plan. The online form prompts the agency for the requirements to be included and may be uploaded to the form. Typically, the lead agency, for purposes of CEQA compliance, will file the Certification of Consistency with the Delta Stewardship Council.

ADDITIONAL CONSIDERATIONS:

Have the project proponent and/or the lead agency consulted with the Delta Stewardship Council on the covered action? (Not required, but recommended)

Consulting with Delta Stewardship Council staff during the early development phases of the covered action is a valuable tool to public agencies in preparing the required Certification of Consistency.

Was the DRAFT Certification of Consistency posted on the Agency website for public review, and were comment and notifications sent prior to submission to the Delta Stewardship Council?

At least 10 days prior to the submission of a Certification of Consistency to the Council, agencies whose actions are not subject to open meeting laws (Bagley-Keene Open Meeting Act [Gov. Code sec 11120 et seq.] or the Brown Act [Gov. Code sec 54950 et seq.]) with regard to its certification must post for public review and comment, their draft certification on their website and in their office, mail to all persons requesting notice, and include any public comments received in the record submitted to the council in the case of an appeal.

Any state or local public agency that is subject to open meeting laws with regard to its certification is encouraged to take those actions as described in Delta Plan Appendix D (Administrative Procedures Governing Appeals, Part 1, para. 3).

Has CEQA been completed at the time of filing a Certification of Consistency with the Delta Stewardship Council?

The timing of filing the Certification of Consistency with the Delta Stewardship Council is project specific but should occur after filing of the Notice of Determination and prior to project implementation. When other permits are required for implementation, project proponents should consult with Council staff on appropriate timing for filing the Certification of Consistency. Filing a Certification of Consistency prior to finalizing the design and operational elements of the project may result in a proposed covered action that is significantly altered through the CEQA or other processes. If, after filing a certificate of consistency, the project is significantly changed, a new Certification of Consistency will need to be filed with the Delta Stewardship Council.

Implementation of the covered action may not proceed until the appeals process is complete.

Once the State or local agency has filed a Certification of Consistency for a covered action, the Certification of Consistency is displayed on the Delta Stewardship Council's website for public view. Water Code 85225.10. (a): Any person who claims that a

proposed covered action is inconsistent with the Delta Plan and, as a result of that inconsistency, the action will have a significant adverse impact on the achievement of one or both of the coequal goals or implementation of government-sponsored flood control programs to reduce risks to people and property in the Delta, may file an appeal within 30 calendar days of the filing of a Certification of Consistency with the Delta Stewardship Council.

If a valid appeal is filed with the Delta Stewardship Council within 30 calendar days of Certification filing, the Council will hear the appeal within 60 days of the filing of the appeal. The Council will adopt written findings, either upholding the appeal or denying it, within 60 days of the hearing. If multiple appeals are filed on the same covered action, the Council may consolidate the appeals into a single hearing (Administrative Procedures Governing Appeals).

Has the state or local agency prepared the record upon which the Certification of Consistency is based?

If the Certification of Consistency is appealed, the certifying agency must submit the complete record that was before the agency at the time it made its Certification of Consistency to the Delta Stewardship Council within 10 days of being notified of the appeal (Administrative Procedures Governing Appeals, Section 4.b). The Delta Stewardship Council encourages the agency to prepare this record prior to filing its Certification of Consistency. Failure to submit the record in a timely manner is grounds for the Council to affirm the appeal (Administrative Procedures Governing Appeals, Section 4.c).

THANK YOU FOR USING THE COVERED ACTIONS CHECKLIST.

YOU MAY SAVE THE CHECKLIST TO YOUR COMPUTER OR PRINT FOR YOUR RECORDS.

Attachment 2

June 20, 2024, Sacramento Superior Court Ruling

FILED
Superior Court of California
County of Sacramento
06/20/2024
M. Lu, Deputy

SUPERIOR COURT OF CALIFORNIA
COUNTY OF SACRAMENTO

TULARE LAKE BASIN WATER STORAGE DISTRICT, **Petitioner,** **v.** **CALIFORNIA DEPARTMENT OF WATER RESOURCES,** **Respondent,** And Related Cases.	Case Nos. 24WM000006 24WM000008 24WM000009 24WM000010 24WM000011 24WM000012 24WM000014 24WM000017 24WM000062 24WM000076 Judge: Stephen Acquisto Dept.: 36
Nature of Proceedings:	**Ruling on Submitted Matter – Petitioners' Motions for Preliminary Injunction**

BACKGROUND

On December 21, 2023, Respondent the California Department of Water Resources approved the Delta Conveyance Project (the DCP) and certified its final environmental impact report (FEIR). The DCP is an expansive water infrastructure project to divert water, through a large tunnel, from the Sacramento River and the Sacramento-San Joaquin Delta. The DCP aims to improve the reliability and resiliency of the State Water Project, the existing infrastructure that delivers drinking water to millions of Californians. Following its approval, several writ petitions were filed challenging the DCP and the FEIR under the California Environmental Quality Act (CEQA), the Water Code, and other laws. There are now ten such related cases pending before this Court.

The Department intends to undertake geotechnical investigations prior to construction. According to Chapter 3 of the FEIR, titled "Description of the Proposed Project and Alternatives," the geotechnical investigations will "identify geotechnical, hydrogeologic, agronomic, and other field conditions that will guide appropriate construction methods and monitoring programs for final engineering design and construction." (Baykeeper RJN, Ex. A, p.

3-2.) The Notice of Determination for the DCP, which provided notification that the Department had approved the DCP, describes such geotechnical work as part of the "key components and actions" of the project. (*Id.*, Ex. B, Attachment 2.) The geotechnical work includes the following:

- soil borings up to 250 feet deep;
- installation of test wells;
- installation of an array of electrodes to perform electrical resistivity tomography;
- installation of in-river cofferdams;
- installation of metal survey monuments; and
- excavation of test trenches up to 1,000 feet long, 3 feet wide, 20 feet deep.

(Resp. RJN, Ex. 1, § 3.15.2; Marquez Decl., Ex. B, p. 4 [describing depth of soil borings].)

Petitioners in five of the related cases (case nos. 24WM000009, 24WM000010, 24WM000012, 24WM000014, and 24WM000017) filed motions for preliminary injunction seeking to enjoin the Department from undertaking this geotechnical work in the Delta. Petitioners contend that before beginning, the Department must first self-certify that the DCP is consistent with the Delta Plan as required by the Sacramento-San Joaquin Delta Reform Act of 2009 ("Delta Reform Act"), set forth in Water Code section 85000, et seq. On May 31, 2024, the Court held a hearing on the motions, heard argument from counsel, and took the matter under submission. Having now considered the parties' filings and oral arguments, the Court renders this decision granting the motions.

DISCUSSION

I. Preliminary Matters

A. Requests for Judicial Notice

County of Sacramento, et al. (24WM000014), San Francisco Baykeeper, et al. (24WM000017), and the Department each filed an unopposed request for judicial notice for various documents including different parts of the FEIR, the Notice of Determination for the project approval, and documents published by the Delta Stewardship Council. Each request is granted. (Evid. Code, § 452, subds. (c), (h).)

B. Evidentiary Objections

In its opposition to the motions, the Department filed objections to evidence submitted by Petitioners. In their replies, City of Stockton (24WM000009), County of San Joaquin, et al.

(24WM000010), County of Sacramento, et al. (24WM000014), each filed objections to evidence submitted by the Department. The Court is issuing rulings on these objections separately.

II. Merits

A preliminary injunction is an "order that is sought by a plaintiff prior to a full adjudication of the merits of its claim." (*Marken v. Santa Monica-Malibu Unified School Dist.* (2012) 202 Cal.App.4th 1250, 1260.) "Trial courts evaluate two interrelated factors when deciding whether or not to issue a preliminary injunction. The first is the likelihood that the plaintiff will prevail on the merits at trial. The second is the interim harm that the plaintiff is likely to sustain if the injunction were denied as compared to the harm that the defendant is likely to suffer if the preliminary injunction were issued." (*Amgen Inc. v. California Correctional Health Care Services* (2020) 47 Cal.App.5th 716, 731.) "The potential merit and interim harm are described as *interrelated* factors because the greater the plaintiff's showing on one, the less must be shown on the other to obtain an injunction." (*Tulare Lake Canal Company v. Stratford Public Utility District* (2023) 92 Cal.App.5th 380, 396-397.)

A. Petitioners' Likelihood of Success on the Merits

All of the motions raise a single identical issue with respect to likelihood of success on the merits—the Department's compliance with the Delta Reform Act. Petitioners contend that the Department's plan to undertake geotechnical investigations prior to certifying the DCP as consistent with the Delta Plan violates Water Code section 85225, which requires such certification "prior to initiating the implementation" of a "covered action."

In opposition, the Department argues that the geotechnical investigations do not trigger the certification requirement under section 85225, because they constitute planning and design activities needed to finalize the DCP's design, which do not amount to "implementation" of the "covered action." The Department argues that Petitioners' interpretation is unworkable, claiming that it is afraid that, even though it has completed all of the in-depth studies, analysis, and specificity required under CEQA, it does not yet have enough information to self-certify that the DCP is consistent with the Delta Plan. The Department argues it will not be able to prepare such a certification until it has completed the geotechnical work.

The question before the Court is an issue of statutory interpretation. The courts' primary task in statutory interpretation is "to determine the lawmakers' intent." (*Henson v. C. Overaa & Co.* (2015) 238 Cal.App.4th 184, 193.) "Where the statutory language is clear and unambiguous,

that language controls and there is no need for judicial construction." (*Ibid.*) But courts must "construe the words of the statute in context, keeping in mind the statutory purpose," and "will not follow the plain meaning of the statute" when doing so would frustrate "the manifest purposes of the legislation as a whole or [lead] to absurd results." (*Ibid.*)

The Delta Reform Act establishes a self-certification process for agencies to demonstrate that projects in the Delta are consistent with the Delta Plan. Specifically, Water Code section 85225 provides: "A state or local public agency that proposes to undertake a covered action, *prior to initiating the implementation of that covered action, shall prepare a written certification of consistency* with detailed findings as to whether the covered action is consistent with the Delta Plan and shall submit that certification to the [Delta Stewardship C]ouncil." (Wat. Code, § 85225 [emphasis added].) "Covered action" is defined as a "plan, program, or *project as defined pursuant to Section 21065 of the Public Resources Code* that meets" a number of conditions, including that the action "[w]ill have a significant impact on achievement of one or both of the coequal goals" of the Delta Plan.[1] (*Id.*, § 85057.5, subd. (a) [emphasis added].) Public Resources Code section 21065 is a CEQA provision that defines "project" as "an activity directly undertaken by any public agency," "*which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment*[.]" (Pub. Resources Code, § 21065, subd. (a) [emphasis added].) Thus, the Legislature defined "covered action" to mean "project" as defined under CEQA.

The Department defined the DCP to include the geotechnical work at issue here. The FEIR analyzed the geotechnical work as part of the project (Baykeeper RJN, Ex. A, pp. 3-2, 3-134 to 3-141), and the Notice of Determination described it as a "key component" of the project (*Id.*, Ex. B, Attachment 2). Because the geotechnical work is part of the "project" within the meaning of CEQA, it is necessarily part of a "covered action" within the meaning of Water Code section 85225.

1. *Petitioners' Statutory Interpretation*

Petitioners' argument in support of their preliminary injunction motions is premised on a straightforward reading of the statutes cited above. They contend that because the DCP is a project that qualifies as a "covered action" under the Delta Reform Act, and because the

[1] The coequal goals of the Delta Plan are "providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem." (Wat. Code, § 85054.)

geotechnical work at issue here is a component of the DCP, the plain language of section 85225 requires the Department to prepare a certification of consistency prior to initiating the implementation of the DCP, including its geotechnical component.

Moreover, this interpretation would give effect to the apparent purpose of the certification-of-consistency requirement. Boring holes 250 feet deep and digging trenches 1000 feet long, 20 feet deep, and 3 feet wide, for example, certainly appear to be the type of activity that would cause "physical change in the environment" (as provided in Public Resources Code section 21065) and have "a significant impact on achievement of one or both of the coequal goals" of the Delta Plan (as provided in Water Code section 85057.5, subdivision (a)(4) as part of the definition of "covered action"). When there are proposed activities that would likely cause a physical change to the Delta's environment and significantly impact the Delta's ecology or California's water supply, it seems reasonably clear that our Legislature wanted consistency with the Delta Reform Act to be certified *before* those activities are implemented. Thus, requiring the Department to prepare a certification of consistency before undertaking the geotechnical work appears consistent with both the letter and intent of the Delta Reform Act.

2. *The Department's Statutory Interpretation*

In opposition, the Department acknowledges that the DCP qualifies as a "covered action" under Water Code section 85057.5, and that it will need eventually to prepare a certification of consistency. The Department argues, however, that even though the geotechnical activities are included as part of the project in the FEIR for CEQA purposes, "implementation" under Water Code section 85225 should not be read to encompass the geotechnical work at issue here because they are "preliminary activities" that merely serve to inform the final design.

But this argument ignores that "implementation" relates to "covered action," which is defined as consisting of the "project" under CEQA, and the CEQA project in this case includes the geotechnical investigations. The Department offers no case law or other legal support for its position that it should be allowed to define "covered action" more narrowly than section 85057.5 defines that term. Just because the purpose of the geotechnical work is to gather information to aid in making the final design decisions, does not mean that it is not a component of the project that requires implementation. The geotechnical work, just like the ultimate project construction, will likely have an impact on the environment in the Delta that not only requires CEQA review and approval but also certification of consistency with the Delta Plan. The Department's

interpretation would require the Court to ignore the plain language of the Delta Reform Act and create a new exemption for the DCP. The Court has no such authority.

3. *The Department's Reliance on the Council's Covered Action Checklist*

Next, the Department cites to the "Covered Action Checklist," which is an informational tool the Council created to help state and local agencies determine if a plan, program, or project is a "covered action" as defined in the Delta Reform Act. (Resp.'s Opp. Br., p. 17:14-22.) Notably, the Department cites to the explanatory text under one of the checklist questions *but omits the question itself*. (*Ibid*.; Henderson Decl., Ex. B, p. 234.) The question the Department fails to acknowledge or answer is set forth in the Checklist in bold type as follows: "**Has CEQA been completed at the time of filing a Certification of Consistency with the Delta Stewardship Council?**" (Henderson Decl., Ex. B, p. 234.) The answer here is clearly yes, which indicates that this particular factor would serve to undermine the Department's argument that it is premature to file a certification of consistency.

Having ignored the question, the Department focuses on the explanatory text below the question, quoted here with the emphasis included in the Department's brief:

> *When other permits are required* for implementation, project proponents should consult with Council staff on appropriate timing for filing the Certification of Consistency. Filing a Certification of Consistency *prior to finalizing the design* and operational elements of the project may result in a proposed covered action that is significantly altered through the CEQA or other processes. *If, after filing a certificate of consistency, the project is significantly changed, a new Certification of Consistency will need to be filed* with the Delta Stewardship Council.

(Resp.'s Opp. Br., p. 17:18-22.)

It is unclear why the Department chose to emphasize the language stating, "when other permits are required," because the Department does not discuss in its opposition brief any additional permits that are required, or how the outcome of the geotechnical work would potentially affect its ability to secure any such permits. The Department seems to focus on the part of the excerpt that refers to filing the certification "*prior to finalizing the design*" of the project. But when read in the context of the overarching question, the explanatory language appears to simply caution project proponents against filing a certificate of consistency prior to finalizing the project's design and operational elements *under CEQA*. Again, the DCP's design and operational elements have been finalized sufficiently under CEQA. It is also unclear why the Department emphasized, *"if, after filing a certificate of consistency, the project is*

significantly changed, a new Certification … will need to be filed," because the Department does not explain how the geotechnical work at issue here could significantly change the project especially now that the FEIR has been certified.[2]

4. *The Department's Claimed Compliance with Water Code Section 85225.5*

The Department cites to section 85225.5 to argue that it is in compliance with its obligations by engaging in "early consultation" with the Council. (Resp.'s Opp. Br., p. 16:20-24.) Section 85255.5, however, does not impose any obligations on lead agencies such as the Department. Rather, the section directs and authorizes the Council, in order to assist lead agencies in preparing the required certification, to develop procedures for early consultation with the Council on the proposed covered action. The fact that the Council possesses the authority to develop procedures for early consultation has no bearing on whether the geotechnical investigations are part of a "covered action." Neither does the Department's early consultation with the Council. The Department's argument in opposition is not aided by claiming compliance with a statute that imposes no obligations on it. The only notable observation the Court makes from the Department's citation to this authorizing statute is that the Council has not issued any regulations supporting the Department's narrow interpretation of sections 85057.5 and 85225.

5. *The Department's Attempt to Extract Designing Activities from "Covered Actions"*

Citing to Water Code section 85052 and section 5001 of the Council's implementing regulations, the Department argues that the Delta Reform Act treats "planning" and "designing" activities (which it argues include the geotechnical work in the DCP) as distinct from "construction" and "implementation," and that such activities are not meant to be considered part of the implementation of the covered action. (Resp.'s Opp. Br., pp. 20:23–21:6.) The Department misreads these provisions. Both Water Code section 85052 and regulation section 5001 contain the identical definition of "*adaptive management*" as meaning "a framework and flexible decisionmaking process for ongoing knowledge acquisition, monitoring, and evaluation

[2] The declaration of Graham Bradner, submitted by the Department in support of its opposition, explains that the geotechnical work will gather additional information that will refine, and, if necessary, modify project feature layouts and configurations. (Bradner Decl., p. 5.) Neither the declaration nor the Department's opposition brief, however, assert or explain how any potential adjustments could be of such magnitude to constitute a significant change to the project. For example, the Department does not contend that the project's location, scope, or operational components could change significantly based on the outcome of the geotechnical work.

leading to continuous improvement in *management planning and implementation* of a project to achieve specified objectives." (Wat. Code, § 85052; Cal. Code Regs., tit. 23, § 5001, subd. (a).) In this context, "management planning and implementation" clearly refers to the *post-completion* implementation phase of a project. Thus, the use of the word "planning" in this provision refers to the planning that occurs *after* a certification of consistency has been filed, *after* the project has been constructed, and during the time period in which the completed project is in operation.

Yet, the Department takes the word "planning" out of this context, and argues that these sections support the notion that the pre-construction planning phase of a project is not part of the "covered action." This argument does not withstand scrutiny. Similarly, the Department's attempt to draw support from the reference in section 85089 to "[t]he costs of the environmental review, planning, design, construction, and mitigation" is also unpersuasive. These statutes, which use these terms in different contexts, do not stand for the proposition that the extensive geotechnical work that the Department included in the DCP's project description in the FEIR should now be excised from the project definition under the Delta Reform Act simply because they serve a planning and design function.

6. *The Department's Reliance on the Mitigation Monitoring and Reporting Program*

The Department also points to language in the Mitigation Monitoring and Reporting Program ("MMRP"), which the Council adopted in April 2018 to ensure compliance with the mitigation measures established in the recent amendments to the Delta Plan. (Resp.'s Opp. Br., p. 18:8-27.) The MMRP includes in, Table 1, the mitigation measures identified in the 2018 Delta Plan Amendments Program EIR and, in Table 2, the mitigation measures identified in the 2013 Delta Plan Program EIR. Lead agencies of covered actions are required to implement the mitigation measures in these tables. Specifically, the Department points to a portion of mitigation measure 11-1, which states, "Lead agencies shall ensure that *geotechnical design recommendations* are included in the design of facilities and construction specifications to minimize the potential impacts from seismic events and the presence of adverse soil conditions. Recommended measures to address adverse conditions shall conform to applicable design codes, guidelines, and standards." (Resp.'s Opp. Br., p. 18:16-18 [with Dept.'s emphasis]; Henderson Decl., Ex. A, p. 197.)

Contrary to the Department's position, this mitigation measure can reasonably be interpreted as requiring that the agency *certify* that the facility designs and construction

specifications *will include* geotechnical design recommendations, rather specifying the actual geotechnical recommendations themselves. Such an interpretation is consistent with a plain reading of both mitigation measure 11-1 and the self-certification requirement of section 85225. And importantly, such an interpretation would not pose any obstacle to the Department's ability to prepare a certification of consistency prior to undertaking the geotechnical work now that the FEIR has been certified.

In fact, the FEIR in Appendix 3E, entitled, *Delta Reform Act Considerations*, spends 21 pages discussing the Delta Reform Act and how the DCP serves the Act's policies. (Buckman Decl., Ex. A, Appendix 3E.) The FEIR explains that the DCP "is consistent with and furthers the achievement of the coequal goals [of the Delta Reform Act] by providing water supply resilience needed to address seismic risks, sea level rise, and other reasonably foreseeable consequences of climate change and extreme weather events. [The DCP] will have a substantial positive impact on achievement of the coequal goals in a manner consistent with state policy." (*Id.*, p. 5:1-6.) The FEIR further explains the Department would be able to certify "any of the project alternatives," and includes Table 3E-1, spanning 11 pages, which addresses how the DCP project alternatives would be consistent with each of the Delta Reform Act's specific policies. (*Id.*, pp. 7-17.) The FEIR also includes detailed analyses of the DCP's environmental impacts on the Delta, explaining that, "[t]o the extent that the [DCP] will cause potentially significant impacts on the physical environment, such environmental impacts are disclosed and analyzed in the EIR and, where feasible, mitigation measures have been proposed. The practical effect of many of the mitigation measures and environmental commitments is to protect Delta values." (*Id.*, p. 20:1-9.)

The Department essentially argues that, even though the FEIR includes Appendix 3E as well as numerous studies and discussions relevant to showing consistency with the Delta Plan, it needs *even more* information before it would be able to self-certify consistency. It seems that in the Department's view, anything less than fully finalized designs will not suffice. The problem with this argument is that neither the applicable statutes nor the regulations indicate this level of detail is required. Thus, the Court is not persuaded that the Department needs more information than what it already has, or that it will be "caught in a catch-22 paradox" if it is required to self-certification consistency prior to undertaking the geotechnical work. (See Resp. Opp. Br., p. 19:23–20:3.) While the Court is certainly not ruling that the Department's not-yet-prepared

certification will be satisfactory, the Court sees no reason why the Department is not currently in position to prepare a satisfactory certification, supported by the relevant studies, data, explanations, and project specifications that are ostensibly included in the certified FEIR.

The Court rejects the interpretation of this mitigation measure as requiring that geotechnical work be conducted *prior to* certification for a few reasons. First, this interpretation is not clear from the language of the mitigation measure itself, as just discussed. Second, to read this mitigation measure as requiring that the lead agency conduct geotechnical work (which is part of the covered action) prior to preparing the certification of consistency would conflict with the plain language of section 85225. Third, such an interpretation would contravene the apparent purpose of the certification requirement given that the extensive geotechnical work at issue here, will likely—*on its own*—have a physical impact on the Delta's ecosystem. Given the apparent environmental impact of this geotechnical work, it makes sense that the Department certify that it is consistent with the Delta Plan *before*, rather than after, it is conducted.

B. Likelihood of Respective Harms to Petitioners and the Department

The next step in the analysis is the comparison of interim harms resulting from the granting or denying of the requested preliminary injunction. Petitioners claim a number of harms, including (1) the procedural harm of not being able to appeal the Department's certification under section 85225 until *after* the end of geotechnical investigations, (2) potential harm to living and buried tribal cultural resources in the Delta, and (3) physical harm to real property. The Department cites the following harms that would result from a preliminary injunction enjoining geotechnical investigations: (1) contractual penalties of up to $160,000 that the Department would have to pay to geotechnical consultants, (2) higher project costs resulting from delay due to inflation and additional overhead costs, and (3) the higher risk of harm to the state's water supply from a natural disaster.

Given the plain statutory language, Petitioners have established a strong likelihood of success on the merits on the mostly legal question of whether certification under Water Code section 85225 is required prior to the geotechnical investigations. As such, a minimal showing of likelihood of harm is sufficient to justify the issuance of a preliminary injunction. The Court finds that the procedural harm of being denied the opportunity to appeal the Department's certification prior to the completion of geotechnical investigations is sufficient to justify the issuance of a preliminary injunction.

C. Whether the Petitions' Allegations Preclude Issuance of a Preliminary Injunction

The Department argues that Petitioners nonetheless cannot receive injunctive relief because of deficiencies in their petitions. The Court disagrees.

With respect to County of Sacramento, et al., (24WM000014), Sacramento Area Sewer District (24WM000012), and City of Stockton (24WM000009), the Department argues that they are not entitled to injunctive relief because they did not specifically request injunctive relief in connection with their Delta Reform Act causes of action. With respect to County of San Joaquin, et al. (24WM000010), the Department argues that the petition is deficient because although the petition seeks an injunction with respect to the Delta Reform Act claim, it only seeks to enjoin the Department from "constructing or operating" the DCP, which will not happen for many years to come.

A preliminary injunction, though, is available as a "provisional or auxiliary remedy to preserve the status quo until a final judgment," even where "the main action seeks another remedy." (*Southern Christian Leadership Conference v. Al Malaikah Auditorium Co*. (1991) 230 Cal.App.3d 207, 223 [preliminary injunction available even where the complaint seeks damages on breach of contract]; compare Code Civ. Proc., § 526, subd. (a)(1) with subd. (a)(3).) The preliminary injunction sought in these motions would be appropriately issued to maintain the status quo with respect to the Delta Reform Act claims even if the respective petitions do not contain a prayer for the same injunctive relief.

With respect to San Francisco Baykeeper, et al. (24WM000017), the Department argues that the petition impermissibly seeks to enjoin the Department from making its discretionary decision with respect to consistency with the Delta Plan. The Court disagrees. The petition only seeks an injunction to restrain the Department from implementing the DCP without first certifying it in violation of Water Code section 85225. (Baykeeper Pet. ¶¶ 280-281, 284.) It does not seek to impermissibly enjoin the Department from exercising its discretion. Rather, it seeks to ensure that the Department, should it decide to implement the DCP, perform its mandatory duty of certifying the DCP under section 85225 before implementation.

CONCLUSION

The motions for preliminary injunction are granted. The geotechnical work at issue here is part of the covered action, which requires certification of consistency with the Delta Plan before it is implemented. The Department is, therefore, enjoined from undertaking the

geotechnical work described in Chapter 3 of the FEIR prior to completion of the certification procedure that the Delta Reform Act requires.

