LISA A. TRAVIS (SBN 184793)
County Counsel
WILLIAM C. BURKE (SBN 213279)
Deputy County Counsel
COUNTY OF SACRAMENTO
700 H Street, Suite 2650
Sacramento, CA 95814
Telephone: (916) 874-5544
Facsimile: (916)874-8207
burkew@saccounty.gov

SOMACH SIMMONS & DUNN
A Professional Corporation
KELLEY M. TABER (SBN 184348)
LOUINDA V. LACEY (SBN 275888)
500 Capitol Mall, Suite 1000
Sacramento, CA 95814
Telephone: (916) 446-7979
Facsimile: (916) 446-8199
ktaber@somachlaw.com
llacey@somachlaw.com

Attorneys for Petitioners and Plaintiffs
County of Sacramento and Sacramento
County Water Agency

EXEMPT FROM FILING FEES PURSUANT TO GOV. CODE, § 6103

SUPERIOR COURT OF CALIFORNIA

COUNTY OF SACRAMENTO

COUNTY OF SACRAMENTO, a California county, and SACRAMENTO COUNTY WATER AGENCY, a California water district,

Petitioners and Plaintiffs,

v.

CALIFORNIA DEPARTMENT OF WATER RESOURCES, a California state agency,

Respondent and Defendant,

DOES 1 through 50,

Real Parties in Interest,

AND RELATED ACTIONS.

Case No. 24WM000014

(Related to 24WM000006; 24WM000008; 24WM000009; 24WM000010; 24WM000011; 24WM000012; 24WM000017; 24WM000062)

Assigned to Hon. Stephen P. Acquisto
Department 36

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) CASE

REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF COUNTY OF SACRAMENTO AND SACRAMENTO COUNTY WATER AGENCY'S MOTION FOR PRELIMINARY INJUNCTION

DATE: May 31, 2024
TIME: 1:30 p.m.
DEPT: 36

Petition Filed: January 22, 2024
Amended Petition Filed: February 16, 2024

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that pursuant to Evidence Code Section 450 *et. seq.* and California Rules of Court, rules 3.1113(*l*) and 3.1306(c), Petitioners and Plaintiffs County of Sacramento and Sacramento County Water Agency (collectively "Petitioners") hereby respectfully request that the Court take judicial notice of the documents identified below and attached hereto. These exhibits are submitted and offered for Petitioners' Memorandum of Points and Authorities in support of their Motion for Preliminary Injunction (Motion). Judicial notice is proper because the exhibits are official acts of the California Department of Water Resources (DWR) pertaining to its approval of the Delta Conveyance Project Final Environmental Impact Report (DCP FEIR), and the existence and accuracy of the documents identified herein are not reasonably subject to dispute and are capable of immediate and accurate determination by resort to sources of reasonably indisputable accuracy. (Evid. Code, §§ 452, subds. (c) & (h).

I. LEGAL STANDARD

"Judicial notice is the recognition and acceptance by the court, for use … by the court, of the existence of a matter of law or fact that is relevant to an issue in the action without requiring formal proof of the matter." (*Lockley v. Law Office of Cantrell, Green, Pekich, Cruz & McCort* (2001) 91 Cal.App.4th 875, 882, internal quotes omitted.) A court may take judicial notice of any materials specified in Evidence Code section 452, including "[o]fficial acts of the legislative, executive, and judicial departments of the United States and of any state of the United States." (Evid. Code, § 452, subd. (c).) The court may further take judicial notice of "[f]acts and propositions that are not reasonably subject to dispute and are capable of immediate and accurate determination by resort to sources of reasonably indisputable accuracy." (*Id.* at subd. (h).)

II. ARGUMENT

The Evidence Code mandates judicial notice of matters that comport with the requirements of Evidence Code section 452. Evidence Code section 453 provides that judicial notice of any matter specified in section 452 is compulsory where a party requests it, gives each adverse party sufficient notice of the request, and "furnishes the court with sufficient information to enable it to take judicial notice of the matter." Petitioners request that the Court take judicial

notice of the following documents that constitute official acts of DWR pertaining to its approval of the DCP FEIR, the existence and accuracy of which are not reasonably subject to dispute and are capable of immediate and accurate determination by resort to sources of reasonably indisputable accuracy (Evid. Code, §§ 452, subds. (c) & (h)):

1. The Notice of Determination issued by the Director of DWR on December 21, 2023, for the DCP FEIR, which may be found on DWR's website at https://cadwr.app.box.com/s/xwscz3s54vbiwflijzohkcg6dl5902gk. A true and correct copy is attached hereto as Exhibit A. (See Declaration of Louinda V. Lacey in Support of Petitioners' Motion filed concurrently herewith (Lacey Decl.), ¶ 2.)

2. The "Decisions" document pertaining to DWR's Certification of the DCP FEIR, Adoption of Findings and Statement of Overriding Considerations, Mitigation, Monitoring and Reporting Program and Execution of a Notice of Determination, which was signed by the Director of DWR on December 21, 2023, and may be found on DWR's website at https://cadwr.app.box.com/s/g2ibx7wo7hjncdpzu1flc1i0yqrwcxni. A true and correct copy of the document is attached hereto as Exhibit B. (See Lacey Decl., ¶ 3.)

3. The following pages from Chapter 3 of the DCP FEIR, which may be found on DWR's website at https://cadwr.app.box.com/s/xbs1lry77n07u2cm60a8ledfvk31i3ra: 3-1, 3-2, and 3-116 through 3-141. True and correct copies of the foregoing pages are attached hereto as Exhibit C. (See Lacey Decl., ¶ 4.)

4. A map book to Chapter 3 of the DCP FEIR, tiled "**Figure: Index Bethany Reservoir Alignment** Alternative 5," which may be found on DWR's website at https://cadwr.app.box.com/s/a7dp9bj7xcn3wnjx8exjsds6llrqr6ny/file/1369521647499. A true and correct copy is attached hereto as Exhibit D. (See Lacey Decl., ¶ 5.)

5. Common Response 8 "Relationship to Other Plans, Projects, Policies, and Programs" located in Chapter 3 of Volume 2 of the DCP FEIR, which may be found on DWR's website at https://cadwr.app.box.com/s/78ox5m81b03cywtjtz3zvw459oaom5n7. A true and correct copy is attached hereto as Exhibit E. (See Lacey Decl. ¶ 6.)

6. "Figure ES-1. Sacramento-San Joaquin Delta," which is located on page 5 of the Executive Summary in the DCP FEIR and may be found on DWR's website at https://cadwr.app.box.com/s/28dykirctpwkny65amoxg7dxr125rl6p. A true and correct copy is attached hereto as Exhibit F. (See Lacey Decl. ¶ 18.)

The foregoing documents are relevant to the Motion because they show pertinent actions taken and statements made by DWR regarding the Delta Conveyance Project (Project), which is at issue in this litigation. As explained in the Motion, Petitioners seek a preliminary injunction enjoining DWR from initiating implementation of the Project until DWR files a certification of consistency with the Delta Stewardship Council as required by Water Code section 85225.

III. REQUEST

For the foregoing reasons, Petitioners respectfully request that this Court grant their request for judicial notice of the exhibits described herein.

SOMACH SIMMONS & DUNN
A Professional Corporation

DATED: May 8, 2024

By: _____
Kelley M. Taber
Louinda V. Lacey
Attorneys for Petitioners and Plaintiffs
County of Sacramento and Sacramento County Water Agency

Exhibit A

Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☐ County Clerk
County of: _____
Address: _____

From:

Public Agency: Department of Water Resources
Address: 1516 9th St, Sacramento, CA 95814

Contact: Marcus Yee
Phone: 916-699-8405

Lead Agency (if different from above):

Address: _____

Contact: _____
Phone: _____

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2020010227

Project Title: Delta Conveyance Project Final EIR

Project Applicant: California Department of Water Resouces

Project Location (include county): See Attachment 1 and Figure 1

Project Description:
See Attachment 2

This is to advise that the California Department of Water Resouces (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on 12/21/2023 (date) and has made the following determinations regarding the above described project.

1. The project [☒ will ☐ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☒ was ☐ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
1516 9th St, Sacramento, CA 95814 or https://www.deltaconveyanceproject.com

Signature (Public Agency): Karla Nemeth Title: Director

Date: 12/21/2023 Date Received for filing at OPR: 12/21/2023

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Attachment 1
Project Location

The project area consists of the construction footprint of the project facilities. The physical footprint of the Project would lie primarily within the boundaries of the statutorily defined Delta. Additionally, certain facilities that would be constructed under the Project would be located southeast of the statutory Delta (see Figure 1, Project Location).

Figure 1. Project Location

Attachment 2
Project Description

The Project consists of the construction, operation, and maintenance of new State Water Project (SWP) water diversion and conveyance facilities in the Delta that would be operated in coordination with the existing SWP facilities.

The Project would include the following key components and actions.

- Two intake facilities along the Sacramento River in the north Delta near the community of Hood with on-bank intake structures that would include fish screens.
- A concrete-lined tunnel, and associated vertical tunnel shafts, to convey flow from the intakes about 45 miles to the south to the Bethany Reservoir Pumping Plant and Surge Basin at a location south of the existing SWP Clifton Court Forebay.
- A Bethany Reservoir Pumping Plant to lift the water from inside the tunnel below ground into the Bethany Reservoir Aqueduct for conveyance to the Bethany Reservoir Discharge Structure and into the existing Bethany Reservoir.
- Other ancillary facilities to support construction and operation of the conveyance facilities including, but not limited to, access roads, concrete batch plants, fuel stations, and power transmission and/or distribution lines.
- Efforts to identify geotechnical, hydrogeologic, agronomic, and other field conditions that will guide appropriate construction methods and monitoring programs for final engineering design and construction.

Volume 1, Chapter 3, *Description of the Proposed Project and Alternatives*, of the Final Environmental Impact Report (EIR) provides further information on the above components and actions and related activities required as part of the Project (e.g. park-and-ride lots).

The EIR evaluates Project operations based on the Project design and what was known and reasonably foreseeable when the EIR was prepared, but DWR acknowledges that: (1) operations will not occur for well over 15 to 20 years due, in part, to the time required to complete construction of the project, and (2) new information of substantial importance or substantial changes could occur with respect to Project design or the circumstances under which the Project is undertaken. Under these conditions, prior to the commencement of operations, DWR would evaluate whether subsequent CEQA review is required before undertaking any discretionary actions that may be required to change Project design or operational criteria such that they are sufficiently protective to environmental resources.

Exhibit B

DECISIONS REGARDING THE DELTA CONVEYANCE PROJECT FINAL ENVIRONMENTAL IMPACT REPORT
SCH # 2020010227

A. CERTIFICATION OF THE FINAL EIR

Prior to approving a project, the lead agency shall certify that:

(1) The final EIR has been completed in compliance with CEQA.

(2) The final EIR was presented to the decision-making body of the lead agency and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and

(3) The final EIR reflects the lead agency's independent judgment and analysis.

(CEQA Guidelines, § 15090(a).)

Pursuant to Public Resources Code Sections 21081 and 21082.1 and CEQA Guidelines Section 15090, and in my capacity as the person permitted by law to approve or disapprove the Project, I certify that I have been presented with the Final EIR (Exhibit A), that I have further considered all additional materials in the project files relevant to the DWR's compliance with CEQA or to its decision on the merits of the Project, and that I have reviewed and considered the information contained in the Final EIR prior to making this certification. I further certify that the Final EIR has been completed in compliance with CEQA and the CEQA Guidelines, and that the EIR reflects the independent judgment of DWR. Based upon the foregoing, I find and determine that the Final EIR provides the basis to take the actions in Section B, below, to approve the Project and adopt the (1) CEQA Findings, (2) Statement of Overriding Considerations, and (3) Mitigation Monitoring and Reporting Program.

Date: 12/21/2023

Time: 11:08 am

By: Karla Nemeth
Karla Nemeth, Director
Department of Water Resources

B. ADOPTION OF FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS, MITIGATION, MONITORING AND REPORTING PROGRAM AND EXECUTION OF A NOTICE OF DETERMINATION

As explained further below and having received, reviewed and considered the Final EIR and other information in the record of proceedings, I hereby adopt the Findings and Statement of Overriding Considerations, attached as Exhibit B, the Mitigation Monitoring and Reporting Program, attached as Exhibit C, and approve the Project, and execute the Notice of Determination pursuant to CEQA, attached as Exhibit D.

1. Findings of Significant Effects and Statement of Overriding Considerations

CEQA Guidelines Section 15091(a) states: "No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding."

CEQA Guidelines Section 15093(b) states; "When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record."

The Final EIR identifies potentially significant effects from the Project (Alternative 5), some of which may not be avoided or substantially lessened notwithstanding environmental commitments, avoidance and minimization measures, and feasible mitigation measures. Therefore, I adopt the Findings and Statement of Overriding Considerations, attached as Exhibit B, in order to meet the requirements of CEQA. To the extent that the Findings conclude that various mitigation measures are feasible and within DWR's responsibility and jurisdiction, I direct DWR to implement these measures, thereby incorporating them as part of the Project.

2. Mitigation, Monitoring and Reporting Program

CEQA Guidelines Section 15091(d) requires the lead agency to "also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects."

DWR has prepared a Mitigation Monitoring and Reporting Program for the Project (Alternative 5), attached as Exhibit C, that meets the requirements of CEQA Guidelines, section 15091. Therefore, in accordance with CEQA, I hereby adopt Exhibit C as a condition of the approval of the Project.

3. Project Approval and Execution of the Notice of Determination

I have determined that DWR has eliminated or substantially lessened all significant effects on the environment where feasible as shown in the findings under CEQA Guidelines, Section 15091 and attached hereto as Exhibit B. In addition, I have determined that any remaining significant effects on the environment found to be unavoidable under CEQA Guidelines section 15091 are acceptable due to overriding considerations described in Exhibit B, consistent with CEQA Guidelines Section 15093.

Therefore, pursuant to CEQA Guidelines section 15092 and after considering the certified Final EIR, including all issues raised in comments on the Draft EIR and DWR's responses thereto in the Final EIR as certified, and in conjunction with adopting the Findings, Statement of Overriding Considerations, and Mitigation and Monitoring Program under CEQA, I approve the California Delta Conveyance Project identified as Alternative 5 within the Final EIR and have executed the Notice of Determination, Exhibit D.

Date: 12/21/2023

Time: 11:08 am

By: Karla Nemeth

Karla Nemeth, Director
Department of Water Resources

Attachments:

Exhibit A Final EIR (provided by link)
Exhibit B Findings of Fact and Statement of Overriding Considerations
Exhibit C Mitigation, Monitoring and Reporting Program
Exhibit D Notice of Determination

Exhibit C

Chapter 3
Description of the Proposed Project and Alternatives

3.1 Introduction

As described in Chapter 1, *Introduction*, the California Department of Water Resources (DWR), at the direction of Governor Gavin Newsom in Executive Order N-10-19, has inventoried and assessed approaches to modernize water conveyance through the Sacramento–San Joaquin Delta (Delta) and proposed a new, single-tunnel project. DWR has developed the basic project purpose and objectives described in Chapter 2, *Purpose and Project Objectives*, consistent with the Governor's Executive Order.

The alternatives in this *Delta Conveyance Project Final Environmental Impact Report* (EIR), including the proposed project, meet the requirements of the California Environmental Quality Act (CEQA). This CEQA analysis is also intended to support compliance with other state and federal permit requirements where discussion of alternatives is relevant. As described in more detail in Section 3.2, *Alternatives Development Process*, and in Appendix 3A, *Identification of Water Conveyance Alternatives*, DWR considered all suggestions made during the scoping process as well as other information on the record to evaluate and screen potential alternatives to be analyzed in detail in this Final EIR.

For the Delta Conveyance Project (project), DWR is preparing a standalone EIR that will not be prepared jointly with a federal agency's National Environmental Policy Act (NEPA) compliance document. As explained in Chapter 1, a separate Environmental Impact Statement (EIS) will be prepared to meet the requirements of NEPA, with the U.S. Army Corps of Engineers (USACE) as the lead agency. Because of this, care has been taken in this Final EIR to describe alternatives at a level of detail normally required for an EIS to ensure as much consistency as possible for these two documents. The Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] § 1502.14) require all reasonable alternatives to be objectively evaluated in an EIS, so that each alternative is evaluated at an equal level of detail (40 CFR § 1502.14(b)).

The proposed project and alternatives evaluated in this Final EIR involve the construction and operation of new conveyance facilities for the movement of water entering the Delta from the Sacramento Valley watershed to the existing State Water Project (SWP) and, potentially, to Central Valley Project (CVP) facilities in the south Delta, which would result in a dual-conveyance system in the Delta. This Final EIR also analyzes related amendments to the long-term water supply contracts that may be needed.

CEQA Guidelines also direct that "the specific alternative of 'no project' shall also be evaluated along with its impact" (14 Cal. Code Regs. § 15126.6 [e][1]). The No Project Alternative analysis is required to discuss existing conditions at the time the Notice of Preparation (NOP) is published, as well as "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (14 Cal. Code Regs. § 15126.6 [e][2]). In this chapter, Section 3.5, *No Project Alternative*, describes the types of actions that Delta Conveyance Project participants other than DWR might undertake to address local supply issues under a long-term scenario in which the Delta Conveyance

Project is not approved or implemented. Because the effects of climate change and sea level rise are reasonably foreseeable, they are included in the No Project Alternative. Appendix 3C, *Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions*, further details assumptions for the No Project Alternative.

This Final EIR provides the project-level analyses to disclose impacts required for approval of any of the alternatives and provides information to facilitate the proposed project permit decisions. This chapter describes the No Project Alternative and nine project alternatives (Table 3-2) that are evaluated in detail in this Final EIR. The project alternatives have been developed to best meet the project's basic purpose and objectives described in Chapter 2 and are the outcome of an extensive screening process summarized in Section 3.2. *Alternatives Development Process*, and Section 3.2.1, *Alternatives Screening Analysis*, and detailed in Appendix 3A, *Identification of Water Conveyance Alternatives*. Appendix 3A includes consideration of potential alternatives to the Delta Conveyance Project (project), alternatives identified during the public scoping process, and alternatives previously considered for the California WaterFix environmental review process.

Section 3.3, *Proposed Project and Alternatives Overview*, provides an overview of the proposed alignment and operational alternatives, and Section 3.4, *Common Features of the Alternatives*, describes the key facilities common to most of the alternatives and alignments. Sections 3.2, 3.3, and 3.4 of this chapter discuss conveyance facilities. Section 3.5, *No Project Alternative*, describes the No Project Alternative. Sections 3.6 through 3.14 describe the characteristics that differentiate the nine project alternatives (Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, 4c, and 5). A discussion of maintenance is integrated into the sections describing major common features as relevant, and is not presented separately. Section 3.15, *Field Investigations*, describes past and future efforts to identify geotechnical, hydrogeologic, agronomic, and other field conditions that will guide appropriate construction methods and monitoring programs for final engineering design and construction. Additional actions not analyzed in this EIR associated with field investigations would comply with the necessary state environmental review requirements and may require additional CEQA review.

Section 3.16, *Intake Operations and Maintenance*, describes the conveyance facility operational criteria and assumptions. This Final EIR also considers the operation and maintenance of the SWP in relation to implementation of the project alternatives. Maintenance of these facilities is described and analyzed in cases where new types of maintenance would be required for new facilities. For the 7,500-cubic-feet-per-second (cfs) Alternatives 2a and 4a that would involve the CVP, those operations and any maintenance of those facilities are also analyzed.

Section 3.17, *Real-Time Operational Decision-Making Process*, describes the real-time operations decision-making process under current operations and how it would operate with the project alternatives. Section 3.18, *Adaptive Management and Monitoring Program*, briefly describes adaptive management and monitoring that would occur under the project.

The Community Benefits Program, proposed as part of the project, is introduced in Section 3.19 and described more fully in Appendix 3G, *Community Benefits Program Framework*. The Community Benefits Program could provide funding for actions that are described in broad general categories that could be funded but no action has yet been identified. Accordingly, the analysis of the potential impacts of those actions is at a commensurate general level and is provided in Chapter 34, *Community Benefits Program Analysis*, of this Final EIR. Because significance determinations regarding specific Community Benefits Program actions would be speculative, none are provided. As

3.14 Alternative 5—Bethany Reservoir Alignment, 6,000 cfs, Intakes B and C (Proposed Project)

Alternative 5 would use Intakes B and C to convey up to 6,000 cfs of water from the north Delta along the eastern alignment as described under Alternative 3 as far as the launch shaft at Lower Roberts Island. From Lower Roberts Island, the tunnel would follow a different route to a location south of Clifton Court Forebay and terminate at the Bethany Complex. This tunnel alignment is referred to as the Bethany Reservoir alignment. Figures 3-2c and 3-30 provide, respectively, a map and a schematic diagram depicting the alignment and conveyance facilities associated with Alternative 5. Mapbook 3-3 depicts the locations of Bethany Reservoir alignment project facilities and major construction features.

From the Twin Cities Complex, the Bethany Reservoir alignment would extend along the same easterly route as Alternative 3, using the same tunnel shaft locations as far as Lower Roberts Island, where the corridor would turn southwest, traveling from Lower Roberts Island under Lower and Upper Jones Tracts, Victoria Island, Union Island, Coney Island, and Clifton Court Tract to the Surge Basin reception shaft. Tunnel shafts would be located at the following sites.

- Intake B
- Intake C
- Twin Cities Complex Double Launch Shaft
- New Hope Tract maintenance shaft (eastern)
- Canal Ranch Tract maintenance shaft
- Terminous Tract reception shaft
- King Island maintenance shaft
- Lower Roberts Island double launch shaft
- Upper Jones Tract maintenance shaft (Bethany)
- Union Island maintenance shaft
- Surge Basin reception shaft (at Bethany Complex)

Alternative 5 would eliminate the Southern Complex facilities described in Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c. Instead, this alternative would include a new Bethany Reservoir Pumping Plant and Surge Basin to the south of Clifton Court Forebay, and the new Bethany Reservoir Aqueduct that would convey flows to a new Bethany Reservoir Discharge Structure on the shore of Bethany Reservoir. The aqueduct would consist of four pipelines including tunneled segments under the existing CVP Jones Pumping Plant discharge pipelines and existing conservation easement adjacent to Bethany Reservoir. Collectively, these facilities are called the Bethany Complex, described in Section 3.14.1, *Bethany Complex*.

