BUREAU OF RECLAMATION

Final – Volume 3 of 4

Supplement to the Final Environmental Impact Statement Final Environmental Impact Report

Los Vaqueros Reservoir Expansion Project
California State Clearinghouse No. 2006012037

CONTRA COSTA WATER DISTRICT

The Estimated Lead Agency Total Cost Associated with Developing and Producing this Final Supplement to the Final EIS/EIR is $75,000

U.S. Department of the Interior

February 2020

Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

The mission of the Contra Costa Water District is to strategically provide a reliable supply of high quality water at the lowest cost possible, in an environmentally responsible manner.

Supplement to the Final Environmental Impact Statement
Final Environmental Impact Report

Los Vaqueros Reservoir Expansion Project
California State Clearinghouse No. 2006012037

Prepared for Reclamation and Contra Costa Water District by Environmental Science Associates under contract to Contra Costa Water District.

Cooperating Agencies
California Department of Water Resources
National Marine Fisheries Service
United States Army Corps of Engineers
United States Fish and Wildlife Service
Western Area Power Administration

Cover Photo: Los Vaqueros Reservoir, Contra Costa County. (Contra Costa Water District)

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Chapter 1 Introduction

1.1 Los Vaqueros Reservoir Expansion Project

The Los Vaqueros Reservoir Expansion Project (LVE Project) is a multi-agency effort that is expected to provide local, regional, and statewide environmental, water supply reliability, and water quality benefits. The LVE Project is included as one of five surface water storage projects identified for further investigation under the comprehensive federal/state cooperative program known as the CALFED Bay-Delta Program (CALFED), which was designed to improve the quality and reliability of California's water supplies while restoring the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta).

The LVE Project Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (certified March 31, 2010), was modified by the August 2013 EIR Addendum #1 (together, the Final EIS/EIR). The Final EIS/EIR analyzed, among other alternatives, a Timing Variant under which Los Vaqueros Reservoir would be expanded first to 160 TAF and later to 275 TAF. Los Vaqueros Reservoir has now been expanded to 160 TAF, and Reclamation and CCWD are currently evaluating the second phase of expansion up to the 275 TAF capacity (Phase 2 Expansion).

Since the Final EIS/EIR was certified, refinements have been made to elements of the previously analyzed facilities, revisions to water sources and destinations have been made, and operational assumptions have been updated, primarily to reflect current and projected drought conditions, updated Delta hydrology models, and water quality monitoring. There is now more information about water supply demand and operational preferences from the local water agencies and south-of-Delta wildlife refuges that have been identified as potential partners in the Phase 2 Expansion project. In addition, the regulatory and environmental conditions in which the project would be operated have been modified over the past seven years.

These changes alter the Project Description as analyzed in the Final EIS/EIR, and thus additional environmental analysis is needed to ensure that these changes do not result in impacts not previously contemplated. CCWD and Reclamation have determined that a Supplement to the Final EIS/EIR (Supplement) be prepared in accordance with NEPA Regulations 40 CFR Section 1502.9(c) and CEQA Guidelines Section 15163. Pursuant to these Regulations and Guidelines, this Supplement contains only minor additions or changes which would make the Final EIS/EIR adequately apply to the LVE Project.

The Draft Supplement to the Final EIS/EIR evaluated four action alternatives that are formulated to capture a range of potential project operations. Alternative 1A would prioritize water supply reliability for regional municipal and industrial and agricultural uses. Alternative 1B would balance water deliveries for water supply reliability for regional water providers and ecosystem uses for south-of-Delta wildlife refuges. Alternative 2A would prioritize environmental water management

with water deliveries to south-of-Delta wildlife refuges. Alternatives 1A, 1B, and 2A all propose to expand Los Vaqueros Reservoir to 275 TAF and add or upgrade conveyance facilities. Alternative 4A would have the same operational priorities as Alternative 1B, and would include many of the conveyance facilities features of the other action alternatives, but would not expand Los Vaqueros Reservoir to 275 TAF.

1.2 Purpose of Final Supplement to the Final EIS/EIR

The Final Supplement to the Final EIS/EIR has been prepared on behalf of CCWD and Reclamation in accordance with the requirements of CEQA and NEPA. This Final Supplement responds to comments received on the Draft Supplement for the LVE Project proposed for implementation by CCWD and Reclamation.

The Final Supplement to the Final EIS/EIR for the Los Vaqueros Reservoir Expansion Project comprises four volumes and consists of the entire Draft Supplement and this response to comments document, as follows:

Volume 1: Draft Supplement to the Final EIS/EIR (Chapter 1 through Chapter 10)

Volume 2: Draft Supplement to the Final EIS/EIR (Appendices A through E)

Volume 3: Final Supplement to the Final EIS/EIR (Project Updates and Responses to Comments)

Volume 4: Final Supplement to the Final EIS/EIR (Appendices A through D)

The Draft Supplement describes the proposed Phase 2 Expansion, identifies the environmental consequences associated with implementation of the Phase 2 Expansion, specifies mitigation measures to reduce significant and potentially significant impacts, and analyzes and compares the environmental effects of the four action alternatives described in Section 1.1, above, along with the No Project/No Action Alternative.

On June 30, 2017, CCWD and Reclamation released the Draft Supplement for public review and comment. Six public hearings to receive public input on the Draft Supplement were held in 2017 at the following locations: Sacramento (July 11), Santa Clara (July 12), Concord (July 18), Oakland (July 20), Brentwood (July 25), and Los Banos (July 27). The public hearings were recorded and a transcript was made for each hearing. The comment period closed on September 5, 2017. Written comments were received from federal, state, and local and regional agencies; organizations; and individuals.

The Final Supplement consists of the entire Draft Supplement (Volumes 1 and 2) and Volume 3 with the comments, responses to comments, and revisions to the Draft Supplement included herein. The key differences between the Draft Supplement and the Final Supplement include the following:

1. Project facility refinements are described in Chapter 2, Section 2.2.1. Among these is a refinement of the proposed location for the Neroly High-Lift Pump Station. The impacts of

constructing and operating this facility in the new proposed location (western site) are summarized in Chapter 2 and analyzed in greater detail in Appendix A, Facility Refinements Assessment, and selected revisions to the Draft Supplement are provided in Chapter 5.

2. Project operational refinements are described in Chapter 2, Section 2.2.2. These modified operational assumptions are described in Section 5.2 of this Final Supplement and included in the updated analysis of Alternative 1A conducted for the Final Supplement that resulted in updates to the Draft Supplement Sections 4.2 and 4.3, which are presented in Appendix B of this Final Supplement as referenced in Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR.

1.3 CEQA and NEPA Requirements for Responding to Comments

This document, Volume 3 of the Final Supplement, has been prepared to respond to comments received from agencies, organizations, and individuals on the Draft Supplement. The CEQA Guidelines state that written responses to comments received on a draft EIR must describe the disposition of significant environmental issues raised in comments. In particular, the major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments must be addressed (§15088(c)). NEPA requires that a final EIS include and respond to all substantive comments received on the draft EIS (40 CFR 1503.4). Additionally, the final EIS must discuss any responsible opposing view that was not adequately discussed in the draft EIS and must indicate the lead agency's response to the issues raised. These CEQA and NEPA requirements also apply to supplements. Lead agency responses may include the need to:

1. modify the proposed project or alternatives;
2. develop and evaluate new alternatives;
3. supplement, improve, or modify the substantive environmental analyses;
4. make factual corrections to the text, tables, or figures contained in the Draft Supplement; or
5. explain why no further response is necessary.

1.4 Requirements for Certification and Future Steps in Project Approval

The Supplement to the Final EIS/EIR is intended to be used by the CCWD Board of Directors and by Reclamation, as well as other agencies, when considering selection and implementation of one of the project alternatives.

Following completion of the Final Supplement, CCWD's Board of Directors will hold a public meeting to consider certification of the Final Supplement and to decide whether to approve one of the reservoir expansion alternatives. If the CCWD Board approves a project, it would prepare and

adopt written findings of fact for each significant environmental impact identified in the Final Supplement; a Statement of Overriding Considerations, if needed; and a Mitigation Monitoring and Reporting Program. A Notice of Determination (NOD) would then be filed.

Reclamation will circulate the Final Supplement for at least 30 days prior to taking action on the project and issuing its ROD. The ROD would address the decision, alternatives considered, the environmentally preferable alternative, relevant factors considered in the decision, and mitigation and monitoring.

1.5 Organization and Format of the Final Supplement to the Final EIS/EIR

This response to comments document (Volume 3 of the Final Supplement) is organized as follows:

Chapter 1, Introduction, describes the purpose, content and organization of the Final Supplement, includes a list of commenters, and provides an overview of the approach to preparing responses to comments.

Chapter 2, Project Description Update, describes refinements to the project alternatives proposed by the lead agencies since publication of the Draft Supplement, and an assessment of potential impacts associated with the project description refinements.

Chapter 3, Master Responses, presents responses to environmental issues raised in multiple comments. These have been termed "master responses". They are organized by topic to provide a more comprehensive response than may be possible in responding to individual comments, and so that reviewers can readily locate all relevant information pertaining to an issue of concern.

Chapter 4, Individual Responses to Comments, contains lists of all agencies, organizations, and individuals who submitted comments on the Draft Supplement during the public review period, cross references to relevant master responses, and individual responses to the comments that are not addressed in master responses.

Chapter 5, Revisions to the Draft Supplement, presents revisions to the Draft Supplement text based on issues raised by comments, clarifications, or corrections. Changes in the text are signified by strikeouts where text is removed and by underline where text is added.

Volume 4 of the Final Supplement contains appendices as follows:

Appendices A and B present assessments of project facility and operational refinements

Appendix C contains the public comments received and transcripts from the public hearings.

Appendix D contains additional information supporting comment responses provided by East Bay Municipal Utilities District (EBMUD)

1.6 Organization of Comments and List of Commenters

In order to facilitate the preparation of responses, each comment set (i.e., a letter, email, or public hearing transcript) received on the Draft Supplement was coded, then broken down into individual comments and bracketed by topic or issue area; individual comments were then numbered. The individual comments are referenced alphanumerically by comment set code and comment number and are shown in the margin of each letter or comment set. The coding for the comment sets consists of a prefix indicating the category of commenter (see Table 1-1) followed by the initials or acronym of an agency/organization or the individual's last name.

Table 1-1. Commenter Categories and Abbreviations

Category of Commenter	Coding Abbreviation
Federal Agencies	F
State Agencies	S
Local and Regional Agencies	L
Organizations	O
Individuals	I

Within each comment set, the individual topics or issue areas are bracketed and numbered sequentially. For example, the first comment in the comment letter from the East Bay Regional Park District (a local agency) is L_EBRPD_01. Tables 1-2 through 1-6 list all agencies, organizations, and individuals that submitted comments on the Draft Supplement during the comment period. The numbered comment sets are provided in Appendix C, and Chapters 3 and 4 of this document provide written responses to these comments.

1.7 Overview of Responses to Comments

As required by Section 15132 of the CEQA Guidelines and 40 CFR 1503.4(b) (regulations for implementing NEPA), the responses in this volume address significant environmental issues raised by commenters during the review period. They are intended to provide clarification and refinement of information presented in the Draft Supplement and, in some cases, to correct or update information in the Draft Supplement. In some instances, the text of the Draft Supplement has been revised in response to a comment. Such revisions are described in Chapter 5.

Many comments received on the Draft Supplement did not address the adequacy or accuracy of the environmental analysis or did not identify any other significant environmental issue requiring a response; rather, these comments were directed toward the perceived merits or demerits of the Phase 2 Expansion or expressed an opinion without specifying if and why the Draft Supplement analysis was inadequate. The Lead Agencies acknowledge the receipt of these types of comments; however, limited responses are provided to such comments as they do not relate to the adequacy or accuracy of the Draft Supplement or otherwise raise significant environmental issues.

Table 1-2. Federal Agencies that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Date of Comment
Letter	F_EPA	Kathleen M. Goforth	Manager, Environmental Review Office, Region IX	Environmental Protection Agency	9/8//17
Letter	F_USFWS	Eric Tattersall	Assistant Field Supervisor	U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office	9/5/17

Table 1-3. State Agencies that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Date of Comment
Letter	S_CDFW	Scott Wilson	Regional Manager, Bay Delta Region	California Department of Fish and Wildlife	8/31/17
Letter	S_CVRWQCB	Stephanie Tadlock	Environmental Scientist	Central Valley Regional Water Quality Control Board	8/18/17
Letter	S_DWR	Pedros Villalobos	Chief, State Water Project Analysis Office	California Department of Water Resources	9/5/17
Letter	S_SWRCB	Sean Maguire	Manager, Petition, Licensing Registration Section, Division of Water Rights	California State Water Resources Control Board	9/5/17
Letter	S_DSC	Cassandra Enos-Nobriga	Deputy Executive Officer	Delta Stewardship Council	1/19/18

Table 1-4. Local and Regional Agencies that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Date of Comment
Letter	L_CCCSD	Roger S. Bailey	General Manager	Central Contra Costa Sanitary District	9/5/17
Letter	L_CCCFC	Jorge Hernandez	Staff Engineer	Contra Costa County Flood Control and Water Conservation District	9/6/17
Letter	L_EBRPD	Brian W. Holt	Principal Planner	East Bay Regional Park District	8/24/17
Letter	L_MWD	Stephen Arakawa	Manager, Bay Delta Initiatives	The Metropolitan Water District of Southern California	9/5/17
Oral comment	L_SJWC	Andy Gere	President and CEO	San Jose Water Company	7/12/17
Oral comment	L_SCVWD	Garth Hall	Deputy Operating Officer	Santa Clara Valley Water District	7/12/17
Letter	L_WID	Hanspeter Walter	--	Woodbridge Irrigation District	9/1/17
Letter	L_Zone7	Elke Rank	Water Resources Planner	Alameda County Flood Control and Water Conservation District, Zone 7	9/5/17

Table 1-5. Organizations that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Date of Comment
Letter	O_CEMC	Mike N. Oliphant	Project Manager	Chevron Environmental Management Company	8/17/17
Letter	O_CFBF	Justin E. Fredrickson	Environmental Policy Analyst	California Farm Bureau Federation	9/1/17
Letter	O_RTD	Barbara Barrigan-Parilla Tim Stroshane	Executive Director Policy Analyst	Restore the Delta	9/5/17
Letter	O_SMD	Juan Pablo Galvan	Land Use Manager	Save Mount Diablo	8/18/17

Table 1-6. Individuals who Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Date of Comment
Email	I_Achziger	Kim Achziger	9/6/17
Oral comment	I_Collier	Gary Collier	7/11/17
Email	I_Deeble	Tom Deeble	8/28/17
Email	I_Frayseth	Leland Frayseth	6/30/17, 7/25/17, 8/31/17, 9/4/17
Email	I_Gilmore	Dennis Gilmore	8/29/17
Comment card and oral comment	I_Grunwald	Bryan Grunwald	7/20/17
Comment card and oral comment	I_Harris	Gary Harris	7/27/17
Email	I_Hooper	Mike Hooper	8/6/17
Email	I_Jennings	Carolyn Jennings	9/2/17
Comment card	I_Johnson	Walter Johnson	8/17/17
Email	I_Keller-Moore	Stacy Keller-Moore	9/4/17
Email	I_Linder	C.A. Linder	7/25/17
Email, comment card and oral comment	I_Meade	John Meade	7/17/17 7/18/17
Email	I_Moran	Joe Moran	7/12/17
Oral comment	I_Ohlson	Bruce Ohlson	7/25/17
Email	I_Stoeffler	David Stoeffler	7/31/17
Comment card	I_Summers	Karen Summers	-
Email	I_Thomason	Thomas Thomason	7/25/17
Comment card and oral comment	I_Thuman	Linda Thuman	7/25/17

1.7.1 Master Responses

Some issues received a substantial number of comments from numerous commenters, demonstrating common concerns among agencies, special interest groups (organizations), and members of the public (individuals). For these issues, a comprehensive discussion of the issue and related topics is presented as a master response in Chapter 3 of this document. Each master response provides an integrated and comprehensive response to a particular issue and related concerns. The master responses are listed below:

3.1 Master Response 1: Project Description

3.2 Master Response 2: Relationship to Other Initiatives and Projects

3.3 Master Response 3: Approvals and Permits

3.4 Master Response 4: Recreation

Chapter 2 Project Description Update

2.1 Introduction

This section describes updates to the project description for Phase 2 Expansion alternatives that have been made since publication of the Draft Supplement, primarily to reflect refinements in project design. Section 2.2 presents clarifications and refinements that apply to the description of one or more of the project alternatives. Section 2.3 describes the environmentally superior and environmentally preferable alternative. Section 2.4 describes Reclamation's preferred alternative.

2.2 Project Description Clarification and Update

In this Final Supplement, CCWD proposes to clarify the nature and extent of pre-construction activities necessary for construction of Phase 2 Expansion project elements. Additionally, since publication of the Draft Supplement in June 2017, the descriptions of select elements of the action alternatives considered in the Draft Supplement have been refined or updated. Refinements have been made to two elements of the proposed facilities, and operational assumptions have been updated for Alternative 1B. This section first clarifies the proposed pre-construction activities, then describes the facility refinements and operational scenario updates.