* * *

This minute order is effective immediately. No formal order or other notice is required. (Code Civ. Proc., § 1019.5; Cal. Rules of Court, rule 3.1312.)

Attachment 3
Draft Record Index

Delta Conveyance Project: Certification of Consistency for 2024-2026 Proposed Geotechnical Activities
Draft Record Index

Section		Document Category
	Delta Conveyance Project Decision Documents	
A		Notice of Determination
B		Project Approval Resolutions
C		CEQA Findings; Statement of Overriding Considerations
D	**Delta Conveyance Project Environmental and Engineering Documents**	
	D1	Delta Conveyance Project Final Environmental Impact Report
	D4	Delta Conveyance Project Engineering Technical Memoranda
X	**Other**	
	X1	Soil Investigations for Data Collection in the Delta IS/MND
	X2	Delta Conveyance Project: Certification of Consistency for 2024-2026 Proposed Geotechnical Activities References

A. Delta Conveyance Project Notice of Determination

File Name	Document Date	Document Description	Author/Prepared By
DCP.A.1.00001.pdf	12/21/2023	Notice of Determination	California Department of Water Resources

B. Delta Conveyance Project Approval Resolutions

File Name	Document Date	Document Description	Author/Prepared By
DCP.B.1.00001.pdf	12/21/2023	Decisions Regarding the Delta Conveyance Project Final Environmental Impact Report	California Department of Water Resources

C. Delta Conveyance Project CEQA Findings; Statement of Overriding Considerations

File Name	Document Date	Document Description	Author/Prepared By
DCP.C.1.00001.pdf	12/21/2023	Delta Conveyance Project Findings of Fact and Statement of Overriding Considerations	California Department of Water Resources
DCP.C.1.00002.pdf	12/21/2023	Delta Conveyance Project Mitigation Monitoring and Reporting Program	California Department of Water Resources

D.1 Delta Conveyance Project Final Environmental Impact Report

File Name	Document Date	Document Description	Author/Prepared By
1. Final Environmental Impact Report			
Front Matter			
DCP.D1.1.00001.pdf	12/21/2023	Cover Page	California Department of Water Resources
DCP.D1.1.00002.pdf	12/21/2023	Title Page	California Department of Water Resources
DCP.D1.1.00003.pdf	12/21/2023	Table of Contents	California Department of Water Resources
DCP.D1.1.00004.pdf	12/21/2023	Acronyms and Abbreviations	California Department of Water Resources
Executive Summary			
DCP.D1.1.00005.pdf	12/21/2023	Executive Summary	California Department of Water Resources
Introduction			
DCP.D1.1.00006.pdf	12/21/2023	Chapter 1: Introduction	California Department of Water Resources
DCP.D1.1.00007.pdf	12/21/2023	Appendix 1A: July 2020 Delta Conveyance Project Scoping Summary Report and Addenda	California Department of Water Resources
DCP.D1.1.00008.pdf	12/21/2023	Appendix 1: Addendum A—Summary of Comments Received After Close of CEQA Scoping Period April 18–December 14, 2020	California Department of Water Resources
Purpose and Project Objectives			
DCP.D1.1.00009.pdf	12/21/2023	Chapter 2: Purpose and Project Objectives	California Department of Water Resources
Description of the Proposed Project and Alternatives			
DCP.D1.1.00010.pdf	12/21/2023	Chapter 3: Description of the Proposed Project and Alternatives	California Department of Water Resources
DCP.D1.1.00011.pdf	12/21/2023	Appendix 3A: Identification of Water Conveyance Alternatives	California Department of Water Resources
DCP.D1.1.00012.pdf	12/21/2023	Appendix 3B: Environmental Commitments and Best Management Practices	California Department of Water Resources
DCP.D1.1.00013.pdf	12/21/2023	Appendix 3C: Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions	California Department of Water Resources
DCP.D1.1.00014.pdf	12/21/2023	Appendix 3D: Intakes, Roads, and Shafts Summary Tables	California Department of Water Resources

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DCP.D1.1.00195.pdf	12/21/2023	Chapter 25: Hazards, Hazardous Materials, and Wildfire	California Department of Water Resources
Public Health			
DCP.D1.1.00196.pdf	12/21/2023	Chapter 26: Public Health	California Department of Water Resources
DCP.D1.1.00197.pdf	12/21/2023	Appendix 26A: Public Health 2040 Analysis	California Department of Water Resources
Mineral Resources			
DCP.D1.1.00198.pdf	12/21/2023	Chapter 27: Mineral Resources	California Department of Water Resources
Paleontological Resources			
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Environmental Justice			
DCP.D1.1.00200.pdf	12/21/2023	Chapter 29: Environmental Justice	California Department of Water Resources
DCP.D1.1.00201.pdf	12/21/2023	Appendix 29A: Environmental Justice Community Survey Report	California Department of Water Resources
Climate Change			
DCP.D1.1.00202.pdf	12/21/2023	Chapter 30: Climate Change	California Department of Water Resources
DCP.D1.1.00203.pdf	12/21/2023	Appendix 30A: CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections	California Department of Water Resources
Growth Inducement			
DCP.D1.1.00204.pdf	12/21/2023	Chapter 31: Growth Inducement	California Department of Water Resources
Tribal Cultural Resources			
DCP.D1.1.00205.pdf	12/21/2023	Chapter 32: Tribal Cultural Resources	California Department of Water Resources
DCP.D1.1.00206.pdf	12/21/2023	Appendix 32A: Tribal Consultation and Engagement Log	California Department of Water Resources
DCP.D1.1.00207.pdf	12/21/2023	Appendix 32B: Impacts by Alternative	California Department of Water Resources
DCP.D1.1.00208.pdf	12/21/2023	Appendix 32C: Tribal Cultural Resources Identification Report (Confidential)	California Department of Water Resources
DCP.D1.1.00209.pdf	12/21/2023	Appendix 32D: Principles for the Identification of the Tribal Cultural Resources for the Proposed Delta Conveyance Project	California Department of Water Resources
Other CEQA-Required Analyses			
DCP.D1.1.00210.pdf	12/21/2023	Chapter 33: Other CEQA-Required Analyses	California Department of Water Resources
Community Benefits Program			
DCP.D1.1.00211.pdf	12/21/2023	Chapter 34: Community Benefits Program	California Department of Water Resources
Public Involvement			
DCP.D1.1.00212.pdf	12/21/2023	Chapter 35: Public Involvement	California Department of Water Resources
List of Preparers and Reviewers			
DCP.D1.1.00213.pdf	12/21/2023	Chapter 36: List of Preparers and Reviewers	California Department of Water Resources
References Cited			
DCP.D1.1.00214.pdf	12/21/2023	Chapter 37: References Cited	California Department of Water Resources
Glossary			
DCP.D1.1.00215.pdf	12/21/2023	Chapter 38: Glossary	California Department of Water Resources
Description of Figures			

DCP.D1.1.00216.pdf	12/21/2023	Chapter 39: Description of Figures	California Department of Water Resources
Final Environmental Impact Report Volume 2			
Front Matter			
DCP.D1.1.00217.pdf	12/21/2023	Acronyms and Abbreviations	California Department of Water Resources
DCP.D1.1.00218.pdf	12/21/2023	Contents	California Department of Water Resources
Chapter 1: Introduction and Approach to Responses to Comments			
DCP.D1.1.00219.pdf	12/21/2023	Introduction and Approach to Responses to Comments	California Department of Water Resources
Chapter 2: Indices of Commenters and Index of Primary Forms			
DCP.D1.1.00220.pdf	12/21/2023	Indices of Commenters and Index of Primary Forms	California Department of Water Resources
Chapter 3: Common Responses			
DCP.D1.1.00221.pdf	12/21/2023	Common Responses	California Department of Water Resources
DCP.D1.1.00222.pdf	12/21/2023	Common Response 1: CEQA Process, General Approach to Analysis, and Other Environmental Review Issues	California Department of Water Resources
DCP.D1.1.00223.pdf	12/21/2023	Common Response 2: Public Outreach Activities	California Department of Water Resources
DCP.D1.1.00224.pdf	12/21/2023	Common Response 3: Alternatives Development and Description	California Department of Water Resources
DCP.D1.1.00225.pdf	12/21/2023	Common Response 4: No Project Alternative Description and Analysis	California Department of Water Resources
DCP.D1.1.00226.pdf	12/21/2023	Common Response 5: Public Water Agencies' Water Management Practices	California Department of Water Resources
DCP.D1.1.00227.pdf	12/21/2023	Common Response 6: Climate Resilience and Adaptation	California Department of Water Resources
DCP.D1.1.00228.pdf	12/21/2023	Common Response 7: Implementation Considerations	California Department of Water Resources
DCP.D1.1.00229.pdf	12/21/2023	Common Response 8: Relationship to Other Plans, Projects, Policies, and Programs	California Department of Water Resources
DCP.D1.1.00230.pdf	12/21/2023	Common Response 9: Hydrologic Modeling and Approach	California Department of Water Resources
DCP.D1.1.00231.pdf	12/21/2023	Common Response 10: Surface Water Quality and Groundwater Resources	California Department of Water Resources
DCP.D1.1.00232.pdf	12/21/2023	Common Response 11: Terrestrial Biological Resources and Compensatory Mitigation Plan	California Department of Water Resources

DCP.D1.1.00233.pdf	12/21/2023	Common Response 12: Agricultural Resources	California Department of Water Resources
DCP.D1.1.00234.pdf	12/21/2023	Common Response 13: Recreation and Recreational Opportunities	California Department of Water Resources
DCP.D1.1.00235.pdf	12/21/2023	Common Response 14: Transportation	California Department of Water Resources
DCP.D1.1.00236.pdf	12/21/2023	Common Response 15: Air Quality and Greenhouse Gases	California Department of Water Resources
DCP.D1.1.00237.pdf	12/21/2023	Common Response 16: Tribal Cultural Resources	California Department of Water Resources
DCP.D1.1.00238.pdf	12/21/2023	Common Response 17: Public Trust	California Department of Water Resources
Chapter 4: Response to Comments Tables			
DCP.D1.1.00239.pdf	12/21/2023	Response to Comments Tables	California Department of Water Resources
Table 4-1. Federal Agencies, Federal Elected Officials, and Tribal Governments			
DCP.D1.1.00240.pdf	12/21/2023	Table 4-1. Federal Agencies, Federal Elected Officials, and Tribal Governments	California Department of Water Resources
Table 4-2. State Agencies and Elected Officials			
DCP.D1.1.00241.pdf	12/21/2023	Table 4-2. State Agencies and Elected Officials (32-533)	California Department of Water Resources
DCP.D1.1.00242.pdf	12/21/2023	Table 4-2. State Agencies and Elected Officials (534)	California Department of Water Resources
DCP.D1.1.00243.pdf	12/21/2023	Table 4-2. State Agencies and Elected Officials (568-722)	California Department of Water Resources
Table 4-3. Local/Regional Agencies and Elected Officials			
DCP.D1.1.00244.pdf	12/21/2023	Table 4-3. Local/Regional Agencies and Elected Officials (1-495)	California Department of Water Resources
DCP.D1.1.00245.pdf	12/21/2023	Table 4-3. Local/Regional Agencies and Elected Officials (497-523)	California Department of Water Resources
DCP.D1.1.00246.pdf	12/21/2023	Table 4-3. Local/Regional Agencies and Elected Officials (525-536)	California Department of Water Resources
DCP.D1.1.00247.pdf	12/21/2023	Table 4-3. Local/Regional Agencies and Elected Officials (538-557)	California Department of Water Resources
DCP.D1.1.00248.pdf	12/21/2023	Table 4-3. Local/Regional Agencies and Elected Officials (588-732)	California Department of Water Resources
Table 4-4. Nongovernmental Organizations, Businesses, Conservation Groups, Unidentified Organizations, Etc.			
DCP.D1.1.00249.pdf	12/21/2023	Table 4-4. Nongovernmental Organizations, Businesses, Conservation Groups, Unidentified Organizations, Etc. (2-401)	California Department of Water Resources

DCP.D1.1.00250.pdf	12/21/2023	Table 4-4. Nongovernmental Organizations, Businesses, Conservation Groups, Unidentified Organizations, Etc. (413-491)	California Department of Water Resources
DCP.D1.1.00251.pdf	12/21/2023	Table 4-4. Nongovernmental Organizations, Businesses, Conservation Groups, Unidentified Organizations, Etc. (501-559)	California Department of Water Resources
DCP.D1.1.00252.pdf	12/21/2023	Table 4-4. Nongovernmental Organizations, Businesses, Conservation Groups, Unidentified Organizations, Etc. (560-734)	California Department of Water Resources
Table 4-5. Individuals and Form Letter Submissions and Petition Signatories			
DCP.D1.1.00253.pdf	12/21/2023	Table 4-5. Individuals and Form Letter Submissions and Petition Signatories	California Department of Water Resources
Chapter 4: References Cited			
DCP.D1.1.00254.pdf	12/21/2023	References Cited	California Department of Water Resources

D.4 Delta Conveyance Project Engineering Technical Memoranda

File Name	Document Date	Document Description	Author/Prepared By
1. Engineering Project Report Technical Memoranda			
Central/Eastern			
DCP.D4.1.00061.pdf	5/1/2022	Potential Future Field Investigations - Central and Eastern Corridor Options	Delta Conveyance Design and Construction Authority
Bethany			
DCP.D4.1.00107.pdf	5/1/2022	Potential Future Field Investigations – Bethany Reservoir Alternative	Delta Conveyance Design and Construction Authority

X1. Soil Investigations for Data Collection in the Delta IS/MND

File Name	Document Date	Document Description	Author/Prepared By
Draft IS/MND			
Draft IS/MND			
DCP.X1.1.00001.pdf	11/20/2019	Soil Investigations for Data Collection in the Delta Initial Study Proposed Mitigated Negative Declaration	California Department of Water Resources
Draft IS/MND Notices/Letters/Educational Materials			
Notice of Intent			
DCP.X1.1.00002.pdf	11/22/2019	Revised Notice of Intent to Adopt a Mitigated Negative Declaration (Comment Period through January 15, 2019)	California Department of Water Resources
Final IS/MND			
Notice of Determination			
DCP.X1.1.00003.pdf	7/9/2020	Notice of Determination for the IS/MND for Soil Investigations for Data Collection in the Delta	California Department of Water Resources
Final IS/MND			
DCP.X1.1.00004.pdf	7/9/2020	Soil Investigations for Data Collection in the Delta Final Initial Study Mitigated Negative Declaration SCH# 2019119073	California Department of Water Resources
IS/MND Addendum			
Addendum Notice of Determination			
DCP.X1.1.00005.pdf	2/19/2021	Addendum to the IS/MND for Soil Investigations for Data Collection in the Delta	California Department of Water Resources
Final IS/MND Addendum			
DCP.X1.1.00006.pdf	2/19/2021	Addendum to the Initial Study/Mitigated Negative Declaration for Soil Investigations for Data Collection in the Delta	California Department of Water Resources
Addendum Notice of Determination			
DCP.X1.1.00007.pdf	6/30/2022	Addendum to the IS/MND for Soil Investigations for Data Collection in the Delta	California Department of Water Resources
Final IS/MND Addendum			
DCP.X1.1.00008.pdf	6/30/2022	Addendum to the Initial Study/Mitigated Negative Declaration for Soil Investigations for Data Collection in the Delta	California Department of Water Resources
Mitigation Monitoring and Reporting Program Documents			
Mitigation Monitoring and Reporting Program			
DCP.X1.1.00009.pdf	7/1/2020	Soil Investigations for Data Collection in the Delta Mitigation and Monitoring Reporting Plan (MMRP)	California Department of Water Resources
Modified Mitigation Monitoring and Reporting Program Notice of Determination			
DCP.X1.1.00010.pdf	1/9/2023	Modifications to the MMRP for the CEQA IS/MND for Soil Investigations for Data Collection in the Delta	California Department of Water Resources
Modified Mitigation Monitoring and Reporting Program			
DCP.X1.1.00011.pdf	1/9/2023	Modifications to the Mitigation Monitoring and Reporting Program for the Soil Investigations for Data Collection in the Delta Project	California Department of Water Resources
Resolution of CEQA Litigation			
DCP.X1.1.00012.pdf	12/2/2022	Soil Investigations for Data Collection in the Delta IS/MND: Ruling on Submitted Matter re: Petition for Writ of Mandate	Superior Court of California, County of Sacramento
DCP.X1.1.00013.pdf	5/5/2023	Soil Investigations for Data Collection in the Delta IS/MND: Ruling on Motion for Return to Court to Discharge Peremptory Writ and Dismiss the Case	California Department of Water Resources
DCP.X1.1.00014.pdf	2/27/2024	Soil Investigations for Data Collection in the Delta IS/MND: Notice re: Appellants' Dismissal of their Appeal from the Ruling on Motion for Return to Court to Discharge Peremptory Writ and Dismiss the Case	California Department of Water Resources

X2. Delta Conveyance Project: Certification of Consistency for 2024-2026 Proposed Geotechnical Activities

File Name	Document Date	Document Description	Author/Prepared By
Delta Conveyance Project: Certification of Consistency for 2024-2026 Proposed Geotechnical Activities			
DCP.X2.1.00001.pdf	9/27/2024	Delta Conveyance Project: Draft Certification of Consistency for 2024-2026 Proposed Geotechnical Activities	California Department of Water Resources
DCP.X2.1.00002.pdf	9/27/2024	Attachment 1. Covered Actions Checklist	California Department of Water Resources
DCP.X2.1.00003.pdf	9/27/2024	Attachment 2. June 20, 2024, Court Ruling	Superior Court of California, County of Sacramento
DCP.X2.1.00004.pdf	9/27/2024	Attachment 4. Memo: 2024-2026 Proposed Geotechnical Activities – Evaluation of Consistency with Delta Conveyance Project's Final EIR	California Department of Water Resources
DCP.X2.1.00005.pdf	9/27/2024	Attachment 5. 2024-2026 Preconstruction Field Investigation Environmental Compliance Monitoring Plan (Final Draft)	California Department of Water Resources
References Cited			
DCP.X2.1.00006.pdf	8/7/2020	Recommended Practice No. 17R-97, Cost Estimate Classification System	AACE International
DCP.X2.1.00007.pdf	3/1/2021	Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE/SEI 7-22)	American Society of Civil Engineers
DCP.X2.1.00008.pdf	12/12/2012	Banning Ranch Conservancy v. City of Newport Beach	Court of Appeal, Fourth District, Division 3, California
DCP.D1.1.00010.pdf	12/21/2023	Final Environmental Impact Report for the Delta Conveyance Project, Volume 1, Chapter 3: Description of the Proposed Project and Alternatives.	California Department of Water Resources
DCP.D1.1.00012.pdf	12/21/2023	Final Environmental Impact Report for the Delta Conveyance Project, Volume 1, Appendix 3B: Environmental Commitments and Best Management Practices	California Department of Water Resources
DCP.D1.1.00015.pdf	12/21/2023	Final Environmental Impact Report for the Delta Conveyance Project, Volume 1, Appendix 3E: Delta Reform Act Considerations	California Department of Water Resources
DCP.X2.1.00009.pdf	7/9/2020	Soil Investigations for Data Collection in the Delta. Final Initial Study/Mitigated Negative Declaration. SCH# 2019119073	California Department of Water Resources
DCP.X2.1.00010.pdf	1/1/2012	Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors	California Invasive Plan Council
DCP.X2.1.00011.pdf	5/14/2024	DCA Universal Health and Safety Plan for the Delta Conveyance Project (Final Draft)	Delta Conveyance Design and Construction Authority
DCP.X2.1.00012.pdf	4/26/2018	The Delta Plan: Chapter 3 (Amended April 2018)	Delta Stewardship Council
DCP.X2.1.00013.pdf	6/29/2022	The Delta Plan: Chapter 4 (Amended June 2022)	Delta Stewardship Council
DCP.X2.1.00014.pdf	12/1/2009	Technical Manual for Design and Construction of Road Tunnels — Civil Elements	Hung, C. J., J. Wisniewski, J. Monsees, and N. Munfah
DCP.X2.1.00015.pdf	7/1/2022	2022 California Building Code. California Code of Regulations, Title 24, Volume 1 of Part 2	International Code Council, Inc.
DCP.X2.1.00016.pdf	9/27/2024	2024-2026 Transportation Management Plan for Exploratory Planning and Design Field Investigations (Final Draft)	California Department of Water Resources
DCP.X2.1.00017.pdf	7/15/2024	Delta Conveyance Project Tribal Cultural Resources Management Plan for Geotech (Final Draft)	California Department of Water Resources
DCP.X2.1.00018.pdf	9/27/2024	Noise Control Plan for 2024-2026 Geotechnical Activities	California Department of Water Resources

Attachment 4

2024–2026 Proposed Geotechnical Activities—Evaluation of Consistency with the Delta Conveyance Project's Final EIR

State of California DEPARTMENT OF WATER RESOURCES California Natural Resources Agency

OFFICE MEMO

TO: Carrie Buckman, Office Manager Delta Conveyance Office
FROM: Leah McNearney, EPM I Delta Conveyance Office
SUBJECT: 2024-2026 Proposed Geotechnical Activities – Evaluation of Consistency with Delta Conveyance Project's Final EIR

On June 20, 2024, the trial court assigned to the litigation challenging the Department of Water Resources' (DWR) certification of the Delta Conveyance Project Final Environmental Impact Report (Final EIR) and approval of the project, issued a ruling enjoining DWR from undertaking geotechnical work described in Chapter 3 of the Delta Conveyance Project's Final EIR prior to completion of the certification procedure that the Delta Reform Act requires ("Preliminary Injunction Ruling"). In response to the Preliminary Injunction Ruling, DWR has ceased all geotechnical work described in Chapter 3 of the Conveyance Project's Final EIR. DWR will not recommence geotechnical work described in Chapter 3 of the Conveyance Project's Final EIR until the Preliminary Injunction Ruling is stayed, modified, or satisfied. This document was prepared for the 2024-2026 Proposed Geotechnical Activities that are currently enjoined by the Preliminary Injunction Ruling. Geotechnical activities were analyzed in the Delta Conveyance Project's Final EIR (December 2023, SCH# 2020010227) to inform planning and design for future construction of the Delta Conveyance Project. This memorandum evaluates whether the 2024-2026 Proposed Geotechnical Activities are within the scope of the project description for the Approved Project and the environmental analysis included in the Delta Conveyance Project's Final EIR.

1. Introduction

The Department of Water Resources (DWR) is the Lead Agency under the California Environmental Quality Act (CEQA), for the Delta Conveyance Project (hereafter referred to as the Approved Project or Project). DWR has certified the Final EIR, executed a Notice of Determination (NOD) documenting Project approval, adopted Project findings

of fact and a statement of overriding considerations, and adopted a Mitigation Monitoring and Reporting Program (MMRP) (December 21, 2023). The Final EIR evaluates potentially significant impacts of the Project at multiple development phases including continued Project design and planning activities (such as the 2024-2026 geotechnical activities), Project construction, Project operations, and Project maintenance.

"Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval is required." (CEQA Guidelines, section 15162(c).) If further discretionary approval is required by the lead agency after the project is approved, the lead agency must determine, on the basis of substantial evidence in light of the whole record, whether any of the triggers for subsequent CEQA review are met (see Public Resources Code section 21166; CEQA Guidelines sections 15162-15164). This requirement applies to all subsequent discretionary actions even where, as here, a subsequent discretionary action is being considered shortly after the lead agency certified the project's Final EIR. Because DWR must exercise discretionary authority to authorize the 2024-2026 geotechnical activities to proceed, DWR prepared this memorandum to consider whether subsequent CEQA review is required prior to DWR commencing the proposed 2024-2026 geotechnical activities (see CEQA Guidelines sections 15162-15164). The following Table A highlights the activities to be discussed in this memorandum.

Section 2 of this memorandum provides a background on the 2024-2026 geotechnical activities as found in the Final EIR and TM 14B, including section 2.1 which details the activities to be discussed in this memorandum.

Finally, Section 3 evaluates whether the geotechnical activities have the potential to result in any new or substantially more severe environmental impacts than shown in the Delta Conveyance Project's Final EIR.

Table A: Proposed Geotechnical Activities

Activity Type	Planned Activities for 2024-2026
Soil Borings	261 (~15 to 250 feet in depth) along the tunnel reaches, roads, new overhead power, railroad alignment, intakes, Bethany Reservoir Pumping Plant and Surge Basin Reception Shaft, Twin Cities Complex, Lower Roberts Island Shaft, Upper Jones Tract Shaft, and King Island Shaft.
Cone Penetration Tests (CPTs)	15 (~200 to 250 feet in depth) along the tunnel alignment and Bethany Reservoir Pumping Plant.

Water Quality Testing at Select Soil Boring Sites	31 (~75 to 250 feet in depth) 31 of the 261 soil boring locations will also include water quality testing along the tunnel alignment, Bethany Reservoir Discharge Structure, King Island Shaft, Terminous Tract Shaft, Canal Ranch Tract Shaft, Lower Roberts Island Shaft and Upper Jones Tract Shaft.

1.1 Determination that Subsequent CEQA Review is not Required

In 2022 and 2023, DWR completed numerous soil investigations based on the 2020 Soil Investigations for Data Collection in the Delta Final Initial Study and Mitigated Negative Declaration (IS/MND) and related addenda. These prior soil investigation activities are similar, but not identical to, activities proposed as part of the 2024-2026 geotechnical activities. For example, soil investigations completed in 2023 included CPTs and soil borings at a total depth of approximately 300 feet. The 2024-2026 geotechnical activities propose a maximum depth of up to 250 feet. Nevertheless, the prior environmental conclusions reached in the IS/MND and addenda, and DWR's successful completion of the 2022 and 2023 soil investigations, provide further support for the analysis and conclusions reached in the Final EIR and this memorandum relating to the 2024-2026 geotechnical activities.

As further supported by the analysis in Section 3 below, consistent with CEQA Guidelines sections 15162 and 15164 and based on the scope of the proposed 2024-2026 geotechnical activities as defined in the Activity Descriptions in Section 2.1 below, DWR finds that no conditions exist triggering the requirement for subsequent CEQA review.