The tunnel from the intakes to the Bethany Complex would have an inside diameter of 36 feet and outside diameter of 39 feet and extend 45 miles from the intakes to the surge basin at the Bethany Reservoir Pumping Plant. Alternative 5 would have the same tunnel shafts as described under Alternative 3 from the north Delta to Lower Roberts Island. Lower Roberts Island would have a double launch shaft, similar to that at the Twin Cities Complex, which would allow one TBM to bore

north to the Terminous Tract reception shaft and one to bore south toward the final reception shaft at the Bethany Reservoir Surge Basin via maintenance shafts on Upper Jones Tract (at a different location than under Alternative 3) and on Union Island. The maintenance shaft site on Upper Jones Tract would require a different access road than under Alternative 3 because it is in a different location. The Union Island maintenance shaft would be unique to Alternative 5. Construction access to Union Island would be via Bonetti Road. The shaft pads at Upper Jones Tract and Union Island tunnel maintenance shafts would be constructed of soil excavated from Lower Roberts Island. Because the Southern Forebay, Southern Complex, and South Delta Conveyance Facilities are not included in this alternative, the shafts associated with those features would not be needed.

The Twin Cities Complex under the Bethany Reservoir alignment (Alternative 5) would be similar to Alternative 3, but larger because RTM that would be used or stored at the Southern Complex under other alternatives would not be transported to that site and would need to be stored on-site instead. Tunnel segments, TBM machinery, other soil materials, and equipment would be delivered to the Twin Cities Complex by road; there would be no rail-served materials depot at the Twin Cities Complex under Alternative 5. Access road modifications, RTM storage, and facility layouts would change accordingly. RTM handling at the Twin Cities Complex and Lower Roberts Island TBM launch shafts would be the same as described for the eastern alignment alternatives (Alternatives 3, 4a, 4b, and 4c), except that mechanical dryers would not be used at Lower Roberts Island and no RTM would be transported for forebay construction.

The double launch shaft at Lower Roberts Island would require a larger shaft site than under Alternative 3 constructed in a figure eight configuration to accommodate two TBMs, larger RTM storage area, and corresponding adjustments to access roads and railroad alignments. Material excavated on-site would be used to construct the shaft pad. The site would also house a rail-served materials depot similar to the facility described under Alternative 3. Rail access to Lower Roberts Island would be provided from existing UPRR and/or BNSF tracks at the Port of Stockton. Rail lines could be extended from one of the existing rail facilities at the Port of Stockton. Rail access would be extended over a new bridge over Burns Cut and continue to the launch shaft site and RTM storage area.

Portions of existing perimeter levee on the Lower Roberts Island site do not comply with the Public Law 84-99 Delta-specific levee design standard because of insufficient freeboard or slopes. Levee modifications for this alternative would be made as described for Alternative 3, described in Section 3.10.

Table 3-13 summarizes the distinguishing characteristics of Alternative 5.

Table 3-13. Summary of Distinguishing Physical Characteristics of Alternative 5

Characteristic	Description [a]
Alignment	Bethany Reservoir
Conveyance capacity	6,000 cubic feet per second
Number of Intakes	2; Intakes B and C at 3,000 cfs each
Tunnel from Intakes to Bethany Reservoir Pumping Plant	
Diameter	36 feet inside, 39 feet outside
Length	45 miles
Number of tunnel shafts	11 [b]

Characteristic	Description [a]
Launch shafts diameter	115 feet inside
Reception and maintenance shafts diameter	70 feet inside
Surge Basin reception shaft diameter	120 feet inside
Twin Cities Complex	Construction acres: 586 Permanent acres: 222
Lower Roberts Island Double Launch Shaft site	Construction acres: 610 Permanent acres: 300
Upper Jones Tract Maintenance Shaft [c]	Construction acres: 11 Permanent acres: 11
Union Island Maintenance Shaft [c]	Construction acres: 14 Permanent acres: 14
Bethany Complex	
Bethany Reservoir Pumping Plant and Surge Basin site size (all facilities)	Construction acres: 213 Permanent acres: 184
Bethany Reservoir Pumping Plant pad site	1,166 foot wide x 1,260 feet long (approximately 34 acres)
Surge basin	815 feet wide x 815 feet long x 35 feet deep, approximately 15 acres
Bethany Reservoir Aqueduct	Four 15-foot-diameter parallel below-ground pipelines Approximately 14,900 linear feet each Construction acres: 128 acres Permanent acres: 68
Aqueduct tunnels	Four 20-foot-diameter parallel tunnels, two reaches
Bethany Reservoir Discharge Structure	Construction acres: 15 Permanent acres: 13
RTM Volumes and Storage	
Twin Cities Complex long-term RTM storage (approximate)	214 acres x 15 feet high
Lower Roberts Island long-term RTM storage (approximate)	189 acres x 15 feet high
Bethany Complex	No TBM RTM generated or stored
Total wet excavated RTM volume (for single main tunnel from intakes to Bethany Reservoir Surge Basin shaft)	14.4 million cubic yards

cfs = cubic feet per second; RTM = reusable tunnel material; TBM = tunnel boring machine. The height of the RTM storage stockpiles would decrease as the RTM subsides into the ground over time.

[a] Acreage estimates represent the permanent surface footprints of selected facilities. Overall project acreage includes some facilities not listed, such as permanent access roads.

[b] Number of shafts for the main tunnel from intakes to Bethany Reservoir Surge Basin shaft, counting the double shaft at Twin Cities Complex and the double shaft at Lower Roberts Island each as one shaft.

[c] These maintenance shafts are included in this table because they are distinctive to the Bethany Reservoir alignment. Upper Jones Tract maintenance shaft is in a different location than in other eastern alignment alternatives and Union Island maintenance shaft is unique to this alternative.

Characteristics of fencing and lighting at intakes, tunnel shaft sites, Bethany Reservoir Pumping Plant and Surge Basin, and Bethany Reservoir Discharge Structure during construction and operation would be the same as described in Section 3.4.12, *Fencing and Lighting*. These features would also be the same at the Bethany Complex during aqueduct construction, but once operational, the aqueduct would require only gates at access points along county roads.

The power and SCADA alignment for all facilities north of the Lower Roberts Island double launch shaft and two new park-and-ride lots—Hood-Franklin and Charter Way—would be the same as under Alternative 3. A new electrical power substation at Lower Roberts Island would be in a slightly different location than under Alternative 3. The two maintenance shafts between Lower Roberts Island and the Bethany Complex would require different electric power connections than under Alternative 3. Electric power lines for the Bethany Complex would be primarily aboveground on new poles and a few towers.

SCADA facilities for the Bethany Reservoir alignment and Bethany Complex would be controlled through three operations centers, including one that would be installed at the Bethany Reservoir Pumping Plant.

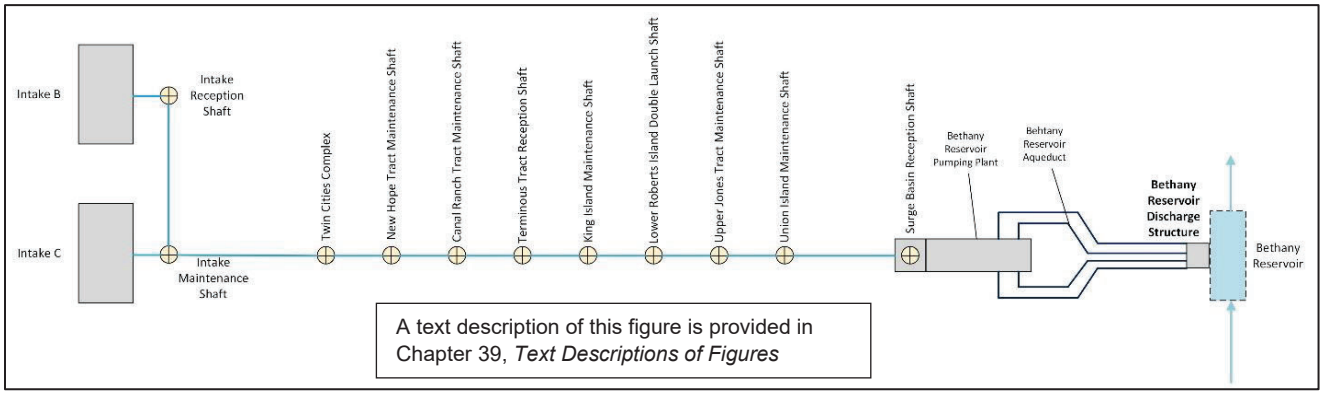

Figure 3-30. Alternative 5 Bethany Reservoir Alignment Schematic

RTM would be generated by boring the main tunnel north of the Bethany Complex, but excavation for the Bethany Reservoir Pumping Plant, Aqueduct, and Discharge Structure would not require the use of a TBM and would not generate the same type of RTM. Spoil material from construction of the aqueduct would be placed on top of and adjacent to the aqueduct for permanent storage or placed in the excess excavated material stockpile near the Bethany Reservoir Pumping Plant.

RTM generated at the Twin Cities Complex and Lower Roberts Island launch shafts sites would be processed and reused at the launch shaft sites to backfill borrow areas. Approximately 40 acres of excavated areas within the limits of the permanent RTM stockpile at Twin Cities and 26 acres at Lower Roberts Island would be filled with RTM to raise the elevation to existing ground levels. Surplus RTM would be stockpiled on-site for future uses by DWR. Alternative 5 is expected to generate 14.4 million cubic yards of wet excavated RTM—6.7 million cubic yards at Twin Cities Complex and 7.7 million cubic yards at Lower Roberts Island.

Excess excavated soil from construction of the surge basin, pumping plant, and aqueduct would be used on-site for grading as much as possible. Excess topsoil and excavation material would be stockpiled at five locations at the Bethany Complex (Delta Conveyance Design and Construction Authority 2023b). A permanent 33-foot high stockpile of excavated material from the Bethany

Reservoir Pumping Plant and Surge Basin would occupy about 70 acres(Delta Conveyance Design and Construction Authority 2023b). The stockpile area would be cleared, grubbed, and stripped of topsoil before stockpiling. Soil from this location and excess soil from other portions of the Bethany Complex would be spread over the completed stockpiles and hydroseeded.

The two concrete batch plants at Lambert Road proposed for Alternative 3 would serve construction of the intakes, Twin Cities Complex, New Hope Tract, Canal Ranch Tract, and King Island. Concrete for Terminous Tract, Lower Roberts Island, Upper Jones Tract, and Union Island tunnel shafts would come from existing local concrete suppliers from the Sacramento or Stockton areas. Another two concrete batch plants at the Bethany Reservoir Pumping Plant and Surge Basin would serve construction of all portions of the Bethany Complex. They would occupy about 11.5 acres north of Kelso Road, adjacent to the contractor's yard behind the pumping plant (Delta Conveyance Design and Construction Authority 2023b). Each batch plant site would be approximately 330 feet wide by 330 feet long with a 50- to 75-foot-tall batch plant that would include three bulk cement storage silos, a portable cement silo, a 500-square-foot batch trailer, propane and diesel fuel tanks, a reclaimed water system and related collection facilities for stormwater and wash water, and dust collectors to minimize particulate matter in the air. Filtered particulates would be hauled to licensed off-site disposal facilities or added to raw materials used to produce concrete. The batch plants would be removed after construction.

Alternative 5 would include only the Hood-Franklin Park-and-Ride Lot and Charter Way Park-and-Ride Lot presented under Alternative 3. On-site parking would be provided at the Twin Cities Complex, Lower Roberts Island construction sites, all maintenance and reception shafts, and Bethany Complex.

One 4,000-gallon diesel tank and one 4,000-gallon gasoline tank would be present at the Bethany Reservoir Pumping Plant and Surge Basin during construction. Both tanks would be elevated and inside fully contained fueling areas. Fuel stations along the main tunnel alignment would be the same as under Alternative 3.

Emergency response facilities for the Bethany Complex would be located just south of the Bethany Reservoir Pumping Plant and Surge Basin, near the aqueduct alignment. Facilities would include two ambulances; fire, rescue, and medical equipment; accommodations for one full-time crew during work hours; and a helipad for emergency evacuations. Emergency personnel could include construction management staff that would be cross-trained.

Water supplies and water treatment, storage, and drainage strategies would be similar to those described in Section 3.4.15.5 and subject to the same water rights and limitations. At the Bethany Reservoir Pumping Plant and Surge Basin, some water would be supplied from the California Aqueduct. Bethany Reservoir Aqueduct construction activities would move along the alignment over 57 months of construction. Accordingly, water supplies would have to be hauled to each progressive construction site. These supplies would also come from the connection to the California Aqueduct at the Bethany Reservoir Pumping Plant site.

Water for the discharge structure construction site would be pumped from the Bethany Reservoir. All dewatering flows would receive treatment to reduce concentrations of constituents such as boron in the groundwater, and be discharged to local channels or Bethany Reservoir.

Water supplies for access road construction would be hauled from nearby fill stations. Runoff from the construction site would be contained by portable berms and tested. Berms and other barriers

around the site would contain stormwater runoff before testing to confirm compliance with the project's SWPPP. If found compliant, runoff would be directed to adjacent stormwater ditches or storm drains. It is expected that stormwater runoff volumes from road construction would be similar to existing conditions.

3.14.1 Bethany Complex

The Bethany Complex would be constructed southeast of Clifton Court Forebay. The Bethany Reservoir Pumping Plant and Surge Basin would be located along Mountain House Road approximately 0.5 miles south of the intersection with Byron Highway (Figure 3-31). The Bethany Reservoir Aqueduct would extend approximately 2.8 miles from the pumping plant to a new discharge structure on the banks of the Bethany Reservoir (Figure 3-32). Approximately 35 acres, located within the proposed footprint Bethany Complex and adjacent to the Bethany Reservoir Pumping Plant and Surge Basin facilities, would not be acquired by DWR and remain undisturbed. The Bethany Complex, including the pump facilities, surge basin, electrical substation, and other appurtenant facilities, would be approximately 215 acres. The facilities that comprise the Bethany Complex are described in the following sections. The Bethany Complex would be located on ground above the flood elevations for the 200-year flood event with sea level rise and climate change hydrology for year 2100, as defined by DWR (Delta Conveyance Design and Construction Authority 2023b).

3.14.1.1 Bethany Reservoir Pumping Plant

The Bethany Reservoir Pumping Plant would be needed to lift the water from the tunnel to Bethany Reservoir. The main tunnel from the intakes would terminate at a reception shaft within the surge basin on the north side of the Bethany Reservoir Pumping Plant. Water would enter the Bethany Reservoir Pumping Plant and be conveyed directly to Bethany Reservoir in a cement-mortar-lined, welded steel aqueduct system (described in Section 3.14.1.3, *Bethany Reservoir Aqueduct*).

The Bethany Reservoir Pumping Plant would be a multilevel underground structure with its roof at grade. Flow capacity would range from a minimum of 300 cfs to a maximum of 6,000 cfs. The pumping plant would have twelve 500-cfs pumps to achieve the flow of 6,000 cfs and two standby pumps. In addition to the below-ground pumping plant and wet well, the site would include aboveground water storage tanks for hydraulic transient-surge protection of the discharge pipelines, electrical building with variable speed drives and switchgear, heating and air conditioning mechanical equipment yard, transformer yard, electrical substation adjacent to the electrical building, standby engine generator building with an isolated and fully contained fuel tank, equipment storage building with drive-through access, offices, shops, storage area for spare aqueduct pipe sections and accessories, and a walled enclosure/storage facility for bulkhead panel gates that would be used to isolate portions of the Bethany Reservoir Pumping Plant during maintenance procedures. The pumping plant would include two separate dry-pit pump bays adjacent to the wet well.

Electrical, generator, and maintenance buildings, an electrical substation, surge tanks, and protective canopies on the site would be aboveground structures (Figure 3-31). The finished site pad elevation of 46.5 feet above mean sea level, at about existing grade, would be substantially above the elevation required to protect the facilities from surge events and the 200-year flood event including sea level rise in 2100, which is calculated to be a water surface elevation of 27.3 feet within the surge basin.

3.14.1.2 Bethany Reservoir Surge Basin

The surge basin would normally be empty when the Bethany Reservoir Pumping Plant is in operation. The top of the surge basin would be at existing grade and the bottom would be about 35 feet below the ground surface. The tunnel shaft within the surge basin would accommodate portable submersible pumps for dewatering the tunnel, if necessary. The top of the tunnel shaft would be at the floor of the surge basin and would be surrounded by an overflow weir wall inside the basin. A shaft pad would not be required at the surge basin reception shaft since natural ground elevations at this site are considerably above the potential flood stage, and groundwater intrusion is unlikely based on available information.

Under rare circumstances, potential transient-surge conditions could occur in the main tunnel between the intakes and Bethany Reservoir Pumping Plant or in the Bethany Reservoir Aqueduct. Along the main tunnel, the transient surge could occur if there was a simultaneous shutdown of the main raw water pumps in the pumping plant. Under Alternative 5, the surge flows would discharge into the surge basin through the tunnel reception shaft. The circular weir wall around the top of the tunnel reception shaft (Figure 3-31) would allow the overflows to enter the surge basin but prevent water that enters the surge basin from reentering the main tunnel unless DWR operators open gates to allow the water to flow back in. The surge basin would also have pumps to remove the water more rapidly than gravity flow into the pumping plant to facilitate restarting the pumping plant after a surge event.

Transient-surge conditions in the Bethany Reservoir Aqueduct pipeline could also occur if there was a simultaneous shutdown of the Bethany Reservoir Pumping Plant pumps. Under this transient-surge scenario, water would flow from surge tanks located at the Bethany Reservoir Pumping Plant into the aqueduct pipelines and excess surge flows would be conveyed into Bethany Reservoir.

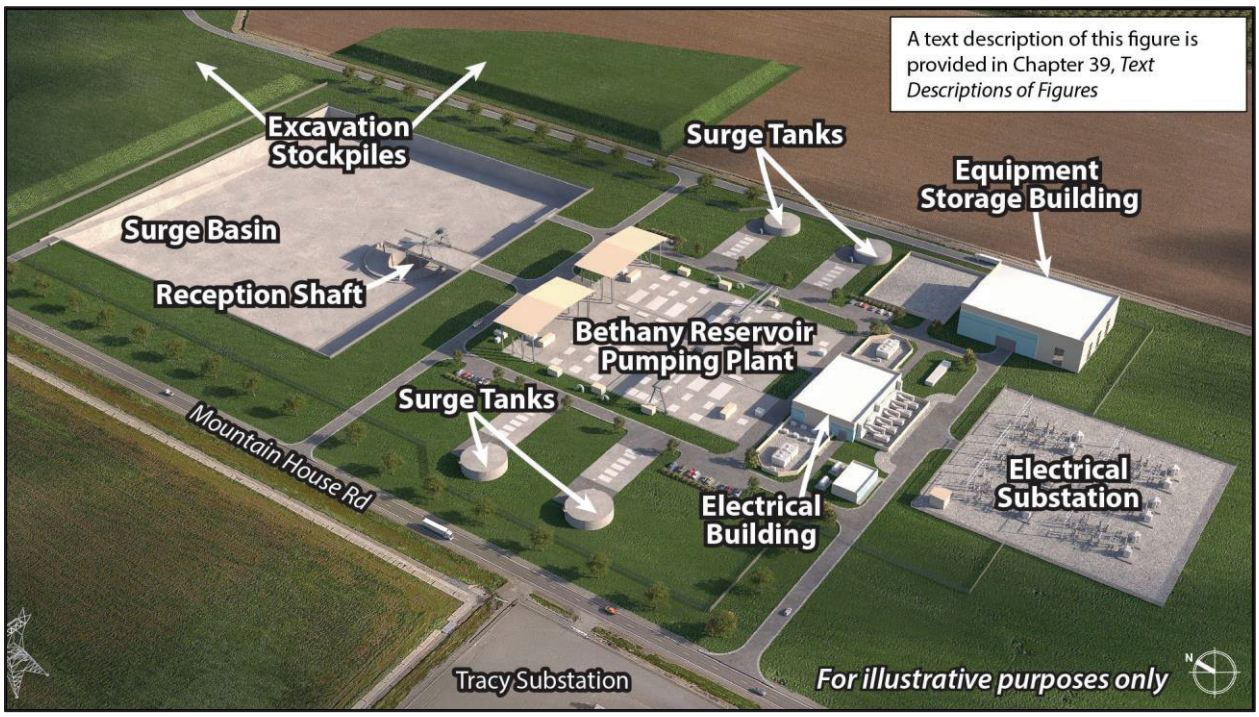

Figure 3-31. Bethany Reservoir Pumping Plant and Surge Basin

3.14.1.3 Bethany Reservoir Aqueduct

The aqueduct system would consist of four 15-foot-diameter parallel pipelines that would convey water from the Bethany Reservoir Pumping Plant to the Bethany Reservoir Discharge Structure, a distance of approximately 2.8 miles each. Each pipeline would have a maximum capacity of 1,500 cfs. The permanent footprint of the aqueduct system would be about 200 feet wide. Two separate aqueduct reaches would require tunnels to carry each pipeline under existing features. The first reach would be under the Jones Pumping Plant discharge pipelines (about halfway from the Bethany Reservoir Pumping Plant to the discharge structure); at this location pipelines would run about 50 feet below ground surface for about 200 feet. Tunnels would also be needed under the existing conservation easement adjacent to Bethany Reservoir (at the last downstream reach of the aqueduct; Figure 3-32) for about 3,064 feet, ranging from 45 to 180 feet below ground surface.

Figure 3-32. Bethany Reservoir Aqueduct Route with Tunnel Reaches

The aqueduct pipelines would be laid mostly in open trenches, constructed by open cut and backfill methods. The tops of the pipes would extend above the existing ground surface and be covered by a minimum of 6 feet of soil that would form a single mound of earth above the four pipelines (Figure 3-33). Excavated material from the Bethany Reservoir Aqueduct trenches and tunnels would be used for backfill of the trenches and also used to make controlled low-strength backfill material (CLSM) for pipe bedding and zone material.