2.2.1 Pre-construction Activities

Typical pre-construction investigations and site preparation work would be necessary to support the proposed construction activities under any action alternative, similar to pre-construction activities performed for the Phase 1 Expansion. Geotechnical investigations would consist of 6-inch-diameter bores, up to 200 feet deep, that would be backfilled with concrete and native soils and would not result in export of spoils. This would require some overland travel; however, no new permanent access roads would be created to accommodate pre-construction work. To the extent feasible, contractors would be required to avoid known aquatic features including drainages, as well as known cultural and historic sites. All ground disturbance from geotechnical investigations would be backfilled, recontoured, and reseeded to match existing conditions. Site preparation for permanent footprints would include grading and vegetation removal as described in the 2010 Final EIS/EIR.

2.2.2 Facility Refinements

Neroly High-Lift Pump Station Western Site (All Alternatives)

Proposed facility refinements to the Neroly High-Lift Pump Station have been made as a result of additional technical information developed since publication of the Draft Supplement. Refinements to the Neroly High-Lift Pump Station are described in more detail below, followed by an assessment of whether and how these refinements affect the impact analysis and conclusions presented in the

Draft Supplement. The project refinement was evaluated using an environmental checklist approach to consider each environmental resource and impact category analyzed in the Draft Supplement and determine whether and the extent to which there would be any impact difference. **Appendix A** contains the environmental assessment table for this project refinement. All action alternatives are affected by this project refinement.

As demonstrated in the discussion below, in some cases the refinement results in increased adverse impacts for certain resource topics, but in no case does this refinement result in new significant impacts that were not previously disclosed in the Draft Supplement, nor in a substantial increase in the severity of an impact that was previously disclosed. For some resource topics, the project refinement also results in less impacts than described in the Draft Supplement, related to the reduction in pipeline connectors required for the refinement. This refinement to the proposed alternatives does not affect the impact conclusions presented in the Draft Supplement. The refinement would not affect the No Project/No Action Alternative as described in the Draft Supplement, and therefore the No Project/No Action Alternative is not discussed further in this section.

Description

Project Refinement and Reason for Refinement

The proposed location for the Neroly High-Lift Pump Station in all of the action alternatives has been shifted approximately 0.5 mile to the west from the location proposed in the Draft Supplement after additional preliminary engineering evaluations identified a lower-cost site.

Comparison of Original and Refined Proposed Neroly High-Lift Pump Station

The location originally proposed for the Neroly High-Lift Pump Station was on the Randall-Bold Water Treatment Plant site (eastern site), shown in Figure 2-12 of the Draft Supplement. Final Supplement Figure 2-12a depicts both the original proposed site and the refined proposed western site (western site), which is on existing CCWD property at the Antioch Service Center immediately upstream of Pumping Plant 4 and the Neroly Blending facilities. See Section 5.3 for all Final Supplement figures.

The eastern site would have required longer suction and discharge pipes passing under two local roads and a railroad to connect the Contra Costa Canal to the Los Vaqueros Pipeline. Land acquisition or easements/encroachment permits would have been required for the first portion of the suction pipe from the Canal, since CCWD does not own the parcel of land adjacent to the Canal north of Laurel Road. The western site is immediately adjacent to the Canal. The suction pipe would still need to cross under the existing 60-inch pipeline that conveys water from the Neroly Blending Facility to Randall-Bold Water Treatment Plant. The eastern site also would have required a deeper tie-in to Los Vaqueros Pipeline, with the discharge pipe crossing the Contra Costa County Flood Control 100-year flood zone property. The western site would allow a shallower tie-in to be built on existing CCWD property. In addition, an existing nearby Western Area Power Administration (WAPA) 69kV tower is located on the western site, which reduces the length of the new power lines that would be needed for the electrical substation. The western site would allow the proposed facilities to be kept within CCWD property boundaries to avoid the purchase of additional property.

The pump station facilities at the western site would be the same as those proposed at the eastern site.

Access to the western site would be from the existing Diablo Water District service road that leads to their water storage tank site. Joint use of the service road would need to be negotiated with Diablo Water District and with Contra Costa County Flood Control and Water Conservation District, which owns the property on which the road is located. Use of the site would require realignment of a 500-foot-long curved section of the De Anza Regional Trail, a paved East Bay Regional Parks District multi-use path that is currently routed through the western site.

Environmental Effects

Relocation of the Neroly High-Lift Pump Station from the eastern site at the Randall-Bold Water Treatment Plant to the western site at the Antioch Service Center would retain the same pump station facilities, but would not require extensive suction and discharge pipes to connect the Contra Costa Canal to the Los Vaqueros Pipeline because the western site is immediately adjacent to the Canal.

Table A-1 in Appendix A, Impact Assessment for the Neroly High-Lift Pump Station Western Site, shows the impact assessment conducted for the proposed placement of the pump station at the western site, and indicates how the western site could result in increases in adverse effects on some resources, and also decrease adverse effects on some resources predominantly associated with reductions in pipeline construction.

Areas of Greater Impact

Soils. The western site could present an increased potential for topsoil erosion because it is in an undeveloped area, compared to the eastern site within the Randall-Bold Water Treatment Plant footprint. The western site also has high to very high expansion potential, compared to the moderate expansion potential of the eastern site. However, CCWD Standard Practice No. 03.1-08 would apply to the Neroly High-Lift Pump Station regardless of location and would be effective in reducing the potential risk to life and property resulting from construction on expansive soils. Although the nature of the soils at the western site would present an increased potential for erosion and expansion, the same mitigation measure would apply to reduce potential soils impacts to less than significant. This impact would not be substantially more severe than previously disclosed.

Local Hydrology. The western site would create additional impervious surfaces that could result in additional sources of polluted runoff. Implementation of mitigation measures described in Draft Supplement Section 4.5 that would design facilities with stormwater control measures would reduce the discharge of stormwater during operations and would limit water quality effects to less than significant. This impact would not be substantially more severe than previously disclosed.

Biological Resources. The western site is a highly disturbed site; however, the surrounding area includes potential habitat for California red-legged frog in the unnamed channel and annual grassland located between the Neroly Blending Facility and the Randall-Bold Water Treatment Plant, and in the unnamed channel downslope from the Neroly Blending Facility west of State Route (SR) 4. The western site is closer to this potential habitat west of SR 4 than the eastern site. As described in the Draft Supplement for the eastern site, impacts would be significant, but would

be mitigated to a less-than-significant level through avoidance, take minimization, and habitat compensation and enhancement measures. This impact would not be substantially more severe than previously disclosed.

Transportation and Circulation. Construction access to the western site would be through the Antioch Service Center operations and maintenance entrance on Neroly Road. The intersection at the service center entrance includes Neroly Road, the maintenance drive, a gated Union Pacific Railroad crossing, and the Delta de Anza Regional Trail (bicycle and pedestrian use). The convergence of vehicular, construction vehicle, train, bicycle, and pedestrian foot traffic at this intersection could result in an increase in traffic hazards due to construction. This effect would be adverse and potentially significant. Implementation of Mitigation Measure 4.9.2c described in Draft Supplement Section 4.9 would require the installation of traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones to maintain safe driving and travel conditions. This measure would include the use of signage to alert motorists/bicyclists/pedestrians of construction activities, potential hazards and travel detours as well as the use of flaggers when appropriate to ensure pedestrian, bicyclist, and driver safety. Implementation of the mitigation measure would reduce the construction traffic hazard to less than significant. This impact would not be substantially more severe than previously disclosed.

Air Quality. The western site would be closer to sensitive receptors with long-term exposure potential than the eastern site, with the nearest receptors being residential uses on Le Conte Circle and Nelson Ranch Park, approximately 800 feet to the northwest, which may result in increased exposure to Diesel Particulate Matter (DPM) from construction activities. However, Mitigation Measure 4.10.3 described in Draft Supplement Section 4.10 would require construction equipment with either Tier 4 engines or particulate filters which would reduce exposure levels to DPM to less than significant. Similarly, diesel exhaust from construction equipment could generate some odors and the western site would be closer to sensitive receptors than the eastern site. However, construction-related odors would be temporary and would not persist upon completion of construction, and this impact would be less than significant.

Aesthetics. SR 4 is a County-designated scenic route, and the proposed Neroly High-Lift Pump Station would be more visible from SR 4 at the western site than at the eastern site. The western site would be clearly visible and inclusive of views of the existing CCWD blending facility and Antioch Service Center. The duration of views would be limited, as motorists would be traveling at highway speeds. Visual sensitivity from SR 4 would be low. Drivers along SR 4 could see these one-story structures in the foreground views. However, because the pump station structures would be similar to existing structures along SR 4 at this location, the visual contrast would be weak. Given that the visual sensitivity is low, based upon the guidelines in Draft Supplement Table 4.14-2, the overall effect of the change would be Adverse, but Not Significant.

Similarly, the Neroly High-Lift Pump Station construction and operational facilities would be visible from Nelson Ranch Park and the Delta de Anza Regional Trail, which are located near the western site. Depending on the vantage point in Nelson Ranch Park, the western site would either be clearly visible (e.g., near the eastern basketball courts) or somewhat obscured from view due to distance and intervening topography (e.g., the playground). The western site would be in the foreground view

from the Delta de Anza Regional Trail. In fact, placement of the pump station at the western site would require a minor rerouting of the trail around the western site. Views from the trail would be direct and generally unobstructed. The duration of views would be limited, as trail users would be in motion, walking, jogging, or cycling along the trail. Similar to the proposed site, the Neroly High-Lift Pump Station at the western site would be situated among and appear similar in scale and finish to existing structures. Given its scale, construction, and location relative to existing structures, the new pump station would have weak visual contrast and would visually blend with existing facilities at this location. The relative change in visual/aesthetic character would be moderate. Given that the visual sensitivity of the Delta de Anza Regional Trail is moderate, based upon the guidelines in Draft Supplement Table 4.14-2, the overall effect of the change would be Adverse, but Not Significant.

Recreation. Development of the Neroly High-Lift Pump Station at the western site would require permanently relocating approximately 500 linear feet of the Delta de Anza Regional Trail to the east of the project site. The disruptions to bicyclists and pedestrians due to temporary closure of a 0.5-mile segment of this trail (inclusive of the 500-foot linear segment affected by the western site) associated with construction of the Brentwood Pipeline was addressed in Draft Supplement Section 4.15.

Disruptions to trail access associated with construction at the western site would be similar to those addressed for the Brentwood Pipeline; but would last longer because pump station construction would extend over a 36-month period. Similar to the effects of closure of the Los Vaqueros Watershed to recreational uses during construction in the Watershed, this extended trail closure could be a significant impact. The adverse effect on trail users would be reduced by amendments to recommended Mitigation Measure 4.15.1d (see Table A-1), which would require CCWD to construct the re-routed portion of the Delta de Anza Trail or provide a temporary alternative route and open it to pedestrian and bicycle traffic prior to closure of the existing portion for construction of the pump station to minimize disruptions to trail access for trail users, and this impact would be less than significant. CCWD would also be required to provide the EBRPD with a GIS data layer of the rerouted section for its use in updating maps.

Similar to the proposed site, construction of the Neroly High-Lift Pump Station at the western site would not be expected to increase use of existing regional parks or recreational facilities. However, as described in the Draft Supplement related to construction of the Brentwood Pipeline, development of the Neroly High-Lift Pump Station at the western site would require temporary closure of and rerouting of the Delta de Anza Trail. During closure periods, trail users would be displaced and expected to use nearby trails, sidewalks, and roadways. Displaced users would generally be small in number, and would not increase the use of existing facilities such that substantial physical deterioration of the facility would occur or be accelerated. The effects would be less than significant. Additionally, with implementation of revised Mitigation Measure 4.15.1d, these less-than-significant effects would be avoided. This impact would not be substantially more severe than previously disclosed.

Environmental Justice. The western site would be closer to sensitive receptors in Census Tracts 3020.09 and 3080.02 in Antioch, which may result in increased exposure to Diesel Particulate Matter (DPM) from construction activities for these minority communities. The nearest receptors are

residential uses on Le Conte Circle and Nelson Ranch Park. However, implementation of Mitigation Measure 4.10.3 described in Draft Supplement Section 4.10 would require construction equipment with either Tier 4 engines or particulate filters which would reduce exposure levels to DPM. This would reduce the impact on sensitive receptors such that the disproportionately high and adverse effect would be avoided. This impact would not be substantially more severe than previously disclosed.

Areas of Less Impact

The Neroly High-Lift Pump Station western site would reduce impacts on environmental resources as compared to the analysis of the eastern site because of the reduced length of pipeline that would be constructed.

Flood Hazard. Unlike the eastern site, the pump station facilities at the western site would not require the placement of a discharge pipeline within a 100-year floodplain, and the potential for flood flows to be impeded or redirected would be avoided.

Biological Resources. The western site would not require the development of the Neroly to Los Vaqueros Pipeline connection. Potential habitat for valley elderberry longhorn beetle in this area would not be disturbed with placement of the facility at the western site.

Noise. The pipelines associated with the Neroly High-Lift Pump Station at the eastern site would not be constructed, removing a source of construction noise in the vicinity of residences near the Contra Costa Canal.

Utilities and Public Service Systems. The pipelines associated with the Neroly High-Lift Pump Station at the eastern site would not be constructed, reducing adverse impacts associated with potential underground utility disturbances and service disruptions.

Hazardous Materials / Public Health. The pipelines associated with the Neroly High-Lift Pump Station at the eastern site would not be constructed, reducing potential adverse impacts associated with disturbance of subsurface soils and groundwater, and possible exposure of unknown hazardous substances.

Cultural Resources. Similar to the proposed site, there are no known cultural or paleontological resources and no known human burials within the western site footprint. Additionally, there is a low potential for undiscovered buried cultural or paleontological resources or human remains within the western site footprint.

Summary of Effects

As compared to the analysis of the original Neroly High-Lift Pump Station eastern site in the Draft Supplement, there would be an increase in adverse effects for certain resource topics associated with siting the pump station at the western site; however, with the incorporation or refinement of mitigation measures in the Draft Supplement, there would be no changes in level of significance for any impact conclusions. Mitigation measures presented in the Draft Supplement still apply or have been revised as discussed above and shown in Chapter 5, and are sufficient to reduce

related impacts to less than significant levels. The western site would not require the construction of pipelines to connect the Contra Costa Canal to the Los Vaqueros Pipeline. As a result, adverse effects for certain resource areas associated with this pipeline construction would be avoided. No impact would be substantially more severe than previously disclosed.

EBMUD-CCWD Intertie Pump Station

Description

The proposed location for the EBMUD-CCWD Intertie Pump Station in Brentwood has been moved as shown in Final Supplement Figure 2-13. The pump station would be located on the same parcel described in the Draft Supplement, but would be oriented north-south on the eastern edge of the parcel, closer to Mojave Drive in the Brighton Station neighborhood. This change has been proposed to avoid conflict with the Contra Costa Transportation Authority's proposed Mokelumne Trail Bicycle / Pedestrian Overcrossing Project and the City of Brentwood's proposed extension of Jeffrey Way, each of which would be partially located within the footprint initially proposed for the pump station.

Environmental Effects

Relocation of the proposed EBMUD-CCWD Intertie Pump Station within the same parcel of land would result in little change in the environmental effects identified in the Draft Supplement. However, the new location would be located approximately 170 feet from the nearest residences, compared to 270 feet for the prior location. Other Phase 2 Expansion components are proposed at closer proximities to sensitive receptors; thus, construction at 170 feet from a residence is within the range of possible impacts already analyzed in the Draft Supplement. This project refinement would affect only the analyses of air quality, noise, and visual/aesthetic resources.

Under Impact 4.10.3, the change in proposed location would place construction of the intertie pump station closer to sensitive receptors by 100 feet. However, Mitigation Measure 4.10.3 would apply to construction activities, as already identified in the Draft Supplement, and would reduce potential air quality impacts on sensitive receptors to less than significant. This impact would not be substantially more severe than previously disclosed.

Under Impact 4.11.1, again the placement of the intertie pump station would move it closer to noise-sensitive receptors. Resulting noise would be 73.4 dBA, which would be above daytime levels by 5.4 dBA and above the significance threshold of a 5 dBA increase. However, Mitigation Measures 4.11.1a through 4.11.1d would apply to construction of this component, as already identified in the Draft Supplement, and would reduce construction noise levels to less than significant. This impact would not be substantially more severe than previously disclosed.

Under Impact 4.14.1, the visual impact of the pump station within views from SR 4 would be similar to that discussed in the Draft Supplement, and visual contrast would remain low for the facility at the new proposed location. The change in location may reduce the potential for obstruction of views across open fields compared to the prior location. The overall effect would remain adverse, but not significant. This impact would not be substantially more severe than previously disclosed.

Under Impact 4.14.2, because the structure would be closer to the nearest residential street, foreground views would be increased; however, the visual contrast would remain weak due to the existing water infrastructure adjacent to the proposed pumping plant. Views from the recreational trail would be angled and partially obstructed by existing houses. The overall effect would remain adverse, but not significant. This impact would not be substantially more severe than previously disclosed.

As compared to the analysis of the original EBMUD-CCWD Intertie Pump Station site in the Draft Supplement, there would be a minimal increase in adverse effects for certain resource topics as described above; however, with the incorporation of mitigation measures in the Draft Supplement, there would be no changes in level of significance for any impact conclusions. Mitigation measures presented in the Draft Supplement are sufficient to reduce related impacts to less-than-significant levels. No impact would be substantially more severe than previously disclosed.