2. Background

Final EIR, Volume 1, Chapter 3 – *Description of the Proposed Project and Alternatives* identifies the proposed project, and alternatives that are evaluated under the Final EIR. Final EIR, Volume 1, Chapter 3, Section 3.15 – *Geotechnical activities* further explains that 'work related to geotechnical, hydrogeologic, agronomic testing, and construction test projects (geotechnical investigations) would occur during the preconstruction and construction periods following the adoption of the EIR, identification of an Approved Project footprint, and acquisition of all required permits' to 'support Section 408 permitting, design, and construction phases' and would be performed in accordance with standards identified in the Final EIR (Final EIR, Volume 1, Chapter 3, Section 3.15, page 3-134). Geotechnical investigations consist of geotechnical activities that involve a physical investigation of soil status and subsurface conditions.

In evaluating potential environmental effects of the Project, including the 2024-2026 proposed geotechnical activities, the Final EIR provides precise zones where geotechnical activities would occur, approximated acreage, and maximum number of each type of exploration. This information was utilized to identify and disclose potential direct and indirect environmental effects that may result from the geotechnical activities as analyzed in the Final EIR.

Final EIR Mapbook 3-3 for the Bethany Alternative (Approved Project) depicts the zones in which geotechnical investigations would occur (i.e., geotechnical investigation zone). Each map further indicates that geotechnical investigations would also be conducted within all Project feature construction boundaries.

In addition to the analyses in the Final EIR, Volume 1, Chapter 3, Section 3.3 – *Proposed Project and Alternatives Overview* explains that the Delta Conveyance Design and Construction Authority (DCA) developed Engineering Project Reports (EPRs) and associated technical memoranda (TMs) - incorporated by reference in the Final EIR (page 3-7) (DCA 2022a, 2022b) to detail the engineering considerations that support alternative design decisions for the Project. The Bethany EPR contains a detailed description of Alternative 5 and the technical memoranda that informed the design of that alternative. The EPRs include construction and engineering details not provided in Final EIR, Volume 1, Chapter 3. TM 14B – *Potential Future Geotechnical activities – Bethany Reservoir Alternative* separately details the geotechnical activities that constitute (1) investigations necessary to support development of design documents for the Project, and (2) construction geotechnical activities to monitor construction once commenced in the future. Final EIR, Volume 1, Chapter 3, Table 3-1 (Final EIR page 3-11) provides a terminology crosswalk between the EPR and TMs and the Final EIR.

Preconstruction design and planning geotechnical activities are organized into two categories in the Final EIR and TM 14B – *Investigations to support section 408 permitting* (Final EIR, Volume 1, Chapter 3, Section 3.15.1; TM 14B Section 2) and *Investigations prior to construction phase* (Final EIR, Volume 1, Chapter 3, Section 3.15.2, TM 14B Section 3). The activities discussed in this memorandum support the *Investigations prior to construction phase*. A list of the activities included in the 2024-2026 geotechnical activities (a sub-category to the geotechnical activities) analyzed in this memorandum is provided in Table A above. The activity types are described further in Section 2.1, below.

2.1 Proposed Geotechnical Activities - Activity Descriptions

The 2024-2026 geotechnical activities will not include overwater borings, large excavations, or work within identified faults (e.g., West Tracy Fault, Bethany Fault). Please see Table A, above, for a list of the activity types to be discussed and analyzed throughout this memorandum.

The following is a summary of the geotechnical activities that will be performed, as part of the 2024-2026 geotechnical activities. Due to potential delays associated with the preliminary injunction granted by the Sacramento Superior Court on June 20, 2024, obtaining temporary entry agreements, or the need for court ordered entry- the 2-year

timeframe provides for a conservative estimate for analyses, with an understanding that the investigations could occur beyond 2026. For more detailed descriptions of how an activity is performed, please refer to TM 14B, and Final EIR, Volume 1, Chapter 3, Section 3.15. For the full analyses of impacts associated with geotechnical activities, please refer to the Final EIR resource chapters, where applicable.

Geotechnical activities, including the activities discussed in Final EIR Section 3.15 are used to inform planning and design studies prior to implementing and constructing the Project.

2.1.1 Geotechnical Activities

The 2024-2026 proposed geotechnical activities, which are summarized in Table A above, include the following activities (See location maps in Attachment 2):

2.1.2.1 Soil and groundwater explorations

2.1.2.1.1 Cone Penetrometer Test (CPT)

TM 14B, Attachment A (Option B2) provides total estimates for geotechnical activities. As such, ~392 CPTs are estimated for evaluation under the Final EIR for 'Design-Phase' (Prior to Construction). There are 15 CPTs planned for the 2024-2026 geotechnical activities (~3.8% of the estimated total), ranging from 200-250 feet in depth. The CPTs will take up to 3 days to complete (this includes a field reconnaissance day). Vehicles at each site during the investigation may include a CPT truck, a tractor-trailer lowboy truck, a grout truck, and up to 10 additional vehicles for the geotechnical consultant, traffic control, DWR and DCA engineers, geologists, scientists, the biological and cultural resource team, and at least two regulatory agencies. Please see Final EIR Sections 3.15.1.1 and 3.15.2.1 and TM 14B Sections 2.1.1 and 3.1.1 for a full description of CPT testing.

This memorandum will evaluate the 2024-2026 geotechnical activity depths for CPTs, at tunnel locations that are proposed at a depth of up to approximately 250 feet. The CPTs would be completed consistent with the assumptions used in the Final EIR relating to days of drilling and air quality assumptions (see Final EIR Appendix 23B).

2.1.2.1.2 Soil Borings

TM 14B, Attachment A (Option B2) provides total estimates for geotechnical activities. As such, ~827 soil borings are estimated for evaluation under the Final EIR for 'Design-Phase' (Prior to Construction) at facility locations. There are 261 soil borings (31 of the 261 will include water quality testing) planned for the 2024-2026 geotechnical activities (~31.5% of the estimated total), ranging from 15 to 250 feet in depth. Please see Final

EIR Sections 3.15.1.1 and 3.15.2.1 and TM 14B Sections 2.1.1 and 3.1.1 for a full description of Soil Boring testing.

For investigations at tunnel shaft and tunnel alignment sites, a total depth of up to approximately 250 feet is proposed. The soil borings will take up to 10 days to complete (this includes a field reconnaissance day). Vehicles at each site during the investigation may include a drill rig, a water truck, a liftgate truck, a tractor-trailer lowboy truck, and up to 12 additional vehicles for the geotechnical consultant, traffic control, DWR and DCA engineers, geologists, surveyors, scientists, the biological and cultural resource team, and at least two regulatory agencies. As discussed further below, the air quality assumptions for the proposed 2024-2026 soil borings differ slightly from those included in Final EIR, Volume 1, Appendix 23B. (See Air Quality Section below for analysis, see Attachment 1 for updated assumptions made for equipment, workers, and vehicles).

2.1.2.2 Water Quality Testing

Review of well completion reports in the vicinity of the tunnel alignments analyzed in the Final EIR indicates that there are numerous wells that were drilled to depths greater than their final completed screen depth. In at least two instances, the well reports from wells located near the Bethany Reservoir Alternative alignment indicated poor quality water above or below the final screened interval in the installed well. While planned tunnel and shaft construction does not require large-scale dewatering efforts, the reduced water quality can impact reusable tunnel material (RTM) and shaft spoils handling and disposal. Excess boron or chloride, for example, can inhibit the establishment of vegetation on emplaced materials and impair stormwater runoff, while excess chloride or sulfate can require the use of modified cement to prevent corrosion. There is also evidence of "boiling" wells, symptomatic of dissolved gas. Hydrogen sulfide and methane present in the groundwater may require supplemental safety protocols to mitigate the enhanced risks to tunnel and shaft construction. The evaluation of water quality and development of an early baseline set of data along the alignment are vital to the overall Delta Conveyance program.

To sample water quality at tunnel depths, and at depths not screened within existing agricultural and domestic wells, it is vital that the geotechnical activities include water quality testing at tunnel shaft and tunnel alignment locations, where well completion reports suggest possible groundwater quality issues. The water quality tests would be permitted with applicable local land use authorities and the boreholes would be abandoned and destroyed in accordance with the requirements of CA DWR Bulletin 74-81, Bulletin 74-90, and any site-specific permit requirements.

2.1.2.2.1 Water Quality Testing at Select Soil Boring Sites

Water Quality Tests will be performed at select completed borings. This investigation includes drilling a ~75-250 ft on-land boring (See Final EIR, Volume 1, Chapter 3, Section 3.15.1.1 and 3.15.2.1; see TM 14B Sections 2.1.1 and 3.1.1 regarding methodology for soil borings; see Attachment 1 for assumptions related to equipment, workers, and vehicles), and running a pump to complete the water quality tests. As discussed further below, the air quality assumptions differ slightly from those included in Final EIR, Volume 1, Appendix 23B. Air quality assumptions for running the water quality testing pump are included in Attachment 1.

Water Quality Testing will be performed at 31 exploration locations following the completion of a drill hole. Following drilling, a temporary PVC pipe will be installed within the borehole. The PVC pipe will be up to 4 inches in diameter and will be slotted over an interval of up to 40 feet in length. The remainder of the PVC pipe will be solid wall. The annular space between the boring and the slotted interval of the PVC pipe will be backfilled with commercially available Well Pack sand and gravel, while the solid wall section will be backfilled with bentonite to the surface. A submersible pump will be installed in the PVC pipe along with a water level meter and will be pumped at a flow of up to 50 gallons per minute (described as up to 1,500 gpm in TM 14B) for an average of up to 4 hours (described as 3 days, then 10 days in TM 14B) per day for 3 days and DCA engineers or geologists will measure the groundwater levels and sample the groundwater quality. All groundwater will be collected in a water tank and disposed of at an approved off-site location or at a location agreed upon by DWR and the property owner. Following the completion of this testing, the temporary PVC casing will be removed, and the drill hole will be backfilled using cement-bentonite grout in accordance with State of California regulations and industry standards. These testing activities will take an average of three (3) additional working days following completion of the drilling exploration. Vehicles at each site during the testing activities may include a water truck and up to 4 vehicles in addition to those required for the drilling exploration for the technical consultant and at least two regulatory agencies.

2.1.3 Site Clearance, Environmental Surveys, and Biological Monitoring

Pre-activity site clearances, biological, and cultural resources surveys will be conducted as per the MMRP and will occur two weeks prior to beginning investigations at a new investigation location. See Attachment 1 of this memorandum regarding equipment, worker, and vehicle assumptions for information related to average duration, number of vehicles or pieces of equipment per investigation, average hours per day at each site,

number of round trips per investigation, average mileage per round trip, horsepower, and load factors.

Additionally, as set forth in the Delta Conveyance Project's Final EIR, the Project incorporates best management practices (BMPs), which are standard construction practices or design elements that are incorporated into the project description to generally address environmental concerns that typically occur for most construction actions. (Final EIR Appendix 3B page 3B-1.) Pursuant to EC-14: Construction Best Management Practices for Biological Resources, a biological monitor will be present during all geotechnical activities.

3. Evaluation of Need for Supplemental Environmental Review

Included in the decision documents for the Final EIR is the Delta Conveyance Project MMRP. The MMRP describes mitigation measures and environmental commitments from the Final EIR that will mitigate potentially significant impacts of the Approved Project. Due to the limited and temporary impacts associated with geotechnical activities, the Compensatory Mitigation Plan and its associated measures do not apply to the 2024-2026 geotechnical activities and will not be discussed further in this memorandum.

3.1 Final EIR Conclusions – No Impact

As demonstrated in the Final EIR, the following environmental resource impact topics will not be impacted by the Approved Project. The 2024-2026 geotechnical activities will not contribute to changes/increases in the level of significance already identified in the Final EIR for these resource impact topics. Thus, the following impacts will not be analyzed further in this memorandum for applicability to the 2024-2026 geotechnical activities:

- Water Quality Impacts
    - Impact WQ-17: Consistency with Water Quality Control Plans
- Biological Resources Impacts
    - Impact BIO-6: Impacts of the Project on Nontidal Brackish Emergent Wetland
    - Impact BIO-15: Impacts of the Project on Conservancy Fairy Shrimp
    - Impact BIO-17: Impacts of the Project on Sacramento and Antioch Dunes Anthicid Beetle
    - Impact BIO-19: Impacts of the Project on Delta Green Ground Beetle
    - Impact BIO-43: Impacts of the Project on Suisun Song Sparrow and Saltmarsh Common Yellowthroat
    - Impact BIO-49: Impacts of the Project on Salt Marsh Harvest Mouse
    - Impact BIO-50: Impacts of the Project on Riparian Brush Rabbit
- Land Use Impacts
    - Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community that Would Physically Divide the Community as a Result of the Project
- Energy Impacts

  - Impact ENG-2: Conflict with or Obstruct Any State/Local Plan, Objective, or Policy for Renewable Energy or Energy Efficiency

- Noise and Vibration Impacts
  - Impact NOI-3: Place Project-Related Activities in the Vicinity of a Private Airstrip or an Airport Land Use Plan, or, Where Such a Plan Has Not Been Adopted, within 2 Miles of a Public Airport or Public Use Airport, Resulting in Exposure of People Residing or Working in the Project Area to Excessive Noise Levels
- Hazards, Hazardous Materials, and Wildlife Impacts
  - Impact HAZ-3: Expose Sensitive Receptors at an Existing or Proposed School Located within 0.25 Mile of Project Facilities to Hazardous Materials, Substances, or Waste
- Mineral Resources Impacts
  - Impact MIN-1: Loss of Availability of Locally Important Natural Gas Wells as a Result of the Project
  - Impact MIN-2: Loss of Availability of Extraction Potential from Natural Gas Fields as a Result of the Project
  - Impact MIN-3: Loss of Availability of Locally Important Aggregate Resources (Mines and MRZs) as a Result of the Project
  - Impact MIN-4: Loss of Availability of Locally Important Aggregate Resources as a Result of the Project

3.2 Environmental Analysis (In Order by Final EIR Chapter)

This Section evaluates the potential changes to environmental impacts, that may result from the execution of the 2024-2026 geotechnical activities (described in Section 2.1) and identifies whether the impacts of the geotechnical activities contribute to increases in the severity of previously identified potentially significant impacts or will result in any new significant impacts. Resource impacts associated with the 2024-2026 geotechnical activities are summarized below.

3.2.1 Overall Impact Conclusions

The 2024-2026 geotechnical activities as presented through the analysis in this memorandum, would not result in any new significant environmental effects or any substantial increase in the severity of environmental effects already identified in the certified Final EIR. Furthermore, the 2024-2026 geotechnical activities would utilize applicable mitigation measures and environmental commitments set forth in the Final EIR for the impacts related to the 2024-2026 geotechnical activities. For this reason, the

analysis below evaluates the potential impacts of 2024-2026 geotechnical activities after implementation of applicable mitigation measures and environmental commitments set forth in the Final EIR.

3.2.2 Surface Water (Final EIR Chapter 5)

Changes to surface water resources, by themselves, are not considered an impact of the Project under CEQA and thus are not evaluated as impacts in the Final EIR. Furthermore, the 2024-2026 geotechnical activities do not include any overwater activities.

3.2.3 Water Supply (Final EIR Chapter 6)

Changes to water supply, by themselves, are not considered an impact of the Project under CEQA and are not evaluated as impacts in the Final EIR. Any potential impacts to groundwater, because of the 2024-2026 geotechnical activities, is discussed in Final EIR, Volume 1, Chapter 8 – Groundwater (summarized below in Section 3.3.5).

3.2.4 Flood Protection (Final EIR Chapter 7)

The effects of the 2024-2026 geotechnical activities on flood protection would be significant under CEQA if execution of the Project would result in one of the potential impacts described in Final EIR, Volume 1, Chapter 7, Section 7.3.3.2 which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on flood protection are determined, are provided in the Final EIR Section entitled 'Thresholds of Significance' (Final EIR, Volume 1, Chapter 7, Section 7.3.2).

The 2024-2026 geotechnical activities will not increase water surface elevations because they would not involve the installation of coffer dams, nor the construction of levees – which can contribute to water surface elevation increases. The 2024-2026 geotechnical activities do not involve excavation, grading, or stockpiling that could have the potential to block, reroute, or temporarily detain and impound surface water in existing drainages and velocities. The 2024-2026 geotechnical activities would, therefore, not cause alterations in drainage patterns or impact flood protection.

3.2.4.1 Flood Protection Impact Conclusion

The conclusion regarding a less than significant impact on flood protection from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for flood protection that could result in any new potentially significant impacts.

3.2.5 Groundwater (Final EIR Chapter 8)

The effects of the geotechnical activities on groundwater would be significant under CEQA if execution of the geotechnical activities would result in one of the potential impacts described in Final EIR, Volume 1, Chapter 8, Section 8.3.2.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on Groundwater are determined, are provided in the Final EIR Section entitled 'Thresholds of Significance' (Final EIR pages 8-19 through 8-21).

The 2024-2026 geotechnical activities will include water quality testing in boreholes. A steady-state pumping test may occur (for up to 10 days in duration as described in TM 14B) for up to 4 hours (for 2024-2026 geotechnical activities) at a flow rate selected to prevent dewatering and resulting in pump cavitation (up to 1500 gallons per minute (gpm) was described in TM 14B; up to 50 gpm for 2024-2026 geotechnical activities). A period equal to the pumping test would follow the pumping test, during which the water level would be allowed to recover to the pre-pumping level. Water levels before, during and following the various tests would be monitored using automated data loggers.

The 2024-2026 geotechnical activities will not involve facility construction, dewatering activities (a potential cause of subsidence in certain soil types and formations; a potential cause of water quality degradation), installation of slurry cut off walls (a potential cause for groundwater elevation increases) and/or sheet piles, are temporary with a minimal footprint, and do not constitute operations. When geotechnical activities are completed, holes will be sealed using cement-bentonite grout in accordance with the California regulations and industry standards. Therefore, the 2024-2026 geotechnical activities will not affect stream gains or losses, impact elevations, or impact groundwater levels of supply wells.

3.2.5.1 Groundwater Impact Conclusion

The conclusion regarding a less than significant impact on groundwater from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for groundwater that could result in any new potentially significant impacts.

3.2.6 Water Quality (Final EIR Chapter 9)

The water quality effects of the geotechnical activities would be significant under CEQA if the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 9, Section 9.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on water quality are determined, are provided in the Final EIR, Volume 1, Chapter 9, Section 9.3.2 – Thresholds of Significance (Final EIR pages 9-37 thru 9-38).

The 2024-2026 geotechnical activities do not involve construction activities associated with terrestrial or aquatic facilities construction, construction preparation, or other general construction activities, including dewatering. Additionally, the 2024-2026 geotechnical activities will not involve overwater activities. Geotechnical activities are temporary, involve a minimal footprint, and are used to inform Project planning and although geotechnical activities will not affect in-river water quality, DWR will implement Environmental Commitments – EC-2: Develop and Implement Hazardous Materials Management Plans and EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans as part of the general geotechnical activities Health and Safety Plan, to reduce the likelihood of contamination during field investigation activities.

Geotechnical activities are comparatively short term, temporary, are typically within a small footprint and, when completed, holes will be sealed using cement-bentonite grout in accordance with the California regulations and industry standards, to ensure that groundwater water quality will not be contaminated by the borings in a way that would cause surface water quality to be substantially degraded. Therefore, impacts to the specific constituents evaluated in the Final EIR water quality impacts analysis will not occur because of the geotechnical activities.

The geotechnical activities, as discussed in this memorandum, will not take place at the Contra Costa Water District Interconnection facility, and will not involve the design or construction of the compensatory mitigation plan. As such, mitigation measures WQ-4 and WQ-6 are not applicable to the geotechnical activities evaluated in this memorandum.

3.2.6.1 Water Quality Impact Conclusion

The conclusion regarding a less than significant impact on water quality from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for water quality that could result in any new potentially significant impacts.

3.2.7 Geology and Seismicity (Final EIR Chapter 10)

The geologic and seismic effects of the geotechnical activities would be significant under CEQA if the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 10, Section 10.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on geology and seismicity are determined, are provided in the Final EIR, Volume 1, Chapter 10, Section 10.3.2 – Thresholds of Significance (Final EIR page 10-44).

The geotechnical activities will not introduce very high-pressure fluids into the ground. During geotechnical drilling, the downhole drilling fluid pressures are limited to those required to balance the soil and water pressures at depths less than 200 feet, typically less than 150 pounds per square inch (psi) (less than 25 psi of additional pressure could be exerted by increasing boring depths by 50 feet). In contrast, downhole drilling fluid pressures used to stimulate oil and gas production often exceed 9,000 psi.

The geotechnical activities would occur in areas subject to ground shaking. However, because the investigators would not be working in structures, the likelihood of an injury caused by a strong earthquake event occurring while the investigations are being conducted is low, and the investigation activities would not trigger an earthquake, the investigations are unlikely to cause a loss of property, personal injury, or death from strong earthquake-induced ground shaking. Given the infrequency of strong ground shaking in the Project area, the likelihood that earthquake-induced liquefaction would occur at the time that personnel are conducting geotechnical activities is low. Further, the personnel would not be in any structures during the investigations; therefore, they would not be subject to liquefaction-induced structural hazards and damage, should a strong earthquake occur. The geotechnical activities prior to the start of construction would involve a variety of ground-disturbing activities. However, none of these activities are likely to cause an increase in the hazard settlement or slope failure. Geotechnical activities would involve conducting geotechnical investigations along the alignments for the intakes, tunnels, shafts, levees, rail, powerlines, asphalt overlays, and roadways. The soil borings would be drilled to create a 4-inch to 8-inch-diameter hole from which soil samples would be recovered. The CPTs would involve hydraulically pressing a 1-inch to 2-inch-diameter cone-tipped rod into the ground. The water quality testing would involve installing a temporary PVC pipe within the borehole. The PVC pipe will be up to 4 inches in diameter and will be slotted over an interval of up to 40 feet in length. The remainder of the PVC pipe will be solid wall. The annular space between the boring and the slotted interval of the PVC pipe will be backfilled with commercially available Well Pack sand and gravel, while the solid wall section will be backfilled with bentonite to the surface. Based on DWR's 30 years of well drilling and deep-soil investigations in the Delta, none of the investigations are likely to cause a ground vibration sufficiently strong enough to initiate liquefaction or ground settlement. For the Approved Project, the geotechnical activities would not increase the hazard of a seiche or tsunami to occur in the Project area because

the locations of the geotechnical activities would not be sufficient to generate seiche waves and are beyond the reach of tsunami waves.

3.2.7.1 Geology and Seismicity Impact Conclusion

The conclusion regarding a less than significant impact on geology and seismicity from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for geology and seismicity that could result in any new potentially significant impacts.

3.2.8 Soils (Final EIR Chapter 11)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 11, Section 11.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on soils are determined, are provided in the Final EIR, Volume 1, Chapter 11, Section 11.3.2 – Thresholds of Significance (Final EIR page 11-40 through 11-42).

The geotechnical activities would involve a variety of ground-disturbing activities, most of which would be of limited extent and duration. Soil borings would use augers to sample 4- to 8-inch-diameter holes and cone penetration tests would involve 1- to 2-inch-diameter rods pushed into the ground. The water quality testing would involve installing temporary PVC pipes, up to 4 inches in diameter, within 4-to-8-inch diameter boreholes.

The disturbances caused by the geotechnical activities would be of limited extent and are expected to result in minimal increases in water and wind erosion rates. To prevent accelerated water or wind erosion from occurring, DWR would incorporate aspects of Environmental Commitment EC-4b: Develop and Implement Stormwater Pollution Prevention Plans (SWPPP). Federal statutes and regulations require discharges to waters of the United States comprised of stormwater associated with construction activity to obtain NPDES permit coverage (except operations that result in disturbance of less than one acre of total land area and that are not part of a larger common plan of development or sale). (Order WQ 2022-0057-DWQ NPDES NO. CAS000002). All geotechnical activities will disturb less than one acre of total land area. Therefore, a SWPPP is not required for the geotechnical activities. DWR will implement *EC-14: Construction Best Management Practices for Biological Resources,* specific to the geotechnical activities. BMPs that would contribute to reductions in soil erosion would

include (but will not be limited to) implementation of speed limits, preventing trash and debris from falling onto roads, established parking areas and use of established ingress/egress points, no pets allowed, use of appropriate erosion control substitutes not made of plastic monofilament netting, restoration of temporarily affected areas within 1 year to pre-Project conditions. The geotechnical activities such as soil borings and CPTs, would result in minimal losses of topsoil. The geotechnical activities would not contribute to potential subsidence due to their limited extent. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to subsidence, the use of which would reduce the potential hazard of subsidence to acceptable limits meeting design standards, causing this impact to be less than significant. The geotechnical activities would not be constrained by expansive or corrosive soils and the investigations would not increase the hazard of such soils to life and property. The results of the geotechnical activities will be used to inform the final design of the facilities underlain by soils subject to expansion or corrosion, the use of which would describe the hazards and recommend the measures that should be implemented to ensure that the facilities are constructed to withstand expansion and contraction and to conform to applicable State and federal standards, such as the California Building Code.

The geotechnical activities would not involve construction or use of an on-site wastewater disposal system, which would otherwise require soil excavation and installation of septic tanks and wastewater disposal infrastructure. Therefore, mitigation measure SOILS-5 is not applicable to the geotechnical activities evaluated in this memorandum.

3.2.8.1 Soils Impact Conclusion

The conclusion regarding a less than significant impact on soils from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for soils that could result in any new potentially significant impacts.

3.2.9 Fish and Aquatic Resources (Final EIR Chapter 12)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 12, Section 12.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on fish and aquatic resources are determined, are provided in the

Final EIR, Volume 1, Chapter 12, section 12.3.2 – Thresholds of Significance (Final EIR page 12-46).

The geotechnical activities will not involve in-water/over-water activities, do not involve testing piles, and do not involve operations and maintenance. Thus, the impacts on fish and aquatic resources do not apply to the geotechnical activities discussed in this memorandum. Therefore, mitigation measures AQUA-1a, AQUA-1b, and AQUA-1c are not applicable to the geotechnical activities evaluated in this memorandum. No further analyses of individual impacts on fish and aquatic species are needed for geotechnical activities in this memorandum.

3.2.9.1 Fisheries and Aquatic Resources Impact Conclusions

As the geotechnical activities will not involve in-water/over-water activities, potential impacts on fish and aquatic resources are less than significant without mitigation. Therefore, the conclusion in the Final EIR regarding the Delta Conveyance Project's less than significant impact, with mitigation, on fish and aquatic resources remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for fish and aquatic resources that could result in any new potentially significant impacts.