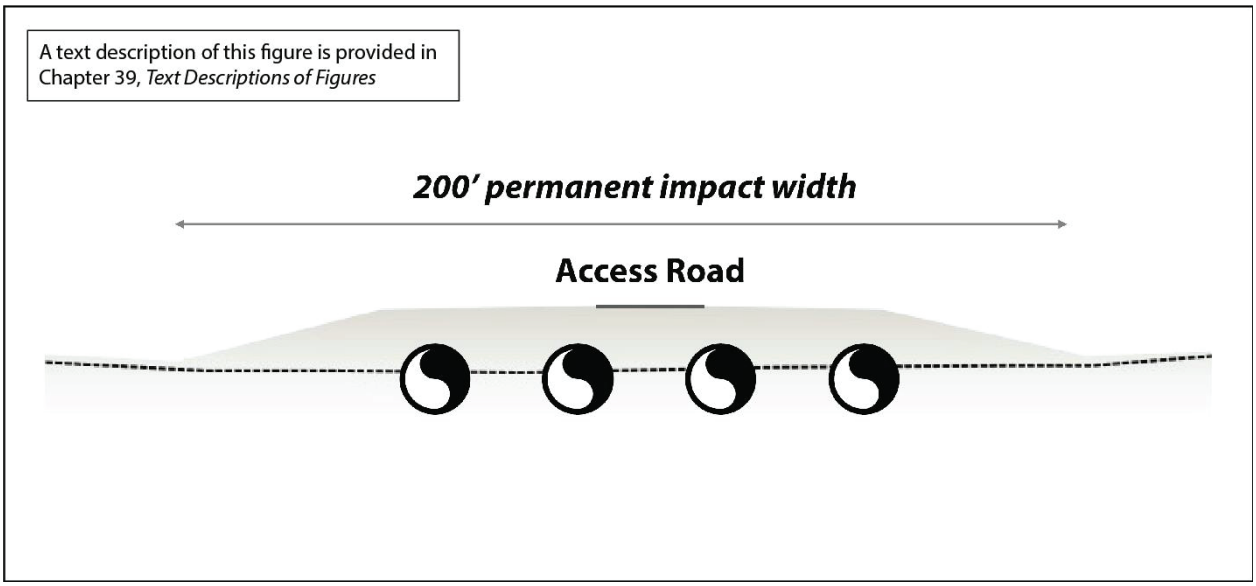

Figure 3-33. Typical Completed Section for Open Cut Reaches of Pipeline Alignment

The aqueduct pipelines would terminate near the bottom of four 55-foot-inside-diameter below-ground vertical shafts at the Bethany Reservoir Discharge Structure. The pipelines would make a 90-degree bend upward inside the shafts, ending at the floor of the discharge structure and flowing through a concrete channel into Bethany Reservoir (Figure 3-34). Bethany Reservoir serves several purposes: a forebay for the South Bay Pumping Plant (the start of the South Bay Aqueduct of the State Water Project), an afterbay for Banks Pumping Plant, a conveyance facility for the California Aqueduct, and a recreational facility. The reservoir does not serve as a storage reservoir.

In addition to pipelines and tunnels, the aqueduct construction site would include contractor staging areas, CLSM batch plants, and ancillary facilities. The CLSM would be used to improve the strength of soil placed under the aqueduct pipes installed in the trenches, and possibly to fill the space between the inside wall of the tunnel and the outside of the pipeline wall for the tunnels that carry the pipelines below the Jones discharge pipelines and the conservation easement adjacent to Bethany Reservoir.

A CLSM processing area along the tunnel portion of the aqueduct would include two side-by-side CLSM batch plants for trench work, each 100 feet wide by 100 feet long and 50 to 75 feet tall. CLSM production would also require 2.75 acres for soil storage of up to 30,000 cubic yards of soil up to 7 feet deep; two 30-foot-diameter, 10-foot-tall water storage tanks mounted on 8-foot-tall platforms and holding a total of 100,000 gallons of water; and cement storage silos 50 to 75 feet tall on a site 50 feet wide by 100 feet long.

Aqueduct Tunnels

The aqueduct tunnels to carry the pipelines under the Jones discharge pipelines and the conservation easement would be constructed using a different method than that used for the main tunnel between the intakes and the Bethany Reservoir Pumping Plant. Because of the shorter length of these tunnels compared to the main tunnel, a TBM would not be used during construction. For the Jones pipeline crossing, a digger shield outfitted with an excavator arm could be used for the anticipated ground conditions. To avoid extensive disturbance of sensitive habitat areas within the

conservation easement crossing, several excavation methods have been identified including a roadheader. Soil material would be moved out of the tunnels at the entry portals. The excavation would be supported with rock reinforcement and/or steel ribs or lattice girders and shotcrete depending on the ground conditions.

The excavated material from the aqueduct tunnels would be removed by different methods and would be in different geologic formations compared to the main tunnel bore; therefore, the excavated material characteristics would be different from the RTM from the main tunnel. The Bethany Reservoir Aqueduct tunneling machines also would not need additives; therefore, the excavated soil would not need to undergo the extensive drying that would be required for RTM from the TBMs on the main tunnel. Materials excavated from the aqueduct tunnels that are too wet or otherwise unsuitable for CLSM of backfill would be transported to the permanent excavation stockpile adjacent to the Bethany Reservoir Pumping Plant and dried as part of final disposal.

Tunneling under the Jones discharge pipelines would require excavation of a large cut to establish entry and exit portals. The entry portal would be located on the east side of the Jones discharge pipeline crossings. Excavation of these tunnels would end at the exit portal about 200 feet away on the west side of the Jones pipelines. Major facilities at the site would include mobile cranes, construction shops and offices, parking, material laydown and erection area, equipment staging, tunnel ventilation system housing, temporary electrical substation, and storage for topsoil stripping. Construction activities would include clearing and grubbing, water quality protection, ground improvement, and other activities as needed.

Tunneling under the conservation easement also would require tunnel entry portals on the east side and tunnel exit portals on the west side of the 3,064-foot crossing. The entry portals would be located on the east side of the conservation easement and west of the existing high voltage power lines. Excavation of these tunnels would end at the vertical shafts, serving as the exit portal, on the east side of the Bethany Reservoir Discharge Structure.

3.14.1.4 Bethany Reservoir Discharge Structure

This discharge structure portion of the Bethany Complex comprises the structure itself near the bank of Bethany Reservoir, the aqueduct conservation easement tunnel vertical exit shafts, contractor staging areas, and ancillary facilities. The proposed discharge structure site would be on a narrow strip of land between the conservation easement and Bethany Reservoir; a 10-foot-wide buffer would separate the disturbance area from the conservation easement. Significant grading would be required to build the structure on the site, which is above reservoir surface water level but varies considerably in elevation. Constructing a temporary cofferdam within the water near the shore in the reservoir would allow excavation, concrete, and backfill work to be completed on the reservoir bank within an area of dry ground excavated as much as 25 feet below the reservoir water surface.

The discharge structure would occupy 13 acres postconstruction. It would be divided into four separate channels, with a total width of approximately 327 feet encompassing the four 55-foot-wide aqueduct shafts with required approximately 81.5-foot center-to-center spacing (Figure 3-34). Each channel of the discharge structure would taper from about 81 feet wide at the top of the aqueduct shafts to approximately half of that width at the bank of the Bethany Reservoir. The concrete floor of the discharge structure at elevation 227.0 feet above mean sea level would end near the reservoir bank, and a layer of riprap would be placed between the structure and the temporary cofferdam to

help stabilize and protect the bank and bed of the reservoir from the energy of the water being discharged, which is expected to be minor, given the relatively low discharge velocity. The top of the discharge would be approximately at the same elevation as the existing California Aqueduct Bikeway, which would be modified to traverse through and over the new structure.

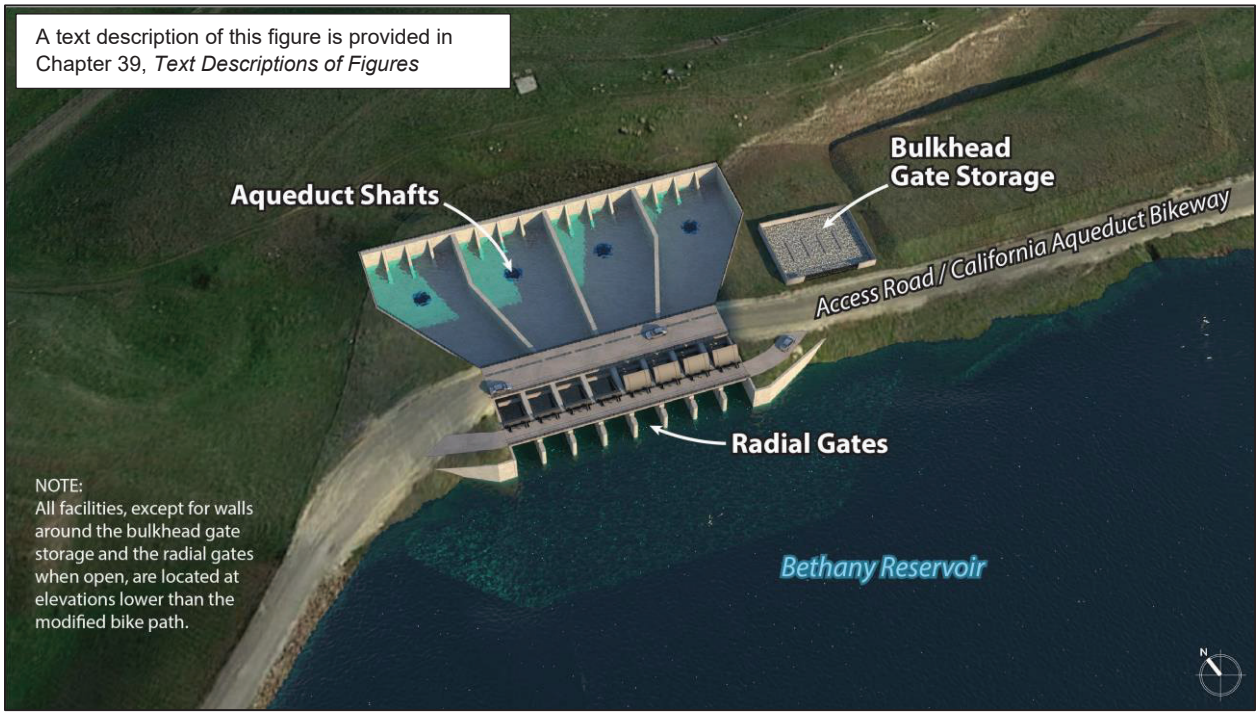

Figure 3-34. Bethany Reservoir Discharge Structure

The Bethany Reservoir Discharge Structure would cross the existing California Aqueduct Bikeway, which is also used as a maintenance road. A 32-foot-wide bridge would span the four Bethany Reservoir Discharge Structure channels to maintain access for bikes and maintenance vehicles. Each of the four channels would be divided into two 21-foot-wide bays with radial gates and stop logs to prevent backflow in an emergency and to doubly isolate the aqueduct system from Bethany Reservoir. A 16-foot-wide service deck would be installed on the opposite (reservoir) side of the gate and stop log area to facilitate operations and maintenance of the gates and installation and removal of stop logs. The bridge would include applicable openings for stop log installation and removal through traffic-rated hatches. Similarly, stop logs would be installed in open stop log grooves adjacent to the service deck. The radial gates would automatically close under pressure-loss conditions in the aqueduct pipelines to prevent water from Bethany Reservoir from flowing into the aqueduct pipelines during the unlikely event of a pipeline break or valve malfunction. Due to the critical control nature of this facility, a standby engine generator would be provided for backup power in case of a power outage. A storage yard for isolation bulkhead gates is also included at the site.

3.14.2 Access Roads

Access roads to the intakes, New Hope Tract tunnel maintenance shaft, Canal Ranch Tract tunnel maintenance shaft, Terminous Tract tunnel reception shaft, King Island tunnel maintenance shaft, and Lower Roberts Island dual launch shaft site would be the same under Alternative 5 as under

Alternative 3. Road improvements for the Twin Cities Complex would be slightly different than under Alternative 3 and are described in Section 3.4.7. Access to the Union Island maintenance shaft (unique to Alternative 5) would be via Clifton Court Road and Bonetti Road; these roads would not require project modifications.

Access to the Bethany Reservoir Pumping Plant would be from the Byron Highway immediately north of the site, at a new interchange constructed at Lindemann Road. Byron Highway would be realigned and widened to four lanes for 0.5 mile from the new Lindemann Road interchange to Great Valley Parkway. New bridges would be built over UPRR tracks and Byron Highway. A new 1.2-mile paved frontage road would be constructed for the Lindemann Road interchange parallel to the Byron Highway on the southern side, extending south into the site. This new frontage road would also connect to Byron Highway at the existing Mountain House Road intersection. A new 2.1-mile paved road would provide access to the surge basin between new Byron Highway frontage road and Mountain House Road. Mountain House Road would be widened for 1.34 miles between Byron Highway and Connector Road.

The pumping plant and surge basin would also be accessible from I-580, located approximately 3 miles south of the site, via West Grant Line Road and Mountain House Road. Improvements to Kelso Road would provide roadway connections to Mountain House Road and the new north–south access road along the site's southern side. A merge lane on West Grant Line Road would be widened for 0.14 mile west of Mountain House Road to Mountain House Road. Mountain House Road would be extended by 0.6 mile to West Grant Line, including a new roundabout at Grant Line Road and a new bridge over a swale. Mountain House Road would be widened for 2.2 miles from the new extension to a point 0.18 mile north of the surge basin access road.

The Bethany Reservoir Aqueduct would require widening 1.23 miles of Kelso Road between a location 0.14 mile east of Mountain House Road and the new access road to the aqueduct construction staging area, and a new 0.27 mile paved road extension of Connector Road from Mountain House Road to the surge basin access road.

The Bethany Reservoir Discharge Structure would be accessed via a new 1.2-mile paved road from Mountain House Road to the existing Bethany Reservoir (California Aqueduct Bikeway). A 0.6-mile segment of existing paved road (California Aqueduct Bikeway) along Bethany Reservoir would be widened from the new access road to the discharge structure. The California Aqueduct Bikeway would not be accessible across the Bethany Reservoir Discharge Structure during construction.

The site access and interior circulation roads would generally be two-lane roads with 12-foot-wide travel lanes and 3-foot-wide paved shoulders. Paved access would be provided to each of the pumping plant facilities. Figure 3-35 shows the roads associated with Alternative 5.

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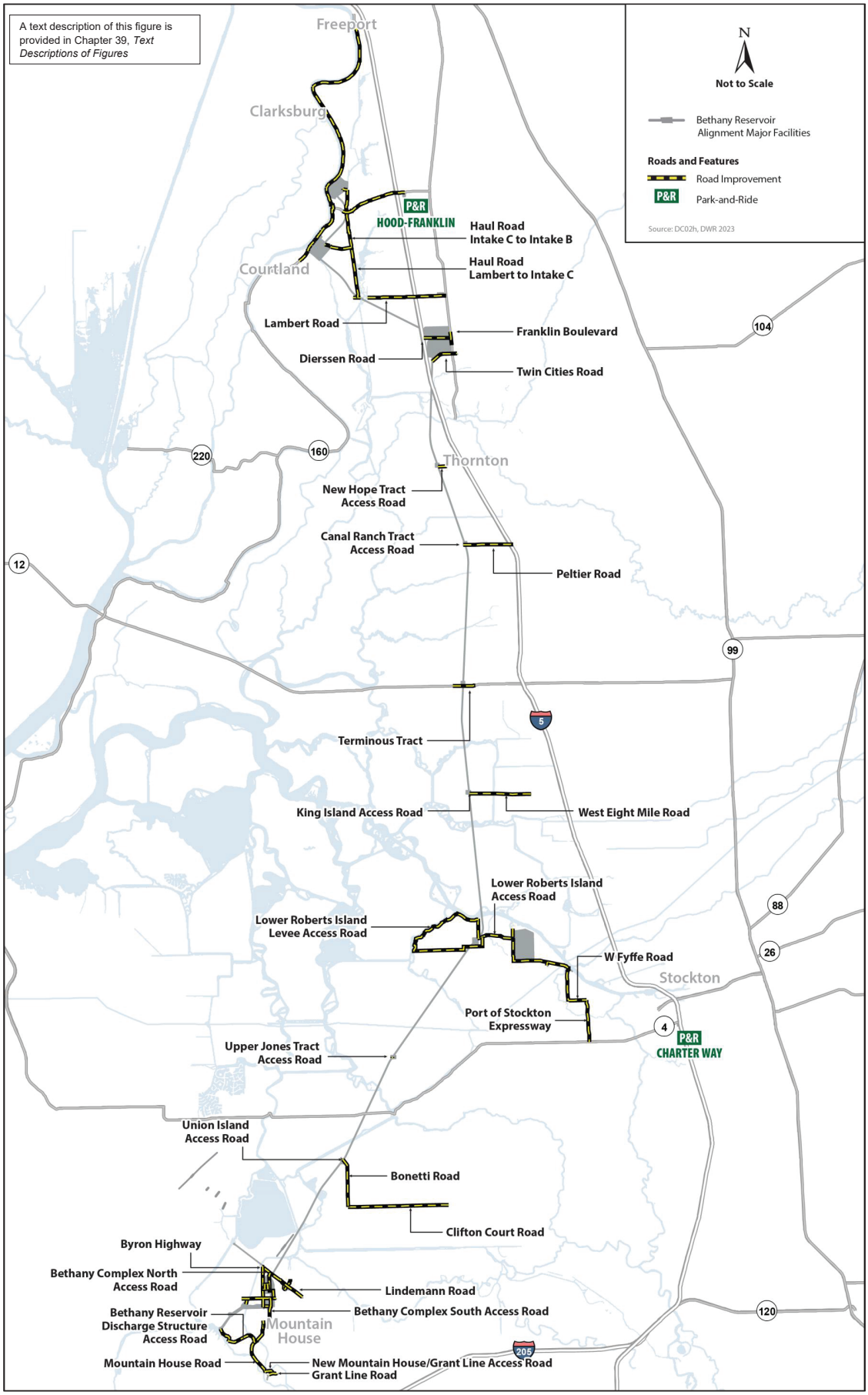

Figure 3-35. Road Modifications under the Bethany Reservoir Alignment

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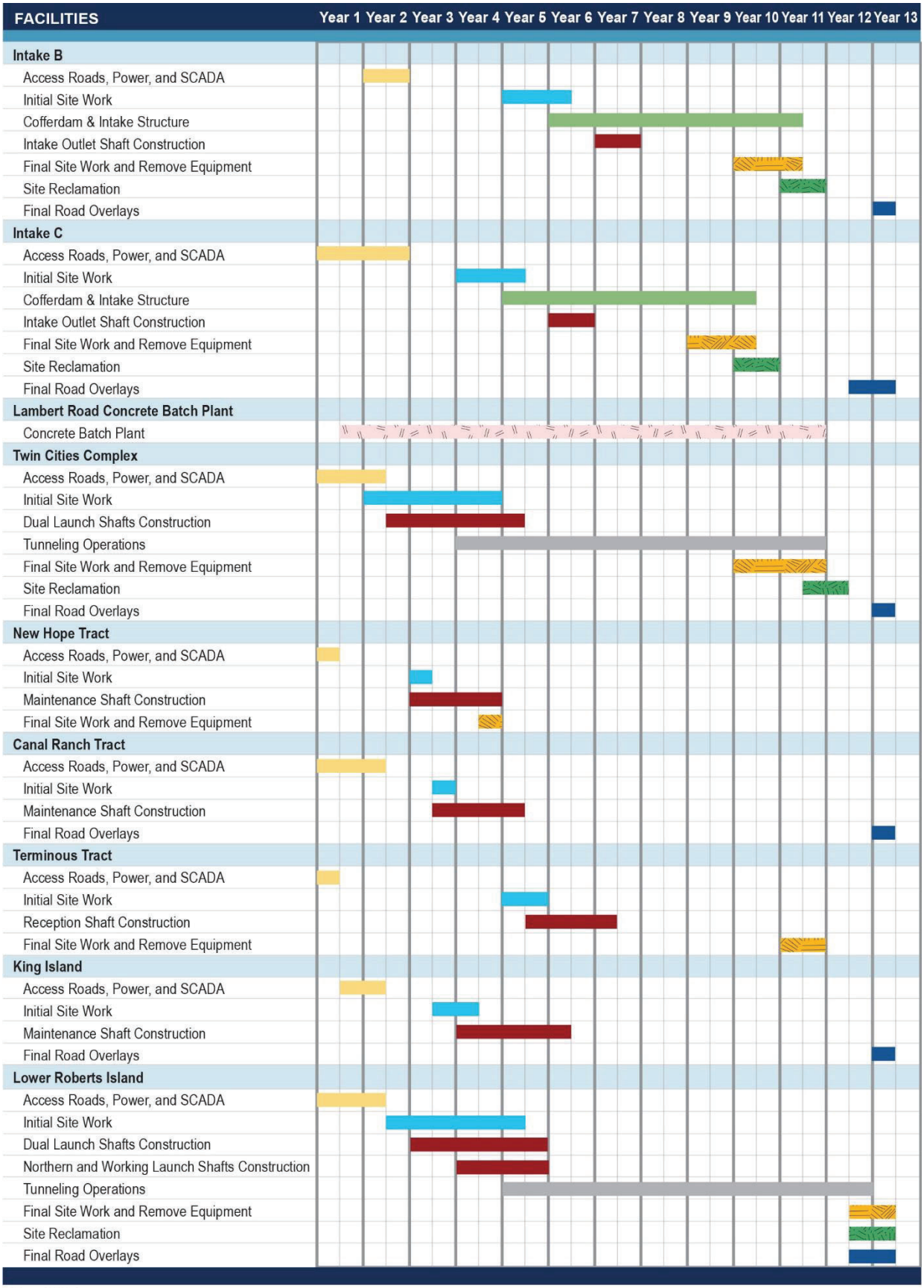
3.14.3 Maintenance

Maintenance activities for intakes, tunnel shafts, and tunnel for the Bethany Reservoir alignment would be the same as under the central and eastern alignments. Daily maintenance activities would include inspections, security checks, and operations oversight. Less frequent maintenance activities include operability testing, cleaning, sediment removal (at intakes), dewatering, and repaving. General and grounds maintenance would occur annually, and debris removal would be required periodically at the surge basin. If tunnel maintenance activities required dewatering, two portable 60-cfs dewatering pumps would be installed within the Surge Basin reception shaft. Each submersible pump would be equipped with a variable frequency drive with a flow meter and a flow control valve. The submersible pumps would discharge directly into the Bethany Reservoir Pumping Plant discharge pipelines and ultimately to the Bethany Reservoir Discharge Structure.