Summary of Environmental Consequences Associated with Facilities Description Refinement

In summary, the project description refinements would result in both increases and decreases in environmental effects in select resource areas in comparison to the project alternatives evaluated in the Draft Supplement. However, all of the potentially significant impacts associated with the refinements are similar to those already discussed in the Draft Supplement and would be reduced to less than significant with existing or revised mitigation measures presented in the Draft Supplement. None of the refinements would result in new significant and unavoidable impacts.

2.2.3 Operations Update

CCWD and the Local Agency Partners, in conjunction with the Refuge Water Supply Program, have reviewed the assumptions regarding Phase 2 Expansion Project operations used in the Draft Supplement, in light of the California Water Commission's preliminary funding decisions for the Water Storage Investment Program announced in July 2018. Analysis of Delta water resources, water quality, fisheries and aquatic resources conducted for the Draft Supplement has been updated for the Final Supplement to incorporate modified operations assumptions that have been developed since the analysis presented in the Draft Supplement was completed, as well as other modifications made in response to comments on the Draft Supplement. The updates from the Draft Supplement operations assumptions that have been included in the modeling analysis performed for the Final Supplement include:

1. Removal of ECCID pre-1914 water right as a potential source for water stored in Los Vaqueros Reservoir;

2. Modification of operational preferences for BAWSCA, EBMUD, and SFPUC, and addition of specific operational preferences for three SLDMWA member agencies, Del Puerto Water District (DPWD), San Luis Water District (SLWD), and Westlands Water District (WWD);

3. Addition of third-party water transfers from willing sellers as a potential source of water for BAWSCA, Zone 7, and the Refuge Water Supply Program as well as ACWD and the

SLDMWA member agencies, and analysis of the potential impacts of third-party water transfers to the Local Agency Partners and Refuges.

These modified operational assumptions are described in Section 5.2 of this Final Supplement and included in the updated analysis of Alternative 1B conducted for the Final Supplement that resulted in updates to the Draft Supplement Sections 4.2 and 4.3, which are presented in Appendix B-1 of this Final Supplement as referenced in Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR. The updates to Section 4.2 present modeling methodology and results of the analysis of potential effects on Delta hydrology and water quality, based on the updated modeling analysis performed for the Final Supplement. The updates to Section 4.3 present modeling methodology and results of impacts analysis for Delta fisheries and aquatic resources. Additional information on modeling methodology and results for these updated analyses are available upon request from CCWD.

The results of the updated analysis indicate that the analysis used in the Draft Supplement captured the environmental impacts associated with the action alternatives. The updated modeling does not indicate any new or substantially more severe significant impacts on Delta water quality and aquatic resources. No impact would be substantially more severe than previously disclosed.

2.3 Environmentally Superior Alternative and Environmentally Preferable Alternative

CEQA directs a lead agency to identify an environmentally superior alternative from among the alternatives evaluated. Alternative 4A represents the option with fewer new facilities. Alternative 4A does not include the reservoir expansion to 275 TAF proposed under Alternatives 1A, 1B, and 2A, and therefore does not result in additional inundation of habitat or disruption of the watershed recreation due to inundation. Alternative 4A also does not involve construction of the Delta-Transfer Pipeline and consequently would result in less environmental impact than the other three alternatives evaluated. As a result, Alternative 4A represents the environmentally superior alternative.

Alternative 4A does not meet the project objectives as fully as the other action alternatives, particularly Alternative 1B, and it does not provide the same level of benefit as the other action alternatives. However, it does provide environmental water management improvement in the form of additional water supplies for south-of-Delta CVPIA wildlife refuges through the Refuge Water Supply Program.

Section 1505.2(b) of 40 CFR requires that the environmentally preferable alternative be identified in the Record of Decision (ROD). Reclamation will identify the environmentally preferable alternative when it issues the ROD for this action.

2.4 Reclamation Preferred Alternative

In the 2010 Final EIS/EIR, Reclamation indicated that it may ultimately decide that a 275-TAF Los Vaqueros Reservoir best meets its needs and objectives, but that the ongoing water system evaluation involved other potential project partners and other potential new Delta conveyance projects, and required additional time to evaluate. Based on the assessment in this Final Supplement, which accomplishes that additional evaluation, and recognizing that implementation of Alternative 4A would not provide a 275-TAF reservoir, Reclamation's preferred alternative among the 275-TAF alternatives is Alternative 1B.

Chapter 3 Master Responses

3.1 Master Response 1: Project Description

3.1.1 Introduction

Overview

This master response addresses comments received on the Phase 2 Expansion Project Description, including Operations During and Immediately Following Construction (Section 3.1.2) and CCWD Customer Concerns (Section 3.1.3).

No agencies or organizations addressed this topic in comments. Commenters who addressed this topic include:

Individuals

1. Tom Deeble – I_Deeble
2. Bryan Grunwald – I_Grunwald
3. Gary L. Harris – I_Harris
4. Mike Hooper – I_Hooper
5. Carolyn Jennings – I_Jennings
6. Walter Johnson – I_Johnson
7. John F. Meade – I_Meade
8. Karen Summers – I_Summers

3.1.2 Operations During and Immediately Following Construction

Comment Summary

This section of this master response responds to all or part of the following comments:

I_Harris_03 I_Hooper_01 I_Johnson_02 I_Meade_01

Summary of Issues Raised by Commenters

CCWD customers could be at risk during the construction period when the reservoir is drawn down and cannot be used to meet customer demands, water quality goals, or emergency supplies.

Response

Four comments raise concerns with the impacts of taking the Los Vaqueros Reservoir out of service during construction of the reservoir expansion. Responses to similar concerns were discussed in the Final EIS/EIR (Vol. 2, Chapter 3, Section 3.1.4). Responses provided here reflect the updates to the project and are tailored to respond to the comments. As discussed in the Final EIS/EIR, for alternatives that expand the reservoir to 275 TAF capacity (in the Draft Supplement, these are Alternatives 1A, 1B, 2A), the reservoir would be out of service for about 4 years, from the time the reservoir was completely drained until it was refilled to an operational level.

The water drained from the reservoir would be delivered to CCWD customers via the Los Vaqueros Pipeline to meet CCWD customer demand. The Transfer-Bethany Pipeline would be built prior to the drawdown of the reservoir. After CCWD customer demand is met, Local Agency Partner and Refuge demands could also be met with water drained from the reservoir and delivered via the Transfer-Bethany Pipeline, after any necessary water rights changes are obtained.

During the period when the reservoir is out of service, CCWD water quality goals would be met by diversions from CCWD's Rock Slough, Old River, and Middle River Intakes and through strategic use of the existing EBMUD-CCWD Intertie. If a very dry year occurs during this time, it may be necessary to temporarily relax delivered water salinity goals, as is the case when the Reservoir is in service. In a catastrophic emergency or extended drought, CCWD would institute emergency demand management, utilize interties with other agencies and could use alternative technologies such as mobile reverse osmosis units to ensure that high quality water is delivered to its customers. Treated water delivered to customers would still meet all federal and state water quality standards.

After construction of the expanded reservoir is completed, the priorities for filling would be first to restore CCWD's emergency storage reserves and then to restore water available to meet CCWD's water quality goals and CCWD's drought supply, along with storing water for partner use.

For Alternative 4A, the reservoir would not be drained and would remain in operation throughout the construction of other facilities.

3.1.3 CCWD Customer Concerns

Comment Summary

This section of this master response responds to all or part of the following comments:

I_Deeble_01	I_Frayseth_02	I_Grunwald_01	I_Harris_06	I_Jennings_01
I_Johnson_01	I_Meade_02	I_Meade_04	I_Meade_07	I_Summers_01

Summary of Issues Raised by Commenters

1. How will CCWD's existing benefits be protected?
2. Who will pay for the Phase 2 Expansion?
3. What are the costs of the Phase 2 Expansion?
4. What is the cost/benefit analysis for CCWD participation in the Phase 2 Expansion?

Response

Los Vaqueros system operations with the Phase 2 Expansion would continue to meet CCWD customer demand and protect existing benefits that CCWD customers have already invested in, such as water quality, emergency storage, and water supply reliability. After CCWD's operational priorities have been met, demands of Local Agency Partners and Refuges would be met through the operation of the existing and proposed facilities. The operational priorities of the Phase 2 Expansion action alternatives are described in the Project Description (Chapter 2) of the Draft Supplement to the Final EIS/EIR.

Existing funding agreements with the Local Agency Partners include the "beneficiary pays" principle to allocate costs for the Phase 2 Expansion. For example, CCWD customers would not benefit from the Transfer-Bethany Pipeline, and therefore, CCWD would not be responsible for any portion of the costs associated with building or operating that facility. Local Agency Partners that use CCWD's existing facilities would reimburse CCWD for use of those facilities. For the limited number of new facilities that benefit both CCWD and Local Agency Partners, costs would be shared in proportion to the benefits received by each party.

The cost of the Phase 2 Expansion is under development. Total project costs and allocation of costs will depend on a number of factors including: Proposition 1 water bond funding through the California Water Commission (if awarded), federal funding (if appropriated), and the level of participation by the various Local Agency Partners. If some of the Local Agency Partners identified as potential beneficiaries of the Phase 2 Expansion Project opt not to continue to participate, their share of the project costs and benefits would be spread among the remaining Local Agency Partners. Comprehensive cost estimates are not required to evaluate the environmental effects of the project and are not provided in the Supplement to the Final EIS/EIR. Preliminary cost estimates are provided in the Federal Feasibility Report.

Benefits to CCWD customers in the form of improved delivered water quality and drought emergency supply are the result of optimized operations of the Phase 2 Expansion facilities for the benefit of the Local Agency Partners and Refuges. CCWD could choose to invest in further benefits for CCWD customers, under the same "beneficiary pays" principle that the Local Agency Partners are using to make decisions on participation. The business case and financial analysis for CCWD ratepayers and taxpayers is not included the Final EIS/EIR or the Draft Supplement. This type of analysis is not required as part of the impacts evaluation under CEQA or NEPA. CCWD is continuing to analyze the benefits and costs of the proposed project for CCWD and the results of this analysis would be incorporated into CCWD's Ten Year Capital Improvement Plan when available. The current Capital Improvement Plan is available on the CCWD website at https://www.ccwater.com/documentcenter.

3.2 Master Response 2: Relationship to Other Initiatives and Projects

3.2.1 Introduction

Overview

This master response addresses comments received about how the Phase 2 Expansion Project would affect or be affected by other initiatives and projects, i.e., the California WaterFix project (Section 3.2.2).

Commenters

No federal agencies or organizations addressed this topic in comments. Commenters who addressed this topic include:

State Agencies

1. Department of Water Resources – S_DWR

Local and Regional Agencies

1. Metropolitan Water District of Southern California – L_MWD

Individuals

1. Gary L. Harris – I_Harris
2. Linda Thuman – I_Thuman

3.2.2 California WaterFix

Comment Summary

This section of this master response responds to all or part of the following comments:

S_DWR_02 S_DWR-06 S_DWR_19 L_MWD_01 L_MWD_02 L_MWD_07
L_MWD_08 L_MWD_09 L_MWD_10 I_Harris_01 I_Thuman_02

Summary of Issues Raised by Commenters

1. Is the Phase 2 Expansion connected to or affected by the California WaterFix (CWF), and will Phase 2 Expansion operations impact CVP and SWP water supply under CWF operations?
2. Information from the 2016 Biological Assessment, the 2016 Final EIR/EIS, and the June 2017 National Marine Fisheries Service and U.S. Fish and Wildlife Service Biological Opinions for the CWF should be used to update CWF information.
3. More information on modeling results for Phase 2 operations in conjunction with the CWF is needed in Appendix B.

Response

Connection with California WaterFix

The Phase 2 Expansion is not a part of the CWF and is not dependent upon the CWF. The Phase 2 Expansion would provide benefits to its Local Agency Partners and to south of Delta Wildlife Refuges that would be similar in magnitude either with or without the CWF, as discussed in Appendix B of the Draft Supplement.

One commenter asked if the shift in CCWD's default no-fill and no-diversion operational restrictions required under the Los Vaqueros biological opinions and incidental take permit (USFWS, 1993; NMFS, 1993; CDFG, 2009) would be inconsistent with the objectives and operation of the CWF and therefore affect CVP and SWP operations in April and May by reducing Delta outflow in those months. The Phase 2 Expansion does not include a proposed shift in the default timing of CCWD's no-fill and no-diversion periods. Instead, these operational restrictions are proposed to be eliminated and CCWD's diversions would be restricted by Old and Middle River flow requirements.

A shift in the default no-fill and no-diversion periods was evaluated in the Final EIS/EIR, where the February 14 through 28 and March 15 through May 31 no-fill period and the concurrent no-diversion period in April were shifted to the first half of February and all of March and June for the no-fill period with a concurrent no-diversion period in March. The effect of the shift in timing of the operational restrictions on Delta outflow for Alternative 4 can be seen in Tables 4.3-11 and 4.3-12 in Chapter 5 of Volume 4 of the Final EIS/EIR. For Alternative 4, Delta outflow would decrease by less than 1 percent in April and May, and increases by similar small amounts in February, March, and June.

The Phase 2 Expansion would cause a slight increase in April and May Delta outflow compared to Alternative 4 in the Final EIS/EIR, as shown in Table 4.3-11 of the Draft Supplement. This occurs because the use of the proposed new Neroly High Lift Pump Station and use of EBMUD's existing Freeport intake for the project allow diversions to be spread more equally among the wet months of the year.

In addition, Table 3-1 shows changes in the average monthly availability of Delta surplus flows for the operations modeling scenario that included California WaterFix, as requested by one commenter. The Phase 2 Expansion would divert a small fraction of the total available flows when the Delta is in excess conditions. Data files of modeling output will be made available to any entity that may wish to further explore the results.

Table 3-1. Delta Surplus (TAF)

WaterFix, ELT Delta Surplus (TAF)		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		2307	**2558**	**2035**	**1263**	**731**	**202**	**13**	**4**	**1**	**97**	**173**	**1081**	**10465**
Delta Surplus Water Diverted	160 TAF LVE No Project/No Action Alternative	6	6	1	7	7	4	0	0	0	0	2	5	39
Change in Delta Surplus Diverted	Alt. 1B	17	20	21	10	9	7	1	0	0	4	2	11	102

Updated CWF information

The Draft Supplement relied upon the most current information on the CWF that was available during its preparation. In response to specific comments on text that should be updated with information from the 2016 Biological Assessment, the 2016 Final EIR/EIS, the June 2017 National Marine Fisheries Service and U.S. Fish & Wildlife Service Biological Opinions, the July 2017 California Endangered Species Act Incidental Take Permit, and the July 2017 project approval for the CWF, text changes have been made to relevant portions of Draft Supplement Sections 4.2, 4.3, and 4.6. Specific text changes are shown in Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR.

3.3 Master Response 3: Approvals and Permits

3.3.1 Introduction

Overview

This master response addresses comments received on agreements with federal, state, and local agencies, including Local Agency Partners, and on water rights, including Agreements (Section 3.3.2) and Water Rights (Section 3.3.3).

Commenters

No federal or local/regional agencies or individuals addressed this topic in comments. Commenters who addressed this topic include:

State Agencies

1. Department of Water Resources – S_DWR
2. State Water Resources Control Board – S_SWRCB

Organizations

1. Restore the Delta – O_RTD

3.3.2 Agreements

Comment Summary

This section of this master response responds to all or part of the following comments:

S_DWR_01 S_DWR_02 S_DWR_03 S_DWR_04 S_DWR_08

Summary of Issues Raised by Commenters

1. An operations agreement coordinating the operations of the Phase 2 Expansion with State Water Project and Central Valley Project operations is needed.
2. DWR, CCWD, and the Local Agency Partners that are State Water Project contractors need to develop agreements for diversion, storage, and delivery of State Water Project allocations through Los Vaqueros facilities.
3. An agreement for the planning, design, operation, and maintenance of the connection of the proposed Transfer-Bethany Pipeline with State Water Project facilities is needed.

Response

CCWD and Local Agency Partners will work with relevant agencies, including DWR and Reclamation, to develop agreements as appropriate for the planning, design, construction, operations, and maintenance of the Phase 2 Expansion. The full set of operations modeling runs completed for the Draft Supplement, including modeling results at a monthly timestep, is available upon request. The operations modeling for Alternative 1B was updated for the Final Supplement and is summarized in Appendix B-1, Updated Modeling Analyses; the full set of refined modeling

runs is also available upon request. The monthly averaged deliveries through the Transfer-Bethany Pipeline to the State Water Project's California Aqueduct facility are included in Section B-1.2 of Appendix B-1, along with other flow parameters presented as monthly averages and by water year type. Additional information on partnership operations will be shared as it is developed.

3.3.3 Water Rights

Comment Summary

This section of this master response responds to all or part of the following comments:

S_DWR_08	S_DWR_10	S_DWR_12	S_DWR_13	S_DWR_14
S_DWR_15	S_DWR_16	S_DWR_17	S_DWR_20	S_SWRCB_01
S_SWRCB_02	S_SWRCB_03	O_RTD_04		

Summary of Issues Raised by Commenters

1. The Phase 2 Expansion operations will require water rights changes.
2. How is Table A water being used?
3. Clarify what is meant by "Delta Surplus Water."
4. BBID's and ECCID's pre-1914 water rights cannot be used for storage of water in Los Vaqueros Reservoir.
5. The amount of water to be delivered to SLDMWA should be specified.
6. Provide more detail on delivery of Incremental Level 4 water to Refuges, and discuss how the benefits to Refuges will be assured.
7. Potential effects of updates to the Bay-Delta Water Quality Control Plan on the Phase 2 Expansion should be acknowledged.
8. Was the "special Delta term" in CCWD's water right permit considered in Appendix C?