3.2.10 Terrestrial and Biological Resources (Final EIR Chapter 13)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 13, Section 13.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on terrestrial and biological resources are determined, are provided in the Final EIR, Volume 1, Chapter 13, Section 13.3.2 – Thresholds of Significance (Final EIR page 13-70 through 13-71).

Terrestrial biological resources may temporarily be impacted by the geotechnical activities. To avoid, minimize and/or reduce impacts to the terrestrial biological resources analyzed in the Final EIR, employing applicable Environmental Commitments and Mitigation Measures will reduce potential impacts. Specific compliance with EC-1: *Conduct Environmental Resources Worker Awareness Training*, EC-2: *Develop and Implement Hazardous Materials Management Plans,* EC-3: *Develop and Implement spill prevention, containment, and countermeasure plans*, and EC-14: *Construction Best*

Management Practices for Biological Resources would (among other commitments) reduce potential impacts by 1) training construction staff on protecting sensitive biological resources, reporting requirements, and the ramifications for not following these measures, 2) implementing spill prevention and containment plans that would avoid material spills that could affect the viability of nearby aquatic and upland habitat, 3) having a biological monitor present to ensure that non-disturbance buffers and all other protective measures are being implemented, where applicable, and 4) avoiding impacts to biological resources by moving investigation locations, or abandoning a site altogether.

Geotechnical activities will not involve, construction, or placement of powerlines, will avoid take of listed species and habitat loss, will not involve surface disturbance that would disrupt terrestrial wildlife connectivity and movement, nor do the investigations involve maintenance, therefore mitigation measures BIO-2b, BIO-2c, BIO-24b, BIO-45a, and BIO-53 are not applicable to the geotechnical activities evaluated in this memorandum.

In addition, the study area contains both aquatic and terrestrial plant species that have been designated as invasive plants and/or noxious weeds. Although these two descriptive terms are sometimes used interchangeably, it is important to note that there are implications associated with the use of each term. The term *noxious weed* is a designation used by government agencies, such as the U.S. Department of Agriculture (USDA) and the California Department of Food and Agriculture (CDFA), for plant species that have been identified as pests by law or regulation. Invasive plants may be considered as such from a scientific perspective because of their ability to spread to areas that are far from their point of introduction. Plant species can also be identified as invasive through recognition by nongovernmental organizations, such as the California Invasive Plant Council (Cal-IPC), which maintains a list of invasive plants that threaten California's wildlands. The study area does not contain any known populations of noxious weeds identified by the USDA (Final EIR, Volume 1, Chapter 13, Section 13.1.5.1). However, invasive plant species as identified by the California Invasive Plant Council are present in all of the natural communities and agricultural areas in the study area. (Final EIR, Volume 1, Chapter 13, Section 13.1.5.3). Those invasive plant species that likely affect the natural communities in the study area, for the 2024-2026 geotechnical activities, primarily include: perennial pepperweed, yellow star-thistle, medusahead, purple star-thistle, bar goatgrass, Italian ryegrass, Italian thistle, wild radish, bindweed, fennel, field mustard, and Bermuda.

Impact BIO-52: *Impacts of Invasive Species Resulting from Project Construction and Operations on Established Vegetation* (Final EIR, page 13-432) evaluates potential impacts of invasive species resulting from construction activities, including geotechnical activities, on established vegetation. (Final EIR, pages 13-432 through 13-435.). The removal of established vegetation can create opportunities for the introduction and spread of invasive and noxious plant species into the study area. However, opportunities for the introduction and spread of invasive and noxious plant species is directly proportional to the level of disturbance associated with the activity (Final EIR, page 13-432). As such, the 2024-2026 geotechnical activities will consist of minor disturbances such as mowing, removal of a few tree limbs, trimming of bushes for site access, along with driving to/from

the activity location and boring into the soil. These minor disturbances would be further minimized by the requirement that the sites be restored to as close to pre-project conditions as possible directly following the completion of the field investigation activity. Furthermore, the Approved Project includes environmental commitments and best management practices set forth in Final EIR Appendix 3B. As described above, these requirements include EC-14: *Construction Best Management Practices for Biological Resources*, which requires a biological monitor be present during the geotechnical activities. As a best management practice, consistent with the requirement that the onsite biologist ensure protective measures are being implemented as intended for the protection of special-status species, natural communities, and the environment in general (Final EIR Appendix 3B page 3B-26), measures will be implemented for the protection of special-status fish, wildlife, and plant species and their habitats. These measures will include the requirement that all equipment used during geotechnical activities will be cleaned and inspected by the qualified biologist for terrestrial invasive plant and animal species prior to entering the work areas and before moving between work areas. (Final EIR Appendix 3B page 3B-29.) Consistent with California Invasive Plant Council recommendations, tools used for equipment cleaning would include brushes, brooms, a scraper, an air compressor, vacuum, and/or other hand tools. (Cal-IPC, 2012) If the qualified biologist determines that equipment washing is warranted after the onsite equipment cleaning, the equipment will be washed at an offsite commercial facility, or returned to the company yard for cleaning, prior to entering a new site. (Cal-IPC, 2012)

In consideration of the minimal footprint for each geological activity, by restoring the temporarily disturbed areas, and inspecting and cleaning equipment before entering new areas, the potential for the geotechnical activities to introduce or improve habitat conditions for invasive plants would be less than significant.

3.2.10.1 Terrestrial Biological Resources Impacts Conclusion

The conclusion regarding no impact (for Impacts BIO-43, BIO-49 thru BIO-50), a less than significant impact (for Impact BIO-52) and less than significant, with mitigation (for all other impacts), on terrestrial biological resources from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for terrestrial biological resources that could result in any new potentially significant impacts.

3.2.11 Land Use (Final EIR Chapter 14)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 14, Section 14.3.3.2, which

are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on land use are determined, are provided in the Final EIR, Volume 1, Chapter 14, Section 14.3.2 – Thresholds of Significance (Final EIR page 14-17 through 14-18).

The geotechnical activities may temporarily interfere with the existing land uses, such as agricultural operations, in the vicinity where sampling is taking place. Field investigation work is not expected to result in a change to the underlying land use of any properties, because all affected areas would be returned to as close to pre-activity conditions as possible. Similarly, field-investigation work would not result in permanent incompatibilities with land use plans, policies, or designations, nor would investigations result in the permanent conversion of lands to another land use. Activities such as the geotechnical activities are generally allowed in all land use designations by policy and regulation. They also would be compatible with the applicable land use policies in the study area that have been adopted to avoid and mitigate environmental effects.

3.2.11.1 Land Use Impact Conclusion

The conclusion regarding a less than significant impact (for Impact LU-1 and Impact LU-2) and no impact (for LU-3), on land use from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for land use that could result in any new potentially significant impacts.

3.2.12 Agricultural Resources (Final EIR Chapter 15)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 15, Section 15.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on agricultural resources are determined, are provided in the Final EIR, Volume 1, Chapter 15, Section 15.3.2 – Thresholds of Significance (Final EIR page 15-27).

The geotechnical activities may have temporary impacts on existing agricultural lands. The geotechnical activities analyzed under this resource in the Final EIR include geotechnical and hydrogeologic sampling and other construction test projects supporting

geotechnical analysis. These investigations would be used to refine project alignment and design and to more specifically identify appropriate construction methodologies given existing site conditions. Although these geotechnical activities may temporarily interfere with agricultural operations in the vicinity where sampling is taking place, field investigation work is not expected to result in conversion of agricultural properties to nonagricultural use. Any proposed investigation activities that occur on agricultural lands would be grouted with materials from the full depth to 5 feet (1.5 meters) below the surface, with the final 5 feet of topsoil replaced to return the affected area to as close to pre-activity conditions as possible. The various geotechnical activities involving hydrogeologic sampling and other test projects would be used to more specifically identify the appropriate groundwater monitoring programs that may be required in the construction phase. Given that groundwater elevations are not expected to change, because of 2024-2026 geotechnical activities (See Section 3.2.5, above), groundwater levels would not prevent agricultural uses on neighboring properties mapped as Important Farmland.

3.2.12.1 Agricultural Resources Impact Conclusion

The 2024-2026 geotechnical activities' temporary impact on agricultural land would be less than significant, as the geotechnical activities will not convert important farmland, nor land subject to Williamson Act contract or land in Farmland Security Zones. With execution of the 2024-2026 geotechnical activities, the Final EIR conclusion regarding a significant and unavoidable impact (for Impact AG-1 and Impact AG-2) and a less than significant impact, with mitigation (for Impact AG-3), on agricultural resources from the Final EIR remains unchanged, as the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for agricultural resources that could result in any new potentially significant impacts.

3.2.13 Recreation (Final EIR Chapter 16)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 16, Section 16.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on recreation are determined, are provided in the Final EIR, Volume 1, Chapter 16, Section 16.3.2 – Thresholds of Significance (Final EIR page 16-19).

The 2024-2026 geotechnical activities would take a short period of time and are not likely to displace recreationists to other parks at such a level as to degrade facilities or experiences at those facilities. The 2024-2026 geotechnical activities would be used to refine project alignment and design and to more specifically identify appropriate construction methods addressed in the final design documents and help to establish geological and groundwater monitoring programs for the design and construction phases of the Approved Project. None of the geotechnical activities require the construction or expansion of recreation facilities.

3.2.13.1 Recreation Impacts Conclusion

The conclusion regarding a less than significant impact on recreation from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for recreation resources that could result in any new potentially significant impacts.

3.2.14 Socioeconomics (Final EIR Chapter 17)

Under CEQA, social and economic effects alone are not treated as impacts. These effects may be used to determine the significance of physical changes to the environment.

CEQA does not require a discussion of socioeconomic effects, except where they would result in reasonably foreseeable physical changes to the environment. In the Delta Conveyance Project's Final EIR, socioeconomic conditions were considered affected if a Project would result in the conditions described in the Final EIR, Volume 1, Chapter 17, Section 17.3.2 – Determination of Effects (Final EIR page 17-47 through 17-48).

Effects on employment and labor income are not in and of themselves impacts under CEQA. Employment and income effects are socioeconomic effects and would be considered impacts under CEQA if they were to lead to physical changes to the environment. The Final EIR analyses concludes that socioeconomic effects of the Approved Project will not lead to physical changes to the environment. Therefore, it can be inferred that no physical changes to the environment, because of socioeconomic effects of the 2024-2026 geotechnical activities, would occur. Implementation of applicable MMRP requirements will contribute to this conclusion.

3.2.15 Aesthetics and Visual Resources (Final EIR Chapter 18)

The impact analysis assumes that the 2024-2026 geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in

one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 18, Section 18.3.5.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on aesthetics and visual resources are determined, are provided in the Final EIR, Volume 1, Chapter 18, Section 18.3.4 – Thresholds of Significance (Final EIR pages 18-44 through 18-45).

The 2024-2026 geotechnical activities would require the use of heavy equipment such as drill rigs, CPT trucks, grout trucks, water trucks, work vehicles, and staff to perform the geotechnical activities. These elements would temporarily be visible in the viewshed of all affected viewers wherever such geotechnical activities would occur. However, the 2024-2026 geotechnical activities will not have visible permanent facilities and would not substantially degrade the existing visual character or quality of public views and their surroundings in nonurbanized areas or have a significant impact on scenic vistas visible from the identified work areas. And, although geotechnical activities may be visible from State Route 160 (a State scenic highway), due to the short-term nature of the activities, the geotechnical activities will not result in any long term or permanent changes to scenic resources visible from State Route 160. Geotechnical activities would take place during the day and would not require the use of bright lights, which would otherwise negatively affect nighttime views of and from the field investigation areas. It is anticipated that glare reflecting from vehicles and equipment would be minimal when taken in the broader field of view. Therefore, geotechnical activities would not result in a temporary or permanent increase in glare.

Aesthetic and visual resources impacts resulting from execution of the 2024-2026 geotechnical activities would be less than significant because they are short term/temporary, will not result in any long term or permanent changes to scenic resources visible from a scenic highway, will not involve permanent features, and holes will be backfilled to pre-project conditions. Mitigation measures AES-1a, AES-1b, and AES-1c do not apply to the 2024-2026 geotechnical activities as they relate specifically to long term construction, the construction of permanent structures, and post-construction reclamation.

3.2.15.1 Aesthetics and Visual Resources Impact Conclusion

The 2024-2026 geotechnical activities' temporary impact on aesthetics and visual resources would be less than significant. With execution of the 2024-2026 geotechnical activities, the conclusions regarding the Approved Project's significant and unavoidable impact on aesthetics and visual resources (Impact AES-1, AES-2, AES-3) and less than significant impact after mitigation (Impact AES-4) from the Final EIR remain unchanged, as the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance

have been identified for aesthetics and visual resources that could result in any new potentially significant impacts.

3.2.16 Cultural Resources (Final EIR Chapter 19)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 19, Section 19.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on cultural resources are determined, are provided in the Final EIR, Volume 1, Chapter 19, Section 19.3.2 – Thresholds of Significance (Final EIR pages 19-33 through 19-34).

The 2024-2026 geotechnical activities will not impact any built-environment historical resources, due to the planned field investigation distances to cultural resources features that have been recorded within 0.25 mile from the proposed 2024-2026 investigation locations. Furthermore, as proposed, 2024-2026 geotechnical activities will be relocated or, if necessary, abandoned to avoid potential impacts to cultural resource features that may be identified during site clearance investigations. Please See Table 1: Cultural Resources Recorded within 0.25-mile of the Proposed 2024-2026 Activity Locations. Currently inaccessible resources may also be significant under other California Register of Historic Resources (CRHR) criteria. Similarly, because buried human remains are isolated resources that may not be associated with larger deposits, their distribution and depth cannot be estimated. With the large acreages subject to disturbance by the Delta Conveyance Project, it makes exhaustive sampling to identify all buried and isolated human remains technically and economically infeasible. For these reasons, as analyzed in the Final EIR, there exists the potential that such resources may be damaged or exposed before they can be discovered through inventory or monitoring, thus making cultural resource impacts (Impacts CUL-1 through CUL-5) significant and unavoidable, even with mitigation.

TABLE 1: CULTURAL RESOURCES RECORDED WITHIN 0.25-MILE OF THE PROPOSED 2024-2026 ACTIVITY LOCATIONS

Primary #	Name	Resource Description	Constraint	Do Geotech Locations Need to Move?
GT-001	Brighton-Grand Island Transmission Line Tower	Historic-era utilities infrastructure	No	No
P-01-001783	Southern Pacific RR	Historic-era railroad	No	No
P-01-010443	Tracy Switch Station (No. 11b)	Historic-era utilities infrastructure	No	No
P-01-010446	Segment of PG&E Distribution Line (No. 7)	Historic-era utilities infrastructure	No	No
P-01-010449	Hurley-Tracy Transmission Line #4	Historic-era utilities infrastructure	No	No
P-01-010450	Segment of Mountain House Road #3	Historic-era road	No	No
P-01-010451	Segment of Byron Bethany Road (No. 2)	Historic-era road	No	No
P-01-010951	Delta Mendota Canal Construction Spoil Piles	Historic-era canal features	No	No
P-01-010952/ P-07-002982	Alternative Intake Channel	Historic-era canal	No	No
P-01-010953/ P-07-002983	Tracy Fish Collection Facility	Historic-era government structure	No	No
P-07-002551	Segment of Hurley-Tracy Transmission Line (No. 4)	Historic-era utilities infrastructure	No	No
P-07-002558	Segment of the Delta Mendota Canal and Intake Channel (No. 27)	Historic-era canal	No	No
P-07-003093	West Canal	Historic-era canal	No	No
P-07-003122	Clifton Court Forebay	Historic-era reservoir	No	No
P-07-004507	GANDA-809-62H	Historic-era levee	No	No
P-07-004518	GANDA-609-19H	Historic-era artifact scatter	Avoid; No buffer needed	No
P-07-004519	GANDA-609-20H	Historic-era artifact scatter	Avoid; No buffer needed	No
P-07-004520	GANDA-609-21H	Historic-era artifact scatter	Avoid; No buffer needed	No
P-07-004698	MPTO_002_001	DWR Delta Field Division Facilities	No	No
P-34-000048	S-66; Hollister	Pre-contact habitation site with human remains	Avoid; 250-ft Buffer	No
P-34-000092	X-1	Pre-contact habitation site with human remains	Avoid; 250-ft Buffer	No
P-34-000093	Schenck and Dawson, 66; C-66; Morse; Old Glenn; W. Glenn	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-34-000098	S-71; Green	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-34-000276	CRS-7; Hot Tomato	Pre-contact habitation site	Avoid; 250-ft Buffer	No

Primary #	Name	Resource Description	Constraint	Do Geotech Locations Need to Move?
P-34-000336	Possible pre-contact Site	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-34-000422	Pre-contact habitation site	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-34-000491	WPRR	Historic-era railroad	No	No
P-34-001495	Lambert Road Levee	Historic-era levee	No	No
P-34-001496	Snodgrass Slough Levee	Historic-era levee	No	No
P-34-001497	Walnut Grove Branch Line of the Southern Pacific Railroad	Historic-era railroad	No	No
P-34-001596	Sun River Levee	Historic-era levee	No	No
P-34-002143	USACE Sacramento River Flood Control Project Levee - Unit 115	Historic-era levee	No	No
P-34-004288	DE Orchards Historic Trash Scatter	Historic-era artifact scatter	Avoid; No buffer needed	No
P-34-005651	Bear Lake Drainage Ditch	Historic-era ditch	No	No
P-39-000205	Schenck-Dawson 69	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-39-000206	Schenck-Dawson-70	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-39-000207	Schenck-Dawson 71	Pre-contact habitation site	Avoid; 250-ft Buffer	No
P-39-000209	Schenck-Dawson 73	Pre-contact habitation site with human remains	Avoid; 250-ft Buffer	No
P-39-000417	Sanitary Sewer	Historic-era military buildings	No	No
P-39-000419	Wood-frame Warehouses	Historic-era military buildings	No	No
P-39-000426	Naval Communication Station Streets	Historic-era road	No	No
P-39-000429	Daggett Rd. Bridge (turn bridge)	Historic-era bridge	No	No
P-39-001564	Sewage Treatment Plant	Historic-era military buildings	No	No
P-39-001565	Sewage Treatment Plant	Historic-era military buildings	No	No
P-39-001566	Sewage Treatment Plant	Historic-era military buildings	No	No
P-39-001567	Sewage Treatment Plant	Historic-era military buildings	No	No
P-39-002862	Roads, Parking, Sidewalks NCS	Historic-era road	No	No
P-39-002863	Open Storage	Historic-era military buildings	No	No
P-39-002864	RR tracks on Rough and Ready Island	Historic-era railroad	No	No
P-39-004276	GG-Iso-1	Isolated historic-era artifacts	Avoid; No buffer needed	No
P-39-004309	Byron-Bethany Road, AKA Byron Rd., County Rd. 2388	Historic-era road	No	No
P-39-004310	PGE Distr. Line # 7/Sierra & S.F. Power Co. Distr. Line (NORTH shoulder Byron Rd.)	Historic-era utilities infrastructure	No	No

Primary #	Name	Resource Description	Constraint	Do Geotech Locations Need to Move?
P-39-004399	Mokelumne Aqueduct at Mosher Diversion Canal	Historic-era levee	No	No
P-39-004399	Mokelumne Aqueduct at Mosher Diversion Canal Update	Historic-era levee	No	No
P-39-004576	U.S. Naval Supply Annex, Stockton (District)	Historic-era military buildings	No	No
P-39-004582	Daggett Road Ditch	Historic-era ditch	No	No
P-39-004857	Old River Levees	Historic-era levee	No	No
P-39-004886	Victoria Canal and Levees	Historic-era levee	No	No
P-39-004922	Tenmile Slough Levee	Historic-era levee	No	No
P-39-005152	Left Bank	Historic-era levee	No	No
P-39-005166	Stockton Deep Water Channel Levee Segment	Historic-era levee	No	No
P-39-005179	ISO-609-36H	Historic-era isolated nail	Avoid; No buffer needed	No
P-39-005383	New Hope 1101 12 kV	Historic-era utilities infrastructure	No	No

SOURCE: CCaIC, 2024

3.2.16.1 Cultural Resources Impact Conclusions

The conclusions regarding a significant and unavoidable impact on cultural resources from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for cultural resources that could result in any new potentially significant impacts.

3.2.17 Transportation (Final EIR Chapter 20)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 20, Section 20.3.3.3, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on transportation are determined, are provided in the Final EIR, Volume 1, Chapter 20, section 20.3.2 – Thresholds of Significance (Final EIR pages 20-25 through 20-26).

The VMT calculations for the 2024-2026 geotechnical activities remain consistent with the calculations and analyses presented in the Final EIR. In fact, the degree of impact

for the 2024-2026 geotechnical activities, as compared to the Approved Project, is less. Table 2, below, presents the results of the construction VMT analysis for the Approved Project (Alternative 5) and the 2024-2026 geotechnical activities as compared to 2020 conditions. As such, if the goal of MM TRANS-1, for the reduction in single occupancy vehicles is achieved, then the VMTs for the 2024-2026 geotechnical activities would be well below the significance threshold for the regional average of 22.5 miles per employee. DWR will encourage carpooling to reduce below the significance threshold, however, since no specific level of carpooling can be guaranteed, the Impact TRANS-1 remains significant and unavoidable. Overall, effects from geotechnical activities would generally have negligible effects on the circulation systems because of the limited nature of these activities. 2024-2026 geotechnical activities will not involve overwater activities and, therefore, do not have the potential to affect marine navigation.

Table 2. Regional VMT Analysis for Approved Project—Construction and Geotechnical Activities VMT vs. Regional Average VMT

	Vehicle Miles Traveled			
Alternative	Average VMT per Construction Employee	Does the Project Alternative Exceed the Regional Average of 22.50 Miles per Employee	Change (miles)	Percentage Change
Alternative 5	25.77	Yes	+3.27	+14.5%
2024-2026 Geotechnical activities	24.32	Yes	+1.82	+7.5%

Source: Combination of regional travel demand and VMT models for study area.
VMT = vehicle miles traveled.

3.2.17.1 Transportation Impact Conclusion

No mitigation measures or alternatives with the potential to substantially reduce the significant and unavoidable transportation impact (Impact TRANS-1) and that DWR previously determined to be infeasible when it approved the Project are now feasible. Furthermore, DWR has not identified any new mitigation measures or alternatives with the potential to substantially reduce this significant and unavoidable impact and that is considerably different from those analyzed in the Final EIR. The conclusions regarding a significant and unavoidable impact (Impact TRANS-1), a less than significant impact, after mitigation (Impact TRANS-3, Impact TRANS-4), and a less than significant impact (Impact TRANS-2, Impact TRANS-5) from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of

substantial importance have been identified for transportation that could result in any new potentially significant impacts.

3.2.18 Public Services and Utilities (Final EIR Chapter 21)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 21, Section 21.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on public services and utilities are determined, are provided in the Final EIR, Volume 1, Chapter 21, Section 21.3.2 – Thresholds of Significance (Final EIR pages 21-22 through 21-23).

Although geotechnical activities would require workers (as incorporated into the data in Table 21-1 of the Final EIR), the construction worker population is assumed to come from the existing labor force, which is already served by existing law enforcement, fire department, hospitals, schools, and other publics services in the study area, for the Approved Project. For the 2024-2026 geotechnical activities, these workers would be temporary and are not anticipated to relocate to the study area, thus there would not be a need for construction of new or expanded infrastructure or services related to police protection, fire protection, hospitals, schools, or other public services for the larger Delta Conveyance Project, and thus for the geotechnical activities. Investigations would not require or result in the relocation or construction of service system infrastructure (e.g., water and wastewater services, stormwater drainage). geotechnical activities will not require electric power, and telecommunications. As per the analysis in the Final EIR, the Project would not cause any exceedance of landfill capacity or exceed any State or local standards. All holes will be back filled per regulatory standards and returned to existing conditions.

3.2.18.1 Public Services and Utilities Impact Conclusion

The conclusion regarding a less than significant impact from the Final EIR remains unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for public services and utilities that could result in any new potentially significant impacts.

3.2.19 Energy (Final EIR Chapter 22)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 22, Section 22.3.4.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on energy are determined, are provided in the Final EIR, Volume 1, Chapter 22, Section 22.3.2 – Thresholds of Significance (Final EIR page 22-18).

The geotechnical activities would require temporary use of energy for drill rigs and monitoring equipment. These demands on energy sources would contribute to the overall construction energy demand but would not result in substantial energy use or result in wasteful or inefficient use of energy because the applicable environmental commitments and BMPs in the Final EIR, would reduce energy demand to the extent possible. The geotechnical activities with incorporation of these efficiencies, as applicable, will have no impact on any state/local plan, goal, objective, or policy for renewable energy or energy efficiency.

3.2.19.1 Energy Impacts Conclusion

The conclusions regarding a less than significant impact (Impact ENG-1) and no impact (Impact ENG-2) from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for energy that could result in any new potentially significant impacts.

3.2.20 Air Quality and Greenhouse Gases (Final EIR Chapter 23)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 23, Section 23.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on air quality and greenhouse gas emissions are determined, are provided in the Final EIR, Volume 1, Chapter 23, section 23.3.2 – Thresholds of Significance (Final EIR pages 23-46 through 23-47). Final EIR, Volume 1, Appendix 23B provides air quality assumptions. These air quality assumptions remain the same, except as noted in Attachment 1 of this memorandum.

The geotechnical activities assume approximately 1 CPT and 4 boring drill rigs operating on the same day within Contra Costa and/or Alameda Counties, 2 CPTs and 6 boring drill rigs operating on the same day in San Joaquin County, and 1 CPT and 4 boring drill rigs operating on the same day in Sacramento County.

Note that several of the borings are shallow (i.e. 15 feet deep) and it is assumed that the same drill rig could be used to drill more than one of these borings on the same day.

The criteria pollutant and precursor thresholds for the Sacramento Metropolitan Air Quality Management District (SMAQMD), the San Joaquin Valley Air Pollution Control District (SJVAPCD), the Bay Area Air Quality Management District (BAAQMD), and the Yolo-Solano Air Quality Management District (YSAQMD) are listed in Final EIR Table 23-9. Tables 3 thru 5, below, conclude that the criteria pollutant and precursor emissions thresholds will not be exceeded because of the geotechnical activities for SMAQMD, SJVAPCD, and the BAAQMD. It should be noted that emissions calculations for the SMAQMD are from employee transportation through Sacramento County and no geotechnical activities are to occur in Sacramento County. Geotechnical activities emissions calculations for the SJVAPCD and the BAAQMD include on the ground field investigation locations within these counties, as well as employee transportation within and through these counties. Calculations consider the depth of land borings, activity duration, and the short-term sampling of water quality. An air quality analysis was not calculated for the YSAQMD because the geotechnical activities will not occur in Yolo or Solano Counties. (See Attachment 1 assumptions for equipment, workers, and vehicles for the 2024-2026 proposed geotechnical activities.)