The Bethany Reservoir Pumping Plant site would contain an equipment storage and operations maintenance building with office space, a welding shop, machine shop, and interior storage for spare pumps and rotating assemblies, motors, and accessories. Interior storage space would also accommodate large equipment such as tunnel dewatering pumps, cable reels, and discharge piping assemblies. An exterior isolation bulkhead gate panel storage and equipment laydown area would be provided on the north side of the building. Bridge and gantry cranes plus other cranes would be located both inside and outside of the buildings to move equipment during maintenance procedures.

3.14.4 Construction Schedule

Construction of Alternative 5 would take approximately 13 years. Construction would not take place in all locations at the same time. Rather, it would proceed in stages, starting with access roads and site work at the intakes and Twin Cities Complex and power and SCADA at maintenance shafts, and proceeding to equipment decommissioning, site reclamation, and road overlays in the final years, as shown on Figure 3-36.



Bethany 6,000 cfs

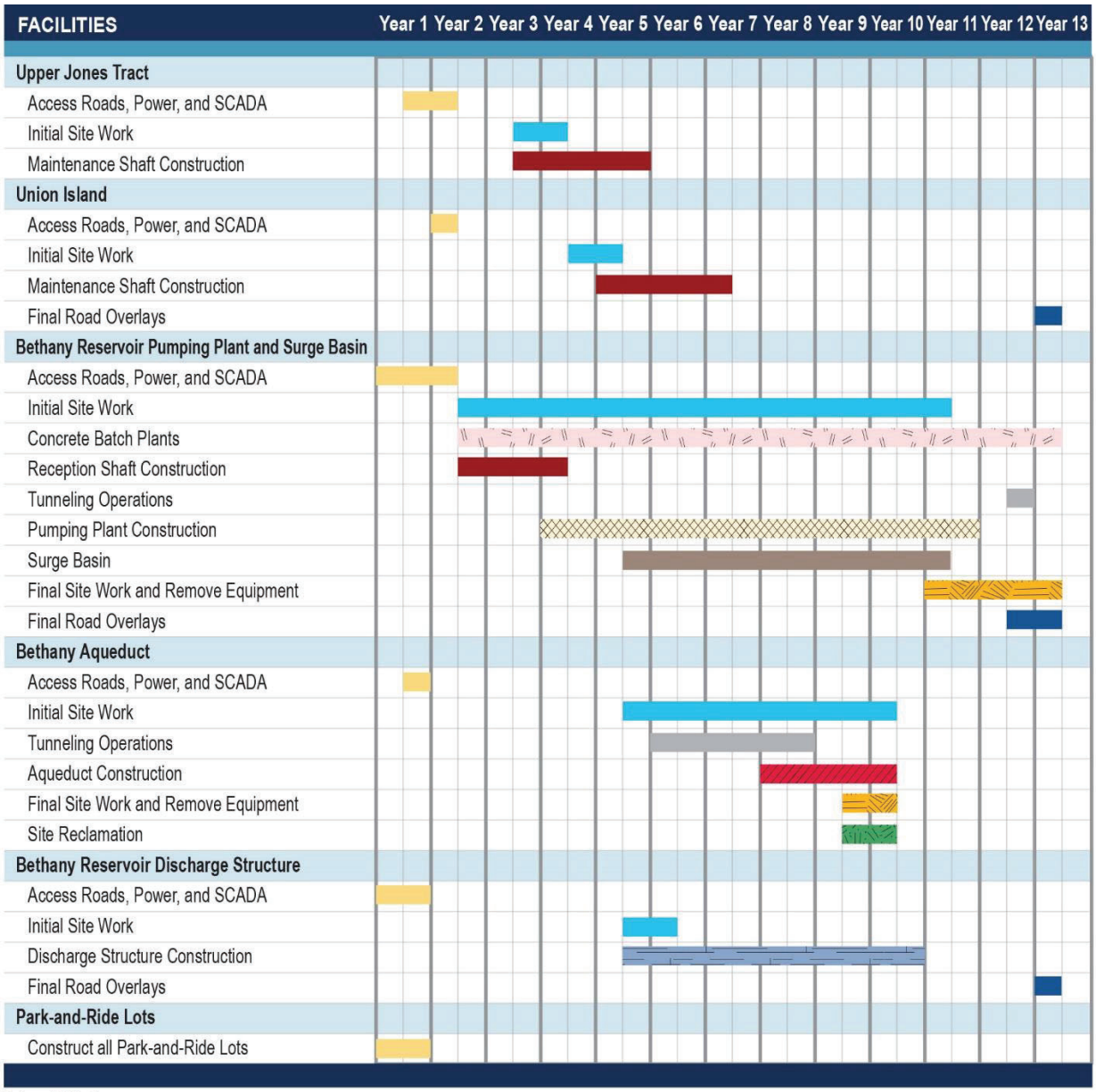


Figure 3-36. Alternative 5 Construction Schedule

3.15 Field Investigations

Field investigations refer to data collection efforts to inform more detailed design and construction.

In 2020, DWR adopted a Final Initial Study/Mitigated Negative Declaration (IS/MND) (California Department of Water Resources 2020b) for the *Soil Investigations for Data Collection in the Delta Project* and issued a Notice of Determination approving it. The purpose of *Soil Investigations for Data Collection in the Delta Project* is to collect data on soil conditions to help determine the composition, location, and geotechnical properties of rock and soil materials commonly found in and around the Delta. This information is expected to contribute to DWR's overall understanding of Delta geology, and this will inform the ongoing development of alternatives, environmental analysis, and conceptual design for the proposed Delta Conveyance Project to support preparation of the Delta Conveyance Project Final EIR. Addenda to the IS/MND (California Department of Water Resources 2021, 2022) were approved and Notices of Determination were issued for minor project changes in February 2021 and June 2022. Approval of the *Soil Investigations for Data Collection in the Delta Project* is separate from the proposed Delta Conveyance Project.

Separate from the soil investigations covered in the 2020 IS/MND, the February 2021 addendum, and the June 2022 addendum (California Department of Water Resources 2020b, 2021, 2022), data collection and field work investigations would be conducted after completion of the Delta Conveyance Project CEQA process and possible project approval. Work related to geotechnical, hydrogeologic, agronomic testing, and construction test projects (geotechnical investigations) would occur during the preconstruction and construction periods following adoption of the Final EIR, identification of an approved project footprint, and acquisition of all required permits. These potential future investigations would, among other things, support Section 408 permitting, design, and construction phases (described below) and would be performed in accordance with standards of USACE, the American Society of Civil Engineers, California Division of Occupational Safety and Health, California Building Code, San Francisco Public Utilities Commission Seismic Design Criteria, American Nuclear Standards Institute, DWR's Division of Safety of Dams, Caltrans Seismic Design Criteria, Southern California Earthquake Center, and other relevant entities. Additional actions not analyzed in this EIR associated with field investigations would comply with the necessary state environmental review requirements and may require additional CEQA review.

3.15.1 Investigations to Support Section 408 Permitting

If DWR determines after completion of the CEQA process to approve the proposed project or project alternative, the following activities are anticipated to take place prior to the start of 65% level of design to support the submission of a formal Section 408 permit application to USACE to address intake construction and the tunneled undercrossing of the Stockton Deep Water Ship Channel. Geotechnical investigations and the installation of groundwater monitoring equipment would begin following completion of all required permits. These activities are expected to be completed within approximately 2 years following completion of all required permits, depending on availability of access to the project sites. Groundwater and other monitoring activities would be performed prior, during, and after intake construction completion.

The following subsections discuss the investigations that would be conducted at the intakes and where the tunnel would be located beneath the Stockton Deep Water Ship Channel.

3.15.1.1 Soil Borings and Cone Penetration Tests

Soil borings and cone penetration tests (CPTs) would be conducted within the construction boundaries at the intakes and within the Stockton Deep Water Ship Channel and adjacent non-project levees at the location of the proposed tunnel undercrossing. Drilling techniques would generate an approximately 4- to 8-inch-diameter boring. For CPTs, a cone-tipped rod with a diameter of 1 to 2 inches would be pushed through the ground. All CPT holes would be filled with grout following completion and prior to abandonment, and all soil borings not planned for completion as a groundwater monitoring well would be completely grouted following boring. Groundwater monitoring wells would be constructed with casings, in accordance with state and local laws, as all groundwater wells would be.

The information gained through soil borings and CPTs would be used to develop detailed design criteria for structure foundations, new and modified levee cross sections, ground improvement, dewatering methods and quantities, below-grade construction methods, need for impact pile driving, and methods to reduce ground settlement risk at all construction sites and at the undercrossing of the Stockton Deep Water Ship Channel. The information would also be used to determine the depths and widths of groundwater cutoff walls to be installed at the intakes. Soil samples obtained during soil borings would also be analyzed to determine the specific structural capabilities of the soil to construct embankments and levees.

3.15.1.2 Groundwater Testing and Monitoring

At each intake, one 12-inch-diameter steel-cased test well would be installed in a 24-inch-diameter borehole to conduct pumping tests. It is also assumed that vibrating wire piezometers would be installed in several levee borings, and 4-inch groundwater monitoring wells would be installed in several site borings at each intake to permit measurements of groundwater head, monitoring of groundwater elevations during the pumping tests, and the collection of water quality samples at the intake locations.

At each intake, a surface water gage would be installed to track the elevation of the adjacent river for use in analysis of the results.

Pumping tests would be conducted in the test wells. Water levels before, during, and following the various tests would be monitored using automated data loggers, which would also record barometric pressure and the level of the river. It is assumed that the groundwater monitoring program would be conducted partially using remotely monitored instrumentation and partially by on-site personnel.

3.15.2 Investigations Prior to Construction Phase

If DWR determines after completion of the CEQA process to approve the Delta Conveyance Project, the following activities are anticipated to be conducted prior to the start of construction, exclusive of the previous investigations made in support of Section 408 permitting. Geotechnical investigations or the installation of monitoring equipment would be conducted within approximately 2 years following completion of all required permits.

3.15.2.1 Investigation at Facility Locations

Explorations would occur at the intakes, tunnel shafts, tunnel alignments, power lines, access roads and bridges, railroads, levees, and at the terminal facilities. Locations where investigations would occur include the Southern Complex on Byron Tract and Southern Complex west of Byron Highway for Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c; and the Bethany Reservoir Pumping Plant and Surge Basin, Bethany Reservoir Aqueduct, and Bethany Reservoir Discharge Structure for Alternative 5.

Soil Borings and Cone Penetration Tests

Land-based soil borings, overwater soil borings, and CPTs would be conducted within the construction boundaries of the intakes, tunnel shafts, tunnel alignments, power lines, access roads and bridges, railroads, and levees. For Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c, they would also be conducted at the pumping plant and the entire Southern Complex on Byron Tract and west of Byron Highway. For Alternative 5, they would also be conducted at the Bethany Reservoir Pumping Plant and associated Surge Basin and aqueduct, and the Bethany Reservoir Discharge Structure. The methods for soil borings and CPTs are as described in Section 3.15.1.1, *Soil Borings and Cone Penetration Tests*.

The information collected would be used to develop detailed design of the structure and bridge foundations, new or modified levee cross sections, ground improvement methodology; and to determine selection of tunnel boring machine methods, dewatering methods and quantities, below-grade construction methods (such as at the shafts and the pumping plant), need for impact pile driving, and methods to reduce ground settlement risk at all construction sites and along the tunnel alignment. The information would also be used to determine the specific depths and widths of groundwater cutoff walls to be installed at select construction sites.

Soil samples obtained during soil borings also would be analyzed to determine the structural capabilities of the soil and/or RTM to construct tunnel shaft pads, levee improvements, and the Southern Forebay embankments. Soil and water quality tests would be conducted to determine the potential for the presence of high concentrations of metals, organic materials, or hazardous materials that would require specific treatment and/or disposal methods.

Bethany Fault Study

The Bethany Fault Study would apply only to Alternative 5 on the Bethany Reservoir alignment. Electrical resistivity tomography (ERT) would be used to characterize subsurface soil characteristics above the proposed Bethany Reservoir Aqueduct tunnels. ERT involves “a linear array of removable small steel electrodes (approximately 0.5 inches in diameter by 8 inches long) driven into the ground approximately every 10 feet over several hundred feet to induce a low current in the ground, while a small readout unit provides the measurements” (California Department of Water Resources 2020b:17).

Groundwater Testing and Monitoring

A test well for pumping tests would be installed at each tunnel shaft and at each intake. At each intake, a surface water gage would be installed to track the elevation of the adjacent river for use in analysis of the results. For the tunnel alignment, it is assumed that vibrating wire piezometers would be installed in boreholes drilled along the tunnel alignment at a frequency of, on average, every third borehole, or approximately every 3,000 feet. Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c

would also include two test wells at the Southern Complex. Alternative 5 would include two test wells to be installed at the Bethany Reservoir Pumping Plant and Surge Basin, and at each of the two planned tunneled sections of the Bethany Reservoir Aqueduct.

Monitoring well and test well installation methods are described in Section 3.15.1.2, *Groundwater Testing and Monitoring*. The groundwater monitoring program would be implemented to determine the seasonal variations in groundwater elevations, the constituents of the groundwater (including the nature and presence of dissolved gas), and the interrelation between groundwater and surface water levels for several years before construction. It is assumed that the groundwater monitoring program would be conducted partially using remotely monitored instrumentation and partially by on-site personnel.

Test Trenches

Test trenches approximately 30 feet long, 3 feet wide, and 10 feet deep would be implemented at all the facilities to confirm near-surface soils and to investigate potential buried magnetic anomalies. Trenches would be immediately backfilled following observations of the soil conditions encountered in the trench.

Monument Installation

Metal survey monuments would be installed at all construction sites and approximately every mile along the tunnel alignments to allow the remote monitoring of surface elevations prior to the start of construction, during construction, and during operations. Monuments would be approximately 10 feet by 10 feet base and 3 feet high to be of adequate size to be visible from satellite-based Interferometric Synthetic Aperture Radar (inSar) used for remote monitoring. Concrete foundations would be installed for the monuments and the monuments would be left in place for the duration of construction. It is assumed that periodic monitoring of survey monuments would be conducted by security and on-site personnel.

3.15.2.2 Geotechnical Pilot Studies for Settlement

Site-specific pilot studies would be conducted to test the geotechnical response to placement of fill at tunnel shaft sites. For Alternatives 1, 2a, 2b, and 2c, pilot studies are proposed test fills at New Hope Tract (central alignment location), Staten Island, Bouldin Island, Mandeville Island, and Bacon Island. For Alternatives 3, 4a, 4b, and 4c, pilot studies would be conducted at New Hope Tract (eastern alignment location), Canal Ranch Tract, Terminous Tract, King Island, Lower Roberts Island, and Upper Jones Tract (eastern alignment location). For Alternative 5, pilot studies are proposed at New Hope Tract (eastern and Bethany Reservoir alignments location), Canal Ranch Tract, Terminous Tract, King Island, Lower Roberts Island, Upper Jones Tract (Bethany Reservoir alignment location), and Union Island.

Test fills would be within the construction boundaries of the project and, where feasible, within or adjacent to the shaft pad sites. The test fills would be approximately 10 feet high and roughly 1,000 square feet in base area. The material would be purchased from a commercial enterprise that provides soil. The studies would include the installation of inclinometers, piezometers, and borehole extensometers within soil borings, as well as settlement plates buried within the fill, to verify estimates of consolidation and lateral spreading of pad fills in peat and soft soils.

Additional soil borings and CPTs would be completed within and adjacent to the test fill areas prior to their placement. Inclinometers and extensometers would be installed in holes drilled within and adjacent to the test fills. It is assumed that management of the pilot studies would be conducted by on-site personnel.

3.15.2.3 Validation of Ground Improvement Methods

Ground improvement would likely consist of a combination of excavation of unsuitable soils and replacement with compacted suitable fill material, surcharging to induce consolidation before final construction, and *in situ* techniques such as deep mechanical mixing (DMM) method to mix amendments (such as cement) into the foundation to add strength and resistance to liquefaction, including the installation of a grid of DMM soil shear walls with cement under the footprints of large structures. Final site-specific methods would be determined through geotechnical investigations and test installations, especially on land with substantial deposits of peat and loose or soft soils. These investigations would include trial mix and DMM construction programs to confirm appropriate area and volume replacement ratios, desired cement content, and testing to confirm *in situ* strength and lateral extent.

For Alternatives 1, 2a, 2b, and 2c, these activities are proposed at New Hope Tract (central alignment location), Staten Island, Bouldin Island, Mandeville Island, and Bacon Island. For Alternatives 3, 4a, 4b, and 4c, investigations are proposed at New Hope Tract (eastern alignment location), Canal Ranch Tract, Terminous Tract, King Island, Lower Roberts Island, Upper Jones Tract (eastern alignment location), and Byron Tract. For Alternative 5, these activities are proposed at New Hope Tract (eastern and Bethany Reservoir alignments location), Canal Ranch Tract, Terminous Tract, King Island, Lower Roberts Island, Upper Jones Tract (Bethany Reservoir alignment location), and Union Island.

3.15.2.4 Pile Installation Methods at the Intake Locations

The intake locations would include the construction of temporary in-river cofferdams. The cofferdams would employ the use of interlocking steel sheet piles. Pilot studies would be conducted to test pile installation and possible acoustic mitigation measures in the river at one intake site along the Sacramento River. The studies would include use of equipment to monitor vibrations in air and water and noise while test driving a variety of a pile types using vibratory and driving methods to validate rates and penetration depths. Noise associated with vibratory pile driving is considerably lower than noise associated with impact hammer pile driving. Additionally, CPTs would be performed in the river from a barge to determine the *in situ* density of the soils prior to, during, and after test pile installation.

3.15.2.5 Vibratory Testing of Dynamic Properties

Vibratory testing of dynamic properties of peat would be conducted in the Delta for validation of peat soil response during earthquakes. This would include continuation of previous studies in the Delta, including those on Sherman Island (Reinert et al. 2014), or additional peat studies at up to two sites at Bouldin Island, Lower Roberts Island, or Byron Tract for Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c or at Lower Roberts, Upper Jones Tract, or Union Island for Alternative 5.

3.15.2.6 Location of Buried Groundwater and Natural Gas Wells

Desktop surveys of documented wells would be conducted and would include research of historical topographical mapping that may document the presence of wells that were not identified in the State of California oil and gas database, as maintained by California Department of Conservation (previously known as DOGGR, and now known as CalGem [Geologic Energy Management Division]). A field test program would be used to evaluate the suitability of various geophysical techniques to detect buried and abandoned wells.

To identify and/or confirm the location of well casings, including wells that have not been identified in the published database, the use of wide-area airborne methods (drone, helicopter, and/or fixed-wing aircraft) to conduct magnetic surveys followed by more site-specific walk- or tow-over ground-based magnetic surveys is assumed. These surveys would be conducted at intake and tunnel shaft locations, along tunnel alignments, and at the Bethany Complex to identify buried groundwater and natural gas and oil wells. Surface geophysical surveys would also be conducted at these locations. The locations of identified wells would be evaluated to determine methods to abandon, relocate, or avoid the wells.

3.15.2.7 West Tracy Fault Study

Up to six test trenches (up to approximately 1,000 feet long, 3 feet wide, and 20 feet deep) would be excavated along a line running from the southeast of Byron to the southeast of Clifton Court Forebay to further investigate the nature and location of the West Tracy Fault between the town of Byron and the area southeast of the forebay. The trenches would remain open for up to 6 weeks, depending on the findings, and would be backfilled completely upon the completion of observation of soil conditions within the trench.

In addition to the test trenches, two arrays of surface geophysical surveys would be completed before, and along the alignment of, the excavation of the test trenches. Geophysical surveys would consist of noninvasive techniques that could be used to provide information on subsurface geologic conditions and anomalies, such as buried casings or abandoned wells. Seismic refraction/reflection techniques would be used at each of the two linear sites, referred to as geophysical arrays.

CPTs and soil borings would also be conducted. Select soil samples from the test borings would be subjected to age-dating laboratory testing.

3.15.2.8 Agronomic Testing

If field investigations described above indicate it is warranted, additional agronomic testing would be conducted. Agronomic testing would include investigations and testing of compacted soil rehabilitation methods and rehabilitation treatments for establishing agricultural crop or native grass species. Agronomic testing would validate the reuse assumptions prior to reclamation of disturbed areas based on representative samples and likely tunneling conditioners. This pilot-scale testing would be used to refine program-level approaches and strategies for RTM stockpiling and reuse.

3.15.2.9 Utility Potholing

Utility potholing, utilizing either a vacuum excavator or a backhoe, would be conducted to confirm locations of existing utilities such as public and residential utilities, surface water diversions, and

agricultural drainage features. Utility potholing would be conducted at locations near the intakes, underground SCADA and power corridors, road and bridge modifications including intersections, tunnel shaft sites, and at utility crossings along the tunnel alignment. For Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c, utility potholing would also be conducted at the Southern Complex. For Alternative 5, utility potholing would also be conducted at Union Island, Bethany Reservoir Pumping Plant and Surge Basin, the Bethany Reservoir Aqueduct, the Bethany Reservoir Discharge Structure, the raw water feed from the Skinner Fish Facility, and at new road and road widening locations. The investigations would be conducted within the construction boundaries of the project.

The investigations would include vacuum or backhoe excavations, followed by noninvasive surface field surveys. Some features would not require utility potholing and would be located using only noninvasive surface field surveys.