Response

Water Rights Change Petitions

No new water rights will be needed for the Phase 2 Expansion. To enable project operations, CCWD anticipates filing a change petition on its own water right permit (the "Los Vaqueros" water right permit) and working with DWR, EBMUD, Reclamation and local agency partners as needed to file petitions for change on the DWR, EBMUD, and Reclamation water right permits shown in Table 2-3.

The change petitions will be filed in accordance with all relevant state laws and SWRCB procedures and will meet the following requirements:

1. establish that the proposed change(s) will not in effect initiate a new right;

2. provide sufficient information to demonstrate a reasonable likelihood that the proposed change(s) will not injure any other legal user of the water;

3. provide information concerning the extent to which fish and wildlife will be affected by the change(s);

4. identify proposed measures to protect fish and wildlife from any unreasonable impacts of the changes(s);

5. demonstrate that the proposed change(s) will comply with any applicable requirements of the Fish and Game Code, including the California Endangered Species Act, and the federal Endangered Species Act; and

6. demonstrate compliance with the California Environmental Quality Act (CEQA).

The Final EIS/EIR together with the Final Supplement to the Final EIS/EIR should contain all the information necessary to cover approval of the change petitions.

It is not anticipated that changes to ECCID's pre-1914 water right will be sought, and ECCID has been removed from Table 2-3.

Use of State Water Project Table A Water

The Phase 2 Expansion Project does not assume an increase or change in Table A allocations from SWP contractors. The Table A water diverted for SWP contractors into the Los Vaqueros system was assumed to be allocated water that otherwise would have been diverted at Banks Pumping Plant for these contractors and stored south of the Delta (for instance, in the Semitropic groundwater bank), and not an increase in allocation. In the CalSim II modeling, diversion of SWP Table A water into the Los Vaqueros system was offset by a decrease in pumping from Banks for those same contractors.

As noted above, it is anticipated that DWR, Local Agency Partners, and CCWD will work together to secure the necessary modifications to relevant DWR water rights. In addition, it is anticipated that CCWD and DWR will develop an agreement for mutually advantageous water management operations in accord with the coordinated operations of the CVP and SWP.

Delta Surplus Water

As described in Section 2.3.2.5 of the Draft Supplement, "Delta Surplus Water" is water diverted when the Delta is in excess conditions as defined in the State Water Resources Control Board's Decision 1641 under CCWD's Los Vaqueros water right, under Reclamation's water rights pursuant to CCWD's or other partners' CVP contracts, under other Local Agency Partner water rights, or under DWR's water rights pursuant to partners' State Water Project contract. As further described in Section 2.3.2.6 of the Draft Supplement, the Phase 2 Expansion partners would work together to secure any necessary modifications to relevant water rights permits, agreements, and/or contracts in order to use these sources of water. Long-term transfer or exchange agreements would be needed for the water to be diverted, stored, and delivered for use by the Phase 2 Expansion.

Pre-1914 water rights

Both BBID and ECCID hold pre-1914 water rights and have settlement agreements with DWR regarding the use of those rights. The Phase 2 Expansion analysis in the Draft Supplement showed an annual average of just under 4 TAF diverted to storage under BBID's and ECCID's rights for use by BBID, ECCID, and the City of Brentwood.

One commenter noted that diversion of water to storage in Los Vaqueros would not be allowed under BBID's and ECCID's settlement agreements with DWR. The revised modeling done for the Final Supplement does not include storage of water diverted under BBID's or ECCID's water rights.

Water for South-of-Delta Agriculture

A conservatively high estimate of the amount of water that could be delivered to SLDMWA through water transfers using otherwise-unused capacity in the Los Vaqueros facilities was provided in Appendix C of the Draft Supplement. This analysis used the demands of the SLDMWA member agencies described in the 2015 Long-Term Water Transfers Final EIS/EIR.

Three SLDMWA member agencies (Del Puerto Water District, San Luis Water District, and Westlands Water District) have provided more specific operational preferences for the Phase 2 Expansion, joining BBID, Grassland Water District, and SCVWD as SLDMWA member agencies with specific operations covered in the CalSim II operational modeling. The updated results are described in Appendix B-1, which revises Section 4.2.

Water for South-of-Delta Wildlife Refuges

The proposed Phase 2 Expansion includes developed water supplies that would be provided to Reclamation's Refuge Water Supply Program (RWSP) as Incremental Level 4 refuge water (one of the requirements under CVPIA Section 3406(d)), contributing to other Incremental Level 4 water sources acquired by the RWSP. Reclamation, in coordination with the USFWS, is responsible for providing all CVPIA refuge water supplies to the CVPIA refuges. The RWSP coordinates with the refuge managers to provide refuge water to the refuges based on delivery schedules developed by the refuge managers. The Incremental Level 4 water will be conveyed through the improved Phase 2 Expansion conveyance facilities to the San Luis Reservoir where Reclamation, through the RWSP, will take possession of this refuge water. CCWD and the Local Agency Partners will develop necessary agreements with Reclamation for the conveyance of refuge water to the San Luis Reservoir. From the San Luis Reservoir, the RWSP will convey the Incremental Level 4 water to south-of-Delta CVPIA refuges based on their scheduled water needs and in coordination with the refuge managers. The RWSP will utilize Reclamation's south-of-Delta facilities and existing refuge water conveyance agreements with local water conveying entities to move the Incremental Level 4 water from the San Luis Reservoir to these refuges' boundaries.

Incremental Level 4 water represents the water type identified in CVPIA required for optimal habitat development and management. Incremental Level 4 water provides the following benefits to the refuges:

1. Expands the wetland footprint on certain refuges, increasing total acres of habitat available to wildlife;

2. Provides for critical food plant irrigations for migratory birds;

3. Provides brood habitat in spring and summer months for waterfowl and other wetland-dependent wildlife;

4. Provides maintenance flows that improve water quality and wetland health, which helps minimize impacts from avian disease;

5. Provides sufficient habitat for early arriving wintering birds;

6. Provides staging habitat for birds getting ready to migrate to northern breeding grounds; and

7. May provide more hunting, bird watching, and wildlife educational opportunities for the public.

Once Incremental Level 4 water is delivered to the refuges, refuge managers determine the best practices for this water based upon refuge managing agencies' habitat management plans, and also annual refuge water management plans required by Reclamation.

Benefits to the refuges will only occur when these additional water supplies are actually provided to the RWSP and delivered to the refuges. However, some assurance will be provided once CCWD or an established joint powers authority and the California Department of Fish and Wildlife and the Bureau of Reclamation's RWSP enter into a long-term (potentially 100-year) contract that commits to providing operational priority for benefits to the Refuges in return for state funding under the California Water Commission's Water Storage Investment Program. The long-term agreement would specify that these supplies will be provided at no cost to the RWSP, other than reasonable conveyance costs to convey this water to San Luis Reservoir as well as reasonable storage costs in Los Vaqueros Reservoir. Conveyance and storage costs include energy costs, and operations and maintenance (O&M) and replacement costs.

Bay-Delta Water Quality Control Plan

The Phase 2 Expansion is designed to provide flexibility in operations to allow diversions and storage of water when available to optimize water supply for Local Agency Partners and Refuges. Updates to the Bay-Delta Water Quality Control Plan (WQCP), including potential changes to required Delta outflows, Sacramento River and eastside Delta tributary inflows, cold water habitat, and interior Delta flows, could affect operations of the Phase 2 Expansion. An entry on the WQCP has been added to Section 1.3 of the Draft Supplement, Changes in Conditions since the Final EIS/EIR, acknowledging that changes to the WQCP could affect Phase 2 Expansion operations.

One commenter noted that the second sentence of the second paragraph on page 4.3-18 of the Draft Supplement contains an error in describing the timing of the WQCP X2 requirements. That error has been corrected in Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR.

Special Delta Term

The "special Delta term" in CCWD's water right permit provides that "No diversion is authorized that would adversely affect the operation of the Central Valley Project or the State Water Project …" All of the operational analysis in the Supplement includes this restriction; no diversions under CCWD's water rights are taken during times when the Delta is in balanced conditions or when Old and Middle River flow restrictions govern CVP and SWP operations.

Appendix C of the Draft Supplement provides an estimate of the upper limit on the amount of transfer water that could be conveyed through the Phase 2 Expansion facilities from willing sellers north of the Delta to willing buyers south of the Delta. The special Delta term would not apply to these transfers as no water would be diverted under CCWD's water right permit.

3.4 Master Response 4: Recreation

3.4.1 Introduction

Overview

This master response addresses comments received on bicycle routes within the Los Vaqueros Watershed (Section 3.4.2).

Commenters

No agencies or organizations addressed this topic in comments. Commenters that addressed this topic include:

Individuals

1. Kim Achziger – I_ Achziger
2. Tom Deeble – I_Deeble
3. Dennis Gilmore – I_Gilmore
4. Stacy Keller-Moore – I_Keller-Moore
5. C.A. Linder – I_Linder
6. Bruce Ohlson – I_Ohlson
7. David Stoeffler – I_Stoeffler
8. Linda Thuman – I_Thuman

3.4.2 Bicycle Routes within the Los Vaqueros Watershed

Comment Summary

This section of this master response responds to all or part of the following comments:

I_Achziger_01 I_Deeble_03 I_Gilmore_01 I_Keller-Moore_01 I_Linder_01
I_Ohlson_01 I_Stoeffler_01 I_Thuman_01 I_Thuman_05

Summary of Issues Raised by Commenters

The commenters request safe routes for bicyclists and other recreational users (i.e., pedestrians, wheelchair users, and equestrians). Specific requests include a paved multi-use path from the Interpretive Center to the Marina and from the Interpretive Center to Round Valley Regional Park.

Several commenters noted that a connection between the Interpretive Center and the Marina would offer a bicycling route between Brentwood and Livermore as an alternative to Vasco Road.

Several commenters mentioned the loss of a paved route due to inundation when the original 100-TAF Los Vaqueros Reservoir was built.

One commenter expresses the desire for mountain biking on dirt trails and requests that the trails be operated by the East Bay Regional Park District (EBRPD). Another raised questions about a previously considered equestrian facility at the north end of the Los Vaqueros Reservoir.

Response

The provision of new bike paths is outside the scope of this Supplement, because none are proposed under the Phase 2 Expansion, nor are any required to mitigate significant impacts of the Phase 2 Expansion. Comments communicating suggestions for additional bike access have been provided to the appropriate staff working on Los Vaqueros recreation programs. For additional information regarding Los Vaqueros, please go to http://www.ccwater.com/9/Los-Vaqueros.

Regarding Project-related recreation, as discussed in Draft Supplement Chapter 2, Project Description (p. 2-18), the previously proposed interconnecting trails on the east side of Los Vaqueros Reservoir have been eliminated from the Phase 2 Expansion due to the presence of sensitive biological and cultural resources in that area. Because of these sensitive resources, no **current access is allowed, and none is proposed. Please refer to Final EIS/EIR Volume 4, Section 3.11, Master Response 11, Recreation** (Chapter 3, Sections 3.11.4, p. 3-138 et seq. and 3.11.5, p. 3-144 et seq.), which discusses the replacement of recreational facilities within the Los Vaqueros Watershed that would be inundated by the reservoir expansion, and requests for additional multi-use trails in the watershed.

Recreational amenities proposed during the Phase 1 Expansion are not addressed in this Supplement, which is focused only on the potential environmental impacts of the Phase 2 Expansion not previously analyzed in full in the Final EIS/EIR. Furthermore, impacts of the original 100-TAF Los Vaqueros Reservoir project were addressed at the time of that project's consideration and implementation, and are outside the scope of this Supplement.

The recreational facilities of the Los Vaqueros Watershed are managed and operated by the Contra Costa Water District, which owns the lands on which these facilities are located, and are not within the jurisdiction of the EBRPD. Please refer to **Final EIS/EIR Volume 4, Section 3.11, Master Response 11, Recreation** (Chapter 3, Section 3.11.6, p. 3-147 et seq.) which discusses the applicability of EBRPD policies to the reservoir expansion, and EBRPD's jurisdiction as it relates to the Los Vaqueros Watershed.

Chapter 4 Individual Responses to Comments

This chapter provides responses to individual comments provided by federal, state, and local agencies, organizations, and individuals. Where a comment does not raise substantive concerns or questions about the adequacy or accuracy of the Draft Supplement, such as comments expressing support for or opposition to the project, it is acknowledged but no detailed response is provided.

4.1 Federal Agencies

Table 4-1. Federal Agencies that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Page Number
Letter	F_EPA	Kathleen Martyn Goforth	Manager, Environmental Review Section, Region IX	Environmental Protection Agency	C-3
Letter	F_USFWS	Eric Tattersall	Assistant Field Supervisor	U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office	C-6

Environmental Protection Agency, Kathleen M. Goforth, Manager, Environmental Review Section, Region IX, September 8, 2017

F_EPA_01 The commenter suggests clarification of the permitting process for the proposed activities within jurisdictional waters of the U.S. If a Clean Water Act Section 404 Individual Permit is required, the commenter suggests that the Clean Water Act Section 404(b)(1) alternatives analysis and identification of the Least Environmentally Damaging Practicable Alternative.

Response

A Clean Water Act Section 404 permit will be required for the Phase 2 Expansion. Draft Supplement Table 2-6 has been updated to reflect this requirement. An updated wetlands delineation and the requested 404(b)(1) analysis will be prepared for the permitting process.

F_EPA_02 The commenter recommends that Reclamation and Contra Costa Water District (CCWD) use information from CCWD's website and mitigation and monitoring reports to inform permits from the U.S. Army Corps of Engineers (USACE) and from wildlife agencies. They state that the use of this data will help ensure that additional mitigation complements projects that are already completed in conjunction with the wildlife and habitat goals articulated in efforts such as the East Contra Costa County Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP).

Response

CCWD is actively managing lands both within and outside of the Los Vaqueros Watershed consistent with federal and state permit requirements. The comment does not raise substantive concerns or questions about the adequacy or accuracy of the Draft Supplement. However, as suggested by the commenter, habitat management information that is collected in annual monitoring reports, including the management successes and lessons learned, will be used to inform the anticipated permits from the USACE and wildlife agencies (U.S. Fish and Wildlife Service [USFWS] and the California Department of Fish and Wildlife [CDFW]).

U.S. Fish and Wildlife Service, Eric Tattersall, Assistant Field Supervisor, Sacramento Fish and Wildlife Office, September 5, 2017

F_USFWS_01 The comment recommends revising Impact 4.6.17 to analyze the impacts of the proposed Transfer-Bethany Pipeline on East Contra Costa County HCP/NCCP preserve lands (including impacts to wetlands/ponds created by the East Contra Costa County Habitat Conservancy [ECCCHC]) and including alternative alignments for the Transfer-Bethany Pipeline that would avoid preserve lands. In addition, the comment recommends including an analysis of the feasibility of the proposed Transfer-Bethany Pipeline alignment given the recorded encumbrances on preserve lands.

Response

Both the Final EIS/EIR and Draft Supplement acknowledged the conservation status of East Bay Regional Park District (EBRPD) and ECCCHC lands in and near the proposed Transfer-Bethany Pipeline alignment near Armstrong Road, and discussed the known and suspected presence of sensitive resources in this area. See **Final EIS/EIR Volume 4, Section 3.8, Master Response 8, Biological Resources** (Chapter 3, Section 3.8.3, pp. 3-80 through 3-82), which addressed impacts to what was in 2010 the "Future Byron Vernal Pools Regional Preserve." This Supplement focuses only on aspects of the Phase 2 Expansion not previously addressed in the Final EIS/EIR; among them, the Supplement acknowledges that mitigation ponds not present during preparation of Final EIS/EIR were constructed in an area now included as part of the proposed Transfer-Bethany Pipeline alignment, and these ponds contain seasonal wetland habitat (see Draft Supplement page 4.6-1). The anticipated impacts of the proposed Transfer-Bethany Pipeline do not substantially differ from impacts that were identified in the Final EIS/EIR, except that new engineering methods would substantially reduce the width of the pipeline construction corridor. New engineering methods

would reduce impacts within preserve lands and on associated wetlands/ponds. The present pipeline construction approach under Alternatives 1A, 1B, and 2A could reduce the width of the Transfer-Bethany pipeline construction corridor within the Armstrong Road area from 200 feet, which was the Final EIS/EIR area of analysis, to as few as 35 feet. With recent wetland construction on EBRPD lands west of Armstrong Road, CCWD and Reclamation have proposed placing the pipeline on the east side of the road. By fine-tuning the width of the construction corridor and its specific placement, the approach would minimize impacts to preserve lands that are owned or managed by the EBRPD and the ECCCHC, and avoid or minimize impacts to created wetlands and ponds. Impact 4.6-17 in the Draft Supplement identifies **Mitigation Measures 4.6.2a** and **4.6.2b**, which protect jurisdictional wetlands, and **Measures 4.6.6a** and **4.6.6b**, which protect fairy shrimp, to reduce temporary impacts on the wetlands and ponds within preserve lands to a less-than-significant level. **Mitigation Measures 4.6.1a** and **4.6.1b** also would require that CCWD avoid, minimize and mitigate impacts to the area's northern clay pan vernal pool habitat. In summary, the Transfer-Bethany pipeline alignment should mostly avoid direct and indirect impacts to EBRPD's Byron Vernal Pools Regional Preserve.