Table 3. Comparison of Final EIR and Revised Criteria Pollutant and Precursor Emissions from 2024-2026 Geotechnical Activities for Alternative 5 in the San Joaquin Valley Air Pollution Control District [a]

	Maximum Daily Onsite Emissions (lbs/day) [b]										Annual Emissions (tons/year)									
				PM10			PM2.5							PM10			PM2.5			
Analysis	ROG	NO_X	CO	Exhaust	Dust	Total [c]	Exhaust	Dust	Total [c]	SO_2	ROG	NO_X	CO	Exhaust	Dust	Total [c]	Exhaust	Dust	Total [c]	SO_2
Final EIR																				
PFIY 1	4	23	**134**	1	7	8	1	2	3	<1	1	3	17	<1	1	1	<1	<1	<1	<1
PFIY 2	4	22	**132**	1	7	8	1	2	3	<1	1	3	17	<1	1	1	<1	<1	<1	<1
Revised																				
2025	2	11	98	<1	3	3	<1	<1	1	<1	<1	1	7	<1	4	4	<1	1	1	<1
2026	2	11	98	<1	3	3	<1	<1	1	<1	<1	<1	3	<1	1	2	<1	<1	<1	<1
Threshold [d,e]	*100*	*100*	*100*	–	–	*100*	–	–	*100*	*100*	*10*	*10*	*100*	–	–	*15*	–	–	*15*	*27*

PFIY = preliminary field investigation year; BMPs = best management practices; CO = carbon monoxide; lbs = pounds; NOX = nitrogen oxides; PM10 = particulate matter that is 10 microns in diameter and smaller; PM2.5 = particulate matter that is 2.5 microns in diameter and smaller; ROG = reactive organic gases; SO_2 = sulfur dioxide; SJVAPCD = San Joaquin Valley Air Pollution Control District.

[a] Emissions results include implementation of air quality Environmental Commitments EC-7 (partially quantified) and EC-11.

[b] Presents the highest onsite emissions estimate during a single day of construction, based on concurrent construction activities.

[c] Total PM10 and PM2.5 emissions consist of exhaust and fugitive dust emissions. Values for exhaust and dust may not add to the totals in the total column because of rounding.

[d] In developing these thresholds, the air district considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

[e] The 100-pound-per-day threshold is a screening-level threshold to help determine whether increased onsite emissions from a project would cause or contribute to a violation of CAAQS or NAAQS. Projects with onsite emissions below the threshold would not be in violation of CAAQS or NAAQS. Projects with onsite emissions above the threshold would require an AAQA to confirm this conclusion (San Joaquin Valley Air Pollution Control District 2015a:93).

Table 4. Comparison of Final EIR and Revised Criteria Pollutant and Precursor Emissions from 2024-2026 Geotechnical Activities for Alternative 5 in the Bay Area Air Quality Management District [a]

	Maximum Daily Emissions (lbs/day) [b]										Annual Emissions (tons/year)									
				PM10			PM2.5							PM10			PM2.5			
Analysis	ROG	NO_X	CO	Exhaust	Dust	Total [c]	Exhaust	Dust	Total [c]	SO_2	ROG	NO_X	CO	Exhaust	Dust	Total [c]	Exhaust	Dust	Total [c]	SO_2
Final EIR																				
PFIY 1	14	**113**	161	4	3	7	3	1	4	<1	<1	1	4	<1	<1	<1	<1	<1	<1	<1

PFIY 2	14	**113**	161	4	3	7	3	1	4	<1	<1	1	4	<1	<1	<1	<1	<1	<1	<1
Revised																				
2025	2	12	73	<1	17	17	<1	2	3	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1
2026	2	12	73	<1	17	17	<1	2	3	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1
Threshold [d]	*54*	*54*	–	*82*	*BMPs* [e]	–	*82*	*BMPs* [e]	–	–	–	–	–	–	–	–	–	–	–	–

PFIY = preliminary field investigation year; BMPs = best management practices; CO = carbon monoxide; lbs = pounds; NOX = nitrogen oxides; PM10 = particulate matter that is 10 microns in diameter and smaller; PM2.5 = particulate matter that is 2.5 microns in diameter and smaller; ROG = reactive organic gases; SO_2 = sulfur dioxide; BAAQMD = Bay Area Air Quality Management District.

[a] Emissions results include implementation of air quality Environmental Commitments EC-7 (partially quantified) and EC-11.

[b] Presents the highest emissions estimate during a single day of construction, based on concurrent construction activities.

[c] Total PM10 and PM2.5 emissions consist of exhaust and fugitive dust emissions. Values for exhaust and dust may not add to the totals in the total column because of rounding.

[d] In developing these thresholds, the air district considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

[e] BAAQMD considers PM dust impacts to be less than significant with implementation of BMPs.

Table 5. Comparison of Final EIR and Revised Criteria Pollutant and Precursor Emissions from 2024-2026 Geotechnical Activities for Alternative 5 in the Sacramento Metropolitan Air Quality Management District [a]

	Maximum Daily Emissions (lbs/day) [b]										Annual Emissions (tons/year)									
				PM10			PM2.5							PM10			PM2.5			
Analysis	ROG	NO_X	CO	Exhaust	Dust	Total [c]	Exhaust	Dust	Total [c]	SO_2	ROG	NO_X	CO	Exhaust	Dust	Total [c]	Exhaust	Dust	Total [c]	SO_2
Final EIR																				
PFIY 1	31	**197**	264	8	5	13	7	1	8	<1	1	2	11	<1	<1	1	<1	<1	<1	<1
PFIY 2	31	**197**	264	8	5	13	7	1	8	<1	<1	2	9	<1	<1	<1	<1	<1	<1	<1
Revised																				
2025	2	14	77	<1	20	21	<1	3	3	<1	<1	<1	1	<1	1	1	<1	<1	<1	<1
2026	2	14	76	<1	20	21	<1	3	3	<1	<1	1	4	<1	3	3	<1	<1	<1	<1
Threshold [d]	–	*85*		–	–	*80* [e]	–	–	–	*80* [e]	–	–	–	–	–	*14.6*	–	–	*15.0*	–

PFIY = preliminary field investigation year; BMPs = best management practices; CO = carbon monoxide; lbs = pounds; NOX = nitrogen oxides; PM10 = particulate matter that is 10 microns in diameter and smaller; PM2.5 = particulate matter that is 2.5 microns in diameter and smaller; ROG = reactive organic gases; SO_2 = sulfur dioxide; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[a] Emissions results include implementation of air quality Environmental Commitments EC-7 (partially quantified) and EC-11.

[b] Presents the highest emissions estimate during a single day of construction, based on concurrent construction activities.

[c] Total PM10 and PM2.5 emissions consist of exhaust and fugitive dust emissions. Values for exhaust and dust may not add to the totals in the total column because of rounding.

[d] In developing these thresholds, the air district considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.
[e] Threshold applicable with implementation of all feasible dust control BMPs.

Criteria pollutant concentrations are estimated for major construction components (e.g., intakes) based on representative local meteorological conditions. Only the modeled maximum pollutant concentration in each air district with surface construction is reported (Final EIR pages 23-132 through 23-150). Similarly, health risks along the conveyance alignment were estimated based on representative local meteorological conditions. The health risks shown in Final EIR Table 23-64 represent the highest modeled off-site risk within each air district, which typically occurs at the receptor closest to the construction footprint (Final EIR pages 23-150 through 23-159). Due to the remote and temporary nature of the geotechnical activities, and the distance to receptors, geotechnical activities are not likely to contribute to exceedances of criteria pollutants, toxic air contaminants, asbestos, lead-based paint, fungal spores that cause valley fever, and odor emissions. However, DWR will apply applicable MMRP Air Quality mitigation measures to ensure no threshold exceedances. Implementation of EC-7 and EC-13 would minimize construction emissions through implementation of the on-site controls.

Table 6, below, provides the anticipated greenhouse gas emissions calculations for the geotechnical activities. Table 7 includes the real-time calculations for the 2024 activities that were completed, as well as the projected greenhouse gas emissions for the geotechnical activities and compares to the Final EIR calculations for the Approved Project and geotechnical activities, years 1 and 2 (See Final EIR Table 23-74). These calculations show that the estimated GHG projections from the Final EIR, for the Approved Project, would be reduced with the revised geotechnical activities, years 1 and 2 emissions. (See Attachment 1 for assumptions related to equipment, workers, vehicles, drilling depths, duration, and water quality testing.)

Field investigation work is not expected to result in a change to the underlying land use of any properties, because all affected areas would be returned to as close to pre-activity conditions as possible, and thus would not impact global climate change from land use changes. See analyses under Land Use Section 3.3.11 of this memorandum, as well as Final EIR Analyses under Section 14.3.3.2.

Table 6. Comparison of Final EIR and Revised Greenhouse Gas Emissions from 2024-2026 Geotechnical Activities for Alternative 5 – projection

Analysis	MT CO_2e
Final EIR	
PFIY 1	6,122
PFIY 2	5,759
Total	11,881
Revised	
2024	68
2025	2,725
2026	2,323
Total	5,116

PFIY = preliminary field investigation year; MT CO_2e = metric tons carbon dioxide equivalent.

Table 7. Revised Greenhouse Gas Emission for Alternative 5 (per 2024 real-time data and 2024-2026 projections) Required to be Offset Pursuant to Mitigation Measure AQ-9

Metric		MT CO_2e
Final EIR Alternative 5 GHG offset requirement for MM-AQ-9	[A]	401,990 [a]
Final EIR PFIY 1 and 2 emissions (see Table 4)	[B]	11,881
Final EIR Alternative 5 GHG offset requirement for MM-AQ-9 without Final EIR PFIY 1 and 2 emissions	[C]	390,109 [a, b]
Revised geotechnical (2024-2026) emissions (see Table 4)	[D]	5,116
Revised Alternative 5 GHG offset requirement for MM-AQ-9 with revised geotechnical (2024-2026) emissions	[E]	395,225 [a, c]

PFIY = preliminary field investigation year; MT CO_2e = metric tons carbon dioxide equivalent; MM = mitigation measure; Final EIR = Final Environmental Impact Report

[a] Includes emissions from construction of the compensatory mitigation sites.

[b] [A] – [B].

[c] [C] + [D].

3.2.20.1 Air Quality and Greenhouse Gas Emissions Impacts Conclusions

The geotechnical activities' temporary impact on air quality and greenhouse gas emission would be less than significant. With execution of the 2024-2026 geotechnical activities, the conclusions regarding a significant and unavoidable impact (Impact AQ-5), less than significant impact with mitigation (Impact AQ-1, Impact AQ-2, Impact AQ-3, Impact AQ-9, Impact AQ-10), and less than significant impact (Impact AQ-4, Impact AQ-6, Impact AQ-7, Impact AQ-8) from the Final EIR remain unchanged, as the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for air quality and greenhouse gas emissions that could result in any new potentially significant impacts.

3.2.21 Noise and Vibration (Chapter 24)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 24, Section 24.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on noise and vibration are determined, are provided in the Final EIR, Volume 1, Chapter 24, Section 24.3.2 – Thresholds of Significance (Final EIR pages 24-27 through 24-28).

The geotechnical activities will occur at a given location for a short amount of time during daytime hours and would cease once the testing is complete. The geotechnical activities would not cause noticeable vibration levels at the nearest residences. Vibrations from heavy equipment are not expected to produce perceptible levels of vibration inside of the nearest residences or have the potential to result in building damage. The geotechnical activities would not add sensitive uses that would be affected by aircraft noise, and workers would not be exposed to excessive airport noise. DWR will develop a noise control plan in compliance with MM NOI-1, so as not to exceed noise thresholds near sensitive resources, during the 2024-2026 geotechnical activities. If sound level monitoring data shows that an exceedance has the potential to occur near one or more sensitive receptors, DWR will either abandon the activity, relocate the activity to a location that will not exceed noise level thresholds, revise the work schedule, or coordinate with the affected residents for short term relocation assistance. Measures related to pile driving testing are not applicable since this activity is not proposed as part of the geotechnical activities.

3.2.21.1 Noise and Vibration Impacts Conclusion

The 2024-2026 geotechnical activities will not include pile driving and will comply with MM NOI-1 (where applicable). As described in the noise plan for the 2024-2026 geotechnical activities, noise impacts resulting from the 2024-2026 geotechnical activities will be reduced to less than significant with mitigation. The conclusions regarding a significant and unavoidable impact (Impact NOI-1), a less than significant impact (Impact NOI-2) and no impact (Impact NOI-3) from the Final EIR, for the approved project, remain unchanged, as executing the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for noise and vibration that could result in any new potentially significant impacts.

3.2.22 Hazards, Hazardous Materials, and Wildfire (Chapter 25)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 25, Section 25.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on hazards, hazardous materials, and wildfire are determined, are provided in the Final EIR, Volume 1, Chapter 25, Section 25.3.2 – Thresholds of Significance (Final EIR page 25-28).

Accidental release of these materials could result in a safety hazard to human health or the environment. Geotechnical and hydrogeologic testing would result in soil disturbance and the possibility of encountering contaminated soils which could be hazardous to human health or the environment. Compliance with applicable laws and regulations would reduce potential impacts resulting from the transport, handling, use, and disposal of these materials. Consistent with applicable laws and regulations, the transport, use, and disposal of hazardous materials would comply with regulations enforced by regulatory agencies such as CUPAs and Cal/OSHA. Implementation of the environmental commitments described in Appendix 3B, such as Environmental Commitment EC-2: Develop and Implement Hazardous Materials Management Plans; and EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans would reduce the potential for hazardous materials effects by identifying known hazardous materials sites, designing protocols for reducing hazardous materials exposure, and treating and disposing of hazardous substances at construction sites. Geotechnical activities for Project construction would occur primarily within the footprint of the individual alternative and would not include structures that would impede airspace. Geotechnical activities would not result in a safety hazard involving airports. Geotechnical activities would not substantially conflict with emergency response plans. Geotechnical activities would involve the presence of personnel and equipment, both of which could inadvertently start a fire (e.g., smoking, sparks from equipment). Compliance with applicable laws and regulations regarding fire prevention and safety and Environmental Commitment EC-5: Develop and Implement a Fire Prevention and Control Plan would include provisions such as consultation with fire agencies, spark arrestors on construction equipment, and maintaining appropriate fire suppression equipment to further reduce impacts related to wildland fires. The potential for the Approved Project and geotechnical activities to expose people or structures to a substantial risk of wildland fire would be less than significant.

Geotechnical activities would not result in a safety hazard involving airports, are not associated with property acquisition, and do not directly conflict with emergency plans and evacuation routes. As such, MM HAZ-2 will not apply to the geotechnical activities.

3.2.22.1 Hazards, Hazardous Materials and Wildfire Impacts Conclusion

The conclusions regarding a less than significant impact with mitigation (Impact HAZ-2, Impact HAZ-4, Impact HAZ-6) and a less than significant impact (Impact HAZ-1, Impact HAZ-3, Impact HAZ-5, Impact HAZ-7) from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for hazards, hazardous materials and wildfire that could result in any new potentially significant impacts.

3.2.23 Public Health (Chapter 26)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 26, Section 26.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on public health are determined, are provided in the Final EIR, Volume 1, Chapter 26, Section 26.3.2 – Thresholds of Significance (Final EIR page 26-27).

Ground-disturbing activities as part of geotechnical activities or exposure of disturbed sites immediately following geotechnical activities could result in precipitation-related soil erosion and runoff to surface waterbodies in the study area. Any existing trace metals, pesticides, other contaminants, or organic matter in the soil could incrementally increase concentrations in surface water. However, this potential effect on water quality would be temporary and fairly localized to areas of construction. The development and implementation of site-specific Erosion and Sediment Control Plans for the geotechnical activities would minimize the potential for this impact by controlling erosion and runoff to surface water, ensure that activities would not substantially increase or substantially mobilize legacy organochlorine pesticides or methylmercury during the geotechnical activities. The geotechnical activities will not occur over water and thus will not contribute to an increase in cyanobacterial harmful algal blooms (CHABs). Geotechnical activities will not expose sensitive receptors to new sources of electromagnetic fields because geotechnical activities do not involve the construction, operations, or maintenance of permanent aboveground and underground transmission lines.

Geotechnical activities, as described in this memorandum, do not involve facilities management. As such, mitigation measure PH-1b is not applicable to the geotechnical activities.

3.2.23.1 Public Health Impacts Conclusion

The conclusions regarding a less than significant impact with mitigation (Impact PH-1), and a less than significant impact (Impact PH-2, Impact PH-3, Impact PH-4, Impact PH-5) from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for public health that could result in any new potentially significant impacts.

3.2.24 Paleontological Resources (Chapter 28)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 28, Section 28.3.3.2, which are based on the general questions posed in the CEQA guidelines Appendix G Environmental Checklist. The thresholds of significance for which impacts of the geotechnical activities on paleontological resources are determined, are provided in the Final EIR, Volume 1, Chapter 28, Section 28.3.2 – Thresholds of Significance (Final EIR page 28-16 through 28-17).

Most investigations would occur in young surficial sediments and would disturb a small area, and therefore would be unlikely to destroy paleontological resources. Although soil borings would be deep, the diameter of the bore is small, and the bore holes would therefore be unlikely to destroy unique paleontological resources. geotechnical activities are data collection efforts that do not involve tunnel construction or ground improvement and thus would be unlikely to destroy unique paleontological resources. (Final EIR Section 28.3.3.2).

Activities involving trenching would involve the implementation of mitigation measures PALEO-1a and PALEO-1b, however, because the geotechnical activities will not involve trenching, these mitigation measures are not applicable.

3.2.24.1 Paleontological Resources Impacts Conclusion

The activities being performed as part of the 2024-2026 geotechnical activities will occur in soil types that are unlikely to destroy paleontological resources, will not involve tunnel construction or ground improvements and will not involve trenching along faults. The impacts to paleontological resources as a result of the 2024-2026 geotechnical activities is less than significant. The conclusions regarding a significant and unavoidable impact (Impact PALEO-2) and a less than significant impact with mitigation (Impact PALEO-1), from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for paleontological resources that could result in any new potentially significant impacts.

3.2.25 Environmental Justice (Final EIR Chapter 29)

Significant environmental impacts identified in the Final EIR for CEQA resource topics are considered to be surrogates for adverse effects under the National Environmental Policy Act (NEPA). The Final EIR therefore draws on CEQA analyses of other resource topics to establish which CEQA significant environmental impacts could have the potential for "disproportionately high and adverse" effects on environmental justice communities as defined in federal requirements under Executive Order (EO) 12898 (Section 29.2, Environmental Justice Context). The environmental justice analysis is primarily qualitative, and conclusions are stated in NEPA terms of adverse effect rather than CEQA significance terminology. Where the resource chapters in the Final EIR identify significant impacts before mitigation or significant and unavoidable impacts with or without mitigation, the potential effect on environmental justice is analyzed in Final EIR, Volume 1, Chapter 29, Section 29.4.2- Analysis of Disproportionately High and Adverse Effects. Mitigation measures or environmental commitments to reduce significant impacts identified in the resource chapters would not result in disproportionately adverse effects on environmental justice.

3.2.25.1 Environmental Justice Impact Conclusion

The conclusions from the Final EIR, regarding impacts to environmental justice remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for environmental justice that could result in any new potentially significant impacts.

3.2.26 Climate Change (Final EIR Chapter 30)

The Final EIR Chapter focuses on climate change's effects on the study area, in the future, presumably on how the Project operates and may also include some aspects of construction. The geotechnical activities will occur in the near term and are of a temporary nature. Impacts of geotechnical activities are analyzed based on conditions in 2020 and would not be affected by climate change. See analysis for Final EIR, Volume 1, Chapter 23 (Section 3.2.20 of this memorandum), with regards to geotechnical activities contribution to greenhouse gases and air quality.

3.2.27 Growth Inducement (Final EIR Chapter 31)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 31, Section 31.2.3. The thresholds of significance for which impacts of the geotechnical activities on growth

inducement are determined, are provided in the Final EIR, Volume 1, Chapter 31, Section 31.2.2 – Thresholds of Significance (Final EIR page 31-6).

Direct Growth inducement is a function of the highest projected employment during the peak construction period. The Final EIR analyses reveal that Project construction would not induce substantial new housing development, as a result of peak employment projections. Thus, geotechnical activities, that involve short term, temporary activities with minimal personnel would, in turn, not contribute to direct growth inducement. Indirect growth inducement is a function of the construction of new and/or modified infrastructure (e.g., new roads, levee modifications) and water deliveries associated with Project operations. Geotechnical activities do not involve construction nor operations and thus will not impact indirect growth inducement.

3.2.28 Tribal Cultural Resources (Final EIR Chapter 32)

The impact analysis assumes that the geotechnical activities would have a significant impact under CEQA if execution of the geotechnical activities would result in one of the potential impacts analyzed in Final EIR, Volume 1, Chapter 32, Section 32.3.3.2. The thresholds of significance for which impacts of the geotechnical activities on Tribal cultural resources are determined, are provided in the Final EIR, Volume 1, Chapter 32, Section 32.3.2 – Thresholds of Significance (Final EIR page 32-33).

The Approved Project may limit a Tribe's ability to physically experience character defining features by physically damaging or destroying them. And, while geotechnical activities are temporary in nature, like the Approved Project, investigations have the potential to affect individual resources or character-defining features of the Delta TCL as discussed in the Final EIR Impact TCR-1. To avoid such impacts, the 2024-2026 geotechnical activities will be moved the distance necessary so as not to impact any individual Tribal cultural resources or character-defining features of the Delta TCL that may be identified during site clearance activities. If moving an activity will still contribute to an impact, the location of the 2024-2026 geotechnical activities will be abandoned altogether.

The geotechnical activities will not involve the design or development of the compensatory mitigation plan. Therefore, mitigation measure TCR-1d is not applicable to the geotechnical activities.

3.2.28.1 Tribal Cultural Resources Impacts Conclusion

No mitigation measures or alternatives with the potential to substantially reduce the Project's significant and unavoidable Tribal cultural resource impacts (Impacts TCR-1 and TCR-2) and that DWR previously determined to be infeasible when it approved the

Project are now feasible. Furthermore, DWR has not identified any new mitigation measures or alternatives with the potential to substantially reduce these significant and unavoidable impacts and that is considerably different from those analyzed in the Final EIR. The conclusions regarding a significant and unavoidable impact from the Final EIR remain unchanged, as the execution of the geotechnical activities will not result in any new potentially significant impacts or substantial increase in the severity of previously identified potentially significant impacts. Additionally, no changes in circumstances or new information of substantial importance have been identified for Tribal Cultural Resources that could result in any new potentially significant impacts.

3.3 Next Steps

Compliance with applicable Delta Conveyance Project mitigation measures (and/or applicable components of such measures) is required to conduct the geotechnical activities. In addition to clearance surveys, monitoring, and regular reporting, the geotechnical activities will include the development of the following plans, documents, and trainings prior to commencing with the geotechnical activities:

- Environmental Resources Worker Awareness Trainings (EC-1)
- Health and Safety Plan to include:
  - Hazardous materials management plan (EC-2)
  - Spill prevention, containment, and countermeasure plan (EC-3)
  - Fire Prevention and Control Plan (EC-5)
- Environmental Compliance and Monitoring Plan (EC-14)
- Track GHG emissions resulting from geotechnical activities (AQ-9)
- Tribal Cultural Resources Management Plan specific to geotechnical activities (TCR-1b)
- Transportation Demand Management Plan and Transportation Management Plan (TRANS-1)
- Noise Control Plan (NOI-1)

References

California Department of Water Resources. 2023. Delta Conveyance Project Final Environmental Impact Report. December. (ICF 103653.0.003.) Sacramento, CA. Prepared by ICF, Sacramento, CA. Available at: https://www.deltaconveyanceproject.com/planning-processes/california-environmental-quality-act/final-eir/final-eir-document

California Invasive Plant Council. 2012. Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors. Cal-IPC Publication 2012-01. California Invasive Plant Council, Berkeley, CA. Available at: www.cal-ipc.org.

Attachment 1: 2024-2026 Equipment, Worker, and Vehicle Assumptions for use in Air Quality, GHG, and Transportation Analyses of the 2024-2026 Proposed Geotechnical Activities

		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
15' Borings On Land	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	Drill Rigs - 50-foot deep borings [1]	1	1	1	60	10	500	0.50
	Water Truck [2]	1	1	2	60	10	250	0.38
	Liftgate Truck [1]	1	1	1	60	4	250	0.38
	Geotechnical Team Vehicles - 5 vehicles	1	5	5	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	1	2	2	60	10		
	Regulatory Agency Vehicles - 2 vehicles	1	2	2	60	2		
	Engineering Team Vehicle - 1 vehicle	1	1	1	60	10		

[1] It was assumed 1 total round trip for the drill rig and liftgate truck.
[2] It was assumed 2 round trips per day to account for water truck refills each day.

		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
50'-75' Borings On Land	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	Drill Rigs - 50- to 75-foot deep borings [1]	2	1	1	60	10	500	0.50
	Water Truck [2]	2	1	4	60	10	250	0.38
	Liftgate Truck [1]	2	1	1	60	4	250	0.38
	Geotechnical Team Vehicles - 5 vehicles	2	5	10	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	2	2	4	60	10		
	Regulatory Agency Vehicles - 2 vehicles	2	2	4	60	2		
	Engineering Team Vehicle - 1 vehicle	2	1	2	60	10		

[1] It was assumed 1 total round trip for the drill rig and liftgate truck.
[2] It was assumed 2 round trips per day to account for water truck refills each day.

		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
100'-150' Borings On Land	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	Drill Rigs - 100- to 150-foot deep borings [1]	4	1	1	60	10	500	0.50
	Water Truck [2]	4	1	8	60	10	250	0.38
	Liftgate Truck [1]	4	1	1	60	4	250	0.38
	Geotechnical Team Vehicles - 5 vehicles	4	5	20	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	4	2	8	60	10		
	Regulatory Agency Vehicles - 2 vehicles	4	2	8	60	2		
	Engineering Team Vehicle - 1 vehicle	4	1	4	60	10		

[1] It was assumed 1 total round trip for the drill rig and liftgate truck.
[2] It was assumed 2 round trips per day to account for water truck refills each day.