3.15.3 Investigations during Construction Phase

If DWR determines after completion of the CEQA process to approve the proposed project or project alternative, the following activities would be conducted after the start of construction. These activities are primarily related to the installation of monitoring equipment, such as inclinometers, confirmatory sampling for areas of ground improvement, and investigations related to evaluation of changes in anticipated conditions or alternative contractor means and methods. These activities would also address USACE Section 408 and CVFPB requirements for monitoring through construction. Geotechnical investigations or the installation of monitoring equipment would be conducted within the first 2 years following the start of construction.

3.15.3.1 Soil Boring and Cone Penetration Tests

Soil boring and CPT investigations during construction would occur in the same locations as described in Section 3.15.2.1, *Investigations at Facility Locations*. These geotechnical investigations would generally be conducted within the first 2 years of the proposed construction period, including during the period when ground improvement activities would be conducted, although they could extend throughout the duration of construction and commissioning to account for delayed starts and to resolve disputes. These investigations could be conducted at any location within the construction boundaries and would also be used to confirm the suitability of construction means and methods planned by the contractor.

3.15.3.2 Construction Monitoring

Monitoring for Ground Movement during Construction

Inclinometers and extensometers would be installed in vertical borings along levees at the intakes, along the tunnel alignment and at tunnel shafts. For Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c, they would also be installed at Bouldin Island (central alignment), Lower Roberts Island (eastern and Bethany Reservoir alignments), and Byron Tract; and along levees near bridge improvements along Hood-Franklin Road over Snodgrass Slough, SR 12 over Little Potato Slough, access road to Mandeville Island over Connection Slough, access road to Lower Roberts Island over Burns Cut and Turner Cut; the bridge across the California Aqueduct near Byron Highway, and at the Southern Complex. For Alternative 5, they would also be installed at King Island, Lower Roberts Island, Upper Jones Tract, Victoria Island, Union Island, and Coney Island; and along levees near bridge

improvements along Hood-Franklin Road over Snodgrass Slough, the access road to Lower Roberts Island over Burns Cut and Turner Cut, and at Bethany Complex.

No instrumentation is assumed at the new levees, while inclinometers are planned at 1000-foot centers along areas of levee improvements. Tilt meters, settlement plates, and survey monuments would be installed at all construction sites and approximately every mile along the tunnel alignment.

Groundwater Monitoring

Where groundwater monitoring wells were installed before construction, they could continue to be used during and following construction. Additional groundwater monitoring wells would be installed during construction if permanent easements or land ownership were not acquired before construction, or if initial monitoring results indicated the need for more detailed information related to groundwater elevation or water quality. It is anticipated that the groundwater monitoring locations would be located at the intakes, tunnel shafts, access roads. For Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c, monitors would also be located at the Southern Complex on Byron Tract and west of the Byron Highway. For Alternative 5, monitors would also be located at Bethany Complex. For all alternatives, monitoring wells would be located approximately every 2 miles along the tunnel alignment between shafts. It is assumed that the groundwater monitoring program would be conducted partially using remotely monitored instrumentation and partially by on-site personnel.

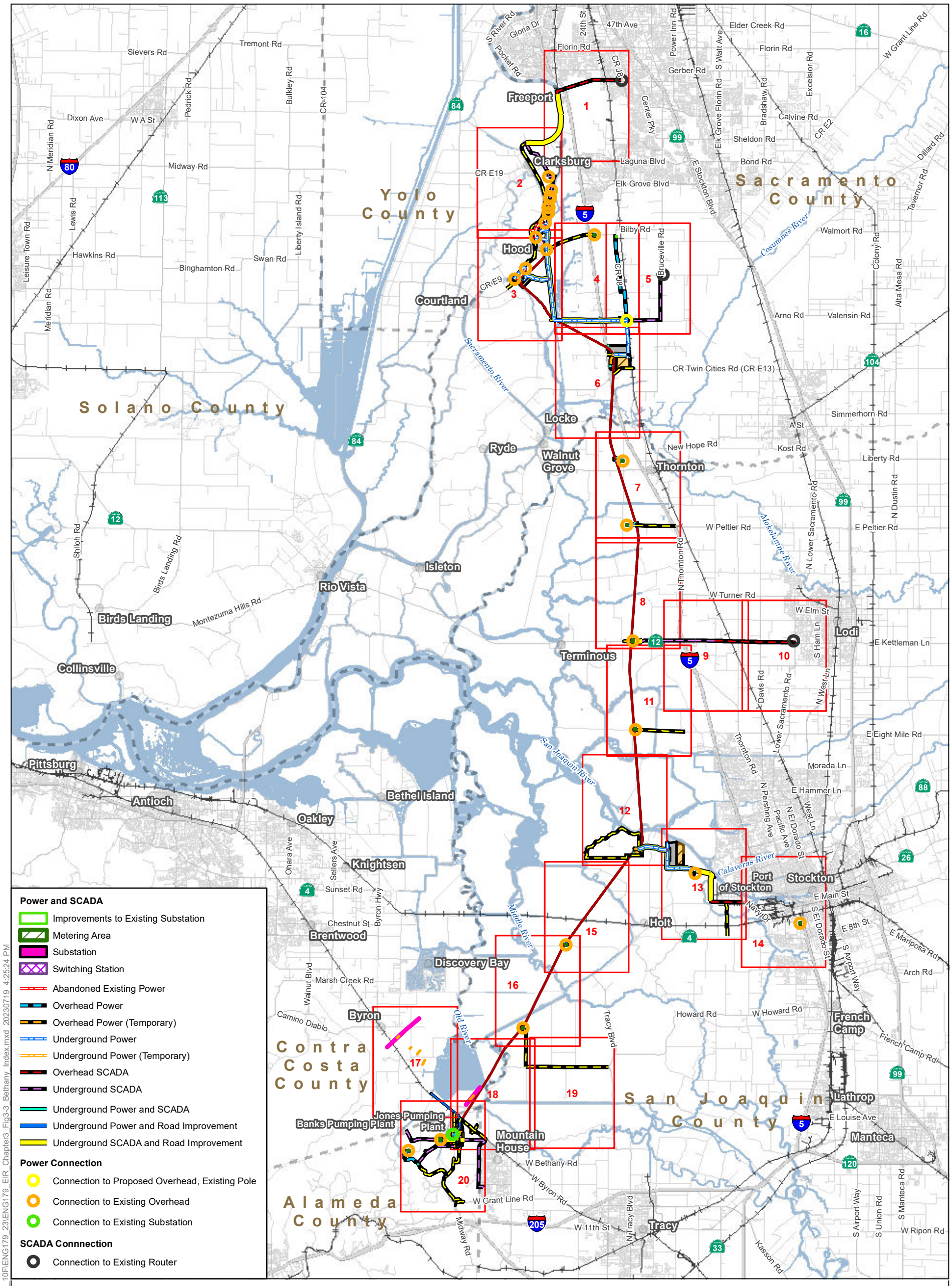
Location of Buried Groundwater and Natural Gas Wells

Land surveys, drilling, and trenching would be used at all intake and tunnel shaft locations, along tunnel alignments, and at the Bethany Complex or the Southern Complex to identify and abandon buried groundwater and natural gas and oil wells before and during construction.

3.16 Intake Operations and Maintenance

The proposed north Delta intakes would operate in conjunction with the existing SWP and potentially CVP intakes in the south Delta for all alternatives. Operations of the existing SWP facilities, and in coordination with CVP operations pursuant to the Coordinated Operations Agreement, will be governed by the applicable regulatory requirements specified under the State Water Board *Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary* (Bay-Delta WQCP) and assigned to the SWP in the applicable water right decision, applicable biological opinions under ESA, applicable incidental take permit under CESA, and USACE Clifton Court diversion limits. The operations of the proposed north Delta intakes would remain consistent with these existing regulatory requirements. The proposed project is seeking a new point of diversion, and is not seeking to expand water right quantity. In addition, diversions at the proposed north Delta intakes would be governed by new operational criteria specific to these intakes, such as the fish screen approach velocity requirements, bypass flow requirements, and pulse protection. These new criteria provide additional protections to the fish species over and above the protections from the state-of-the-art positive barrier fish screens included at the proposed intakes. Following the narrative description of proposed operations in Sections 3.16.1 through 3.16.6, a detailed table describing the proposed operational criteria is provided (Table 3-14). Additional detail for the proposed north Delta intakes is provided in Table 3-15 in Section 3.16.7, *Delta Conveyance Project Preliminary*

Exhibit D



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Sources: DCA, DWR [December 2023]

This mapbook is a scaled representation of the GIS data and only shows major facilities.

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Figure: Index
Bethany Reservoir Alignment
Alternative 5

Exhibit E

Contents

Common Response 8: Relationship to Other Plans, Projects, Policies, and Programs

Overview

The State CEQA Guidelines direct a lead agency to assess whether a proposed project would "[c]onflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect" (CEQA Guidelines Appendix G). This Common Response addresses the common themes and topics raised in public comments on the Draft EIR related to the Delta Conveyance Project (project) and possible conflicts with, and relationship to, various state, regional, and local plans, projects, policies, and programs that were identified by commenters or that are relevant to the planning, design, construction, and operation and maintenance of the project. These themes include the following.

- Lack of a formal certification of consistency, lack of a consistency analysis, or other alleged inconsistencies between the Delta Conveyance Project and the goals and objectives of the Delta Reform Act of 2009, including those associated with the act's coequal goals, with reducing reliance on the Delta in meeting future water supply needs, and with applicable regulatory policies in the *Delta Plan* administered by the Delta Stewardship Council (DSC).
- The relationship of the Delta Conveyance Project to the California Water Resilience Portfolio (California Natural Resources Agency et al. 2020) and the California Water Supply Strategy.
- The relationship between the Delta Conveyance Project and the Sustainable Groundwater Management Act (SGMA), including groundwater sustainability plans (GSPs) for the groundwater basins in the Delta and neighboring areas, and topics under SGMA or the lack of consideration of SGMA in the EIR.
- The relationship of the Delta Conveyance Project to the authorities and responsibilities of the State Water Resources Control Board (State Water Board) to establish water quality control measures and flow requirements to protect beneficial uses in the Delta, manage water rights, and implement federal and state antidegradation policies.
- The relationship of the Delta Conveyance Project to the California Department of Water Resources' (DWR's) ongoing efforts to coordinate with local governments and special districts to maintain and improve levees that protect the Delta.

State-Level Planning Efforts

This section provides additional information related to comments on key aspects of past and ongoing state-level water supply planning efforts. Many of these planning efforts are described in Chapter 1, *Introduction*, and Appendix 3E, *Delta Reform Act Considerations*.

Delta Reform Act

A number of comments asserted that the Delta Conveyance Project is not consistent with the goals and objectives of the Sacramento–San Joaquin Delta Reform Act of 2009 (Delta Reform Act) or the *Delta Plan*, or that the project should not be approved because of the alleged conflicts with the goals and objectives of the Delta Reform Act or *Delta Plan* policies. This section discusses the relationship

of the Delta Conveyance Project with the Delta Reform Act, including the coequal goals established by the act, its policy of reducing reliance on the Delta for water supply, and the project's relationship to the *Delta Plan*. As discussed in detail in the following sections, the project does not result in a significant environmental impact due to a conflict with the Delta Reform Act or the applicable policies in the *Delta Plan*. DWR will fully comply with its obligations under the Delta Reform Act to certify consistency with the applicable policies in the *Delta Plan* before initiating implementation. See below for more information regarding the timing of the *Delta Plan* certification of consistency process in relation to the EIR and CEQA Compliance.

Referenced throughout the discussion that follows is Appendix 3E, which provides information regarding the Delta Conveyance Project's relationship to the Delta Reform Act, the *Delta Plan*, and the *Delta Plan* Certification of Consistency Process. The appendix provides the history of the Delta Reform Act, the DSC, and the *Delta Plan*. The appendix also describes where related information can be found in the Final EIR and the Engineering Project Reports (EPRs) (Delta Conveyance Design and Construction Authority 2022a, 2022b) demonstrating that the proposed project and project alternatives do not result in a significant environmental impact due to a conflict with any applicable policies in the *Delta Plan*.

While Appendix 3E and the supporting evidence referenced therein demonstrate that the proposed project and project alternatives do not result in a significant environmental impact due to a conflict with any applicable policies in the *Delta Plan*, as noted in Appendix 3E, the Final EIR, including the supporting appendices, is not intended to be, nor should it be, considered the entirety of the record necessary to support DWR's consideration of a certification of consistency (Wat. Code § 85225) with the *Delta Plan*. After the CEQA process is completed, and if DWR approves the Delta Conveyance Project or a project alternative, DWR will begin the process to confirm and certify, with detailed findings, that it is consistent with the *Delta Plan* and submit that certification to the Delta Stewardship Council. (See Wat. Code § 85225).

The following sections summarize the major issues raised in comments related to the Delta Reform Act and provide brief descriptions of and references to related Final EIR chapters and appendices, which will guide readers to the relevant information.

Coequal Goals

Some comments suggested that the Delta Conveyance Project is not consistent with the Delta Reform Act's coequal goals of providing a more reliable water supply while also protecting, restoring, and enhancing the Delta ecosystem, and therefore the project should not be approved. Other comments claimed that the project simply relocates impacts from the export of Delta water to a new area of the Delta or that it includes no protective, restoration, or enhancement measures in excess of mitigation required to reduce project impacts.

Appendix 3E describes how the Delta Conveyance Project is consistent with the achievement of the coequal goals and explains that the project can be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. As outlined in the appendix, the Delta Conveyance Project will not conflict with the stated coequal goals of the Delta Reform Act, which are to provide a more reliable water supply for California and protect, restore, and enhance the Delta ecosystem (Pub. Resources Code § 29702; Wat. Code § 85054).

There is no requirement in state law that the Delta Conveyance Project, alone and as a single project, must further or achieve the coequal goals. The Delta Conveyance Project, however, is not only consistent with the coequal goals, but it will also support and advance the coequal goal of enhancing and protecting reliable water supplies from the Delta. Furthermore, the Delta Reform Act recognizes that new conveyance infrastructure is essential to achieving the coequal goals. California Water Code Section 85004(b) states that providing a more reliable water supply involves "new … Delta conveyance facilities"; and Section 85020(f) includes improving the water conveyance system in the Delta among the objectives inherent in the coequal goals. The *Delta Plan* recommends that Delta conveyance be modernized by developing a dual conveyance system that continues to rely on south-Delta diversion infrastructure while adding one or more new, screened intakes in the north Delta connected to existing State Water Project (SWP) infrastructure via isolated conveyance (*Delta Plan* recommendation WR R12a). The Delta Conveyance Project is consistent with that framework.

As described in Chapter 2, *Purpose and Project Objectives*, and Appendix 3E, the fundamental purpose of the Delta Conveyance Project is to restore and protect the reliability of the SWP water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the *California Water Resilience Portfolio* (California Natural Resources Agency et al. 2020) and in a cost-effective manner. This stated purpose gives rise to project objectives (refer to Chapter 2) that are consistent with the coequal goals of the Delta Reform Act. For example, the Delta Conveyance Project would support the coequal goals by increasing operational flexibility to divert water during high-flow events, thereby making SWP water supplies more resilient to the potential effects of climate change, including wetter wet periods, and more reliable overall. In addition, as demonstrated by the substantial evidence contained in the EIR, the project would achieve the project objectives without significantly affecting the state's ability to achieve the goal of protection of the Delta ecosystem because impacts of the project on terrestrial and aquatic biological species either are less than significant or would be mitigated to less-than-significant levels.

Finally, the Delta Conveyance Project would not significantly affect the state's ability to achieve the coequal goals in a manner that protects and enhances the Delta as an evolving place. The project would do this through the combination of mitigation described in Chapters 7 through 32; the implementation of the Community Benefits Program described in Appendix 3G, *Community Benefits Program Framework*; and the establishment of an ombudsman program as described in Chapter 3, *Description of the Proposed Project and Alternatives*, in the section titled *Ombudsman*. For example, as described in Appendix 3E, the practical effect of many of the project's mitigation measures and environmental commitments is to protect Delta values. (The following resource chapters discuss impacts and mitigation related to Delta values: Chapter 14, *Land Use*; Chapter 15, *Agricultural Resources*; Chapter 16, *Recreation*; Chapter 17, *Socioeconomics*; Chapter 18, *Aesthetics and Visual Resources*; and Chapter 19, *Cultural Resources*.)

Common Response 1, *CEQA Process, General Approach to Analysis, and Other Environmental Review Issues*, explains that the fundamental purpose of the project is not to restore the Delta ecosystem and that restoration of the Delta ecosystem does not need to occur before the project (or occur as part of the project) in order for the project to be considered consistent with the Delta Reform Act.

Reduced Reliance on the Delta

Several comments suggested that DWR and public water agencies (PWAs) are required by the Delta Reform Act to reduce their reliance on water that flows through the Delta instead of relying on existing exports or future exports from the Delta Conveyance Project for water supplies. Other

comments claimed that by approving and implementing the Delta Conveyance Project, PWAs would be increasing their reliance on Delta exports and therefore would not be in compliance with the Delta Reform Act.

As explained in Chapter 1 and Appendix 3E, the Delta Reform Act includes a state policy to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency (Wat. Code § 85021). Under California Water Code Section 85021, it is also state policy that each region that depends on water from the Delta watershed should improve its regional self-reliance by investing in alternative water supplies. Section 85021 does not impose an obligation on DWR to do anything, let alone only to pursue projects that reduce reliance on SWP supplies or improve regional self-reliance. In addition, Section 85021 does not expressly or implicitly require DWR to reduce SWP diversions from the Delta, as several commenters assume. The DSC's regulatory reduced reliance policy, WR P1 (which stems from but differs from the statutory policy), acknowledges that water suppliers can show reduced reliance either as "the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed." (Cal. Code Regs, tit. 23, § 5003, subd. (c)(1)(C).) Even if the Delta Conveyance Project increases diversions, it does not mean water suppliers receiving that water will necessarily increase their reliance on State Water Project supplies. As water demands in a water supplier's service area grow, the same or even an increased volume of water from the Delta watershed may still represent a smaller percentage of overall supplies.

Furthermore, regarding the policy in Water Code Section 85021, neither DWR nor any of the PWA proponents of the project have the legal authority or the duty to adopt or impose a statewide investment strategy on different regions of the state or on individual water suppliers that depend on water from the Delta watershed. In addition, DWR lacks any legal authority to mandate coordinated efforts among local and regional water suppliers to advance the Delta Reform Act policy that regions of the state that depend on water from the Delta watershed improve their regional self-reliance.

As described in Chapter 3 and Common Response 3, *Alternatives Development and Description*, the Delta Conveyance Project would be operated to shift diversions from the south Delta to the north Delta or to divert water in the north Delta during excess flow conditions while meeting existing regulatory requirements. Any exports that would occur under the project would be governed by new permit terms and conditions for the Delta Conveyance Project from the State Water Board, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and National Marine Fisheries Service; the Delta Conveyance Project operational criteria; and the existing regulatory framework.

Furthermore, PWAs and DWR are pursuing a wide range of opportunities to improve statewide water supply reliability and regional self-reliance as well as to more efficiently and sustainably manage or reduce water use. As described in Appendix 3C, *Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions*, and in the *No Project Alternative* sections found in Chapters 5 through 32, PWAs are implementing different strategies and activities to conserve water, to manage demand and supply efficiently, and to develop local sources of water, depending on each area's unique characteristics and geography. The Delta Conveyance Project would be a part of the SWP, and Common Response 5, *Public Water Agencies Water Management Practices*, describes existing efforts and future actions to be undertaken by SWP users to ensure California's water resources are being used efficiently and sustainably.

These activities are consistent with and support reducing reliance on the water supply from the Delta to meet California's future water supply needs. However, the water supplied by the SWP is, and will continue to be, the backbone of California's water supply infrastructure. The SWP is a key component of the water supply portfolio for the participating PWAs, and they will continue to rely on and need the water exported by the SWP. Their existing and continued activities to improve local self-reliance and to use California's water resources efficiently and sustainably are important components of their water supply portfolios, but these actions cannot wholly replace SWP supplies. Neither CEQA nor the Delta Reform Act prohibit DWR from pursuing new Delta conveyance infrastructure to achieve the fundamental purpose and objectives. Indeed, the Delta Reform Act and *Delta Plan* recognize that new Delta conveyance infrastructure is an essential part of achieving the state's coequal goals for the Delta (Wat. Code §§ 85004(b), 85020(f), 85304).

Delta Plan Certification of Consistency: Timing and Relationship to the EIR and CEQA Compliance

Some comments suggested that the Delta Conveyance Project is not consistent with the regulatory policies and recommendations in the *Delta Plan*. Other comments argued that the project should not be approved because it is not consistent with the *Delta Plan* or because a certification of consistency has not been prepared and submitted to the DSC. Finally, other comments claimed the CEQA analysis was inadequate or otherwise incomplete because consistency with the *Delta Plan* had not been determined.

As described in Chapter 1 and Appendix 3E, the *Delta Plan* is a comprehensive, long-term management plan for the Delta aimed at furthering the coequal goals of the Delta Reform Act. The *Delta Plan* provides for a distinct regulatory process for activities that qualify as covered actions. The Delta Reform Act established a self-certification process for demonstrating consistency of covered actions with the *Delta Plan*. State and local agencies proposing covered actions that occur in whole or in part in the Delta, prior to initiating implementation of a covered action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable *Delta Plan* policies, and must submit that certification to the DSC. The determination that a proposed activity meets the definition of a covered action is the responsibility of the state or local agency undertaking the proposed activity.

Based on the project footprint location and scope described in Chapter 3, the Delta Conveyance Project, if approved, would meet the definition of a covered action, as described in Appendix 3E. DWR provided the table titled Delta Plan Regulatory Policy Crosswalk Table in Appendix 3E to assist the public in easily identifying information in the EIR and the EPRs that demonstrate the proposed project and project alternatives ultimately do not result in a potentially significant environmental impact due to a conflict with any applicable policies in the *Delta Plan*. This table includes 18 separate *Delta Plan* policies and directs the reader to relevant information contained in the EIR that covers *Delta Plan* policies related to water resources, ecosystem restoration, Delta as a Place, and general policies. As stated earlier, the information in the EIR is only part of the evidentiary record that would support DWR's certification of consistency.