In addition, as suggested by the commenter, CCWD and Reclamation are coordinating with Contra Costa County Department of Conservation and Development, Department of Public Works, and Airports divisions to examine final pipeline alignments, which could result in avoidance of some preserve lands located on Armstrong Road and elsewhere (i.e., the Campos and Casey parcels, discussed in response to comment O_SMD_04). However, given the amount of preserve lands and sensitive habitat located south and east of the airport on Byron Hot Springs Road, additional conservation lands impacts could occur. Although direct impacts on preserve lands may be reduced with these alignments, potential direct impacts on sensitive species and their habitats could be greater than for the proposed alignment, with potentially great impacts to alkali grasslands and wetlands. Whether the pipeline alignment passes west or east of Byron Airport, no viable alignments have been identified that avoid all preserve lands, hence, it is identified in the Final EIS/EIR and in the Draft Supplement that the final pipeline alignment would traverse lands with recorded restrictive covenants. This Supplement analyzes reasonably anticipated routes for Phase 2 Expansion pipelines, and any proposed changes in pipeline routes made in the future would require additional analysis; however, such potential changes are too speculative to analyze at this time.

F_USFWS_02 The comment states that regulatory permitting for the Los Vaqueros Reservoir Expansion to 160 thousand acre-feet (TAF) required greater mitigation than was presented in the Draft Supplement. The comment states that the Draft Supplement should be revised to describe the outcome of regulatory permitting for the prior reservoir expansion, which resulted in a compensatory mitigation ratio of approximately 9:1 (land conserved to land impacted).

Response

The determination of habitat mitigation and enhancement requirements for the Phase 1 Expansion took a holistic and iterative approach (as described below), developed in close coordination with the agencies. As described in the February 24, 2011 USFWS Biological Opinion (USFWS file no. 81420-2009-F-0201-1), which is the regulatory permit referenced by the commenter, the total impact of 745.76 acres was mitigated by preserving a minimum of 4,890 acres of mitigation lands with the

potential to support listed species affected by the project (California red-legged frog, California tiger salamander, Alameda whipsnake, and San Joaquin kit fox). Of this impacted acreage, approximately 476 acres were subject to a conservation easement for San Joaquin kit fox running along the western side of the reservoir. Approximately 450 of these impacted acres within the conservation easement were grassland habitat, including almost 285 acres of grasslands that were not modified by the project, but were presumed to be made inaccessible to San Joaquin kit fox and other sensitive species. As identified in the Biological Opinion, this area was considered "isolated by inundation," and was mitigated as a permanent impact. The minimum amount of compensatory mitigation for grassland was set at 4,700 acres. Although the calculation of this requirement is not set out in the opinion, USFWS was clear during the permitting process that a higher compensation ratio would apply to impacts in the conservation easement area. A comparison of mitigation requirements to permanent impacts by location in or out of the conservation easement results in an approximate ratio of 9:1 for impacts within the conservation easement and 3:1 for impacts outside the easement. Alternatively, taken overall, the ratio of land conserved to all land impacted was approximately 6.5:1. However, a single ratio such as 3:1 or 9:1 cannot convey the complexity and nuances that will shape the final habitat preservation and enhancement package.

Equally important to a ratio or total acreage target, CCWD, USFWS, CDFW, and Reclamation collaborated in developing the final compensatory mitigation program, identifying properties with strategic value in the context of regional conservation goals, that preserved movement corridors and that met specific species and habitat criteria. This approach resulted in the acquisition of a robust network of mitigation lands that integrate and complement other conservation lands in the region. CCWD and Reclamation anticipate this approach would be followed again, and the final compensatory package would be determined in consultation with the USFWS and CDFW.

Note that the final mitigation requirements for Phase 2 Expansion should reflect that compensatory mitigation has already been provided for any portion of this "isolated" area described above that would be affected by Phase 2 Expansion. The mitigation for the Isolated Lands was the subject of Amendment #1 to Incidental Take Permit No. 2081-2011-002-03 issued to CCWD for the Phase 1 Expansion.

Please also refer to **Final EIS/EIR Volume 4, Section 3.8, Master Response 8, Recreation** (Chapter 3, Section 3.8.4, pp. 3-89 and 3-90), which addresses comments about mitigation ratios for California red-legged frog and California tiger salamander.

4.2 State Agencies

Table 4-2. State Agencies that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Page Number
Letter	S_CDFW	Scott Wilson	Regional Manager, Bay Delta Region	California Department of Fish and Wildlife	C-11
Letter	S_DWR	Pedros Villalobos	Chief, State Water Project Analysis Office	California Department of Water Resources	C-24
Letter	S_CVRWQCB	Stephanie Tadlock	Environmental Scientist	Central Valley Regional Water Quality Control Board	C-34
Letter	S_SWRCB	Sean Maguire	Manager, Petition, Licensing Registration Section, Division of Water Rights	California State Water Resources Control Board	C-43
Letter	S_DSC	Cassandra Enos-Nobriga	Deputy Executive Officer	Delta Stewardship Council	C-169

California Department of Fish and Wildlife, Scott Wilson, Regional Manager, Bay Delta Region, August 31, 2017

S_CDFW_01 The commenter recommends describing the procedures and evaluating the biological impacts from demolition of the existing marina and expansion of the new marina. Commenter suggests impacts may include displacement of roosting bats or bat colonies, or release of contaminants during demolition.

Response

Construction of reservoir-associated facilities, including removing existing Marina facilities and replacing them with facilities farther upland, was fully addressed in the 2010 Final EIS/EIR. Construction activities associated with decommissioning and removal of the currently existing facilities and replacement with similar proposed facilities would be similar to those previously described, analyzed, and implemented for the Phase 1 Expansion. This Supplement focuses only on aspects of the Phase 2 Expansion not previously addressed in the Final EIS/EIR. The marina demolition and construction activities will be conducted in accordance with regulatory BMPs (including those related to release of contaminants during demolition) and adopted mitigation measures in order to avoid and minimize impacts such as release of contaminants and disturbance of bat roosts. Specifically, Mitigation Measure 4.6.15b requires that bat surveys be conducted in all suitable habitat areas prior to the start of construction.

S_CDFW_02 The commenter suggests that adopted Mitigation Measures 4.6.1b and 4.6.2b be revised to state that CDFW approval is required prior to project construction, and to require conservation and management in perpetuity through recordation of conservation easements in mitigation lands.

Response

See Draft Supplement Appendix E (Draft Mitigation Monitoring and Reporting Program [MMRP]), pages E-5 and E-6, which provide the full text of adopted Mitigation Measures 4.6.1b and 4.6.2b. As described in this draft MMRP, "Compensation land shall be designated and management activities shall commence prior to construction on, or inundation of, the existing sensitive plant community site for which the compensation is being provided." Thus, CDFW approval would be required prior to initiating the applicable phase of construction within sensitive plant communities. This is consistent with the adopted and implemented MMRP for the Phase 1 Expansion. Also consistent with mitigation provided for initial reservoir construction and Phase 1 Expansion, compensatory mitigation lands acquired for the Phase 2 project would need to be protected under permanent conservation easements.

S_CDFW_03 The commenter recommends that updated botanical surveys should be conducted for the project area and included within the Supplement in order to evaluate and quantify impacts to special-status plant species.

Response

Botanical surveys for the Phase 2 Expansion were conducted in spring and summer of 2018 according to the CDFW's most recent protocols for surveying and evaluating impacts on special status native plant populations and sensitive natural communities. The results of these surveys and any revisions necessary in the impact analyses are reflected in **Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR**.

S_CDFW_04 The commenter suggests that Mitigation Measure 4.6.3b be revised to state that CDFW approval is required prior to project construction, and to require conservation and management in perpetuity through recordation of conservation easements in mitigation lands.

Response

As discussed under comment S_CDFW_02, CDFW approval would be required prior to initiating the applicable phase of construction that affects the sensitive resource. Consistent with mitigation for initial reservoir construction and expansion, compensatory mitigation lands would be subject to permanent conservation easements.

S_CDFW_05 The commenter suggests that adopted Mitigation Measure 4.6.4a be revised to state that CDFW approval and reporting is required in addition to reporting to USFWS, and recommends that Mitigation Measure 4.6.4b be revised to require approval from

CDFW prior to project construction, and to preserve mitigation lands in perpetuity under conservation easements.

Additionally, the commenter recommends that mitigation lands that would be impacted by the Phase 2 Expansion be mapped under Impact 4.6.4, and that any California red-legged frog or California tiger salamander mitigation lands be mitigated at a 6:1 ratio to account for cumulative impacts upon these lands. The commenter recommends that mitigation lands be conserved in perpetuity with a conservation easement. The commenter recommends that impacts on California tiger salamander upland aestivation habitat be mitigated at a 3:1 ratio.

Response

Items 1, 2, 4 through 6, and 8 of Adopted Mitigation Measure 4.6.4a have been modified to require reporting to both USFWS and CDFW. Specific text changes to the Draft Supplement are included in Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR.

With respect to Mitigation Measure 4.6.4b, see Draft Supplement Appendix E (Draft Mitigation Monitoring and Reporting Program [MMRP]), pages E-9 through E-11, which provide the full text of adopted Mitigation Measure 4.6.4b. As described on page E-9, "Compensation land shall be designated and management activities shall commence prior to construction on, or inundation of, the existing sensitive plant community site for which the compensation is being provided." Thus, CDFW approval would be required prior to initiating the applicable phase of construction within California red-legged frog and California tiger salamander habitat. This is consistent with the adopted and implemented MMRP for the Phase 1 Expansion. Also consistent with mitigation provided for initial reservoir construction and Phase 1 Expansion, compensatory mitigation lands would be subject to permanent conservation easements.

Please refer to **Final EIS/EIR Volume 4, Section 3.8, Master Response 8, Biological Resources** (Chapter 3, Section 3.8.4, pp. 3-89 and 3-90), which addresses comments about mitigation ratios for California red-legged frog and California tiger salamander. Response to comment **F_USFWS_02**, above, also addresses specific mitigation ratios.

S_CDFW_06 The commenter suggests that Mitigation Measure 4.6.7a be revised to state that CDFW approval and reporting is required in addition to reporting to USFWS. The commenter also recommends that mitigation lands that would be impacted by the Phase 2 Expansion be mapped under Impact 4.6.7, that impacts to prior mitigation lands be mitigated at a ratio of 6:1 to reflect the cumulative impact of repeated disturbance in these habitats, and that mitigation lands be preserved in perpetuity under conservation easements.

Response

Mitigation Measure 4.6.7a, item 2 has been modified as follows to require reporting to both USFWS and CDFW.

2) If kit fox occupancy is determined at a given site, the construction manager should be immediately informed that work should be halted within 200 feet of the den and the USFWS and CDFW contacted.

Please refer to **Final EIS/EIR Volume 4, Section 3.8, Master Response 8, Biological Resources** (Chapter 3, Section 3.8.4, pp. 3-91 through 3-94), which addresses comments about mitigation ratios for San Joaquin kit fox. Response to comment **F_USFWS_02**, above, also addresses specific mitigation ratios. Consistent with mitigation for initial reservoir construction and the Phase 1 Expansion, compensatory mitigation lands would be subject to permanent conservation easements.

S_CDFW_07 The commenter notes that Alameda whipsnake use grassland, woodland, forest and other habitat areas and recommends re-evaluating impacts to this species considering all these types of habitat, as well as impacts from fragmentation, vehicle traffic and permanent habitat loss. The commenter also recommends a 6:1 ratio for compensatory mitigation for impacts to lands which were previously used as mitigation lands, a 3:1 ratio for newly impacted lands and a 1:1 ratio for temporary impacts.

Response

Figure 4.6-26 in the 2010 Final EIS/EIR, *Potential Impacts to Alameda Whipsnake Habitat*, shows impacts from reservoir expansion to 275 TAF. The figure indicates scrub areas as core habitat, and provides a buffer around impacted upland scrub habitat, which includes annual grassland, woodland, and riparian areas that may also be used by this species. Please refer to **Final EIS/EIR Volume 4, Section 3.8, Master Response 8, Biological Resources** (Chapter 3, Section 3.8.4, pp. 3-97 and 3-98), which addresses comments about mitigation ratios for San Joaquin kit fox. Response to comment **F_USFWS_02**, above, also addresses specific mitigation ratios.

S_CDFW_08 The commenter states that Impact 4.6.17 fails to address the potential impact from locating the Transfer-Bethany Pipeline on East Contra Costa County HCP/NCCP lands and that the Draft Supplement fails to evaluate an alternative route to reduce impacts and recommends that the Project avoid these impacts and analyze alternatives through disturbed lands.

Response

Please see response to comment **F_USFWS_01**, where this issue is also raised, for a detailed discussion of the Supplement's coverage of impacts on preserve lands that are owned or managed by the EBRPD and the ECCCHC.

S_CDFW_09 The commenter states that Impact 4.3.6 fails to adequately analyze the effect of diversions from the Delta ecosystem and recommends including analysis of the relative change in habitat metrics, such as X2, Net Delta Outflow, and QWEST, between the No Action Alternatives and the Phase 2 Expansion Project, summarized on a monthly time step and by water year type.

Response

The requested modeling results, monthly average by water year type of X2, Net Delta Outflow and QWEST are included in revised Section 4.2, Delta Hydrology and Water Quality, provided in Appendix B-1, Updated Modeling Analyses, as referenced in Chapter 5, Revisions to the Draft Supplement to the Final EIS/EIR. In all cases, the results of the additional modeling analyses were consistent with and supported the conclusions of the Draft Supplement. This indicates that the modeling performed for the Draft Supplement is appropriate, and adequately characterized the impacts of each of the Action Alternatives. Therefore, the additional modeling analyses have not been repeated for the remaining Action Alternatives.

S_CDFW_10 The commenter recommends that Impact 4.3.6 incorporate an analysis of fisheries impacts related to reductions in outflow.

Response

The requested analysis of potential changes to longfin smelt abundance are included in revised Section 4.3, Delta Fisheries and Aquatic Resources, provided in Appendix B. This analysis was performed for refined Alternative 1B. The results of the other fisheries impact analyses for the refined Alternative 1B were consistent with and supported the conclusions of the Draft Supplement. This indicates that the modeling performed for the Draft Supplement is appropriate, and adequately characterized the impacts of each of the Action Alternatives. Therefore, the additional analysis has not been repeated for the remaining Action Alternatives.

S_CDFW_11 The commenter requests that analyses related to Impact 4.3.7 be presented in a monthly time step and categorized by water year type to articulate the seasonal effects on Old and Middle River (OMR) flows and entrainment. The commenter seeks clarification regarding the OMR analyses that show incremental improvements to OMR in the alternatives along with proposed increases in diversions relative to existing conditions.

Response

The requested modeling results, monthly average by water year type of OMR flows, are included for Alternative 1B in revisions to Section 4.3, provided in Appendix B-1 and referenced in Chapter 5. As described in the project description and shown in the modeling results, Phase 2 Expansion operations would be coordinated with the operations of Banks and Jones pumping plants in the south Delta. Phase 2 Expansion operations would be coordinated in such a way that would not impact net flows on OMR, and in some instances the changes in operations could provide a small benefit (e.g., more positive net flows on OMR). The action alternatives would increase OMR reverse

flows during April and May. In the No Project/No Action Alternatives, diversions to storage from CCWD's Old and Middle River Intakes are skewed towards occurring in April and May when the San Joaquin Inflow to Export ratio (SJR IE) governs Central Valley Project (CVP) and State Water Project (SWP) export operations rather than OMR flow requirements. In the action alternatives, Los Vaqueros Reservoir is filled more frequently from the Rock Slough Intake throughout the winter and spring, leading to a reduction in pumping at Old River and Middle River Intakes during April and May. Because CVP and SWP export operations in April and May are often governed by SJR IE restrictions rather than OMR flow restrictions, the increase in flows in Old and Middle Rivers is not exported, and therefore OMR flows increase. The increase in OMR flows is a potential benefit because greater net flows northward toward the ocean mean a potential reduction in entrainment risk at the CVP and SWP export facilities for adult species.

S_CDFW_12 The commenter does not concur that the change in CCWD operations would not be considerable in the context of cumulative effects of other existing and foreseeable projects. The commenter states that unmitigated incremental effects on listed species habitat as a result of cumulative effects could impact listed species. The commenter recommends revising Impact 4.3.9 with a qualitative discussion and analysis that incorporates mitigation for impacts to aquatic species.

Response

With respect to construction impacts, the previously proposed Delta intake and pump station have been eliminated from all of the action alternatives. As a result, the Phase 2 Expansion would not involve any in-water construction work. With regard to the landside construction activities that are part of the proposed expansion, Section 4.5 of the Draft Supplement identifies various hydrology mitigation measures to reduce any water quality impacts to a less-than-significant level. Further, these landside construction activities would not occur at the same time or at the same location as construction actions for other cumulative projects that could affect fisheries and aquatic resources. Thus, construction activities for the Phase 2 Expansion would not make a considerable contribution to a significant cumulative impact affecting fisheries and aquatic resources.