		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
175'-200' Borings On Land	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	Drill Rigs - 175- to 200-foot deep borings [1]	7	1	1	60	10	550	0.50
	Water Truck [2]	7	1	14	60	10	250	0.38
	Tractor-Trailer Lowboy Truck [3]	2	1	2	60	2	500	
	Liftgate Truck [1]	7	1	1	60	4	250	0.38
	Geotechnical Team Vehicles - 5 vehicles	7	5	35	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	7	2	14	60	10		
	Regulatory Agency Vehicles - 2 vehicles	7	2	14	60	2		
	Engineering Team Vehicle - 1 vehicle	7	1	7	60	10		
	Traffic Control - 2 vehicles	7	2	14	60	10		

[1] It was assumed 1 total round trip for the drill rig and liftgate truck.
[2] It was assumed 2 round trips per day to account for water truck refills each day.
[3] It was assumed 2 total round trips for the tractor-trailer lowboy truck. It would be mobilized at the beginning and end of each investigation.

		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
200' to 250' Borings On Land	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	Drill Rigs - 200- to 250-foot deep borings [1]	9	1	1	60	10	550	0.50
	Water Truck [2]	9	1	18	60	10	250	0.38
	Tractor-Trailer Lowboy Truck [3]	2	1	2	60	2	500	
	Liftgate Truck [1]	9	1	1	60	4	250	0.38
	Geotechnical Team Vehicles - 5 vehicles	9	5	45	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	9	2	18	60	10		
	Regulatory Agency Vehicles - 2 vehicles	9	2	18	60	2		
	Engineering Team Vehicle - 1 vehicle	9	1	9	60	10		
	Traffic Control - 2 vehicles	9	2	18	60	10		

[1] It was assumed 1 total round trip for the drill rig and liftgate truck.
[2] It was assumed 2 round trips per day to account for water truck refills each day.
[3] It was assumed 2 total round trips for the tractor-trailer lowboy truck. It would be mobilized at the beginning and end of each investigation.

		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
Up to 250' CPT on Land	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	CPT Truck [1]	2	1	1	60	10	500	
	Grout Truck [1]	2	1	1	60	2	250	
	Tractor-Trailer Lowboy Truck [2]	2	1	2	60	2	500	
	Geotechnical Team Vehicles - 4 vehicles	2	4	8	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	2	2	4	60	10		
	Regulatory Agency Vehicles - 2 vehicles	2	2	4	60	2		
	Traffic Control - 2 vehicles	2	2	4	60	10		

[1] It was assumed 1 total round trip for the CPT truck and grout truck because they would be present throughout the entire investigation.
[2] It was assumed 2 total round trips for the tractor-trailer lowboy truck. It would be mobilized at the beginning and end of each CPT.

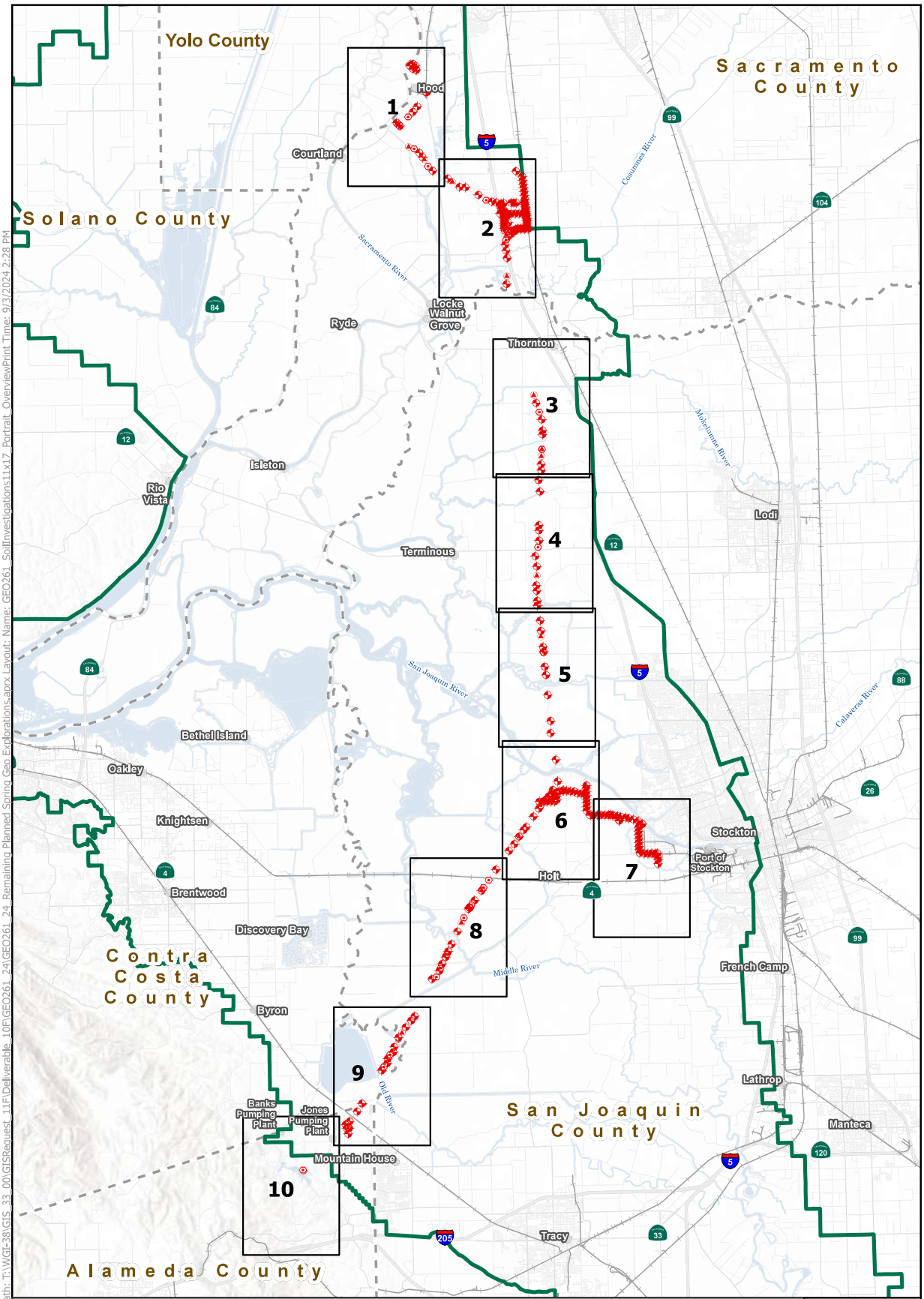
		Average Duration (days)	Number of Vehicles per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Hours Per day on Site	Horsepower	Load Factor
200'-250' Boring for Water Quality Tests	Field reconnaissance team - 5 vehicles	1	5	5	60	2		
	Drill Rigs - 200-250-foot deep borings [1]	9	1	1	60	10	550	0.50
	Water Truck [2]	9	1	18	60	10	250	0.38
	Tractor-Trailer Lowboy Truck [3]	2	1	2	60	2	500	
	Liftgate Truck [1]	9	1	1	60	4	250	0.38
	Geotechnical Team Vehicles - 5 vehicles	9	5	45	60	10		
	Biological & Cultural Resources Monitors Vehicles - 2 vehicles	9	2	18	60	10		
	Regulatory Agency Vehicles - 2 vehicles	9	2	18	60	2		
	Engineering Team Vehicle - 1 vehicle	9	1	9	60	10		

[1] It was assumed 1 total round trip for the drill rig and liftgate truck.
[2] It was assumed 2 round trips per day to account for water truck refills each day.
[3] It was assumed 2 total round trips for the tractor-trailer lowboy truck. It would be mobilized at the beginning and end of each investigation.

		Average Duration (days)	Number of Vehicles or pieces of equipment per Investigation	Number of Roundtrips Per Investigation	Average Mileage per Round Trip	Average Operations Hours Per day on Site	Horsepower	Load Factor
Pumping Assumptions for Water Quality Tests	Vertical turbine or submersible pump[1, 2]	3	1	n/a	n/a	4	50	
	Water Truck [3]	3	1	3	60	4	250	0.38
	Geotechnical Team Vehicles - 2 vehicles	3	2	6	60	10		
	Regulatory Agency Vehicles - 2 vehicles	3	2	6	60	2		

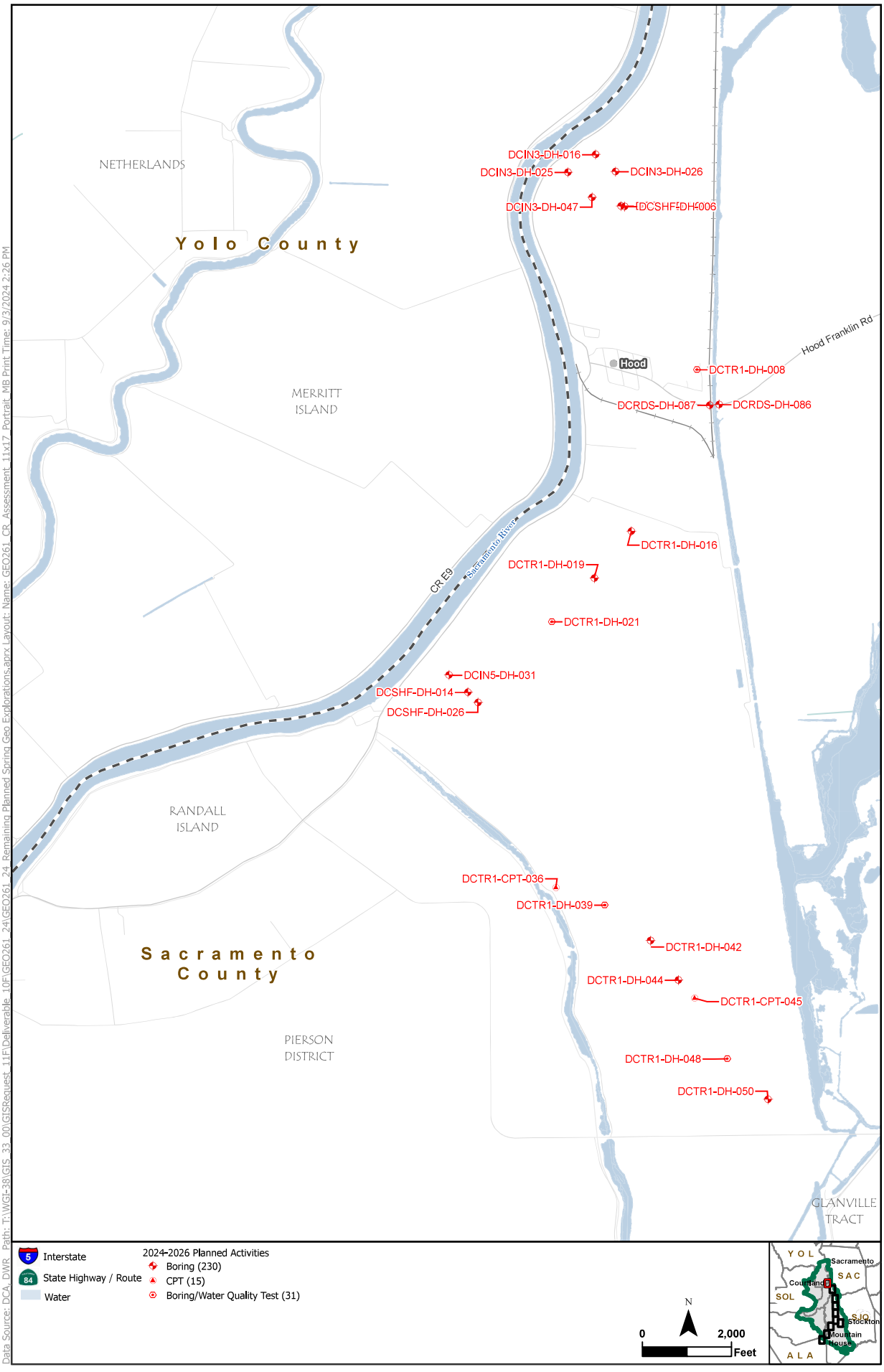
[1] A pump capable of pumping up to 50 gallons per minute is assumed.
[2] Drilling is covered under 200' -205' Boring for Water Quality Tests assumptions above.
[3] A Water truck would be used to collect excess water pumped and would be disposed of offsite