DWR will continue to engage in early consultation with DSC staff, monitor the *Delta Plan* litigation, and monitor future *Delta Plan* amendments throughout development of a certification of consistency with the *Delta Plan*. After completion of the CEQA process, if DWR approves the proposed project or one of the project alternatives, DWR will prepare and file a certification of consistency for that approved project providing detailed findings regarding the project's consistency with the applicable

Delta Plan policies. The Delta Reform Act requires a certification to be filed before DWR initiates implementation of the project but may certify an EIR and approve a project prior to certification (Wat. Code § 85225). Therefore, the EIR is not invalid, inadequate, or otherwise compromised under CEQA because DWR has not yet prepared a certification of consistency with the *Delta Plan* pursuant to the Delta Reform Act. The CEQA process and the Delta Reform Act certification of consistency process are two separate, distinct, and independent processes governed by different statutes and regulations. While the content of the EIR and the administrative record for the EIR can be used to inform the certification of consistency process, DWR may provide additional details to the DSC in a certification of consistency and the administrative record for that document beyond those that are contained in the EIR or the EIR administrative record.

California Water Resilience Portfolio

Some comments suggested the Delta Conveyance Project needed to be considered with, was not considered with, should be consistent with, was consistent with, or was not consistent with the *California Water Resilience Portfolio* (California Natural Resources Agency et al. 2020). Other comments identified and described this portfolio in the context of their comments on the Delta Conveyance Project.

There is no requirement in CEQA or any other law that requires DWR to analyze and make a formal finding that the project is consistent with the *California Water Resilience Portfolio*. However, as described in Chapter 30, *Climate Change*, the Delta Conveyance Project "supports statewide adaptation needs articulated in the *California Water Resilience Portfolio* to diversify local supplies and prepare for hotter conditions and more intense floods and droughts by increasing the average annual SWP deliveries for the long-term average, dry, and critical water years."

DWR's project objectives include consistency with the *California Water Resilience Portfolio* as described in Chapter 2. DWR is one of the state agencies guided by the actions identified in this portfolio. Executive Order N-10-19 (signed in 2019) directed the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture to develop a comprehensive strategy for building a climate-resilient water system and ensuring healthy waterways through the twenty-first century. The *California Water Resilience Portfolio*, which was released after public comment on July 28, 2020, identifies a suite of complementary actions to ensure safe and resilient water supplies, flood protection, and healthy waterways for the state's communities, economy, and environment. As part of the Executive Order and the portfolio, the Governor emphasized the need for actions that provide multiple benefits, use natural infrastructure such as forests and floodplains, embrace new technologies, encourage regional approaches, and build integration across state government and partnerships across diverse interests.

One of the projects identified in the portfolio to modernize inter-regional conveyance to help regions capture, store, and move water is to plan, permit, and build new diversion and conveyance facilities (such as a tunnel) in the Delta to safeguard SWP deliveries in the face of climate change and other risks. DWR's evaluation of the Delta Conveyance Project is consistent with the portfolio approach. Additionally, the SWP provides a critical water supply for much of the state and serves as a foundation for the important local water supply and resiliency programs included in the portfolio. The new diversion and conveyance facilities in the Delta identified by the portfolio are just one action of numerous other local and regional water management and conservation actions that are

described. These actions are occurring concurrently, recognizing that multiple actions, including local actions, are needed to improve California's water supply resilience.

Chapter 6, *Water Supply*, and Appendix 6A, *Water Supply 2040 Analysis*, confirm that the Delta Conveyance Project will address multiple risks to SWP supplies consistent with the portfolio's overarching objectives.

The state published a report in January 2021 titled *California Water Resilience Portfolio Progress Report* (California Natural Resources Agency et al. 2021) that documented the state's efforts to implement the portfolio. The report describes the progress state agencies made in carrying out the 142 separate actions identified in the portfolio over the previous 18 months and describes the coordination that occurred between state agencies and local agencies across the state to address water challenges during that time. Some of the key areas of progress related to regional and local drinking water supply and groundwater supply challenges since July 2020 are listed here.

- Financial assistance from the Safe and Affordable Fund for Equity and Resilience program was provided to 141 communities and 364 households for interim drinking water solutions, 185 communities for planning assistance, and 126 communities for long-term solutions to safe drinking water problems.
- DWR and the State Water Board invested $92 million in state funds to assist 48 separate small communities across the state with drought-related drinking water supply problems.
- The state awarded $26 million to local agencies for the construction of local projects, allocated an additional $300 million for planning and projects, and established a new $50 million grant program to support implementing GSPs.
- DWR began airborne electromagnetic geophysical surveys in groundwater basins along the Central Coast to inform groundwater sustainability agencies (GSAs) and counties seeking to manage their groundwater sustainably and to support land use planning efforts.

For comments suggesting alternatives to the Delta Conveyance Project be considered, including other actions in the *California Water Resilience Portfolio*, please see Common Response 3.

California's Water Supply Strategy

Some comments asserted that DWR should have studied an alternative to the Delta Conveyance Project based on *California's Water Supply Strategy* (California Natural Resources Agency et al. 2022) or asserted that the Delta Conveyance Project must be consistent with the strategy. Other comments identified or described this strategy in the context of the commenter's support or opposition to the Delta Conveyance Project.

As described in Common Response 6, *Climate Resilience and Adaptation, California's Water Supply Strategy* calls on state agencies to prioritize actions that will safeguard California's water resources against the anticipated effects of climate change. The Governor's strategy specifically identifies the Delta Conveyance Project as a key project that would improve the flexibility of current water systems to move water throughout the state and a critical element of combating the effects of climate change. Additional information on how climate change was considered in the EIR can be found in Chapter 30, and associated appendices; Common Response 1; Common Response 6; Common Response 4, *No Project Alternative Description and Analysis*; and Common Response 9, *Hydrologic Modeling and Approach*.

PWAs throughout California are already pursuing local or regional water supply resiliency projects such as recycling, groundwater recharge, storage, and conservation as described in Common Response 5. These activities support and are consistent with the activities described in *California's Water Supply Strategy*.

There is no requirement in CEQA or any other law that requires DWR to analyze and make a formal finding that the project is consistent with *California's Water Supply Strategy*. Please see Common Response 3 regarding the reasonable range of alternatives and explaining why alternative water supply strategies that do not include measures to make SWP supplies more reliable are infeasible because they fail to achieve the fundamental purpose of the project. Please also see Chapter 6, *Water Supply*, for a description of alternative sources of water, such as recycled water, desalinated water, and stormwater, that are becoming more commonplace as part of California's water supply to improve water supply reliability and the state's ability to withstand drought conditions.

Sustainable Groundwater Management Act and Groundwater Sustainability Plans

Multiple comments asserted that DWR should have analyzed, but failed to analyze the Delta Conveyance Project's impacts in the context of efforts by certain GSAs to implement their GSPs or to develop alternatives to GSPs under the SGMA. Others asserted that the Delta Conveyance Project should be but is not consistent with SGMA implementation. Comments made direct references and indirect references to multiple groundwater sustainability plans, concerns regarding the potential for the project to interfere with the successful implementation of those plans and compliance with requirements set forth under SGMA, and suitability of the analysis conducted for the EIR compared to the local analysis conducted as part of the GSP development process. The GSPs specifically referenced in comments are listed here.

- The successful implementation of two GSPs were referenced specifically: South American Subbasin GSP and East Contra Costa Subbasin GSP.
- Three GSPs were referenced indirectly: North American, South American, and Cosumnes Subbasin GSPs as part of the CoSANA numerical flow model.

SGMA, which was enacted in 2014 and took effect January 1, 2015, is discussed in Chapter 8, *Groundwater*. The act required the formation of GSAs, which are charged with the preparation and implementation of GSPs. Specifically, SGMA required that GSAs managing medium- and high-priority groundwater basins and subbasins that are considered to be in critical overdraft condition submit their GSPs by January 31, 2020, and that GSAs managing all other noncritically overdrafted medium- and high-priority basins and subbasins must submit their GSPs by January 31, 2022. The currently available GSPs in the geographic domain of the DeltaGW model used for the groundwater analyses in Chapter 8 are listed in Table CR8-1. As shown in the table, no plans were submitted to the state before the date of release of the Delta Conveyance Project Notice of Preparation (NOP) on January 15, 2020; hence, none were required to be, nor were any included, in the analyses published in the public draft of the Delta Conveyance Project EIR. (Refer to Common Response 1 regarding the environmental baseline for the project.) However, DWR has included information in this Common Response because of the interest from commenters on this topic. Although these GSPs for noncritically overdrafted basins were not available before the release date of the Delta Conveyance Project NOP, they have been considered as part of the preparation of this Common Response in light of the information contained in Chapter 8.

The Eastern San Joaquin GSP was submitted on January 29, 2020, and relevant data from the groundwater model used for GSP development was incorporated into the DeltaGW model. The GSPs covering areas in the DeltaGW model domain are discussed later in this Common Response. A map showing the 2020 (critically overdrafted) and 2022 (noncritically overdrafted) subbasin GSPs in the project area is provided as Figure CR8-1.

Table CR8-1. Status of Groundwater Sustainability Plans in DeltaGW Model Domain

Basin/Subbasin	Date Submitted to DWR	Date Posted by DWR	Current Status of DWR's Review and Approval
SACRAMENTO VALLEY—NORTH AMERICAN	1/24/2022	1/31/2022	Review in Progress
SAN JOAQUIN VALLEY—COSUMNES	1/27/2022	2/7/2022	Review in Progress
SACRAMENTO VALLEY—SOUTH AMERICAN	1/27/2022	2/14/2022	Review in Progress
SACRAMENTO VALLEY—SOLANO	1/27/2022	2/7/2022	Review in Progress
SAN JOAQUIN VALLEY—TRACY	1/28/2022	2/7/2022	Review in Progress
SAN JOAQUIN VALLEY—EASTERN SAN JOAQUIN	1/29/2020	1/31/2020	Approved by DWR on March 2, 2023
SAN JOAQUIN VALLEY—MODESTO	1/31/2022	2/14/2022	Review in Progress
SACRAMENTO VALLEY—YOLO	1/28/2022	2/14/2022	Review in Progress
SAN JOAQUIN VALLEY—EAST CONTRA COSTA	1/25/2022	2/7/2022	Review in Progress

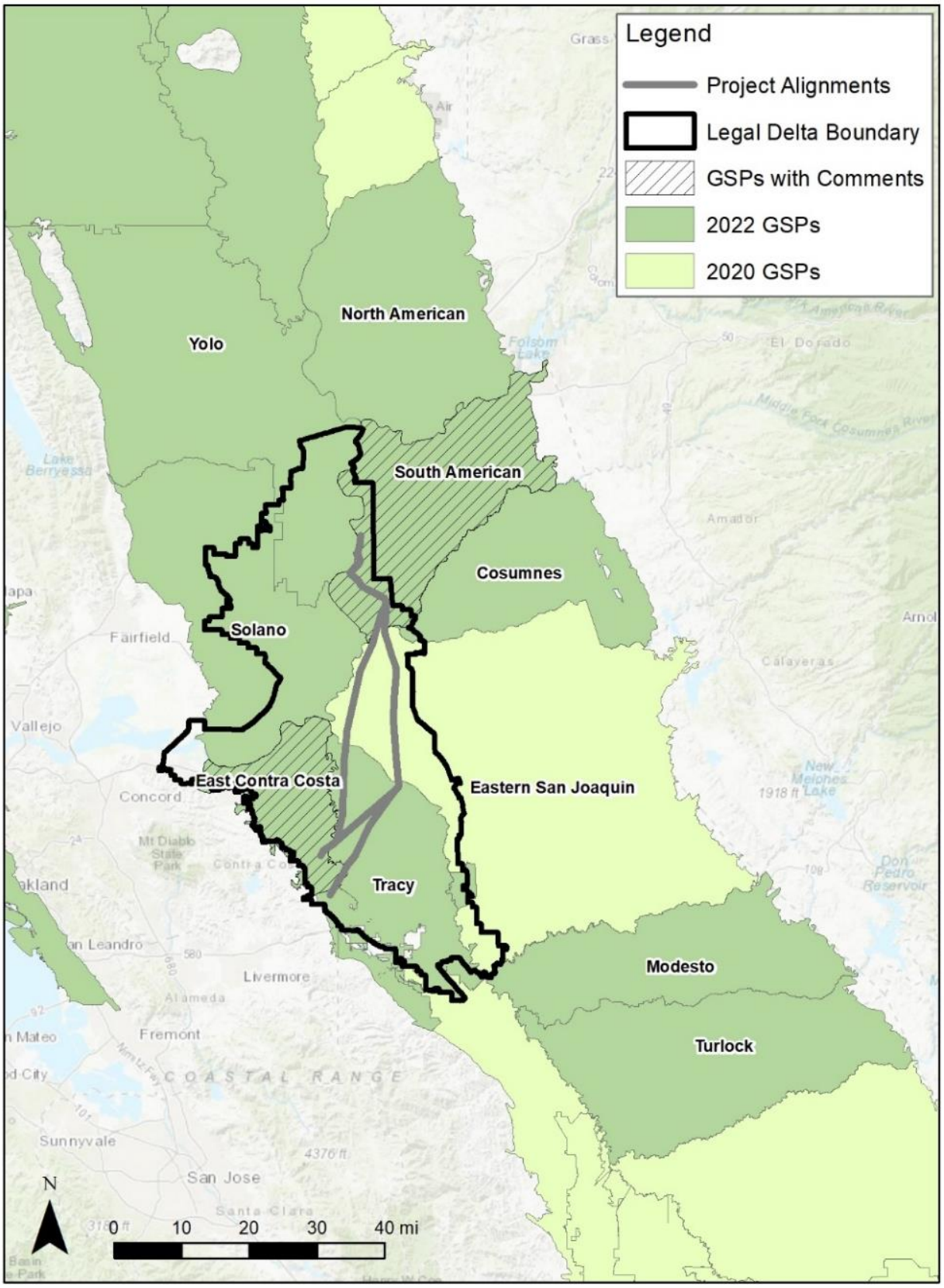

Figure CR8-1. Map of Groundwater Subbasins with GSP Due Dates in DeltaGW Model Domain

Of all the subbasins underlying the alternatives' alignments, only one GSP listed in Table CR8-1 (the critically overdrafted Eastern San Joaquin Subbasin GSP) was available when the Draft EIR was prepared. The other GSPs, which are for medium- and high-priority basins with noncritically overdrafted conditions, were not available until 2022. The discussion in the sections that follow provides a brief overview of the information and content in Chapter 8 as it generally relates to the SGMA and GSPs. Under each subsection, there is a discussion of the specific criteria that SGMA requires the GSPs to consider and evaluate and the relationship to the impact analysis contained in Chapter 8.

EIR Groundwater Impact Analysis and Groundwater Sustainability Plans

As described in Chapter 8, Impact GW-2: *Changes in Groundwater Elevations* and GW-4: *Changes to Long-Term Change in Groundwater Storage*, construction and operation of the Delta Conveyance Project would not substantially decrease groundwater elevations in or around the Delta region (less-than-significant determination) nor substantially reduce groundwater in storage (no impact on in-Delta groundwater storage). Construction and operation of the Delta Conveyance Project also would not negatively impact the ability of subbasins in the Delta to implement recharge projects because such recharge projects would be constructed and operated by the Subbasin GSAs or independent entities and would not be co-located with Delta Conveyance Project infrastructure or facilities. Additionally, these recharge projects are expected to draw recharge waters from local rivers and creeks or from the California Aqueduct or the Delta-Mendota Canal and therefore would not be dependent on the Delta Conveyance Project.

Potential impacts associated with localized groundwater effects during construction of the Delta Conveyance Project are primarily related to construction dewatering and are described in Impact GW-2: *Changes in Groundwater Elevations*, Impact GW-3: *Reduction in Groundwater Levels Affecting Supply Wells*, and Impact GW-4: *Changes to Long-Term Change in Groundwater Storage*. Dewatering and seepage cutoff walls would be required for construction of the intake facilities and the Southern Forebay Emergency Spillway as discussed in the EPRs and Common Response 10, *Surface Water Quality and Groundwater Resources*. As described in both Chapter 3 and Common Response 10, field investigations would be conducted prior to and during construction to assess subsurface geotechnical conditions, perform site-specific pump tests, and design the cutoff walls. Cutoff walls would be constructed from materials with very low permeabilities in the 10^{-6} to 10^{-7} cm/s range (equivalent to the permeability of clays) with a very low permeability layer (such as clay) at the bottom and would extend up to 200 feet below the ground surface. The cutoff walls would isolate the excavation sites from adjacent surface water and groundwater. Based on previous experiences along the Sacramento River and similar geological areas, cutoff walls would move the groundwater flow path around the excavation. In addition, rigorous monitoring and testing will be conducted during construction, and test results will be reported back to the permitting agency as part of the permit requirements. The standards to which the cutoff walls and embankments would be constructed is discussed in Common Response 10. The cutoff walls would limit the reduction of external groundwater levels during dewatering activities inside the cutoff walls, and limit mounding of water external to the walls during operations when internal groundwater levels are higher than the surrounding groundwater levels. At both locations where dewatering would occur during construction, perimeter wells and levee toe well points would be used to monitor for substantial changes in groundwater elevations and allow for the discharge of captured dewatered water back into the subsurface on the external side of the deep cutoff walls, should substantial changes occur. These wells would also be used to extract mounded water for return to the sedimentation basins if

needed to maintain local groundwater levels. Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas* would monitor for these conditions and adjust construction practices as needed. Therefore, the Delta Conveyance Project would not result in an exceedance of GSP-established minimum thresholds related to successful GSP implementation nor create other impacts from mounding (such as root zone inundation).

As will be detailed in the subsections below, the information contained in Chapter 8 of the EIR demonstrates the following:

- Consistency with the climate change assumptions contained in the GSPs because similar datasets were used and therefore the analyses performed in the EIR and in the Delta GSPs are comparable. Therefore, DWR need not re-model groundwater impacts using the same climate change assumptions as in the GSPs because the results would be nearly identical.
- No conflict with the GSPs related to undesirable effects on groundwater levels and the volume of groundwater in storage because of the strict design standards for cutoff walls during construction and the temporary and limited extent of dewatering activities. The standards to which the cutoff walls and embankments would be constructed are discussed in Common Response 10, along with the monitoring required by the project's permits and implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas*.
- No conflicts with GSPs related to undesirable effects on groundwater quality because of implementation of construction best management practices to control potential for spills or releases of construction-related contaminants using proven methods and practices; depth of dewatering would limit the potential for vertical gradients and higher-salinity connate (depositional) water upwelling; limited changes in hydraulic gradient would limit the potential for contaminant plume mobilization; and because of the strict design standards for cutoff walls during construction and the monitoring required per the project's permits, in addition to the implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas*.
- No conflicts with GSPs related to undesirable effects on interconnected surface water and groundwater dependent ecosystems because of limited changes in surface water and groundwater interaction as a result of operations; and because of the strict design standards for cutoff walls during construction and the monitoring required per the project's permits, in addition to the implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas*.
- No conflicts with GSPs related to undesirable effects related to inelastic land subsidence because groundwater extraction below the Corcoran Clay layer would not occur and because of soil characteristics in the area of dewatering (i.e., lack of peaty soils).
- No conflicts with GSPs related to undesirable effects related to seawater intrusion because project operations would have less-than-significant effects on X2 locations and Delta water quality related to salinity. The location of the project's intakes in the north Delta would not influence the location of X2 or salinity to a degree that would conflict with GSPs.

Climate Change Assumptions

Under SGMA, GSAs are required to develop project water budgets to estimate future baseline conditions of supply, demand, and aquifer response to GSP implementation. To assist with the development of climate change assumptions for GSP water budgets in this EIR, DWR developed the *DWR-Provided Climate Change Data and Guidance for Use During Groundwater Sustainability Plan*

Development (California Department of Water Resources 2018), along with several datasets for GSAs to use. Datasets provided by DWR were developed based on the Water Storage Investment Program analysis for projected climate conditions centered around 2030 and 2070. GSAs are not required to use DWR-provided climate change data or methods, but they need to adhere to the requirements in the GSP regulations (Cal Code Regs., tit. 23, § 350 et seq.).

In order to maintain consistency across the EIR, the groundwater analyses utilize the climate change assumptions developed for the surface water analysis. These climate change assumptions are described in Chapter 30 of the EIR. As described in Chapter 30, the surface water analysis conducted using the CalSim 3 model was run with inputs based on year 2040 (climate period 2026–2055) anticipated conditions. Ten CMIP5 global climate models and two GHG concentration scenarios (RCP 4.5 and RCP 8.5) were used to develop 20 climate model projections. These projections were then downscaled using the Localized Constructed Analogs method to develop the 2040 (2026–2055) Central Tendency climate change scenario, based on temperature and precipitation projections from the 20-model ensemble. The 2040 Central Tendency climate change scenario was used to understand climate conditions with and without the project near the time of completion of construction. Generally consistent with other relatively recent large projects or programs (e.g., Bay Delta Conservation Plan/California WaterFix Analysis, Water Storage Investment Program Application, SGMA, Reinitiation of Consultation on the Long-Term Operations of SWP and CVP, and the SWP Incidental Take Permit), a quantile mapping approach is used in the EIR to adjust historical daily temperature and precipitation time series based on the climate projections. In summary, the climate change assumptions utilized in the CalSim3 surface water modeling, and in turn the groundwater model, are generally consistent with implementation of, or information in, the GSPs, but employ a slightly different timeline.

Groundwater Levels

Project impacts on groundwater levels were analyzed in Chapter 8 under Impact GW-2. The GSPs identify representative monitoring wells proposed to represent the groundwater levels in each GSP area. Measurements from these representative monitoring wells were used to establish numerical minimum thresholds for groundwater levels, and these thresholds, along with definitions of undesirable SGMA impacts, define whether a basin has achieved sustainability. The modeling conducted and described in Chapter 8 concludes that groundwater levels are not anticipated to fluctuate by more than 5 feet due to project operations. These changes in groundwater elevations are within the normal range of groundwater elevation fluctuations with changing hydrologic conditions for these basins. (See the discussion of Impact GW-2 in Chapter 8 for additional detail.)