With respect to operational impacts, as explained in Section 4.1 of the Draft Supplement, the analysis of cumulative impacts on waterside resources qualitatively considered a number of reasonably foreseeable habitat restoration projects that will be implemented by the California Department of Water Resources (DWR). The operation of these DWR habitat restoration projects would have beneficial impacts on fisheries and aquatic resources. The less-than-significant impacts of Phase 2 Expansion, in combination with the beneficial impacts from these habitat restoration projects, would not create a significant cumulative impact affecting fisheries and aquatic resources.

Section 4.1 of the Draft Supplement further explains that the analysis of cumulative impacts on waterside resources quantitatively considered the impacts from the California WaterFix project. In particular, Appendix B to the Draft Supplement provides a sensitivity analysis of how the impacts of the proposed expansion (identified as the "Phase 2 Expansion Alternative 1B") would change if the California WaterFix project were to be implemented. To prepare the sensitivity analysis, the CalSim II modeling for WaterFix was modified to include the 160-TAF No Project/No Action Alternative

assumptions for Los Vaqueros Reservoir (as well as incorporating the terms and provisions of the Settlement Agreement that CCWD entered into with DWR regarding the WaterFix project), and then Alternative 1B was simulated with the WaterFix project. Based on this quantitative modeling, Table B-3 of the Appendix shows a summary of the changes to parameters currently regulated by State Water Resources Control Board's (SWRCB) Water Right Decision D-1641 for fish and wildlife life beneficial use due to the implementation of Alternative 1B, compared both to the 160-TAF No Project/No Action Alternative and to the WaterFix Proposed Action. These parameters include Delta inflow, Delta outflow, X2 position, export/inflow ratio, and Old and Middle River flows. Based on this quantitative analysis, the sensitivity study finds:

> Phase 2 Expansion Alternative 1B would not affect Delta inflows compared to the 160-TAF No Project/No Action Alternative nor compared to the California WaterFix Proposed Action. Under the Phase 2 Expansion Alternative 1B, Delta outflow would be reduced by less than one half of one percent (<0.4 percent) on average compared to the 160-TAF No Project/No Action Alternative and to the California WaterFix Proposed Action. Simulated changes to Delta outflow would not cause a violation of the minimum Delta outflow standards as required in SWRCB D-1641. The Export/Inflow ratio would increase by less than six tenths of one percent (<0.6 percent) on average and would not exceed the standards set by SWRCB D-1641. Phase 2 Expansion Alternative 1B would not change net Old and Middle River flows compared to the 160-TAF No Project/No Action Alternative and would increase them slightly compared to the California WaterFix Proposed Action. (Draft Supplement Appendix B, pages B-4 and B-5)
>
> The sensitivity analysis therefore concludes that the "Phase 2 Expansion Alternative 1B would not result in significant changes in Delta hydrologic conditions that affect Delta fish populations or quality or quantity of aquatic habitat within the Sacramento-San Joaquin River Delta system with and without California WaterFix Proposed Action." *Id.* at p. B-5. The other action alternatives differ from Alternative 1B in the prioritization of deliveries to Local Agency Partners or Refuges, but diversions and changes to Delta hydrologic conditions are similar in Alternatives 1A and 2A and less in Alterative 4A. The sensitivity analysis thus demonstrates that the Phase 2 Expansion project would not make a considerable contribution to a significant cumulative impact affecting fisheries and aquatic resources.

Additionally, as the commenter notes, the WaterFix project was required under the California Endangered Species Act (CESA) to obtain a state-issued permit for the incidental take of listed species. In turn, CESA requires that − as a prerequisite for the issuance of such a permit − the impacts of the take must be "*fully mitigated*." Cal. Fish & Game Code §2081(b)(2) (emphasis added). Under this CESA provision, mitigation measures "shall be roughly proportional in extent to the impact of the authorized taking on the species," and the "impacts of taking include all impacts on the species that result from any act that would cause the proposed taking." *Id.*; *see also Environmental Protection and Information Ctr. v. Cal. Dept. of Forestry*, 44 Cal. 4th 459 (2008) (emphasizing the importance of CESA's distinct requirement that impacts to listed species are "fully mitigated"). In addition, the permit applicant must ensure adequate funding to implement the required measures to achieve the "fully mitigated" standard, and to monitor the project's compliance with these measures as well as their

effectiveness. Cal. Fish & Game Code §2081(b)(4). These requirements are independent of the additional requirement that no take permit may be issued if permit issuance would jeopardize the continued existence of the species. *Id.* §2081(c).

Thus, under CESA, when an action would result in the take of a listed species, the impacts from that action on the species must be "fully mitigated," and not merely reduced to a less-than-significant level. This "fully mitigated" requirement means that there should be no residual, unmitigated impacts on listed species. Given that the project-level impacts from the proposed expansion on fisheries and aquatic resources are small and less than significant, and given the requirement under CESA to "*fully*" mitigate impacts to listed species for any project that would result in an incidental take, the Phase 2 Expansion project would not make a considerable contribution to a significant cumulative impact affecting such species.

Lastly, the Final EIR/EIS for the WaterFix project, which considers a wide array of cumulative projects and actions, identifies only a small handful of potentially significant cumulative impacts on fisheries and aquatic resources associated with project operations. As noted above, for any impacts that the WaterFix project would cause as a result of the take of state-listed species, there is a clear statutory requirement to "fully" mitigate those impacts as part of the CESA permit. In addition, the Final EIR/EIS for the WaterFix project explained that slight adjustments in project operations would minimize or avoid certain flow reductions that could negatively affect fisheries. The only cumulative impact of fisheries and aquatic resources that was found to be significant and unavoidable in the Final EIR/EIS for the WaterFix project related to the entrainment of striped bass and American shad, which are not affected by the proposed Phase 2 Expansion.

In summary, substantial evidence supports the conclusion in the Draft Supplement that the small, incremental impacts of the proposed expansion would not make a considerable contribution to a significant cumulative impact affecting fisheries and aquatic resources.

S_CDFW_13 The commenter recommends that the DSM2 Particle Tracking Model be used to analyze residence time and the effects of microcystis blooms on aquatic resources.

Response

Residence time is defined as the average amount of time spent in a given volume and is dependent on the net flow in or out of the given volume. As shown in revised Section 4.3, the flows into and out of the Delta are not significantly changed under the action alternatives and therefore the residence time in the Delta will also not change significantly. Given that the flows calculated in CalSim II are inputs to DSM2, DSM2 would not necessarily produce more accurate estimates of Delta wide residence time. The action alternatives would not change other factors such as nutrient concentration, turbidity, and water temperature, which may affect algal growth. Therefore, the action alternatives would not result in changes in conditions that affect the growth of algal blooms in the Delta.

S_CDFW_14 The commenter states that no river-wide analysis of Project effects on salmonid passage standards is provided, and that the analysis is instead based on uncited observations of fish passage at a single location, Woodbridge Dam.

Response

The East Bay Municipal Utilities District (EBMUD) has a long history of monitoring and managing the Lower Mokelumne River through its work with the Lower Mokelumne River Partnership, and EBMUD's analyses for this Supplement are based on that experience. Appendix D-1 to this Final Supplement includes a description of the Mokelumne River Partnership to provide more context for this response. The use of 100 cubic feet per second (cfs) at Woodbridge Dam as a threshold to analyze salmonid passage is based on EBMUD's decades-long monitoring of the Lower Mokelumne River.

EBMUD measurement of flow below Woodbridge Dam and upstream salmonid passage at Woodbridge Dam indicate that 95 percent of adult salmonid passage occurs at flows exceeding 100 cfs. The majority of adult fall-run Chinook salmon migration in the lower Mokelumne River occurs from September through December, and adult steelhead migration occurs primarily from September through February. Since 1990, upstream migrating adult fall-run Chinook salmon and steelhead have been observed over a range of low flows at Woodbridge Dam. Based on observations of fish passage at Woodbridge Dam at low flows, flows below Woodbridge Dam of at least 100 cfs from September through December and from September through February provide adequate passage for adult fall-run Chinook salmon and adult steelhead, respectively.

Original modeling completed for the Draft Supplement showed that during the September through February migratory period for salmonids over the 92-year hydrologic modeling period (representing 551 months) the Phase 2 Expansion would only result in 2 additional months when flows below Woodbridge Dam would fall below 100 cfs. However, as discussed in Appendix D-2, EBMUD's Permit 10478 includes a new regulatory term which, subject to certain conditions, requires EBMUD to release up to 2 TAF of additional water during September through February during below normal and dry years to assist upmigration. In order to better respond to comments, EBMUD has incorporated this requirement into its model of the Lower Mokelumne River and rerun the modeling that was used for the Draft Supplement analysis. EBMUD modeled flows at Woodbridge Dam for both the No Project/No Action Alternative and the Phase 2 Expansion. Comparison of No Project/No Action Alternative and Phase 2 Expansion modeling results indicates that the Phase 2 Expansion would result in an improvement, whereby there would be five fewer months out of the 551 months total when average flows below Woodbridge Dam drop below 100 cfs.

As this information shows, the Draft Supplement reasonably used 100 cfs at Woodbridge Dam as a threshold to analyze salmonid passage, and reasonably concluded that the Phase 2 Expansion would not result in significant impacts to salmonid passage.

S_CDFW_15 The commenter requests that the analyses be summarized on a monthly time step and categorized by water year type. This information is provided in Appendix D-4.

S_CDFW_16 The commenter requests clarification of a new term in EBMUD's Permit 10478 that provides additional flows during certain dry years to assist migration upstream.

Response

Appendix D-2 provides clarification and additional details on this term. This permit term is now in place and has been incorporated into EBMUD's modeling for the No Project/No Action Alternative and the Phase 2 Expansion Alternative; as such, this term would be implemented in months during the September through February period when flows below Woodbridge Dam are less than 100 cfs, regardless of the cause of the low flow condition. No mitigation is required to achieve the less-than-significant conclusion.

S_CDFW_17 The commenter requests additional information on the 800 cfs threshold used to analyze potential impacts to outmigration of juvenile fall-run Chinook Salmon and Steelhead in the Lower Mokelumne River.

Response

As discussed in Appendix D-1, EBMUD and the other members of the Lower Mokelumne River Partnership have a long history of monitoring and studying the Mokelumne River with the goal of improving fish habitat. The 800 cfs threshold is based on this work. Based on data collected from rotary screw traps in the river just below Woodbridge Dam from 1993 through 2012, there is no significant relationship ($R2=0.09$) between average monthly flow release from Camanche Dam and the normalized number (juveniles per spawning adult) of juvenile fall-run Chinook salmon outmigrating during that month. However, there is a significant relationship ($R2=0.49$, $P<0.001$) between the average flow from January through March and the proportion of juvenile fall-run Chinook salmon that migrate downstream as fry. These data suggest that average flow releases from Camanche Dam of approximately 800 cfs and above during January through March may encourage early outmigration.

S_CDFW_18 The commenter states that there is insufficient information provided to verify that the less-than-significant conclusion and requests that the analysis be summarized by average monthly flow for January through March by water year type. This information is provided in Appendix D-4.

S_CDFW_19 The commenter requests a citation for the 800 cfs threshold.

Response

The analysis involved reviewing outmigrant counts at the most downstream trapping facility on the lower Mokelumne River from 1993 to 2012. Annual reports for each year are available. When comparing flow regimes to these counts it appears that there is a correlation between higher flows and fry outmigration. As an example of the role flow plays in influencing an early fry migration,

Figures 4-1 and 4-2 below are from 2011 (high flows early in season) and 2012 (low flows), respectively, and show the relationship between estimated daily Chinook salmon passage and flow at the downstream trapping locations during the juvenile outmigration monitoring season. The dashed vertical lines indicate the beginning and the end of the monitoring period. The data indicates that in 2011 a significant portion of the outmigrating Chinook salmon juveniles moved out as fry, while in 2012 the majority moved out as smolts. Although it is unclear if there are benefits to early fry outmigrations, the Phase 2 Expansion as proposed would not alter the number of years in which flows above 800 cfs occur.

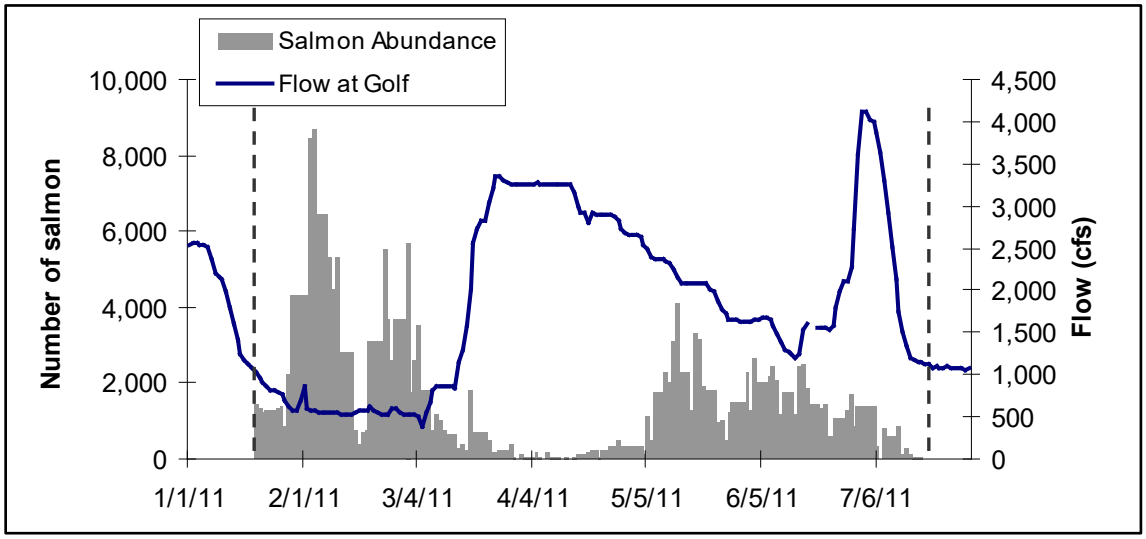

Figure 4-1. 2011 Estimated Daily Chinook Salmon Passage and Flow at Downstream Trapping Locations

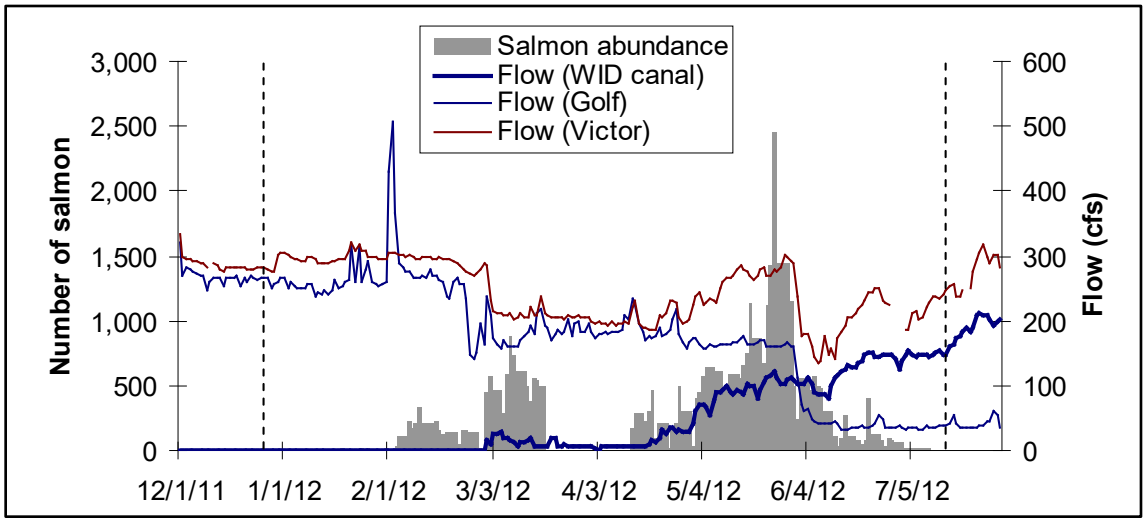

Figure 4-2. 2012 Estimated Daily Chinook Salmon Passage and Flow at Downstream Trapping Locations

S_CDFW_20 See response to comment S_CDFW_18.

S_CDFW_21 The commenter requests a citation for the 3,000 cfs threshold for floodplain habitat.

Response

Work conducted by the U.S. Geological Survey in 1970 established relationships between modeled water surface elevations and top of bank elevations, indicating that floodplain inundation occurs at flows greater than 3,000 cfs in the lowermost reaches of the lower Mokelumne River between the confluence of the Cosumnes River and Tracy Lake. The citation for this work follows:

Florsheim, J.L. and J.F. Mount, 2003. Floodplain Restoration Potential on the Lower Mokelumne River, California. Final. EBM0135. Davis, CA. Prepared at the Center for Integrated Watershed Science and Management—John Muir Institute of the Environment, University of California.

S_CDFW_22 The commenter requests that the analysis by which the no significant impact conclusion was reached be summarized by average monthly flow by water year type. This information is provided in Appendix D-4.

S_CDFW_23 The commenter requests that the analysis by which the less-than-significant conclusion was reached be summarized by average monthly flow and water year type. This information is provided in Appendix D-4.

S_CDFW_24 The commenter states that the Draft Supplement provides no analysis or description of the mechanism by which the elevation below 190 msl is reduced under the Phase 2 Expansion.

Response

To analyze temperature related impacts on the lower Mokelumne River, the Draft Supplement relied on the Camanche critical storage level concept. The development of this concept is described in the Permit 10478 Time Extension Project, Appendix E, a relevant excerpt of which is included in Appendix D-3.