Attachment 2: 2024-2026 Proposed Geotechnical Activity Locations



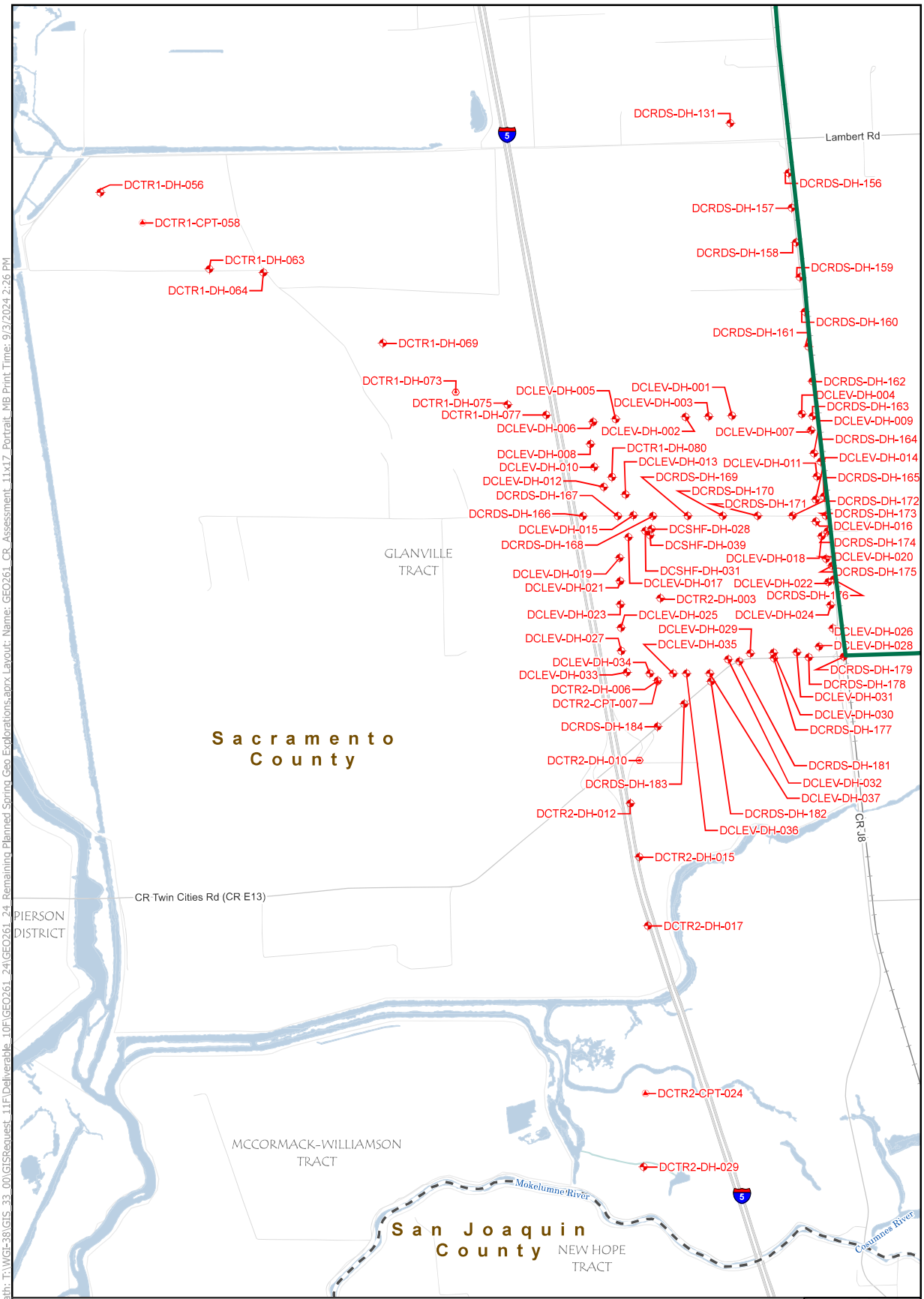
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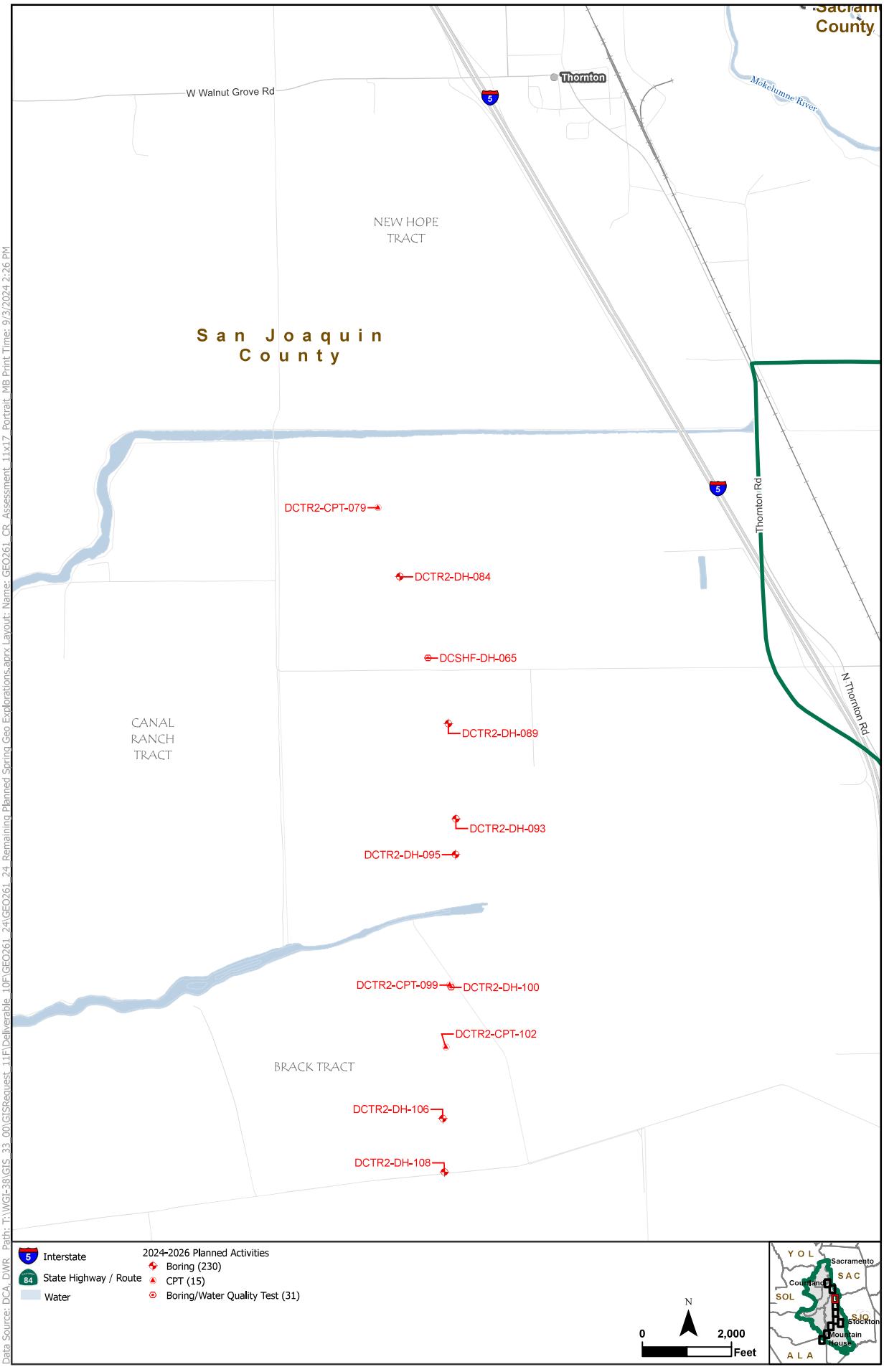
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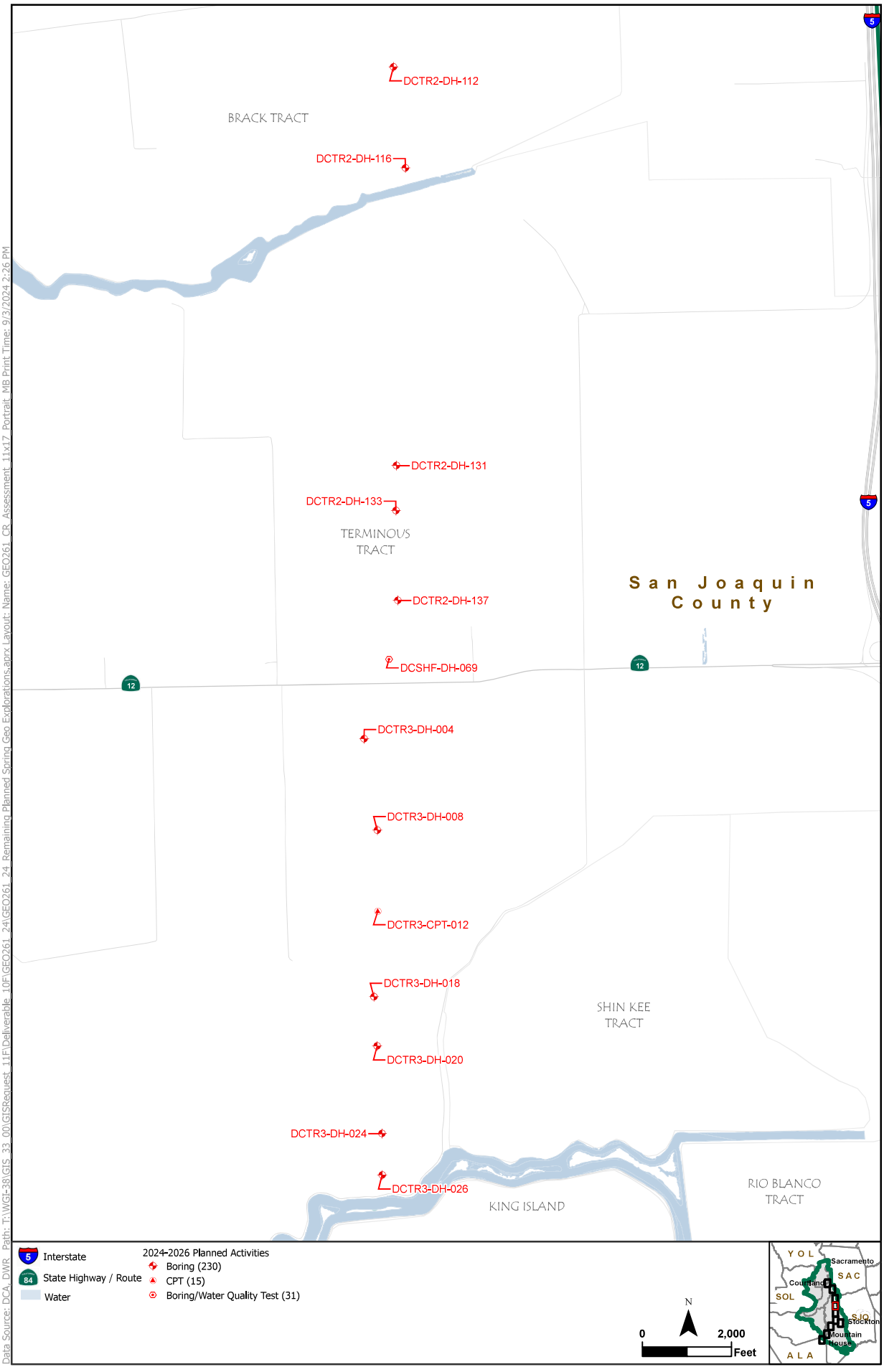
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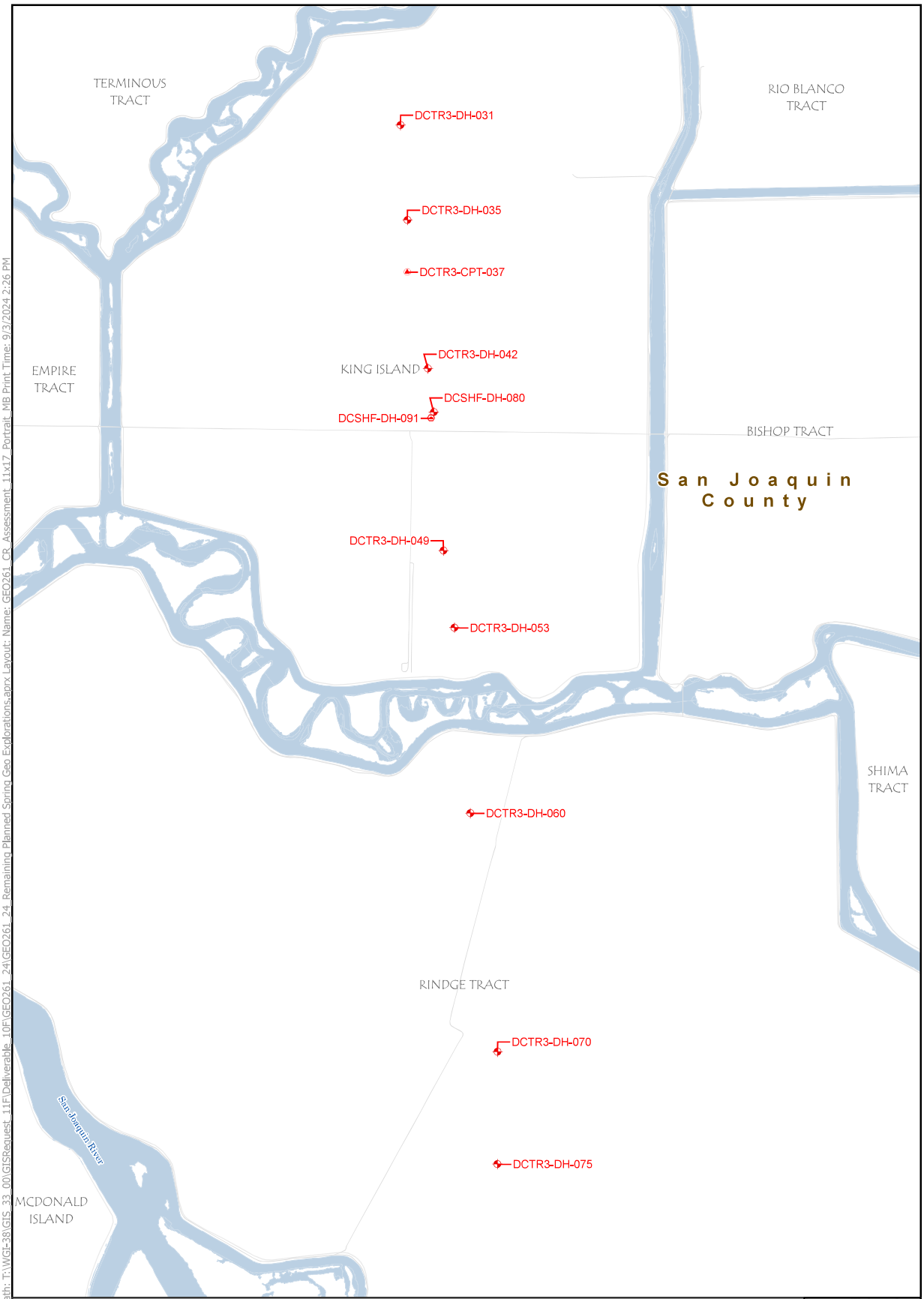
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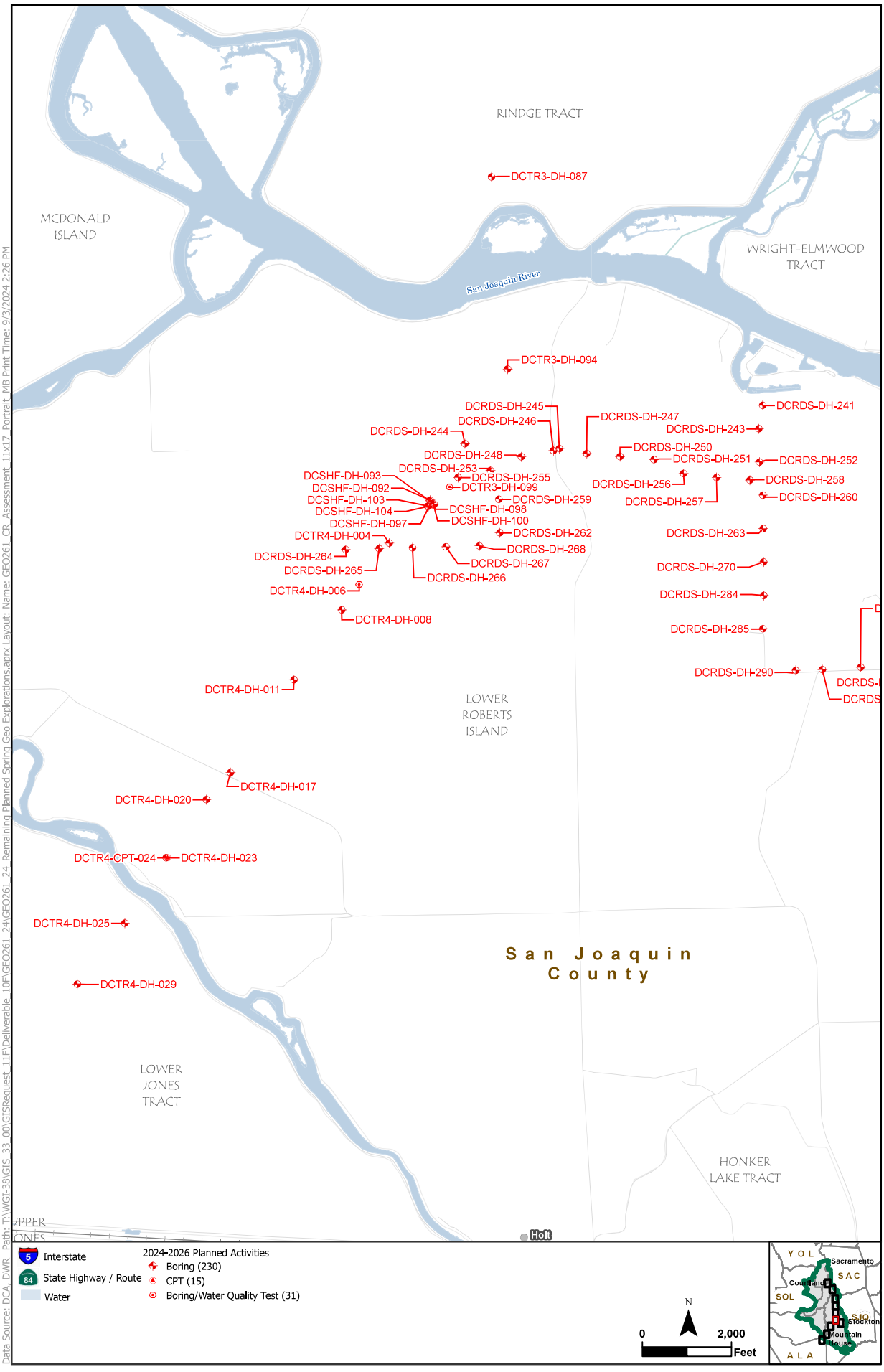
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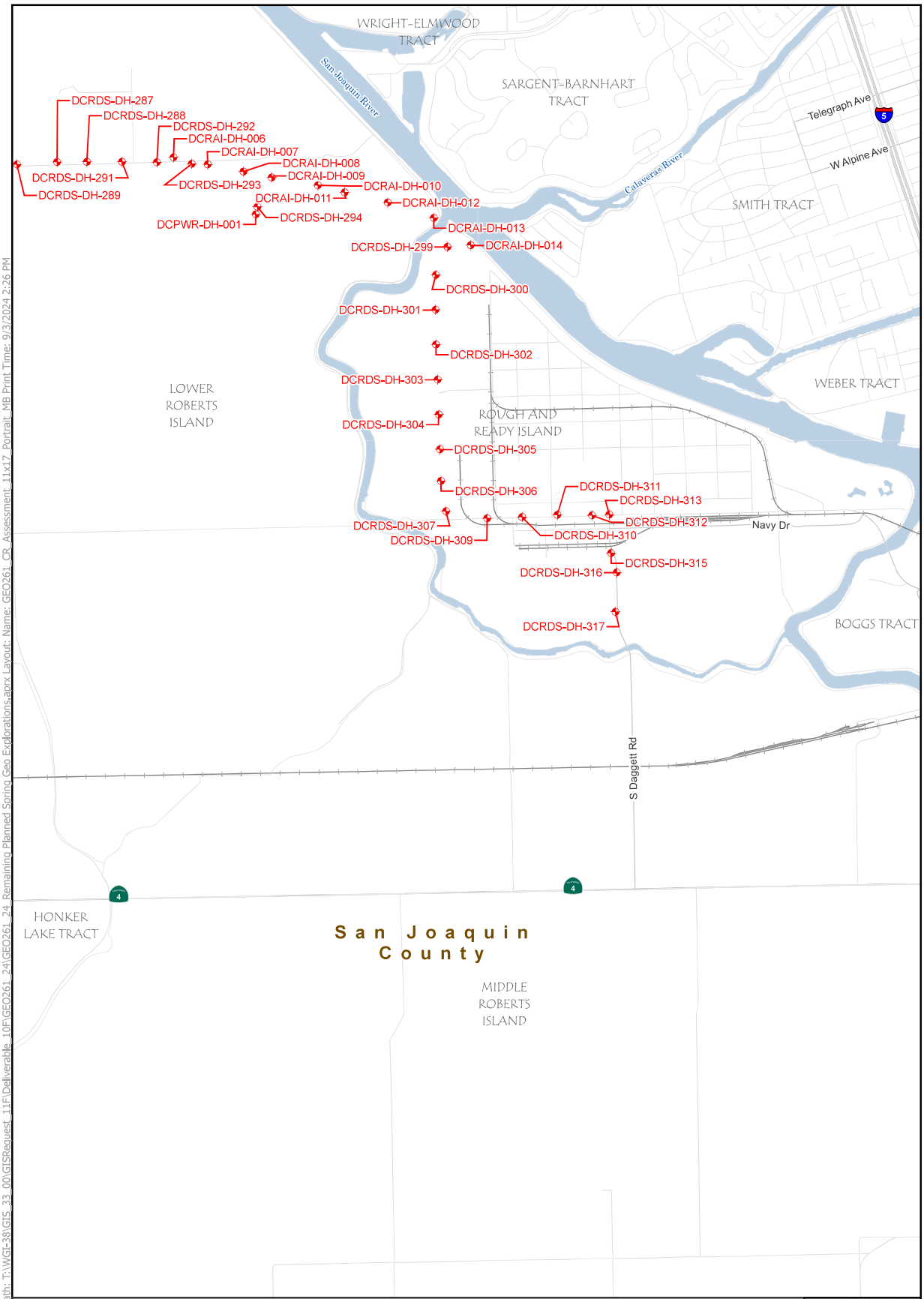
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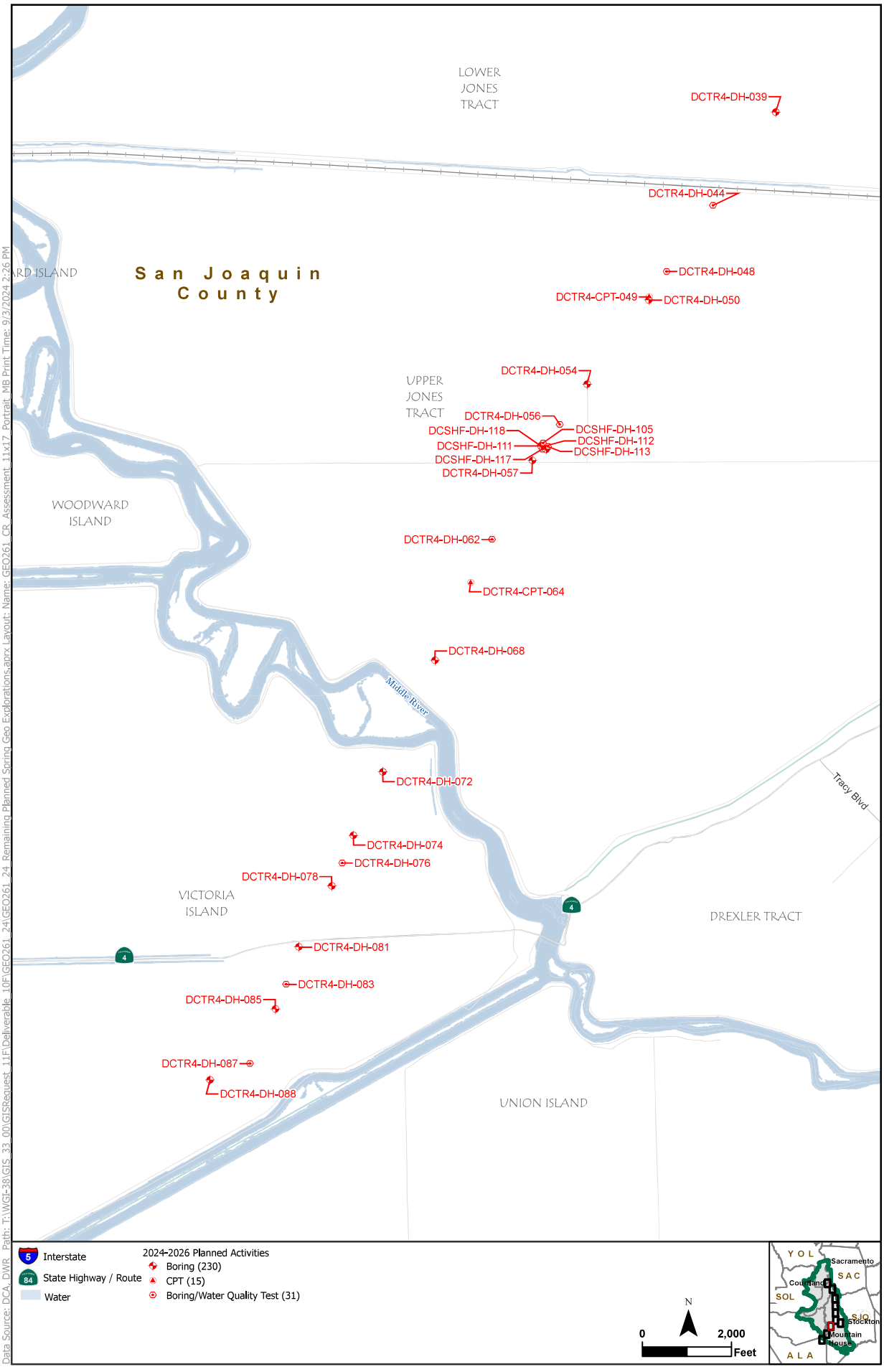
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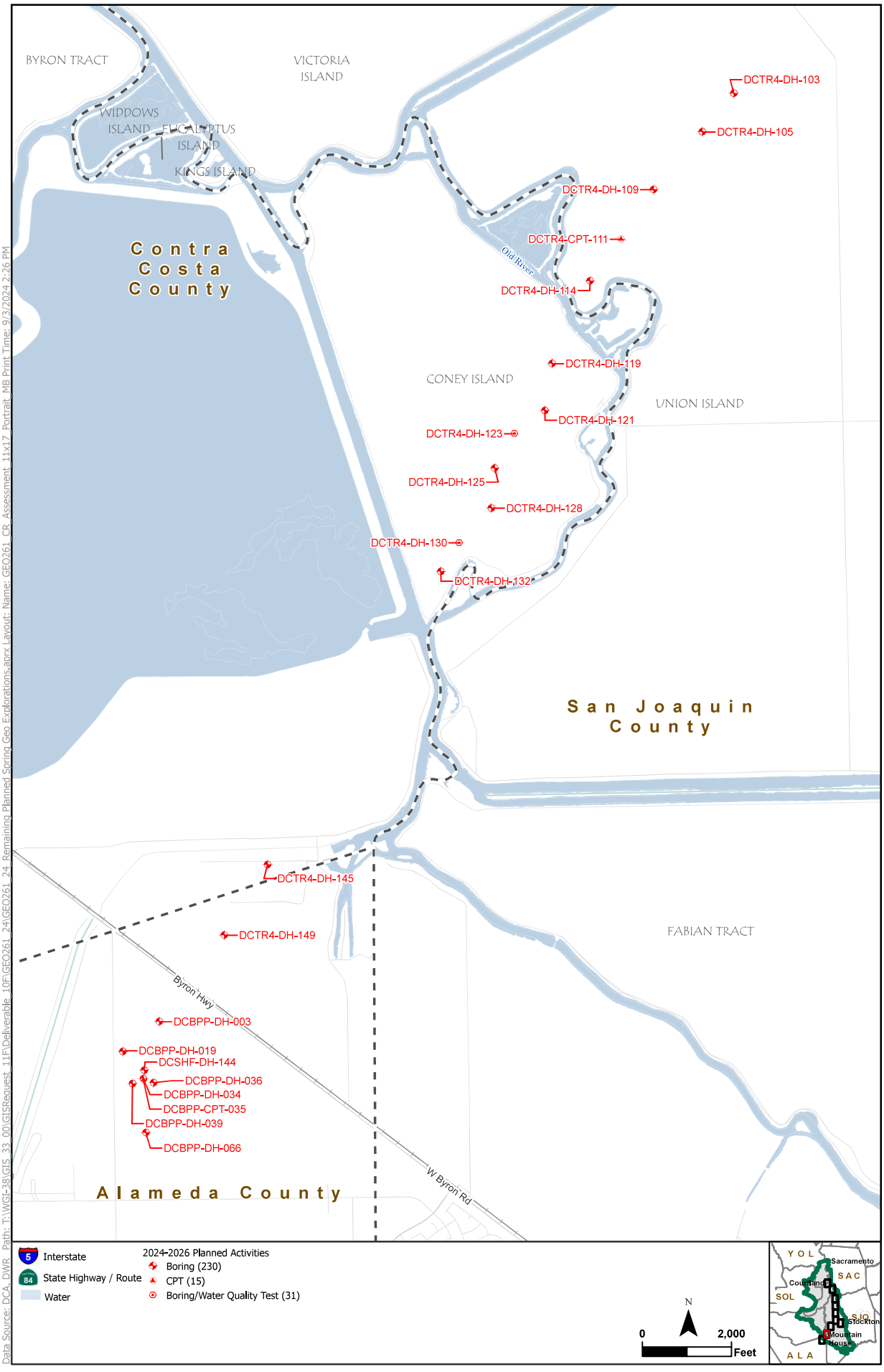
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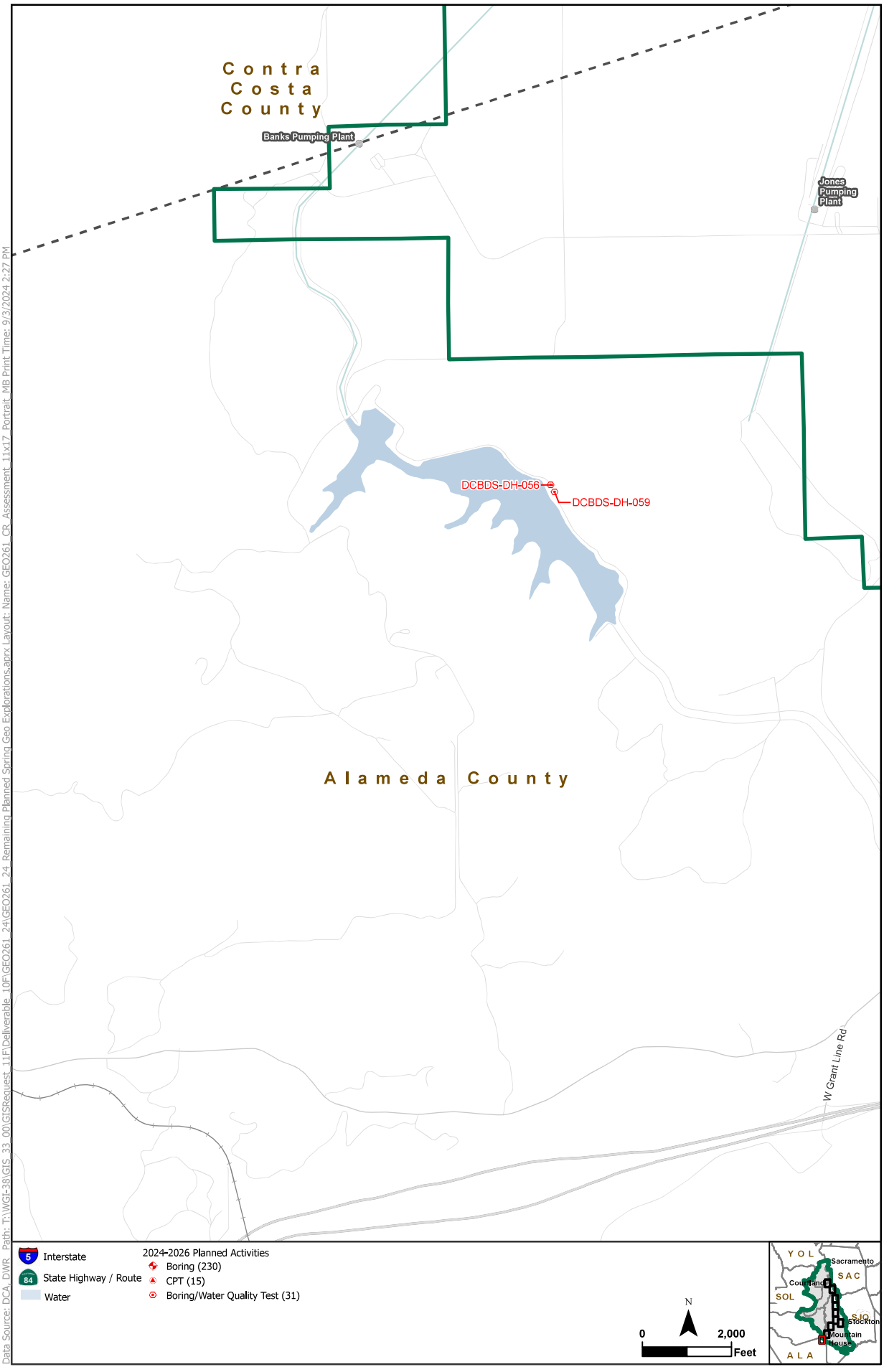
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Attachment 5

2024–2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan

2024-2026 Preconstruction Field Investigations Environmental Compliance, Clearance, and Monitoring Plan

1.0 Introduction

On June 20, 2024, the trial court assigned to the litigation challenging Department of Water Resources' (DWR) certification of the Delta Conveyance Project (DCP) Final Environmental Impact Report (Final EIR) and approval of the project, issued a ruling enjoining DWR from undertaking geotechnical work described in Chapter 3 of the Delta Conveyance Project's Final EIR prior to completion of the certification procedure that the Delta Reform Act requires ("Preliminary Injunction Ruling"). In response to the Preliminary Injunction Ruling, DWR has ceased all geotechnical work described in Chapter 3 of the Delta Conveyance Project's Final EIR. DWR will not recommence geotechnical work described in Chapter 3 of the Delta Conveyance Project's Final EIR until the Preliminary Injunction Ruling is stayed, modified, or satisfied. This document was prepared for the 2024-2026 Proposed Geotechnical Activities (hereafter preconstruction field investigations) that are currently enjoined by the Preliminary Injunction Ruling.

Data collected from preconstruction field investigations is used to inform planning and design studies prior to implementing and constructing the Delta Conveyance Project. As these preconstruction field investigations were described and evaluated as part of the Delta Conveyance Project's Final EIR (December 2023 – SCH # 2020010227), compliance with the Delta Conveyance Project's Mitigation Monitoring and Reporting Program (MMRP) is required (Final EIR Section 3.15). This document constitutes the activity-specific environmental compliance monitoring plan (Plan) required by Delta Conveyance Project's Final EIR Environmental Commitment (EC) – 14 (*Construction Best Management Practices for Biological Resources*) for the 2024-2026 preconstruction field investigations. DWR previously prepared an environmental compliance monitoring plan for the 2024 preconstruction field investigations that were completed in the Spring of 2024 prior to issuance of the Preliminary Injunction Ruling. As project planning proceeds, DWR will prepare separate activity-specific environmental compliance monitoring plans for other project activities. As discussed further below, this Plan includes the document objectives, the primary objectives of the 2024-2026 preconstruction field investigations, the study area, and monitoring commitments proposed to satisfy the needs of EC–14.

2.0 Document Objectives

Prior to commencing preconstruction field investigations, EC-14 requires DWR to develop an activity specific environmental compliance monitoring plan to monitor, enforce and

document measures to protect special-status fish, wildlife, plant species, and their habitats, designated critical habitat, and sensitive natural communities. This document provides the information that will be collected prior to, during, and then following preconstruction field investigations. Follow-up documentation will be required in the form of preconstruction site clearance survey documentation, daily monitoring logs, and quarterly monitoring reports. As per EC-14, this activity specific plan includes information and documentation collection protocols to satisfy the following elements (Refer to Section 6.0 – *Compliance with EC-14 Elements*).

- Reference to or inclusion of the Stormwater Pollution Prevention Plan (SWPPP) prepared under the Construction General Permit (CGP) (Order WQ 2022-0057- DWQ; NPDES NO. CAS000002), where one is needed. (See EC-4b, Develop and Implement Stormwater Pollution and Prevention Plans.)
- Summaries or copies of planning and preconstruction surveys (if applicable) for natural communities and special-status species.
- Description of mitigation measures to be implemented, including a description of site or activity specific Best Management Practices (BMPs) or additional measures not otherwise included in the project.
- Descriptions of monitoring parameters (e.g., turbidity), including the specific activities to be monitored (e.g., dredging, grading activities) and monitoring frequency and duration as well as parameters and reporting criteria (e.g., turbidity is not to exceed 10 nephelometric turbidity units (NTUs) above background. Exceedances will be reported, and the contractor must identify and correct the cause.).
- Description of roles and responsibilities of the monitors and protocols for notifying California Department of Fish & Wildlife (CDFW), National Marine Fish Service (NMFS), and U.S. Fish and Wildlife Service (USFWS), if needed.
- A daily monitoring log prepared by the monitor, which documents the day's activities, notes any problems identified and solutions implemented to rectify those problems, and document notifications of the superintendent and/or the fish and wildlife agencies regarding any exceedances of specific parameters (i.e., turbidity) or observations of special-status species. The monitoring log will also document activity start/end times, weather and general site conditions, and any other relevant information.

3.0 Preconstruction Field Investigations – Purpose and Background

Final EIR, Volume 1, Chapter 3 – *Description of the Proposed Project and Alternatives* describes the project evaluated in the Delta Conveyance Project's Final EIR. Section 3.15 – Field Investigations explains that 'work related to geotechnical, hydrogeologic, agronomic testing, and construction test projects (geotechnical investigations) would occur during the preconstruction and construction periods following the adoption of the Final EIR,

identification of an approved project footprint, and acquisition of all required permits.' The preconstruction field investigations will 'more specifically identify appropriate construction methods addressed in the final design documents. These investigations would also address the establishment of geological and groundwater monitoring programs that could extend during the design and construction phases of the [Approved] project' (TM 14B – Potential Future Field Investigations – Bethany Reservoir Alternative, 2022b).

To support the project description and environmental analysis in the Final EIR, the Delta Conveyance Design and Construction Authority (DCA) working under the direction of DWR developed Engineering Project Reports (EPRs) and associated technical memoranda (TMs) (DCA 2022a, 2022b) to detail project engineering considerations. The Bethany Reservoir Alternative (Approved Project) EPR contains a detailed description of the Approved Project and the TMs that informed its design. Among other information, TM 14B – Potential Future Field Investigations – Bethany Reservoir Alternative details the geotechnical explorations (or field investigations) that constitute preconstruction field investigations necessary to support continued development of the project design documents. TM 14B Attachments A-C provide additional information related to field investigations used in the Final EIR analysis of impacts for the Project (Option B2B or B2).

4.0 Preconstruction Field Investigations – Final EIR Description

The Final EIR provides precise zones where field investigations would occur, and an approximated acreage and maximum number of each type of exploration was used for the Final EIR impact analysis. This information was utilized to identify and disclose potential direct and indirect environmental effects that may result from the field investigations as analyzed in the Final EIR. TM 14B, Attachment A (Option B2) provides total estimates for preconstruction field investigations.