Furthermore, for all subbasins in which dewatering would occur (i.e., South American Subbasin and East Contra Costa Subbasin), the definition of undesirable results requires the exceedance of minimum thresholds at a defined percentage of representative monitoring sites for at least 2 consecutive years (3 years for the South American Subbasin and the East Contra Costa Subbasin). Construction dewatering at any one location is not anticipated to last more than a year and will typically last less than 6 months (Delta Conveyance Design and Construction Authority 2022a, 2022b). As described earlier in this Common Response and within Common Response 10, project construction would require obtaining and conforming with strict industry design standards for the design and construction of cutoff walls and levees. Cutoff walls constructed to standards similar to those required by the U.S. Army Corps of Engineers (USACE) and Central Valley Flood Protection Board require the use of low permeability material, thus substantially limiting the reduction of external groundwater levels during internal dewatering activities and limiting mounding of

groundwater external to the walls during operations when basin levels are higher than the surrounding groundwater levels. Furthermore, implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas* will monitor groundwater levels during construction using perimeter well systems and will identify if and when construction practices require adjustment based on observed groundwater level changes. Construction practice adjustments could include discharging captured dewatered water back into the subsurface on the external side of the deep cutoff walls or extraction of groundwater outside the cutoff walls. Overall, dewatering activities would be temporary and limited in spatial extent, and they would occur in less than the time identified for undesirable results in the two subbasins where impacts could occur. Therefore, construction and operation of the Delta Conveyance Project would not conflict with the implementation of the GSPs because of potential impacts on groundwater levels.

Groundwater Storage

Project impacts on the volume of groundwater in storage (change in storage) were analyzed in Chapter 8 under Impact GW-4. The representative monitoring wells were used for establishing the minimum thresholds for the long-term change in groundwater storage for achieving sustainability under SGMA. Modeling performed for the Draft EIR using the DeltaGW model, which is described in Chapter 8 and Appendix 8A, *Delta Groundwater Model: Development and Calibration*, demonstrates there would be no substantial adverse change in groundwater storage as a result of the project.

Construction of the intake facilities and Southern Forebay Emergency Spillway would require dewatering during construction. However, as previously described under sections titled *EIR Groundwater Impact Analysis and Groundwater Sustainability Plans* and *Groundwater Levels*, construction at the intakes will require obtaining and complying with a USACE Section 408 permit because the project will be affecting federal flood control levees that are part of the Sacramento River Flood Control Project. The Southern Forebay Emergency Spillway, which would be an element of all alternatives with the exception of Alternative 5, would not affect federal flood control levees but will be constructed in accordance with strict design criteria similar to those required by the U.S. Department of the Interior Bureau of Reclamation (Reclamation), Central Valley Flood Protection Board, and USACE for similar projects. These criteria include required design specifications for cutoff walls as well as testing during construction. Cutoff walls constructed to these standards would substantially limit the reduction of external groundwater levels during internal dewatering activities. Furthermore, implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas* would monitor changes in groundwater elevations at perimeter wells and levee toe well points, and adjustments to construction practices would be made if required to maintain groundwater levels outside the cutoff walls.

Given the description above, construction of the Delta Conveyance Project would not conflict with the implementation of the GSPs associated with groundwater storage. The EIR similarly finds that operation of the project would not significantly impact groundwater storage, as the seepage cutoff walls would remain in place.

Groundwater Quality

Project impacts on groundwater quality are analyzed in multiple locations in the EIR, including in Chapter 8 under Impact GW-7: *Degradation of Groundwater Quality*, Chapter 9, *Water Quality*, under Impact WQ-5: *Effects on Electrical Conductivity Resulting from Facility Operations and Maintenance*, and Chapter 25, *Hazards, Hazardous Materials, and Wildfire*, under Impact HAZ-1: *Create a Substantial Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of*

Hazardous Materials. Since groundwater quality can limit local water supplies and beneficial uses, GSPs must characterize current water quality and identify minimum thresholds at which undesirable results would occur.

Four ways in which the project could potentially impact groundwater quality are described in the EIR:

1. Construction-related releases of contaminants.
2. Saline water intrusion.
3. Connate (depositional; water trapped in the pores of sedimentary rocks) water upwelling.
4. Movement of existing groundwater contamination plumes**.**

DWR believes the four assessments conducted for the groundwater quality assessment are an accurate representation of potential construction- and operational-related impacts for the purposes of CEQA compliance.

Construction best management practices and requirements of the project's stormwater pollution prevention plan would minimize, avoid, or reduce to less than significant potential releases of construction-related contaminants using proven methods and practices. Increased saline water intrusion from the Delta as a result of project operation and construction is linked to project impacts on interconnected surface waters (the drawing of water from surface waters into the groundwater basin). This impact will be less than significant, as described in Chapter 8, Impact GW-1: *Changes in Stream Gains or Losses in Various Interconnected Stream Reaches*, and as described later in this Common Response. Therefore, conflicts with the implementation of the GSPs associated with groundwater quality and construction-related releases of contaminants and saline water intrusion would not occur.

Connate water upwelling would not occur as project dewatering is relatively shallow (approximately 160 feet below grade or shallower) and would not result in vertical gradients deep enough to draw highly saline connate groundwater from the lower aquifer system (1,000 to 3,000 feet below grade) upward. Contaminant plume mobilization would not occur because changes in hydraulic gradient would be small as shown in Chapter 8 under Impact GW-7. As shown in the figures depicting maximum groundwater elevation difference contours for each alternative in the *Alternatives Impacts* section of Appendix 8B, *Impact Analysis: Groundwater Model Results*, the change in groundwater levels by project operation for all alternatives is expected to be less than 5 feet and, in most instances, less than 2 feet. A change in groundwater levels of less than 2 to 3 feet is unlikely to cause a substantial change in groundwater flow paths or groundwater hydraulic head (a measure of elevation) because such a change would be small relative to the size of the groundwater basin, resulting in little change in slope to the flow paths. Therefore, this is a relatively minor change and would not mobilize existing groundwater contaminant plumes or change groundwater quality. Substantial construction-related changes in groundwater levels resulting from dewatering will not occur as construction dewatering would occur within cutoff walls designed to meet strict design standards for low permeable materials, as already described. In addition, implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas* will monitor groundwater level and electroconductivity changes outside the cutoff walls and will identify when construction practices require adjustment to reduce mounding, groundwater level declines, or salinity changes. Although it is determined that the project would not significantly impact groundwater quality, Mitigation Measure GW-1, which was included in the Draft EIR, has been

revised to include monitoring of electroconductivity at select locations during construction to provide data confirming the conclusions in the EIR that project construction will not result in increased saline concentrations. Impact GW-1 and Impact GW-2 remain less than significant prior to the implementation of the revised mitigation measure, as described in Chapter 8.

Therefore, connate water upwelling and the movement of existing groundwater plumes would not occur during construction or operation, and the Delta Conveyance Project would not conflict with the implementation of the GSPs associated with groundwater quality.

Interconnected Surface Water and Groundwater Dependent Ecosystems

Project impacts on interconnected surface waters are analyzed in Chapter 8 under Impact GW-1. Generally, modeling the change in annual interconnected surface water interactions between the project alternatives and existing conditions generated the following:

- Greatest losses from streams were less than 1% by volume (except Alternatives 2a and 4a for the San Joaquin River, where loss is about 1.2%).
- Greatest additions (flow into) streams were 0.4% to greater than 1%.
- Annual average of impacts ranged from -0.3% (stream losses) to +0.6% (stream gains). (For details, see the tables in the *Operations* subsection of the *Impacts of the Project Alternatives on Groundwater* section in Chapter 8.)

Overall, the modeling shows less-than-significant impacts to interconnected surface waters. Therefore, the project operations would not cause more surface water to move into the groundwater aquifers.

Localized short-term impacts to interconnected surface water at or near the intakes and other dewatering sites would be minimal as construction at these locations would include the use of cutoff walls constructed of low permeable materials or the construction of, or modification to, the levee system in which cutoff walls are included, as described at the beginning of the section titled *EIR Groundwater Impact Analysis and Groundwater Sustainability Plans* in this Common Response. When constructed to industry-mandated strict design standards, the cutoff walls substantially limit reduction of external groundwater levels and thus limit interactions with interconnected surface waters during internal dewatering activities. In addition, implementation of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas* would monitor groundwater levels outside the cutoff walls using perimeter wells and levee toe well points and would identify when construction practices require adjustment based on observed groundwater level changes to maintain stream gains and losses.

Groundwater dependent ecosystems (GDEs) are defined under SGMA as ecological communities or species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface. GDEs are typically found proximate to surface waters and would be affected similarly to interconnected surface waters described above. Furthermore, as described in Impact GW-2 and Impact GW-4, substantial changes in groundwater elevation would not occur. Impacts to GDEs as a result of changes in groundwater would not occur. This EIR addresses other temporary or permanent impacts to GDEs by identifying and evaluating potential impacts to all natural systems and habitat supported by groundwater that could be impacted by the project. Chapter 13, *Terrestrial Biological Resources*, discusses specific habitat types, including GDEs (wetlands and riparian habitat), and the associated potential for other project impacts.

Inelastic Land Subsidence

Inelastic land subsidence is a permanent gradual settling or sudden sinking of the Earth's surface resulting from removal or displacement of subsurface earth materials. Land subsidence in California can be caused by compaction associated with groundwater level decreases, oil and gas withdrawals, and the drainage of organic soils. Project impacts on land subsidence were analyzed in Chapter 8 under Impact GW-6: *Damage to Major Conveyance Facilities Resulting from Land Subsidence* and Chapter 11, *Soils*, under Impact SOILS-3: *Property Loss, Personal Injury, or Death from Instability, Failure, and Damage as a Result of Constructing the Proposed Water Conveyance Facilities on or in Soils Subject to Subsidence*. The principal mechanism for potential land subsidence in the study area would be groundwater extraction below the Corcoran Clay layer. In addition, dewatering has the potential to cause limited oxidation of peaty soils in localized areas directly adjacent to the dewatering sites.

As discussed in the *Volume 1: Delta Conveyance Final Draft Engineering Project Report—Central and Eastern Options* and *Volume 1: Delta Conveyance Final Draft Engineering Project Report—Bethany Reservoir Alternative* (Delta Conveyance Design and Construction Authority 2022a, 2022b), all dewatering pumping would occur at depths above 165 feet below the ground surface, which is above the Corcoran Clay layer (a regional aquitard). Construction dewatering would occur inside cutoff walls constructed of low permeability materials. The dewatering sites are located outside the areas with the greatest soil organic matter content (see the figure titled Soil Organic Matter Content in Near-Surface Soils in Chapter 11). Dewatering sites would be isolated from the regional groundwater by cutoff walls. Therefore, the extent of organic soils exposure to air would be minimized or would not occur given the lack of soil with organic matter content. In addition, the duration of exposure would be short (less than about 1 year) relative to the time needed for oxidation to happen to the extent that subsidence occurs. Finally, measures taken to conform to state and federal design standards would reduce the potential hazard of subsidence to acceptable levels by avoiding construction directly on, or otherwise stabilizing, the soil material that is prone to subsidence.

Seawater Intrusion

The sustainable management criterion under SGMA is seawater intrusion, not saltwater intrusion. Therefore, many comments received on the Chapter 8 analyses fall under the sustainable management criterion of degraded groundwater quality. However, some of the comments seem to imply seawater intrusion by reference of saltwater intrusion, which is discussed in the section titled *Groundwater Quality*. Seawater intrusion under SGMA is not an applicable sustainability indicator in the subbasins where the Delta Conveyance Project would be located, except for the East Contra Costa Subbasin. There has been no evidence of seawater intrusion in the East Contra Costa Subbasin in the past or the present. Such intrusion is identified as a potential risk in the future as a result of sea level rise or unsustainable levels of groundwater pumping. Project construction would be completed before substantial changes in sea level rise occur. In addition, considering the force of sea level rise on seawater intrusion into the Delta compared to the limited dewatering effects on local groundwater elevations along with the provision of Mitigation Measure GW-1: *Maintain Groundwater Supplies in Affected Areas*, construction dewatering would not draw seawater all the way up to the intakes or other construction sites. Project operations would not significantly alter X2 locations outside of the winter and spring, when X2 position is already much further west than during the summer and fall months (see the section titled *Impacts of the Project Alternatives with Climate Change* in Chapter 30). If the most eastward location of X2 does not change substantially, the

potential for seawater intrusion does not change substantially. Common Response 10 provides additional information regarding sea level rise and seawater intrusion.

State Water Resources Control Board Authorities and Responsibilities

This section provides additional information related to comments on key aspects of past and present planning efforts of the State Water Board, as well as State Water Board authorities and responsibilities. These planning efforts are described throughout the EIR where appropriate (e.g., Chapter 1 and Chapter 9).

Designated Beneficial Uses and Water Rights

Several comments asserted that the EIR did not adequately consider protections for designated beneficial uses. In addition, while commenters may not have always used the term *beneficial use* in a comment, multiple comments argued that the water supplied by the SWP, DWR, or the PWAs should not be used for certain uses or should be used for other uses. Comments also asserted that existing uses of water are or are not appropriate or correct, or recommended how the DWR should allocate or provide water. In addition, numerous comments expressed concern that the Delta Conveyance Project would affect or alter existing water rights. Some comments requested clarification on whether the planned operation of the project is consistent with the legal requirements for diverting flows from the Sacramento River. Several comments said that the Delta Conveyance Project would adversely affect other water right holders. Other comments claimed that operation of the project would not abide by existing water rights, would be out of compliance with existing water rights, or would otherwise be contrary to existing water rights and the protection of beneficial uses.

One of the State Water Board's responsibilities is to ensure that the state's water is put to the best possible use and that this use is in the public's best interest. This charge is reflected in part by the designation of "beneficial uses" established through the State Water Board's water quality control planning process. These beneficial uses are identified in each water quality control plan (basin plan) issued by the State Water Board. There are numerous designated beneficial uses for multiple waters all over the state; some beneficial uses include municipal and industrial, agricultural, recreational, and fish and wildlife uses. The State Water Board uses its authorities to protect water quality that affects beneficial uses in part through the *Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary* (Bay-Delta WQCP) (State Water Resources Control Board 1995, amended in 2006). The State Water Board is responsible for adopting and updating the Bay-Delta WQCP, which establishes water quality objectives, including flow requirements, needed to provide reasonable protection of beneficial uses of water in the watershed, as well as an implementation program to achieve the water quality objectives. Key elements of the Bay-Delta WQCP include salinity-related water quality objectives for the reasonable protection of various beneficial uses, including irrigated agriculture and municipal water supply.

Another State Water Board authority is to administer and manage water rights in California. A water right is legal permission to use a reasonable amount of water for a beneficial purpose, such as domestic use, fishing, farming, or industry. Water rights law is administered by the State Water Board, and specifically the Division of Water Rights, which acts on behalf of the State Water Board. The State Water Board is the only agency with authority to administer water rights in California. Other state agencies, such as DWR, local governments, water districts, and the California Regional

Water Quality Control Boards, do not administer water rights. The State Water Board shares the authority to enforce water right laws with the state courts. Since water is protected for the use and benefit of all Californians, California's waters cannot be owned by individuals, groups, businesses, or governmental agencies. However, permits, licenses, and registrations give individuals and others the right to beneficially use reasonable amounts of water.

The Delta Conveyance Project aims to provide a more reliable water supply that is also protective of beneficial uses; these include the municipal and industrial beneficial uses for approximately 27 million Californians throughout the state and the agricultural beneficial uses for approximately 750,000 acres of farmland. However, DWR has no authority to designate beneficial uses or to designate for what purposes water is used. DWR has existing water rights and contracts with various PWAs, and these water rights and contracts allow DWR and the PWAs to beneficially use the water supply. Chapter 6 describes DWR's water rights.

Together with the CVP, the SWP operates to meet the jointly assigned water right requirements in the Delta. As described in the section titled *Reduced Reliance on the Delta*, PWAs are currently seeking and will continue to seek opportunities outside of the Delta to improve water supply reliability and to more efficiently and sustainably manage or reduce water use. For example, PWAs have individual policies and programs to motivate ratepayers to conserve water. Different PWAs have the right to take different approaches to managing water supply and demand within their service area, depending on their individual circumstances. DWR has no power to impose penalties on individual water users within PWA service areas or require PWAs to more efficiently and sustainably manage or reduce water use.

DWR currently operates the SWP pursuant to State Water Resources Control Board Water Right Decision 1641 (D-1641), among other requirements (e.g., state and federal endangered species act requirements). In D-1641, the State Water Board amended the water right license and permits for the SWP and the CVP to meet certain water quality objectives in the Bay-Delta WQCP. The section titled *Key Existing Delta Operations Criteria* in Chapter 3 describes the various D-1641 requirements that DWR operates under in coordination with Reclamation's operations of the CVP, including Delta Cross Channel gate operations criteria, Rio Vista minimum instream flow criteria, Delta outflow criteria, and the export to inflow ratio. In addition to these requirements, D-1641 places responsibility on DWR and Reclamation for measures to ensure that specified water quality objectives are met. Chapter 9 considers the water quality objectives and beneficial uses in the Bay-Delta WQCP as well as the implementation of the water quality objectives and requirements in D-1641. Where appropriate, and throughout the EIR's water quality analysis, different water quality constituents, such as electrical conductivity (a measure of salinity), are evaluated within the context of applicable water quality objectives. For example, in Chapter 9, several of the impact analyses, including Impact WQ-4: *Effects on Chloride Resulting from Facility Operations and Maintenance* and Impact WQ-5, specifically integrate standards and requirements from various sources, including the Bay-Delta WQCP. As described in Chapter 9 in the section titled *Summary Comparison of Alternatives*, the project could potentially result in increased electrical conductivity at some Delta locations. However, the project would not cause more frequent exceedance of the Bay-Delta WQCP water quality objectives for protection of agricultural beneficial uses or fish and wildlife beneficial uses because facility operations under the project would be operated to the electrical conductivity objectives, as implemented through D-1641. In addition, in Chapter 12, *Fish and Aquatic Resources*, impact analyses such as Impact AQUA-2: *Effects of Operations and Maintenance of Water Conveyance Facilities on Sacramento River Winter-Run Chinook Salmon*, Impact AQUA-6: *Effects of Operations and Maintenance of Water Conveyance Facilities on Delta Smelt*, and Impact AQUA-7: *Effects of Operations*

and Maintenance of Water Conveyance Facilities on Longfin Smelt use standards and requirements in the Bay-Delta WQCP and D-1641 as thresholds of significance. Both Chapter 9 and Chapter 12 determine impacts to be less than significant or less than significant with mitigation incorporated based on the CEQA impact analysis.

As described above, the State Water Board has existing established water quality standards to protect beneficial uses in the Delta through the Bay-Delta WQCP. Although DWR continues to participate in the State Water Board's WQCP revision process, it is not responsible, nor does it have the authority, to identify or establish flow criteria or water quality objectives for the Delta. The analysis contained within the EIR appropriately considered the existing standards and shows that the Delta Conveyance Project would meet those requirements or, where appropriate, identified feasible mitigation measures to reduce potentially significant environmental impacts below the level of significance. The EIR and the Delta Conveyance Project are not inadequate, incomplete, or otherwise lacking because they do not identify flow criteria, include water quality objectives, or otherwise quantify the amount of water that needs to travel through the Delta to the ocean to ensure the Delta's survival as a functioning ecosystem. The California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and National Marine Fisheries Service will determine whether to issue permits for the project to ensure that there is no jeopardy to species listed as threatened or endangered, that no designated critical habitat is adversely modified, and, with respect to state-listed species, that the impacts of the authorized incidental take will be minimized and fully mitigated. The Delta Conveyance Project's operational criteria and the Compensatory Mitigation Plan are designed to meet those standards as well.

The locations of the north Delta intake facilities that would be constructed under the Delta Conveyance Project are not currently identified as points of diversion in DWR's water right. Thus, as described in Chapter 1, in the section titled *Change in Point of Diversion*, prior to constructing the project, DWR must file a petition with the State Water Board and receive State Water Board approval to add to the points of diversion in the relevant water right (Wat. Code § 85088.). As part of this process, the State Water Board will use information from the EIR and information developed as part of the record for the EIR to inform its decision-making process. However, the process by which the State Water Board makes its decision regarding the change in the point of diversion to add one or more new points of diversion is separate from the CEQA process and from DWR's decision whether to approve the Delta Conveyance Project and certify the EIR under CEQA. To support the State Water Board's change in point of diversion process, DWR may provide the State Water Board with additional information beyond that which is contained in the EIR and the EIR record.

If the Delta Conveyance Project is approved, DWR will operate the project in compliance with its existing water rights; DWR is not proposing to increase the total quantity of water permitted for diversion under its water rights. The project and project alternatives do not include any actions that would harm in-Delta water rights or modify water deliveries to non-SWP and non-CVP water contractors. In addition, regardless of its involvement in the project, Reclamation would retain its authority to operate the relevant CVP Delta facilities in coordination with the SWP and pursuant to Reclamation's existing water rights.

Development of Flow Criteria for the Sacramento–San Joaquin Delta Ecosystem

Some comments on the Draft EIR described the *Development of Flow Criteria for the Sacramento–San Joaquin Delta Ecosystem* (2010 Flow Criteria Report) (State Water Resources Control Board 2010) or connected this report to the Delta Reform Act and other ongoing actions of other state agencies (e.g.,

State Water Board). Comments asserted that the Delta Conveyance Project is inconsistent with the State Water Board's 2010 Flow Criteria Report, that DWR did not consider the information in the 2010 Flow Criteria Report, or that DWR should implement the 2010 Flow Criteria Report.