As described in the Permit 10478 Time Extension Project EIR, EBMUD analyzed 11 years of temperature profile data from Camanche Reservoir. EBMUD's analysis found a significant correlation between Camanche Reservoir water surface elevation below 190 feet mean sea level (msl) and Camanche Reservoir storage effects on release temperatures.

EBMUD's review of the data found that during the summer, Camanche Reservoir is stratified and reservoir release temperatures are correlated with reservoir storage levels. EBMUD then used historic temperature data to derive a threshold water surface elevation at which the hypolimnion reaches a critical minimum volume and release temperatures will begin to increase at a faster rate. Figure 3.4-5 in Appendix D-3 shows water temperature profiles collected behind Camanche Dam in September and October, from 2000 through 2011 and shows a consistent stratification pattern.

Figure 4-3 below illustrates how the 190 foot msl was developed. The zone of influence for Camanche's low level outlets extends from the bottom of the reservoir up roughly 30 to 40 feet. The vertical extent of the epilimnion and metalimnion are driven by environmental factors and assumed to be fixed. Figure 3.4-5 in Appendix D-3 shows that the metalimnion extends down to about 50 feet below the surface elevation. The metalimnion will be drawn into the low level outlets whenever the bottom of the metalimnion drops down to within 40 feet from the bottom of the reservoir; therefore, the metalimnion is expected to begin to be drawn into the low level outlets if the water depth from the water surface to the bottom of the reservoir drops to 90 feet. The bottom elevation of Camanche Reservoir is 100 feet msl, so the threshold water surface elevation expected to result in the metalimnion waters entering the low level outlets is about 190 feet msl. If the surface elevation drops to below 190 feet msl, then warmer water from the metalimnion will be released downstream.

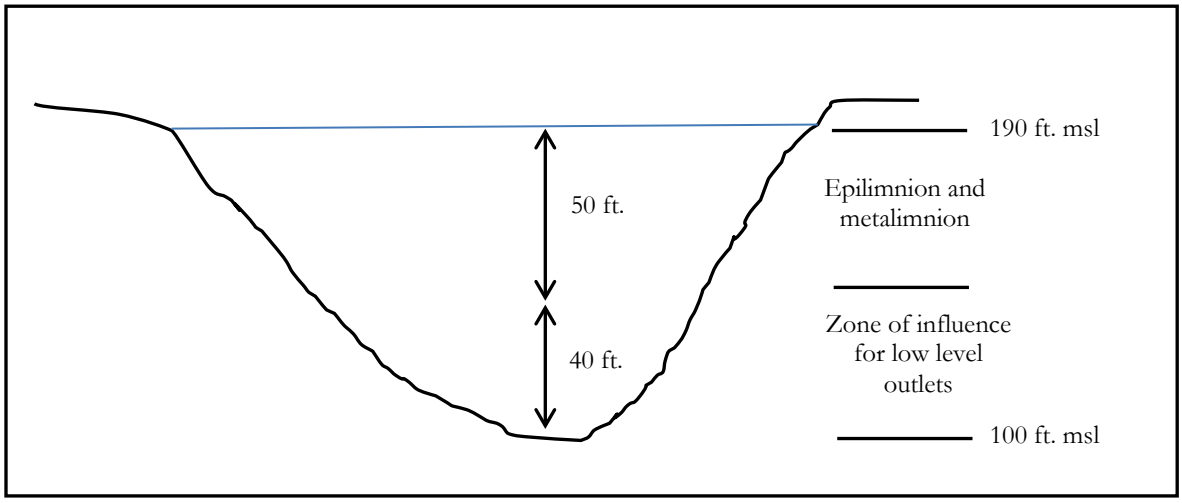

Figure 4-3. Illustration of 190 ft msl threshold

EBMUD used regression modeling to correlate critical storage levels in Camanche Reservoir with monthly mean temperatures downstream. Monthly average water temperatures for the McIntire Monitoring Station were obtained from gauging records and reconstructed records derived from Mokelumne River Fish Hatchery datasets. For each monthly average water temperature datapoint, corresponding end-of-month Camanche water storage elevations were acquired. Months when Camanche Reservoir is de-stratified – November, December, January, and February – were removed from the analysis.

The compiled dataset is shown in Figure 3.4-6 in Appendix D-3 with monthly average water temperatures shown on the y axis and end-of-month Camanche water surface elevation on the x-axis. The dashed red line represents the 190 msl threshold. The regression model is plotted as a solid black line. This figure shows that there is a clear correlation between water temperature and Camanche water surface elevation up to the 190 msl threshold; for water surface elevations of 190 msl or less, as the water surface elevation decreases, the downstream water temperature increases. For Camanche water surface elevations above 190 msl, the downstream water temperature is not correlated with Camanche water surface elevations.

EBMUD modeling showed that, under the Phase 2 Expansion, there would be fewer periods when Camanche Reservoir surface elevation drops to below 190 msl, compared to the No Project/No Action Alternative. This represents a slight improvement in river conditions due to the Phase 2 Expansion. This may be attributable to the fact that EBMUD would be taking water from the Los Vaqueros Reservoir during dry years, instead of from its own reservoirs, thereby leaving more water in storage. For example, a review of the modeling results shows that the Camanche Reservoir surface elevation drops below 190 msl in November 1990 during the No Project/No Action Alternative. However, under the Phase 2 Expansion, EBMUD takes Los Vaqueros water in 1989, and the Camanche Reservoir surface elevation remains above 190 msl until January 1991, two months later than in the No Project/No Action Alternative.

S_CDFW_25 The commenter requests further documentation on how the 190 msl threshold was determined, including graphical representation of the relationship between elevation above and below the 190 msl threshold and downstream temperature. The commenter also requests to see additional descriptions of the mechanisms by which the exceedance of elevation below 190 msl is achieved by monthly time step and water year type. The commenter also lists several factors, in addition to elevation, that can affect cold water pool.

Response

See response to comment S_CDFW_24 for an explanation of how the 190 msl threshold was developed. Data used in EBMUD's analysis is presented in Appendix D-4, by monthly time step and water year.

EBMUD's operational goal for temperature management, consistent with the FERC Order approving the Joint Settlement Agreement, is to provide optimum temperatures for the Mokelumne River Fish Hatchery and to provide the coldest water possible to the Lower Mokelumne River during October and November when upmigrating Fall run adult salmon return to the river. EBMUD works with the Mokelumne River Partnership, described in Appendix D-1, to manage temperatures on the Lower Mokelumne River. The Partnership, which includes the CDFW and the USFWS, works collaboratively to adaptively manage flows and implement projects to improve habitat.

The commenter mentions several factors, in addition to elevation, that can affect coldwater pool. The Phase 2 Expansion would not have any effect on several of these factors, including "Volume of annual snowpack vs. warmer rain contribution to inflow;" "Inflow water temperature;" and "Spring air temperature." The conveyance of Mokelumne River water to Los Vaqueros Reservoir would not change the ambient temperature or the composition and temperature of precipitation or reservoir inflow.

The commenter also cites "Flood control releases" and "Conservation of coldwater resources through selective withdrawal" as factors influencing coldwater pool. Following is a description of how flood control releases and selective withdrawal affect coldwater pool in Camanche Reservoir, and how those factors relate to the proposed Phase 2 Project.

First, it is important to provide some general information about Pardee and Camanche Reservoirs. Pardee Reservoir has a maximum surface area of 2,222 acres and a capacity of 203,795 acre-feet (EBMUD, 2015, Section 1.5.2, page 13). Camanche Reservoir is located downstream of Pardee Reservoir and has a maximum surface area of 7,470 acres and a capacity of 417,120 acre-feet (EBMUD, 2015, Section 1.5.2, page 13). Pardee Reservoir has three hydropower units; units 1 and 2 are located at elevation 375 feet msl, and unit 3 is located at the bottom of the reservoir at elevation 260 feet msl. Water is conveyed to the Mokelumne Aqueducts via the Pardee Tower Aqueduct Intake, which has intake gates at different elevations ranging from 460 to 550 feet msl. Camanche Reservoir has a low-level outlet at elevation 102 feet msl and a high-level outlet at elevation 203 feet msl.

EBMUD operates these facilities for multiple benefits, including maximizing coldwater pool in Camanche Reservoir. The operations goal for temperature management, consistent with EBMUD's FERC Order, is to provide optimum temperature for the Mokelumne River Fish Hatchery and to provide the coldest water possible to the Mokelumne River during October and November when upmigrating Fall run adult salmon return to the river. In general, it is easier to maintain colder temperatures in Pardee than in Camanche, due to the reservoir dimensions; Pardee is a deeper reservoir with a smaller surface area to volume ratio. Therefore, in some years EBMUD will make releases of cold water from Pardee Reservoir to support stratification in Camanche Reservoir through Fall. Because the Pardee Tower Aqueduct Intakes are at a higher elevation than the hydropower intakes, aqueduct draft selectively removes warmer water from the higher elevations in the reservoir.

EBMUD makes flood control releases from Camanche Reservoir as outlined by the USACE Water Control Manual. The goal of these required flood control releases is to create space in the reservoir for incoming precipitation and runoff. Flood control releases from Camanche are made mostly through the low level outlets at the bottom of Camanche Reservoir, which reduces the amount of cold water in the reservoir. In the Phase 2 Expansion, diversions to Los Vaqueros would occur in May and June in wet years, when EBMUD would typically be making flood control releases. By reducing the total amount of water in the system, diversions to Los Vaqueros Reservoir would reduce the flood control releases required from Camanche Reservoir by a concomitant amount, thereby helping to preserve the coldwater pool in the reservoir.

The commenter also lists "utilization of coldwater resources to thermally dilute warm water inflow" as a factor that can affect coldwater pool. In the case of the Phase 2 Expansion, this factor would not be relevant. By May and June, the reservoirs are thermally stratified by water density with the warmest water at the surface and the coldest water at the bottom of the reservoir. Any new, warmer water flowing into the reservoirs would settle into the reservoir consistent with the density of that water as determined by its temperature, meaning that there would be no warm water dilution from the water flowing into the reservoir.

The commenter mentions that "Hydroelectric power generation" can affect coldwater resources. As described below, EBMUD manages operation of its hydropower generation facilities at Pardee and Camanche to optimize preservation of coldwater resources and to meet downstream flow and water quality requirements. With implementation of the Phase 2 Expansion, EBMUD would continue to

operate its hydropower facilities to maintain coldwater resources and meet downstream requirements. The Pardee hydropower generation facility has three units, and EBMUD operates them to maximize the efficiency of coldwater transfer from Pardee to Camanche. EBMUD selects which units to run in part based on temperature management needs; during October, EBMUD often makes releases through Unit 3 to maximize the amount of cold water from the lower levels of Pardee that is released to Camanche.

EBMUD also makes decisions about the rate and volume of release from Pardee based on transferring cold water efficiently. For example, EBMUD will run the hydropower facility at a higher rate for a shorter period in order to release a larger "slug" of cold water, as opposed to releasing the same volume at a lower rate over a longer period. This cold water released over a shorter period at a higher rate has more momentum and gains less heat in transit from Pardee to Camanche, resulting in a greater efficiency of cold water transferred into Camanche's hypolimnion.

The California Regional Water Quality Control Board's Basin Plan for the Sacramento River and San Joaquin River Basins sets a Dissolved Oxygen (DO) objective of a minimum of 7.0 mg/L. EBMUD targets maintaining a minimum DO level of 7.0 ppm at Station 11 (located just below Camanche Dam). To meet DO requirements, EBMUD often reduces or forgoes hydropower generation from Camanche in the summer. Instead of releasing water through the hydropower facilities, EBMUD releases water through the sluice gates, which have baffles to increase oxygenation. EBMUD also operates a Hypolimnetic Oxygenation System that feeds pure oxygen into the Camanche Reservoir hypolimnion. This system is designed to prevent the bottom waters from going anoxic, thereby preventing the formation of hydrogen sulfide. EBMUD will continue to operate the Camanche hydropower facilities and Hypolimnetic Oxygenation System to meet Joint Settlement Agreement water quality requirements with implementation of the Phase 2 Expansion.

Lastly, the commenter says that "Releases to meet downstream consumptive demand" can also affect coldwater resources. For the purposes of this Supplement, downstream consumptive demands are considered in the modeling. EBMUD's Riverware model of the Mokelumne River sets priorities for different releases. The model priorities are set such that releases to meet downstream consumptive demand must be met before water can be conveyed to Los Vaqueros. Thus, the Phase 2 Expansion would not affect releases to meet downstream demands.

S_CDFW_26 The commenter recommends a mitigation measure be added to securely cap all pipes, culverts, or similar structures stored overnight onsite, and any fencing posts or signs have post holes covered or filled to prevent entrapment of wildlife.

Response

Protection of wildlife from exposed holes is provided in adopted Mitigation Measure 4.6.7a. This measure contains provisions to cover all excavated holes or trenches greater than 2 feet deep in order to prevent accidental entrapment of San Joaquin kit fox or other animals during construction. It states that before filling, all such holes shall be thoroughly inspected for trapped animals.

S_CDFW_27 The commenter asks that any special-status species or natural community detections be reported to the California Natural Diversity Data Base (CNDDB).

Response

It is standard procedure for CCWD to report all sightings to CNDDB.

California Department of Water Resources, Pedros Villalobos, Chief, State Water Project Analysis Office, September 5, 2017

S_DWR_01 See Master Response 3, Section 3.3.2, Agreements.

S_DWR_02 See Master Response 2, Section 3.2.2, California WaterFix.

S_DWR_03 See Master Response 3, Section 3.3.2, Agreements.

S_DWR_04 See Master Response 3, Section 3.3.2, Agreements.

S_DWR_05 The commenter requests that CCWD's updated demand assumptions be quantified.

Response

CCWD's updated demands are described in CCWD's 2015 Urban Water Management Plan and quantified in the variable DEMAND_D420_CCWD_in the CalSim II model. These demands were used in the operations modeling for the Draft Supplement and are summarized in Table 4-3, CCWD Service Area Demand, below.

Table 4-3. CCWD Service Area Demand (TAF/year)

Water Year Type	Existing Condition	Future 2030 Level	Future 2070 Level
Wet	104	126	136
Above Normal	110	132	143
Below Normal	114	137	148
Dry	123	148	159
Critically Dry	129	155	168

S_DWR_06 See Master Response 2, Section 3.2.2, California WaterFix.

S_DWR_07 The commenter requests clarification of how the proposed operation of filling from Rock Slough Intake relates to the Old and Middle River flow restrictions.

Response

CCWD's Old River Intake and Middle River Intake are south of the locations where OMR flows are measured for the purposes of OMR flow compliance, but the Rock Slough Intake and Freeport Intake are north of the measurement locations. Therefore, while diversions at the Old River and Middle River Intakes are included in the OMR index to calculate OMR flow, diversions at the Rock

Slough and Freeport Intakes are not included in the calculation. As such, diversions at the Rock Slough and Freeport Intakes are not constrained by OMR flow requirements.

S_DWR_08 See Master Response 3, Sections 3.3.2, Agreements, and 3.3.3, Water Rights.

S_DWR_09 The commenter requests detailed monthly demand assumptions under different hydrologic conditions of the Local Agency Partners. The commenter also requests operational details for each alternative.

Response

The Local Agency Partners each have individual operational preferences and demand patterns. Many of the Local Agency Partners specified certain years, usually those with drier hydrology, in which to identify a demand, but not all partners identified the same years. This partner demand information is encoded within the Phase 2 Expansion module of the CalSim II model, which is available upon request. Partner operational preferences have been updated for the Final Supplement and are provided in the revised Table 2-5 in Chapter 5 of the Final Supplement.

Figures 2-1, 2-2, 2-3, 2-4, and the accompanying text in Section 2.1 of the Draft Supplement summarize the operational priorities of the action alternatives. Operational details, such as intake preference based on water quality and optimization of deliveries to individual partners, are encoded within the Phase 2 Expansion module of the CalSim II model.

S_DWR_10 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_11 The commenter states that proposed diversion of water for the East Contra Costa Irrigation District (ECCID) and Byron-Bethany Irrigation District (BBID) would result in those diversions being double-counted, since BBID and ECCID diversions are currently included in the Gross Channel Depletion estimate used to determine the Net Delta Outflow Index.

Response

Diversions for ECCID and BBID in the action alternatives were accompanied by a matching reduction in Delta Island Consumptive Use in the CalSim II modeling, in order to avoid any double-counting issues in the calculation of net Delta outflow. On average, the diversion for ECCID is 0.6 TAF/year, and 2.3 TAF/year for BBID.

CCWD currently serves ECCID water to the area in which CCWD and ECCID's boundaries overlap in the cities of Antioch and Oakley, under a 2000 water sales agreement between ECCID and CCWD. CCWD also currently diverts ECCID water from the Delta for the City of Brentwood, which is within the ECCID surface area. A 1991 agreement among ECCID, DWR, and CCWD allows CCWD to divert ECCID water at the Rock Slough Intake. This agreement was amended in 2000 to add the Old River Intake as a point of diversion. CCWD, ECCID, and BBID will work with DWR and the SWRCB to determine if adjustments to the Gross Channel Depletion estimates used in calculating net Delta outflow are necessary and to implement adjustments as appropriate.

S_DWR_12 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_13 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_14 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_15 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_16 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_17 See Master Response 3, Section 3.3.3, Water Rights.