Final EIR Mapbook 3-3 for the Bethany Alternative (Approved Project) depicts the zones in which geotechnical investigations would occur (i.e., geotechnical investigation zone). Each map further indicates that geotechnical investigations would be conducted within all project feature construction boundaries.

5.0 Preconstruction Field Investigations – General Terms

As proposed, the 2024-2026 preconstruction field investigations will *not* include the following geotechnical activities described in Chapter 3 of the Delta Conveyance Project's Final EIR: overwater activities, activities that involve trenching, activities within the West Tracy Fault or Bethany Fault, pile driving, vibratory testing of dynamic properties, potholing, monument installation, test fills for settlement studies, 800 ft. inclined boreholes, or ground improvement test zones. Consistent with the protocols used for the

geotechnical activities completed between 2020 - 2023[1] and in May and June of 2024, the 2024-2026 preconstruction field investigations will adhere to the following general terms:

[1] DWR approved, and completed, the prior geotechnical activities between 2020-2023 in reliance on the July 2020 Soil Investigations for Data Collection in the Delta Final Initial Study and Mitigated Negative Declaration (Soil Investigations IS/MND) and associated addenda adopted in February 2021 and June 2022 (SCH#2019119073)

Table 1: General Terms for 2024-2026 Preconstruction Field Investigations

General Terms for 2024-2026 Preconstruction Field Investigations[2]:
Geologic activities shall occur for no more than 10.5 hours each day between 7:00 am to 7:00 pm Monday through Friday only, unless alternative arrangements are made with the landowner and are consistent with all other requirements.
No entries or inspections shall occur between Wednesday and Sunday of Thanksgiving week and between December 23 and January 1, or on the 4th of July, Labor Day, or the Memorial Day holidays
On vineyards and other planted land, there shall be no entries or inspections between September 1 and October 15 unless authorized by the landowner in writing
Between October 1 and February 25 there shall be no entries or inspections on hunting lands
DWR, its Contractors, and/or Representatives, will adhere to all access restrictions related to pesticides in use on the parcels where field investigations are proposed
In addition to preliminary site clearance and biological surveys, DWR may access a parcel for up to 2 days to undertake preliminary identification activities to designate the exact locations of the boring, and CPT sites, unless alternative arrangements are made with the landowner and are consistent with all other requirements
Entry for CPT shall be for no more than 2 days per CPT site, unless otherwise authorized by the owner due to site, weather, or other conditions
Entry for borings shall be permitted for up to 11 days per soil boring, unless otherwise authorized by the owner due to site, weather, or other conditions
Tribal representatives (2) and DWR (up to 4) have two (2) additional full days and two (2) half days to do pre-drilling site clearances prior to the commencement of drilling activities, unless alternative arrangements are made with the landowner and are consistent with all other requirements
DWR shall give approximately 14 days' notice of intended date to drill or CPT test by mail, phone and/or email to the owner's designated representative or, if none, to the owner; the notice will include a description of the activities that will be conducted on the property and a general description of the area where activities will take place
DWR shall give approximately 10 days' notice to confirm the information provided in the 14-day notification and to provide the owner's designated representative or, if none, the owner with information pertaining to the purpose of the several types of studies to be conducted on the property and the point of contact(s) for DWR

[2] DWR developed the terms in Table 1 in consideration of conditions included in prior court ordered entries for geotechnical activities, including the November 21, 2023, Order Permitting Entry and Investigation of Real Property for Environmental, Cultural, Geological, and Drilling Investigations entered by the San Joaquin County Superior Court in Judicial Council Coordination Proceedings (JCCP) Case No. 4594, as well as the terms of the proposed Temporary Entry Permits (TEPs) provided to landowners by DWR for the completed 2024 preconstruction field investigations.

General Terms for 2024-2026 Preconstruction Field Investigations[2]:
DWR shall give approximately 72-hour notice by phone and email (or utilizing the preferred communication method as agreed upon with the landowner or designated representative) to the owner's designated representative or, if none, to the owner for entries
DWR should make all reasonable efforts to accommodate reasonable requests to alter the dates based on the owner's necessary use of the property
Maximum soil boring depth is limited to 300 feet[3]
DWR shall not enter closed structures on the property, including, specifically, office buildings, garages, fully enclosed sheds, and buildings not considered open to the public, unless alternative arrangements are made with the landowner and are consistent with all other requirements
DWR shall comply with any general rules or regulations of a reclamation district applicable to the underlying property owner regarding use or weight of vehicles on its easement area, or restricted access to pumping stations, digging near levees, and the like
DWR shall coordinate with the CA Department of Fish and Wildlife regarding entry to all areas covered by a conservation easement or grant.
DWR personnel and its contractors shall have identification cards and be prepared to show them to any owner who requests to see such
DWR personnel shall use their best efforts not to needlessly block or impede any activity by the owner or his or her agents on the property
DWR shall contact railways prior to entry and shall comply with reasonable conditions of special visible clothing near the railroad tracks and shall cross the railroad tracks with vehicles only at designated public crossings or in consultation with railroad personnel
DWR personnel should not linger or loiter or perform work within 25 feet of the railway tracks
DWR shall use designated crossing points for pedestrian crossing where reasonably available and shall cross only when no trains are observable
DWR shall not fence any area of property or to prevent access of the owners to their properties, except when DWR personnel are utilizing that specific area of the property
DWR vehicles or equipment shall not unreasonably block access by other vehicles on levee roads or other reclamation district-operated roadways
DWR shall not perform any borings or CPT holes within three hundred (300) feet of a landside levee toe, without first giving ten (10) days' notice of the change of site plan and proposed work to both the affected reclamation district and the landowner

[3] Prior Court Ordered Entries have authorized, and DWR has completed, soil borings up to a depth of 300 feet. The 2024-2026 preconstruction field investigations propose a maximum depth of 250 feet.

General Terms for 2024-2026 Preconstruction Field Investigations[2]:
DWR shall follow the guidelines in its Bulletin 74-90 with respect to the method by which the exploratory borings will be sealed
DWR shall restore the property, as near as possible, to its original condition after the activities are completed
Upon request by an owner, DWR shall promptly provide a copy of the drilling and CPT fact sheets that DWR is using for the geologic and drilling activities
Following compilation of the data gathered and within one hundred fifty (150) days of a written request by the landowner, DWR will provide the landowner with all data, including, but not limited to notes, surveys, reports, and photographs, obtained from any investigation on the landowner's property

6.0 Compliance with EC-14 Elements

6.1 Reference to or inclusion of the SWPPP prepared under the CGP, where one is needed. (See EC-4b, Develop and Implement Stormwater Pollution and Prevention Plans.)

- Federal statutes and regulations require discharges to waters of the United States comprised of stormwater associated with construction activity to obtain NPDES permit coverage (except operations that result in disturbance of less than one acre of total land area and that are not part of a larger common plan of development or sale). (Order WQ 2022-0057-DWQ NPDES NO. CAS000002). A SWPPP is not required for the 2024-2026 preconstruction field investigations because all 2024-2026 preconstruction field investigations will disturb less than one acre of total land area. Summaries or copies of planning and preconstruction surveys (if applicable) for natural communities and special-status species

- Final EIR Chapter 13: Terrestrial Biological Resources includes a set of mapbooks specific to the approved project providing the distribution of natural communities (within the project area) and species-specific habitat models, used for the impact analyses. Summaries and/or copies of planning and preconstruction surveys, in compliance with the Delta Conveyance Project's Mitigation Monitoring and Reporting Program (MMRP), and measures in this document, will be developed once authorization is received to enter private properties. Preparation for preconstruction field investigation site clearance surveys typically involve a desktop review of aerial imagery which would include a California Natural Diversity Database (CNDDB) search, along with in-field surveys and verifications by qualified biologists and resource specialists. Information from on the ground surveys will be used to adjust preconstruction field investigation locations to avoid impacts to special status species, their habitats, as well as cultural and Tribal resources ascertained from California Historical Resources Information System (CHRIS) cultural resources records searches as well as field surveys. Daily monitoring reports and clearance survey information will be compiled into quarterly monitoring reports. Examples of daily logs and quarterly reports are attached to this report (See Attachments 1 and 2).

- Planning and preconstruction survey checklists will include elements from this document.

6.2 Description of mitigation measures to be implemented, including a description of site or activity specific BMPs or additional measures not otherwise included in the project.

- The 2024-2026 preconstruction field investigations will comply with a) the general

terms for preconstruction field investigations (See Table 1), b) the Delta Conveyance Project's MMRP measures (See Table 2), and c) an additional list of activity-specific measures informed by the protocols utilized by DWR in completing geotechnical activities from 2020-2023 (See Table 3).

Table 2: DCP MMRP Measures

DCP MMRP Measures[4] [5]

Title	Description/Purpose
EC-1	Conduct Environmental Resources Worker Awareness Training
EC-2	Develop and Implement Hazardous Materials Management Plans
EC-3	Develop and implement spill prevention, containment, and countermeasure plans
EC-4a	Develop and implement Erosion and sediment control plans
EC-4b	Develop and Implement Stormwater Pollution Prevention Plans
EC-5	Develop and Implement a Fire Prevention and Control Plan
EC-6	Conduct Cultural Resources Awareness Training
EC-7	Off-Road Heavy-Duty Engines
EC-8	On-Road Haul Trucks
EC-9	On-Site Locomotives
EC-10	Marine Vessels
EC-11	Fugitive Dust Control
EC-12	On-Site Concrete Batching Plants
EC-13	DWR Best Management Practices to Reduce GHG Emissions
EC-14	Construction best Management practices for biological resources (Appendix 3B)
EC-15	Sediment Monitoring, Modeling, and Reintroduction Adaptive Management
EC-16	Provide Notification of Construction and Maintenance Activities in Waterways
EC-17	Pursue Solar Electric Power Options at Conveyance Facility Sites
EC-18	Minimize Construction-Related Disturbances to Delta Community Events and Festivals
AES-1a	Install Visual Barriers between Construction Work Areas and Sensitive Receptors
AES-1b	Apply Aesthetic Design Treatments to Project Structures
AES-1c	Implement Best Management Practices in Project Landscaping Plan

[4] For the complete descriptions of the MMRP measures, please go to: https://cadwr.app.box.com/s/qct5ey81zeyaxouccc25yyrotzfh2wq8

[5] Part of documenting compliance with mitigation measures in the MMRP includes confirming whether specific measures are applicable to an activity. Based on the scope of the proposed 2024-2026 preconstruction field investigations, some of the mitigation measures in the MMRP are not applicable. For example, the 2024-2026 preconstruction field investigations do not include overwater activities, therefore mitigation measures specific to overwater activities do not apply.

DCP MMRP Measures[4] [5]

Title	Description/Purpose
AES-4a	Limit construction outside of daylight hours within 0.25 miles of residents at the intakes
AES-4b	Minimize fugitive light from portable sources used for construction
AES-4c	Install visual barriers along access routes, where necessary, to prevent light spill from truck headlights toward residences
AG-1	Preserve Agricultural Land
AG-3	Replacement or relocation of affected infrastructure supporting agricultural properties
AQ-1	Offset construction-generated criteria pollutants in the Sacramento Valley Air Basin
AQ-2	Offset construction-generated criteria pollutants in the San Joaquin Valley Air Basin
AQ-3	Offset construction-generated criteria pollutants in the San Francisco Bay Area Air Basin
AQ-5	Avoid Public Exposure to localized particulate matter and nitrogen dioxide concentrations
AQ-9	Develop and implement a Greenhouse Gas (GHG) Reduction Plan to Reduce GHG Emissions from Construction and Net CVP Operational Pumping to Net Zero
AQUA-1a	Develop and Implement an Underwater Sound Control and Abatement Plan
AQUA-1b	Develop and Implement a Barge Operations Plan
AQUA-1c	Develop and Implement a Fish Rescue and Salvage Plan
BIO-2a	Avoid or minimize impacts on special-status natural communities and special-status plants
BIO-2b	Avoid or minimize impacts on terrestrial biological resources from maintenance activities
BIO-2c	Electrical Power Line Support Placement
BIO-14	Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp
BIO-18	Avoid and Minimize impacts on Valley Elderberry Longhorn Beetle (VELB)
BIO-21	Avoid and minimize impacts on bumble bees
BIO-22a	Avoid and minimize impacts on California Tiger Salamander (CTS)
BIO-22b	Avoid and minimize operational traffic impacts on wildlife
BIO-23	Avoid and minimize impacts on Western Spadefoot Toad
BIO-24a	Avoid and minimize impacts on California Red-legged frog (CRLF) and critical habitat
BIO-24b	Compensate for impacts on California Red-Legged Frog Habitat Connectivity
BIO-25	Avoid and minimize impacts on Western Pond Turtle (WPT)
BIO-26	Avoid and minimize impacts on special-status reptiles

DCP MMRP Measures[4] [5]

Title	Description/Purpose
BIO-30	Avoid and minimize impacts on Giant Garter Snake (GGS)
BIO-31	Avoid and minimize impacts on Western Yellow-Billed Cuckoo
BIO-32	Conduct preconstruction surveys and implement protective measures to avoid disturbance of California Black Rail
BIO-33	Avoid and minimize disturbance of Sandhill Cranes
BIO-34	Avoid California Least Tern Nesting Colonies and minimize indirect effects on colonies
BIO-35	Avoid and minimize impacts on Cormorant, Heron, and Egret Rookeries
BIO-36a	Conduct nesting surveys for special-status and non-special status birds and raptors and implement protective measures to avoid disturbance of nesting birds and raptors
BIO-36b	Conduct preconstruction surveys and implement protective measures to avoid disturbance of White-Tailed Kite
BIO-37	Conduct surveys for Golden Eagle and Avoid Disturbance of Occupied Nests
BIO-39	Conduct preconstruction surveys and implement protective measures to minimize disturbance of Swainson's Hawk
BIO-40	Conduct surveys and minimize impacts on Burrowing Owl
BIO-42	Conduct surveys and minimize impacts on Least Bell's Vireo
BIO-44	Conduct preconstruction surveys and implement protective measures to avoid disturbance of tricolored blackbird
BIO-45a	Compensate for the Loss of Bat Roosting Habitat on Bridges and Overpasses
BIO-45b	Avoid and Minimize impacts on roosting bats
BIO-46	Conduct Preconstruction survey for San Joaquin Kit Fox (SJKF) and implement avoidance and minimization measures
BIO-47	Conduct preconstruction survey for American Badger and implement avoidance minimization measures
BIO-53	Avoid and minimize impacts on terrestrial wildlife connectivity and movement
CMP	Compensatory Mitigation Plan
CUL-1a	Avoid Impacts on Built-Environment Historical Resources through Project Design
CUL-1b	Prepare and implement a built-environment treatment plan in consultation with interested parties
CUL-2	Conduct a survey of inaccessible properties to assess eligibility, determine if these properties will be adversely affected by the project, and develop treatment to resolve or mitigate adverse impacts
CUL-3a	Prepare and implement an archaeological resources management plan
CUL-3b	Conduct cultural resources sensitivity training
CUL-3c	Implement archaeological protocols for field investigations
CUL-5	Follow State and Federal Law Governing Human Remains If Such Resources Are Discovered during Construction
GW-1	Maintain groundwater supplies in affected areas
GW-5	Reduce Potential Increases in Groundwater Elevations near Project Intake Facilities

DCP MMRP Measures[4] [5]

Title	Description/Purpose
HAZ-2	Perform a phase I Environmental Site Assessment prior to construction activities and remediate
NOI-1	Develop and implement a noise control plan
PALEO-1a	Prepare and implement a monitoring and mitigation plan for paleontological resources
PALEO-1b	Educate construction personnel in recognizing fossil material
PH-1a	Avoid creating areas of standing water during preconstruction field investigations and project construction
PH-1b	Develop and implement a mosquito management plan for compensatory mitigation sites on Bouldin Island and at I-5 ponds
SOILS-5	Conduct site-specific soil analysis and construct alternative wastewater disposal system as required
TCR-1a	Avoidance of impacts on Tribal Cultural Resources
TCR-1b	Plans for the management of Tribal Cultural Resources
TCR-1c	Implement measures to restore and enhance the physical, spiritual, and ceremonial qualities of affected Tribal Cultural Resources
TCR-1d	Incorporate Tribal knowledge into compensatory mitigation planning (restoration)
TCR-2	Perform an assessment of significance, known attributes, and integrity for individual CRHR eligibility
TRANS-1	Implement site-specific construction transportation demand management plan and transportation management plan
WQ-4	Contra Costa Water District Interconnection Facility
WQ-6	Develop and implement a mercury management and monitoring plan

Table 3: Additional Compliance Parameters for 2024-2026 Preconstruction Field Investigations Based on Past Soil Investigations

Additional Compliance Parameters for 2024-2026 Preconstruction Field Investigations Based on Past Soil Investigations - Description[6]
Each Impact Area will be returned to as close to pre-activity conditions as possible. This will be documented by still photos taken pre- and post-activity
No building structures will be removed or disturbed. Preconstruction field investigations will occur at a distance greater than 100 feet (30.5 meters) from residences and small business operations, unless alternative arrangements are made with the landowner and are consistent with all other requirements. If fencing needs to be removed for access, it will be replaced after the work is completed.
No trees or vines will be removed during exploration activities; and only minor disturbances to vegetation would occur during mobilization of equipment. This minor disturbance may consist of mowing, removal of a few tree limbs, or trimming of bushes for site access. However, if access requires removal of any vegetation, the landowner would be consulted first to minimize the impact to both vegetation and the landowner.
Any proposed soil investigation activities that occur on agricultural lands will be grouted in accordance with materials that conform to ANSI and ASTM standards from the full depth to five feet (1.5 meters) below the surface. The final five feet (1.5 m) of topsoil will be replaced to return the Impact Area to as close to pre-activity conditions as possible. The backfill procedure will be in accordance with State of California Bulletin 74-81/74-90 and local county standards.
Water all exposed surfaces, as needed, two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
A qualified team of biologists will conduct a habitat assessment and reconnaissance level surveys (also referred to as site clearance surveys or preconstruction clearance surveys) approximately two weeks prior to the onset of ground disturbing soil investigation activities for any special status plants and wildlife that have the potential to occur within the project area (see Final EIR Appendix 13 A -Special-Status Species with Potential to Occur in the Study Area). If, based on the habitat assessment and reconnaissance level surveys, the biologists identify the potential for special status wildlife impacts, the location will be shifted to a suitable location as identified by the qualified team of biologists, which is defined as a location that achieves the following performance standards: (1) is the minimum distance necessary (informed by mitigation measures BIO-2a through BIO-53, as referenced in the MMRP), to ensure that no special status plants and wildlife with the potential to occur is disturbed during the work activities, (2) does not increase impacts to other resources to above a level of significance, and (3) the qualified biologist team must determine that commencing activities does not have the possibility to cause unpermitted take under federal or State law. If a suitable location, as defined above, cannot be determined within adjacent areas by the qualified team of biologists, then the soil investigation at that location will not be conducted.

[6] DWR developed the additional measures included in Table 3 in consideration of the mitigation measures included in the Mitigation Monitoring and Reporting Program for the Soil Investigations IS/MND, as modified January 2023.

Additional Compliance Parameters for 2024-2026 Preconstruction Field Investigations Based on Past Soil Investigations - Description[6]
The qualified biologist(s) must, at a minimum, have experience conducting surveys to identify the specific species and associated habitat that could occur on site.
All federally or state-listed species observed will be allowed to leave the Impact Area on their own. If the biologist determines that continuing activities could potentially cause unpermitted take under federal or State law to a federally or state-listed species, activities must cease. Work may not resume until the on-site biologist has determined there is no longer the possibility of causing unpermitted take under federal and State law.
No project activities will be conducted during or within 24 hours following a rain event in locations that have a potential for special status amphibians to occur or are near wetlands or other water features.
Any active rodent burrows or suitable cracks identified by a qualified biologist during the pre-construction survey will be flagged so that they can be avoided.
Any burrows, cracks, or fissures suitable for rodents that cannot be avoided and will be temporarily impacted by the movement and Placement of equipment or other project activities will be covered with plywood to avoid burrow collapse.
Leaf litter will be surveyed by the biologist for presence of wildlife prior to the onset of work, and if any special-status species are identified as using the leaf litter for refuge, it will be avoided, and a buffer will be established by a qualified biologist and flagged.
Piles of rock, riprap, or other materials that could provide refuge to reptiles or amphibians will be avoided. If movement of such materials cannot be avoided, a qualified biologist will survey the area prior to disturbance and monitor the material movement and restoration of the area following completion of Proposed Project activities.
Sanitation facilities (e.g., portable toilets) shall be sited in a manner that avoids any direct connection to the storm drainage system or receiving water.
Sanitation facilities shall be regularly cleaned and/or replaced and inspected daily for leaks and spills.
Stockpiling materials, portable equipment, vehicles, and supplies, including chemicals, will be restricted to areas adjacent to the drill or CPT rig, and not adjacent or within riparian and wetlands areas or other sensitive habitats.
No public roads, waterways or land access will be fully closed.

Additional Compliance Parameters for 2024-2026 Preconstruction Field Investigations Based on Past Soil Investigations - Description[6]
A field reconnaissance, marking or staking the exploration site, and calling Underground Service Alert (USA) for utility clearance will be conducted by qualified personnel for each planned soil exploration location. Based upon the information gathered, sites will be adjusted to ensure no utilities are impacted.
DWR shall not trap any wildlife in a conservation easement without specific approval or permit of USFWS, NMFS, or CDFW as appropriate.

6.3 Descriptions of monitoring parameters (e.g., turbidity), including the specific activities to be monitored (e.g., dredging, grading activities) and monitoring frequency and duration as well as parameters and reporting criteria (e.g., turbidity is not to exceed 10 NTUs above background. Exceedances will be reported, and the contractor must identify and correct the cause.).

- Daily monitoring activities by the biologist shall include, but will not be limited to the following:
    - Conducting pre-construction nesting bird and Swainson's Hawk surveys 72 hours prior to the start of preconstruction field investigations, if they are planned to occur during the nesting season.
    - Monitoring project field activities
    - Assisting with siting equipment to avoid any sensitive resources located nearby and clearly marking or delineating any exclusion areas and monitoring for compliance with these avoidance measures.
    - Walking the site before crews enter each day and examining the area below any vehicle or piece of equipment that has been stationary for 24 hours or greater to ensure that no wildlife species are present.
    - Conducting environmental awareness training and/or cultural sensitivity training session for all new field personnel prior to the start of each workday. Maintaining a list of trained staff and provide to DCA Field Activity Coordinator (or equivalent).
    - Confirming the location of and emphasizing to the crew any flagged avoidance areas.
    - Documenting the field crew's activities and their compliance with the program's commitments in Daily Monitoring Logs which include photos when available. (This may include adhering to speed limits, trash containment, ensuring that there are no firearms and no pets, installation of escape ramps where necessary, and capping pipes/removal of debris piles.)
    - Monitoring for any federally or state-listed species or California Species of Special Concern per requirements listed in the Delta Conveyance Project's MMRP and any environmental permits (where applicable). If any federally or state-listed species or nesting birds are observed, monitors will determine if activities are disturbing the species and if activities must cease or if the species are undisturbed and/or could leave on its own.
    - Alerting Lead Biological Monitor to any observations of federally or state-listed species or California Species of Special Concern immediately and recording in Daily Monitoring Log. (Follow protocols for wildlife agency notifications, as above.)

- Limiting work to periods of no precipitation.
- Completing Daily Monitoring Logs and providing to Project Biologist who will provide to DWR Environmental Manager. Ensure that Daily Monitoring logs include documentation of field activities, observations, and hours on site.

6.4 Description of roles and responsibilities of the monitors and protocols for notifying CDFW, NMFS, and USFWS, if needed.

- Section 2.1 (page 2-4) of the Delta Conveyance Project's MMRP describes the primary parties responsible
  for implementation, monitoring and reporting as it relates to the MMRP.

- <u>Protocols for notifying wildlife agencies:</u>
  - Per EC-14, any sightings of special status species will be reported to CDFW and USFWS via email within 1 working day of the discovery. A follow-up report will be sent to these agencies, including dates, locations, habitat description, and any corrective measures taken to protect special status species.
  - The qualified biologist(s) will maintain monitoring records that include (1) the beginning and ending time of each day's monitoring effort; (2) a statement identifying the species encountered, including the time and location of the observation; (3) the time the specimen was identified and by whom and its condition; (4) the capture and release locations of each individual (where permitted); (5) photographs and measurements of each individual; and (6) a description of any actions taken. The biologist(s) will maintain complete records in their possession while conducting monitoring activities and will immediately provide records to USFWS and CDFW upon request. If requested, all monitoring records will be provided to agencies according to the reporting requirements of the relevant permits.

6.5 A daily monitoring log will be prepared by the monitor, which documents the day's construction activities, notes any problems identified and solutions implemented to rectify those problems, and document notifications of the construction superintendent and/or the fish and wildlife agencies regarding any exceedances of specific parameters (i.e., turbidity) or observations of special-status species. The monitoring log will also document construction start/end times, weather and general site conditions, and any other relevant information.

- Daily biological monitoring reports will include the following, at minimum (refer to element, above, regarding protocols for notifying wildlife agencies) (See Example of Daily Monitoring Report in Attachment 1):
  - Date

- Start time.
- End time.
- Monitor name.
- Location Description
- Groups/Personnel
- Weather conditions
- Air Temperature (low/high)
- Precipitation
- Field Investigation Activity
- Daily Observation Summary
    - If special status species are encountered, include identification, by whom, time and condition
- Communication Summary
    - Shall include actions taken if special status species are encountered
- Site Photos containing locational data, altitude, and direction of view.

7.0 Demonstrated Compliance for past Geotech Activities

Based on clearance survey results, 2024-2026 preconstruction field investigations will be relocated, where necessary, to avoid potentially significant impacts on special status natural communities, special status plants, cultural resources, and Tribal resources. Prior field investigation (soil investigations) completed by DWR in 2020 through 2023, and in May and June of 2024, included this same commitment and were successfully completed or, where necessary, abandoned to avoid potentially significant impacts on these resources. This Plan incorporates measures implemented for DWR's prior field investigations in 2020 through 2023 (See Table 1 and Table 3). Compliance with these additional measures will further reduce the less than significant biological resource impacts identified and analyzed in the Delta Conveyance Project's Final EIR.