The State Water Board published the 2010 Flow Criteria Report per the Delta Reform Act (Wat. Code § 85086(c)(1)) to develop flow criteria needed in the Delta ecosystem "if fishery protection was the sole purpose for which its waters were put to beneficial use" (State Water Resources Control Board 2010:Note to Readers). The report explains that the criteria are intended to inform the State Water Board's own "on-going and subsequent proceedings," including the planned update to the 2006 Bay-Delta WQCP. Water Code Section 85086(c)(1) also provides that the State Water Board's report would serve to inform the Delta Stewardship Council's *Delta Plan*. The report emphasizes the artificially narrow scope of the criteria that it was required to develop under the Delta Reform Act and explains that the criteria report did not consider the allocation of water resources to a particular diversion or use (i.e., it did not factor in other beneficial uses of water, such as those required for human health and welfare).

The 2010 Flow Criteria Report has no binding regulatory effect on the Delta Conveyance Project, and the report specifically states in Section 1.1, *Legislative Directive and State Water Board Approach,* of the Executive Summary that the State Water Board's flow criteria determinations are limited to protection of aquatic resources in the Delta and did not consider impacts of the 2010 flow criteria on fish upstream, including sensitive salmon species. Furthermore, the State Water Board is in the process of updating the Bay-Delta WQCP, as described in the next section, *Updates to the Bay-Delta Water Quality Control Plan or Voluntary Agreements*, and has performed further planning and analysis of flow requirements for the Delta through the preparation and public release of subsequent documents.

The 2010 Flow Criteria Report was prepared as one of the first steps in the State Water Board's ongoing water quality control planning process. Multiple reports and regulations have since been developed and released by the State Water Board pursuant to their various authorities over the last decade. These are listed below.

- 2012 *Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives* (State Water Resources Control Board and California Environmental Protection Agency 2012).
- 2017 *Scientific Basis Report in Support of New and Modified Requirements for Inflows from the Sacramento River and its Tributaries and Eastside Tributaries to the Delta, Delta Outflows, Cold Water Habitat, and Interior Delta Flows* (State Water Resources Control Board 2017).
- 2018 Final *Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality* (State Water Resources Control Board 2018a).
- 2018 *Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary* (State Water Resources Control Board 2018b).
- *July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan* (State Water Resources Control Board 2018c).

- 2023 *Draft Scientific Basis Report Supplement in Support of Proposed Voluntary Agreements for the Sacramento River, Delta, and Tributaries Update to the San Francisco Bay/Sacramento–San Joaquin Delta Water Quality Control Plan* (State Water Resources Control Board et al. 2023).

In addition, the 2010 Flow Criteria Report cannot be implemented by DWR, nor does DWR have the legal authority to implement the 2010 Flow Criteria Report. Finally, a project cannot be inconsistent with the 2010 Flow Criteria Report in violation of any regulation or law because the report itself has no regulatory requirements or authority. Even if the 2010 Flow Criteria Report was enforceable and the Delta Conveyance Project was inconsistent with the report, the EIR exhaustively studied the potential impacts to aquatic species in the Delta and found the impacts to be less than significant or that they can be mitigated to less-than-significant levels based on recommended mitigation measures.

Updates to the Bay-Delta Water Quality Control Plan and Voluntary Agreements

Several comments asserted that the EIR did not adequately consider ongoing updates by the State Water Board to the Bay-Delta WQCP or adequately consider how voluntary agreements could contribute to implementation of the update. Other comments argued that the Bay-Delta WQCP updates should be part of the project; that the EIR or the Delta Conveyance Project is inadequate, incomplete, or otherwise lacking because it does not identify the amount of water that needs to travel through the Delta to the ocean to sustain the Delta's ecosystem; that the project should be consistent with the Bay-Delta WQCP; or that the Bay-Delta WQCP was not included appropriately in the EIR analysis.

These comments employed a variety of terms to refer to the Bay-Delta WQCP updates, including *Phase 1, Phase 2, Lower San Joaquin River, Sacramento/Delta,* and *Voluntary Agreements*. For the purposes of this Common Response, it is assumed that *Phase 1 and Lower San Joaquin River* refers to the Bay-Delta WQCP Update: San Joaquin River Flows and Southern Delta Salinity; *Phase 2 and Sacramento/Delta* refers to the Bay-Delta WQCP Update: Delta Outflows, Sacramento River and Delta Tributary Inflows, Cold Water Habitat and Interior Delta Flows; and *Voluntary Agreements* refers to voluntary agreements associated with the Bay-Delta WQCP Update: Delta Outflows, Sacramento River and Delta Tributary Inflows, Cold Water Habitat and Interior Delta Flows. DWR does not use the term *Phase 1* or *Phase 2* in this Common Response. For responses related to State Water Board activities associated with the Bay-Delta WQCP updates and the baseline conditions, please see Common Response 1, and for responses related to the No Project Alternative, please see Common Response 4.

Since 2008, the State Water Board has been engaged in a process to update the 2006 Bay-Delta WQCP to ensure that beneficial uses of water in the Delta watershed are reasonably protected. It is the role and responsibility of the State Water Board, not DWR, to establish requirements and standards to reasonably protect different beneficial uses in the Bay-Delta WQCP, as discussed in the section titled *Designated Beneficial Uses and Water Rights*. DWR, other water rights holders, waste dischargers, and others are responsible for implementing the requirements and standards described in the Bay-Delta WQCP. DWR currently implements Bay-Delta WQCP standards and requirements primarily through compliance with D-1641. The State Water Board has the authority to establish and amend standards and requirements in the Bay-Delta WQCP and to describe, as part of that authority, the water quality objectives for such things as Delta outflow. The Bay-Delta WQCP updates are ongoing. Common Response 1 provides a summary of more recent activities undertaken by the State Water Board that are related to the Bay-Delta WQCP Update: San Joaquin River Flows

and Southern Delta Salinity in Table CR1-1, as well as a discussion of more recent activities undertaken by the State Water Board that are related to Bay-Delta WQCP Update: Delta Outflows, Sacramento River and Delta Tributary Inflows, Cold Water Habitat and Interior Delta Flows.

The Bay-Delta WQCP updates were not omitted from the EIR, and DWR appropriately considered them. Appendix 3C describes the two aspects of the Bay-Delta WQCP updates: (1) Bay-Delta WQCP Update: San Joaquin River Flows and Southern Delta Salinity and (2) Bay-Delta WQCP Update: Delta Outflows, Sacramento River and Delta Tributary Inflows, Cold Water Habitat and Interior Delta Flows. As described in Common Response 1, the Bay-Delta WQCP Update: San Joaquin River Flows and Southern Delta Salinity was approved prior to the NOP for the Delta Conveyance Project, but it has not been implemented. It is not incorporated into the modeling for existing conditions or the No Project Alternative because implementation has not been adopted by the State Water Board and implementation remains speculative. Also as described in Common Response 1, Bay-Delta WQCP Update: San Joaquin River Flows and Southern Delta Salinity is qualitatively considered and evaluated where appropriate in the cumulative analysis, such as Chapter 9, Water Quality. The State Water Board initiated a process to update the Sacramento River and Delta tributary inflow and coldwater habitat, Delta outflow, and interior Delta flow components of the Bay-Delta WQCP in 2012, but that update has not been approved or implemented. This Bay-Delta WQCP Update: Delta Outflows, Sacramento River and Delta Tributary Inflows, Cold Water Habitat and Interior Delta Flows is also qualitatively evaluated as part of the cumulative impact analysis as indicated in Table 3C-2, and where appropriate in the EIR (e.g., Chapter 9), and as described in Common Response 1.

Voluntary agreements (VAs), an alternative Bay-Delta WQCP update, are proposed as a voluntary pathway to achieve reasonable protection of fish and wildlife beneficial uses in the Sacramento River watershed. The State Water Board is in the process of evaluating and considering the VAs, including preparing necessary environmental documentation and other technical analyses. DWR has been participating in the VA process with the State Water Board, the California Department of Fish and Wildlife, and other voluntary agreement parties since approximately 2018. A memorandum of understanding (MOU) for VAs proposing updates to the Bay-Delta WQCP and its implementation titled *Memorandum of Understanding Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions* (State Water Resources Control Board 2022) was received by the State Water Board in March 2022 (amended in August 2022 and November 2022). The signatory parties included state and federal agencies, local water agencies, private companies, and a nonprofit mutual benefit corporation. The VAs continued to be considered by the State Water Board after 2022 and into September of 2023.

In April 2023, the State Water Board released a Notice of Preparation of Environmental Documentation for the Tuolumne River Voluntary Agreement and held a scoping meeting in May of 2023; however, there has been no environmental document released by the State Water Board related to the Tuolumne River. The State Water Board also released the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary for the Sacramento River and its Tributaries, Delta Eastside Tributaries, and Delta in September 2023, which includes an evaluation of the VAs in Chapter 9, Proposed Voluntary Agreements (State Water Resources Control Board 2023). The State Water Board described the process and relationship between VAs related to the Sacramento River and Lower San Joaquin River in Chapter 9:

> The analyses presented [in Chapter 9] are not intended to support possible updates to the portions of the Bay-Delta Plan covering the lower San Joaquin River, which could incorporate lower San Joaquin River VAs, and would be subject to a separate process and subsequent analysis. The State Water

> Board commenced a process for considering possible updates to the Bay-Delta Plan for the Tuolumne River in 2023. While Merced River parties have submitted a VA, the Merced River parties are not currently signatories to the VA Term Sheet. In the event the Merced River VA is included in the VA Term Sheet, it would be evaluated similar to the Tuolumne River VA, as would also be the case if a VA is developed for the Stanislaus River.

(State Water Resources Control Board 2023:9-2). As of the preparation of the Final EIR for the Delta Conveyance Project, the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary for the Sacramento River and its Tributaries, Delta Eastside Tributaries, and Delta was in the public comment period, and the State Water Board had not made a decision regarding the VAs. Thus, the VAs are still in the planning process and have not been approved by the State Water Board or implemented. Given this status, the VAs are not included in the EIR in existing conditions, No Project Alternative conditions, or cumulative conditions.

In the Delta Conveyance Project EIR, DWR further considered the updates to the Bay-Delta WQCP and potential VAs beyond the context and requirements of CEQA in Appendix 4C, *Alternate Regulatory Scenario Sensitivity Analysis.* Appendix 4C discusses the ongoing updates to the Bay-Delta WQCP by the State Water Board and states that updates to the Bay-Delta WQCP could lead to changes in existing regulatory requirements affecting operations of the SWP. Because the specific requirements of the Bay-Delta WQCP updates are uncertain as the State Water Board moves through the steps of the environmental review and the water quality control planning process, it is possible that the Bay-Delta WQCP could be amended before the Delta Conveyance Project is operational.

Given the uncertainty regarding the updates to the Bay-Delta WQCP, Appendix 4C describes a potential Alternate Regulatory Scenario that considers possible regulatory requirements for water quality and flow when an updated Bay-Delta WQCP is implemented. The appendix also characterizes the potential effects of the project under this Alternate Regulatory Scenario. The description of an Alternate Regulatory Scenario in Appendix 4C includes some provisions from the March 2022 MOU, though the scenario is not intended to fully represent the March 2022 MOU and is only one example of a potential future condition with an updated Bay-Delta WQCP.

Regardless of whether the Delta Conveyance Project is approved or not, DWR will continue to operate the SWP in compliance with existing and future Bay-Delta WQCP standards and requirements.

Antidegradation Policy and Analysis

Several comments asserted that an antidegradation policy analysis should be performed for the EIR. The EIR does not specifically state whether the alternatives are consistent with the state's Antidegradation Policy because doing so requires determining whether allowing project-caused water quality degradation, which is less than significant, is in the best interest of the people of the state. This determination must consider the socioeconomic benefits of the project. Such considerations are beyond the purpose and scope of the water quality CEQA analysis for this EIR (as described later in this section). Nevertheless, Chapter 9 provides the information for water quality degradation and associated beneficial use effects (i.e., impacts) needed by the State Water Board, to be considered along with other factors that are outside the scope of this EIR chapter, to determine whether the selected alternative is consistent with state and federal antidegradation policies.

In California, maintaining consistency with the federal and state antidegradation policies falls to the Regional Water Quality Control Boards and the State Water Board in considering point-source

discharge and certain water rights permits. The State Water Board has interpreted the state's Antidegradation Policy to incorporate the federal Antidegradation Policy in situations where the policy is applicable (SWRCB Order WQ 86-18 17). However, the application of federal Antidegradation Policy to nonpoint source discharges such as the Delta Conveyance Project is limited.[1]

For the Delta Conveyance Project, application of the Antidegradation Policy will be considered by the State Water Board with respect to DWR's application to add one or more new points of diversion to its existing water right permits. The water quality degradation analysis presented in Chapter 9 of the EIR is but one part of the subsequent application of the policy. The Antidegradation Policy addresses both the amount of water quality lowering that would occur and the determination of whether lowered water quality is necessary to accommodate economic or social development in the area and consistent with maximum benefit to the state.

Water development and water conservation projects may be important social and economic developments that justify a lowering of water quality (Wat. Code § 13000). Similarly, environmental protection may constitute important social development, justifying a change in water quality, even if no other social or economic benefits to the community are demonstrated (see William R. Attwater's Oct. 1987 memorandum on federal Antidegradation Policy to Regional Water Board Executive Officers [State Water Resources Control Board 1987]). Where there are two conflicting uses, the quality of water for one use may be reduced where the change improves water quality for the other, in appropriate circumstances (see 40 CFR § 131.11(a)(1)). This latter analysis is outside the scope of CEQA and necessarily requires evaluation of economic value and social issues associated with the existing beneficial uses, in addition to the economic costs and changes in these conditions that may occur as a result of lowered water quality.

Furthermore, such socioeconomic evaluation is stipulated in the federal and state policies to consider these issues via intergovernmental coordination, public participation, and the state's planning processes. Evaluating socioeconomic changes is not the purview of the water quality analysis, which is rightfully focused on providing the numerical and qualitative assessment only of the potential for implementation of the project alternatives to degrade existing water quality with respect to regulatory water quality objectives and beneficial uses. The socioeconomic evaluation must be conducted based on the results of the EIR and the later stages of regulatory agency review and permitting of changes to the SWP water rights orders, or other regulatory actions.

[1] 40 Code of Federal Regulations (CFR) 131.12(a)(2) requires that the "State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control." Chapter 4, *Antidegradation*, of the U.S. Environmental Protection Agency *Water Quality Standards Handbook* (U.S. Environmental Protection Agency 2012) clarifies this as follows: "Section 131.12(a)(2) does not mandate that States establish controls on nonpoint sources. The Act leaves it to the States to determine what, if any, controls on nonpoint sources are needed to provide attainment of State water quality standards (See CWA §319). States may adopt enforceable requirements, or voluntary programs to address nonpoint source pollution. Section 40 CFR 131.12(a)(2) does not require that States adopt or implement best management practices for nonpoint sources prior to allowing point source degradation of a high-quality water. However, States that have adopted nonpoint source controls must assure that such controls are properly implemented before authorization is granted to allow point source degradation of water quality."

Department of Water Resources Delta Efforts

DWR performs a number of different duties and responsibilities within the Delta that are beyond the scope of the Delta Conveyance Project. This section describes several ongoing efforts by DWR, which were identified across different comments, that are consistent with DWR's mission: "[t]o sustainably manage the water resources of California, in cooperation with other agencies, to benefit the state's people and protect, restore, and enhance the natural and human environments."

Levee Management

Some comments claimed the Draft EIR failed to adequately analyze the project's likely detrimental effects on Delta levees and flood control infrastructure, while others expressed concern regarding the state's obligations or commitments to levee maintenance or management throughout the Delta.

As described in Chapter 7, *Flood Protection*, in the section titled *State Plan of Flood Control*, the state and federal governments have developed, managed, and maintained an elaborate flood control system comprising approximately 1,600 miles of levees. These are part of the state-federal flood protection system and include levees in the Delta as well as levees that are part of the Sacramento River Flood Control Project. In addition to this system, numerous nonstate and nonfederal levees are maintained and managed throughout the Delta. DWR does not own or maintain all levees in the Delta; and depending on the levee (State Plan of Flood Control vs. non–State Plan of Flood Control) and the area of protection (urban areas vs. nonurban areas), different standards and guidelines apply (see the section titled *Levee Standards and Compliance* in Chapter 7). In addition, the Central Valley Flood Protection Plan, developed by DWR in coordination with the Central Valley Flood Protection Board, established a systemwide approach to improving flood management in areas currently receiving protection from State Plan of Flood Control facilities.

As described in Chapter 7, in the section titled *Regional Planning Efforts Related to Delta Flood Management,* state funding programs for levee improvements on Delta islands and tracts vary based on location and type of levee. Since the 1980s, state funds for Delta levees have been made available through the Delta Levees Maintenance Subventions Program or the Delta Levees Special Flood Control Projects Program. Using these grant monies, the programs DWR oversees provide funding to levee maintaining agencies for their use to protect and improve critical levees in many areas of the Delta. DWR also regularly works with local governments to maintain and improve the levees that protect the Delta. Additional initiatives undertaken by DWR are the Delta Knowledge Improvement Project and the Delta Land Use Project, which includes the North Delta Project and the West Delta Program.

These multiple programs and funding opportunities are independent of the Delta Conveyance Project and would continue as they have, regardless of whether DWR approves the Delta Conveyance Project or a project alternative. Because the Delta Conveyance Project is dual conveyance (i.e., able to divert water from either the north or south), existing levees continue to be an important feature in the Delta under the operation of the project. The federal government (e.g., U.S. Army Corps of Engineers) also has existing programs and funding associated with the levees in the Delta; and as with state and DWR programs, these would continue independent of whether DWR approves the project or a project alternative.

Water Quality Monitoring Programs

Numerous water quality monitoring stations at locations throughout the Delta are currently in operation and will continue to be operational in the future. These stations are operated by DWR, the U.S. Geological Survey, Reclamation, the state's Interagency Ecological Program, and numerous local agencies. Monitoring locations already present in multiple locations throughout the Delta, such as Old River near Discovery Bay, would be used during implementation of the project as they are currently used and will continue to be used to inform the management of water in the Delta. In addition, DWR anticipates monitoring of mercury and selenium will be further defined in site-specific monitoring and management plans associated with the habitat restoration areas described in the CMP, as detailed in Appendix 3F, *Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources*, and EIR chapters (e.g., Chapter 9, Impact WQ-6 and Mitigation Measure WQ-6: *Develop and Implement a Mercury Management and Monitoring Plan*).

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Exhibit F

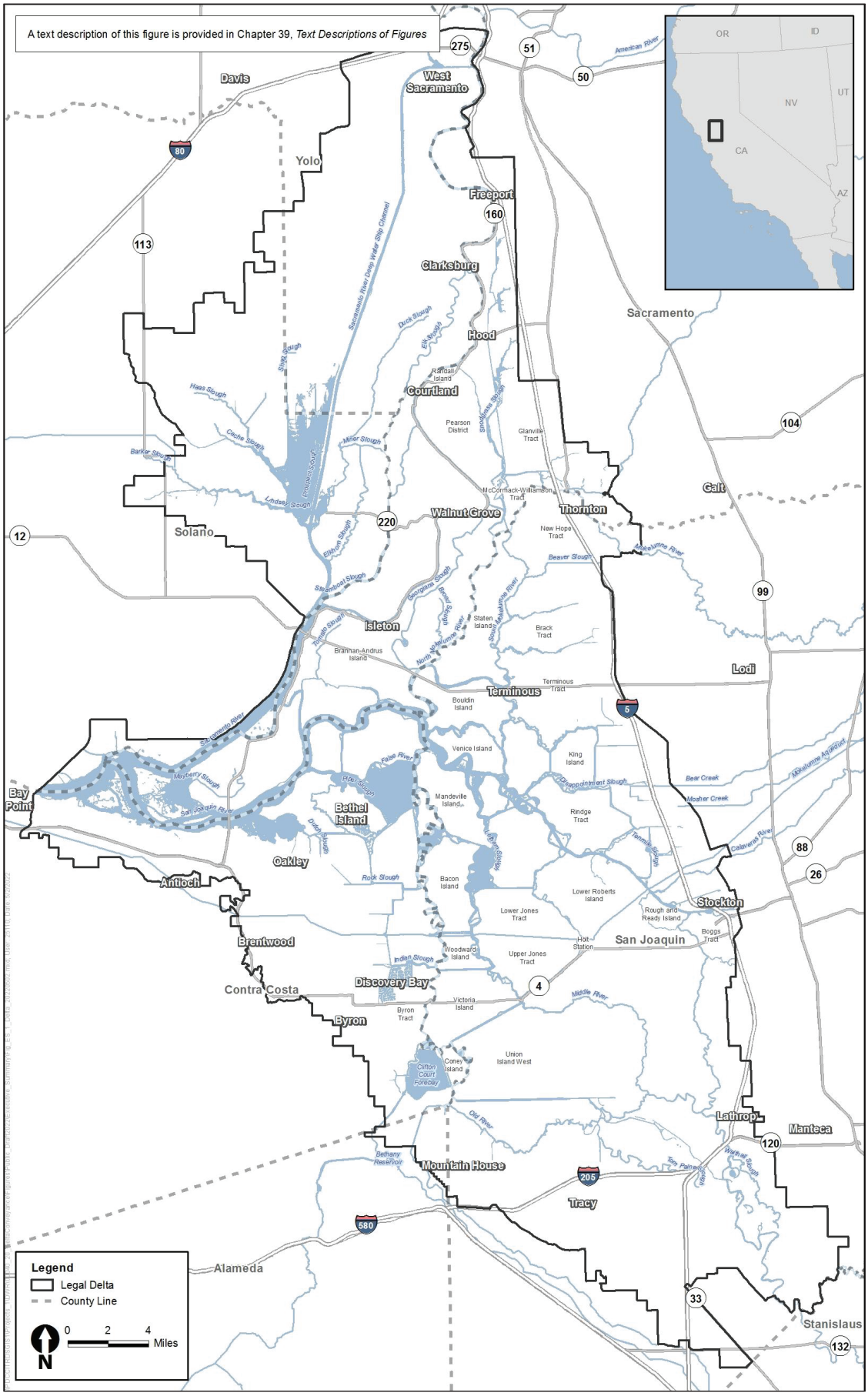

Figure ES-1. Sacramento–San Joaquin Delta