S_DWR_18 The commenter recommends using the term "exceedance" rather than "violation" when describing water quality objectives that were not met in the modeling.

Response

The word "violation" has been replaced with "exceedance" as requested in the updated impact analysis (Impact 4.2.2) in Appendix B-1, as referenced in Chapter 5.

S_DWR_19 See Master Response 2, Section 3.2.2, California WaterFix.

S_DWR_20 See Master Response 3, Section 3.3.3, Water Rights.

Central Valley Regional Water Quality Control Board, Stephanie Tadlock, Environmental Scientist, August 18, 2017

S_CVRWQCB_01 The commenter describes the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and the Antidegradation Policy (SWRCB Resolution 68-16), and states that an antidegradation analysis is a mandatory element of the National Pollutant Discharge Elimination System (NPDES) and land discharge Waste Discharge Requirements permitting processes. The commenter states that the Supplement should evaluate potential impacts to surface water and groundwater quality.

Response

Draft Supplement Section 4.5, Local Hydrology, Drainage, and Groundwater, evaluates the potential impacts to local surface water and groundwater quality (in the vicinity of new facilities) resulting from the Phase 2 Expansion starting on Draft Supplement page 4.5-9. As described in that section, impacts on local surface water and groundwater quality would be less than significant or less than significant with mitigation. Specific to NPDES permit compliance, Table 3-8, Permits and Approvals Potentially Needed for Implementation of Los Vaqueros Reservoir Expansion Alternatives, in **Final EIS/EIR Volume 1, Section 3.7.2, Regulatory Permits and Approvals**, pages 3-92 and 3-93, lists a NPDES Construction Stormwater Permit and General Order for Dewatering and Other Low Threat Discharge to Surface Waters among the applicable permits and

approvals for the project, and Mitigation Measure 4.5.2 on Draft Supplement page 4.5-16 would require that CCWD and EBMUD design facilities with introduced impervious surfaces with stormwater control measures that are consistent with the Regional Water Quality Control Board's NPDES municipal stormwater runoff requirements.

S_CVRWQCB_02 The commenter encourages the project proponents to consider evaluation of a list of actions to prevent high peaks or shorten the durations of and eventually reduce elevated fish methylmercury levels.

Response

Although the proposed project does not have a significant impact on methylmercury levels in fish, the following response is offered. CCWD's Los Vaqueros Reservoir and EBMUD's Pardee Reservoir and Camanche Reservoir are all listed as impaired for mercury on the 2014/2016 Integrated Report (303(d) List/305(b) Report) and will be included in the Statewide Mercury Control Program for Reservoirs. CCWD and EBMUD are cooperating with the SWRCB on this effort. Statewide Mercury-Impaired Reservoir Program is currently conducting Phase 1 of the program, which entails a 10-year pilot study at various reservoirs on a voluntary basis to determine management practices that could help reduce mercury in the reservoirs listed as impaired by the State. The 10-year pilot study is expected to be completed by about 2028. The methylmercury control actions suggested by the commenter will be evaluated as appropriate in the context of the SWRCB's program. Note that the watershed of Los Vaqueros Reservoir does not contain historical mines. The other actions will be considered, taking into account regulatory requirements and the support of beneficial uses.

S_CVRWQCB_03 The commenter provides general descriptions of the types of permits issued by the CVRWQCB that projects may require.

Response

Please see Table 3-8, Permits and Approvals Potentially Needed for Implementation of Los Vaqueros Reservoir Expansion Alternatives, in Final EIS/EIR Volume 1, Section 3.7.2, Regulatory Permits and Approvals, pages 3-92 and 3-93. This table lists Clean Water Act Section 404/Rivers and Harbor Act Section 10 Dredge and Fill Permit, Clean Water Act Section 401 Water Quality Certification, Clean Water Act Section 401 Waste Discharge Requirements, NPDES Construction Stormwater Permit, and General Order for Dewatering and Other Low Threat Discharge to Surface Waters among the applicable permits and approvals for the project. Although Draft Supplement Table 2-6 indicated that a Clean Water Act Section 404 permit and Clean Water Act Section 401 Water Quality Certification, please see response to comment F_EPA_01 indicating that this has been revised. The regulatory setting and impact analysis from the Final EIS/EIR were relied on to the extent practicable in Draft Supplement Section 4.5, Local Hydrology, Drainage, and Groundwater, and information from the Final EIS/EIR was discussed only to the extent that factors applicable to the Phase 2 Expansion differ from those described in the Final EIS/EIR. Specifically, Mitigation Measure 4.5.2 on Draft Supplement page 4.5-16 would require that CCWD and EBMUD design facilities with introduced impervious surfaces with stormwater control

measures that are consistent with the Regional Water Quality Control Board's NPDES municipal stormwater runoff requirements (i.e., applicable MS4 permits).

California State Water Resources Control Board, Sean Maguire, Manager, Petition, Licensing Registration Section, Division of Water Rights, September 5, 2017

S_SWRCB_01 See Master Response 3, Section 3.3.3, Water Rights.

S_SWRCB_02 See Master Response 3, Section 3.3.3, Water Rights.

S_SWRCB_03 See Master Response 3, Section 3.3.3, Water Rights.

Delta Stewardship Council, Cassandra Enos-Nobriga, Deputy Executive Officer, January 19, 2018

S_DSC_01 The commenter suggests that several Delta Plan policies could be part of the regulatory setting sections for the Delta Hydrology and Water Quality, Biological Resources, Land Use, and Agricultural Resources sections of the Supplement.

Response

CCWD acknowledges the applicability of the Delta Plan policies to the Phase 2 Expansion Project. As noted in Draft Supplement Section 1.3.1 (page 1-27) "Detailed findings and certification of consistency with the Delta Plan would be completed during the permitting phase of the Phase 2 Expansion." The Delta Plan policies listed in the comment letter are addressed with more specificity in responses to comments S_DSC_05 through S_DSC_13, where the letter raises them individually; however, it is noted that these policies would not affect the CEQA and NEPA analysis of the Phase 2 Expansion Project. Therefore, as noted, detailed consistency findings will be completed during the permitting phase following CEQA and NEPA completion.

S_DSC_02 The comment requests clarification of the type of contractual obligation that would be used to obligate the water supply for the Refuges.

Response

CDFW will be responsible for developing, executing, and administering a contract with CCWD to reliably secure the public ecosystem benefits. This information is not currently available, and does not affect the adequacy or accuracy of the Supplement to the EIR/EIS.

S_DSC_03 The comment requests clarification regarding expected wastewater effluent water quality improvements

Response

Draft Supplement Section 3.3, Delivered Water Quality Improvements, provides the requested explanation: "Brentwood has identified a need for a source of water quality blending water, in order

to help to continue to meet its National Pollutant Discharge Elimination System (NPDES) permit requirements for salinity in its treated wastewater effluent. Water from the Phase 2 Expansion would replace a portion of their more saline water supplies and would reduce the total salinity in the water delivered and ultimately discharged."

S_DSC_04 The comment requests clarification that "the additional way to store available Central Valley Project and State Water Project allocations" (as mentioned in Draft Supplement Section 3.4) would be to save such supplies for dry periods to limit diversions from the Delta, thus reducing the reliance on Delta water supply exports.

Response

Draft Supplement Section 3.1, Water Supply Reliability, describes the non-drought and drought emergency reliability uses of stored water as well as the supplemental water supplies that would be delivered to Local Agency Partners outside of the drought emergency periods.

S_DSC_05 The comment cites Delta Plan Policy G P1 and recommends that the Project have an adaptive management strategy and plan consistent with the framework in the Delta Plan.

Response

Since receiving the Council's comment letter, CCWD has met with Council staff regarding the requirements for the adaptive management plans and will continue to coordinate with DSC staff. The consistency determination will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to G P1.

S_DSC_06 The comment cites Delta Plan Policy G P1, which requires that actions not exempt from CEQA and subject to Delta Plan regulations must include applicable feasible mitigation measures consistent with those identified in the Delta Plan Mitigation and Monitoring Report Program (MMRP) or substitute mitigation measures that are equally or more effective.

Response

CCWD will submit a consistency determination to the Council with detailed findings as to whether the Project is consistent with the Delta Plan, including the adoption of applicable mitigation measures consistent with the Delta Plan MMRP. A preliminary comparison of mitigation measures in the Phase 2 Expansion draft MMRP (Draft Supplement Appendix E) with those in the Delta Plan MMRP is provided in Table 4-4.

Table 4-4. Preliminary Comparison of Project and Delta Plan Mitigation Measures

Delta Plan Mitigation Measure Number(s)	LVE Phase 2 Expansion Mitigation Measure Number(s)
Water Resources	
3-1	4.5.1a
3-2	4.5.1a, 4.5.1b
Biological Resources	
4-1	4.6.1a, 4.6.1b, 4.6.2a, 4.6.2b, 4.6.3a
4-2, 4-3, 4-4	4.6.3b, 4.6.4a, 4.6.4b, 4.6.5, 4.6.8a, 4.6.8b, 4.6.9a, 4.6.9b, 4.6.10a, 4.6.10b, 4.6.11, 4.6.12a, 4.6.12c, 4.6.14, 4.6.15a, 4.6.15b, 4.6.6a, 4.6.6b, 4.6.7a, 4.6.7b, 4.6.7c
Delta Flood Risk	
5-1, 5-2, 5-3, 5-4	4.5.1a
Land Use and Planning	
6-1	Minimizing physical division of existing communities by locating utilities underground is part of Phase 2 Expansion project design.
6-2	Comprehensive Biological Resources Mitigation and Compensation Program, 4.6.1b, 4.6.2b, 4.6.3b, 4.6.4b, 4.6.6b, 4.6.7b, 4.6.7c, 4.6.8b, 4.6.9b, 4.6.10b, 4.8.2b
Agriculture and Forestry Resources	
7-1	4.8.1, 4.8.2a
7-2	Not applicable. No significant impact on Williamson Act contracted land.
7-3	Not applicable. No significant impact on forest land or timber land.
7-4	4.8.2b
Visual Resources	
8-1	4.14.2a
8-2	Not applicable. No significant impact on scenic resources in state scenic highways.
8-3	4.7.4a
Air Quality	
9-1	4.10.1, 4.10.3
9-2	Not applicable. No significant odor impact.
9-3	Not applicable. The appropriate air quality technical analysis has already been performed for the Draft Supplement and mitigation measures have been applied as warranted.
Cultural Resources	
10-1	4.16.1a, 4.16.1b, 4.16.1c, 4.16.1d, 4.16.1e, 4.16.1f, 4.16.1g, 4.16.1h, 4.16.2a, 4.16.2b
10-2	4.16.1i, 4.16.3
10-3	4.16.1d, 4.16.1g
10-4	4.16.1 through 4.16.3
Geology and Soils	
11-1	Not applicable. Project is not in Alquist-Priolo Special Studies Zone.
11-2	Adherence to applicable building code would be part of Phase 2 Expansion project design.

Table 4-4. Preliminary Comparison of Project and Delta Plan Mitigation Measures (contd.)

Delta Plan Mitigation Measure Number(s)	LVE Phase 2 Expansion Mitigation Measure Number(s)
Geology and Soils (cont.d)	
11-3	Geotechnical investigations would be part of Phase 2 Expansion project design.
11-4	4.5.1a
11-5	Engineering standard practices to address expansive soils would be part of Phase 2 Expansion project design.
11-6	Protection from reservoir leakage to the subsurface, as necessary, would be part of Phase 2 Expansion project design.
11-7	Project design would include fill placement in accordance with local and State regulations and in accordance with the prevailing standards of care.
11-8	Not applicable. The only proposed on-site wastewater treatment system is a non-conventional system not reliant on soil type.
11-9	Not applicable. No significant impact related to highly organic soils.
Paleontological Resources	
12-1	4.16.2a, 4.16.2b
Mineral Resources	
13-1	4.12.3
13-2	Not applicable. No significant impact related to access to mineral extraction sites.
Hazards and Hazardous Materials	
14-1	4.13.2, 4.13.3
14-2	Not applicable. No significant impact related to materials that could be released during soil disturbance.
14-3	Not applicable. No significant impact related to access to vectors.
14-4	4.7.3, 4.7.4a
14-5	4.13.3
Noise	
15-1	4.11.1a, 4.11.1b, 4.11.1c
15-2	Not applicable. No significant impact related to groundborne vibration.
15-3	4.11.1d
Population and Housing	
16-1	Not applicable. No significant impact related to displacement of housing.
Public Services	
17-1	4.12.1a, 4.9.2a, 4.9.2b, 4.13.3
Recreation	
18-1	4.15.1c
18-2	4.15.1a, 4.15.1b
18-3	Replacement and enhancement of recreation facilities would be part of Phase 2 Expansion project design.

Table 4-4. Preliminary Comparison of Project and Delta Plan Mitigation Measures (contd.)

Delta Plan Mitigation Measure Number(s)	LVE Phase 2 Expansion Mitigation Measure Number(s)
Traffic and Transportation	
19-1, 19-4	4.9.1a, 4.9.1b
19-2	4.9.2c
19-3	4.9.2a, 4.9.2b, 4.9.2c
Utilities and Service Systems	
20-1	4.12.3
20-2	4.12.1a
Climate Change and Greenhouse Gas Emissions	
21-1	Not applicable. No significant impact related to greenhouse gas emissions.
21-2, 21-3, 21-4	Not applicable. No significant impact related to sea level/surface water level rise or groundwater management.

S_DSC_07 The comment cites Delta Plan Policy G P1 which states that actions subject to Delta Plan regulations must document use of best available science as relevant to the purpose and nature of the Project, and recommends that the Project have an adaptive management strategy and plan consistent with the framework in the Delta Plan.

Response

CCWD will submit a consistency determination to the Council with detailed findings as to whether the Project is consistent with the Delta Plan, including the use of best available science and an adaptive management strategy and plan. Since receiving the Council's comment letter, CCWD has met with Council staff regarding the requirements for the adaptive management plans and will continue to coordinate with DSC staff. The consistency determination will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to G P1.

S_DSC_08 The comment recommends that the Supplement describe how operations and timing of Project-related diversions of Delta water would provide improved regional water supply self-reliance, particularly when the flow in the Delta is critically low, consistent with Delta Plan Policy WR P1 (23 Cal. Code Regs. section 5003).

Response

Draft Supplement Section 3.1, Water Supply Reliability, describes the non-drought and drought emergency reliability uses of stored water as well as the supplemental water supplies that would be delivered to Local Agency Partners outside of the drought emergency periods. CCWD will submit a consistency determination to the Council that will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to WR P1.

S_DSC_09 The comment states that Delta Plan Policy ER P1 (23 Cal. Code Regs. section 5005) requires that the State Water Resources Control Board's Bay-Delta Water Quality Control Plan flow objectives be used to determine consistency with the Delta Plan.

Response

Project analysis is based on operations that are consistent with the current State Water Resources Control Board Decision 1641 flow objectives. See Draft Supplement Section 2.3.2.5, Sources of Water, for more discussion of this decision as it relates to the Project. It is reasonably foreseeable that these objectives will be amended; actual project operations will be consistent with any amended requirements. Additional project analysis would be required if and when the nature of the amended requirements becomes known; however, at this time such analysis would be speculative.

S_DSC_10 The commenter states that Delta Plan Policy ER P3 (23 Cal. Code Regs. section 5007) requires that, within the priority habitat restoration areas (PHRAs) depicted in the Delta Plan, significant adverse impacts on the opportunity to restore habitat must be avoided or mitigated.

Response

The Phase 2 Expansion would not affect habitat or the opportunity to restore habitat within any PHRAs. The impacts on kit fox movement described in the comment would occur outside of the legal Delta and not within a PHRA (DSC, 2013). CCWD will submit a consistency determination to the Council that will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to ER P3.

S_DSC_11 The commenter states that Delta Plan Policy ER P5 (23 Cal. Code Regs. section 5009) calls for avoiding introduction and habitat improvements for invasive, nonnative species or mitigating these potential impacts in a manner that appropriately protects the ecosystem.

Response

CCWD follows weed control BMPs incorporated into the Resource Management Plan for the Watershed. The consistency determination will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to ER P5.

S_DSC_12 The commenter states that Delta Plan Policy DP P1 (23 Cal. Code Regs. section 5010) calls for locating new residential, commercial, and industrial development within areas designated for development in the Delta Plan and/or in applicable general plans.

Response

Impact 4.8.2 in Draft Supplement Section 4.8, Agricultural Resources, refers to the installation of a pump station on less than 0.5 acre of Prime Farmland that is within an area slated for urban

development according to the City of Brentwood General Plan (see Final Supplement Chapter 5, under the heading "Section 4.8, Agricultural Resources" for revised text of this impact analysis). Further, this location was designated "mixed use business park" in the previous general plan adopted prior to May 16, 2013 (City of Brentwood, 2013). Pipeline-related disturbance of agricultural lands would be temporary, and agricultural use could resume after site restoration. There would be no change in surface land use along buried pipeline routes; thus, the Project would be consistent with applicable land use plans. CCWD will submit a consistency determination to the Council that will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to DP P1.

S_DSC_13 The commenter states that Delta Plan Policy DP P2 (23 Cal. Code Regs. section 5011) requires certain facilities such as the Phase 2 Expansion facilities to be sited to avoid or reduce conflicts with existing or planned uses, when feasible.

Response

As described in Impact 4.7.2 in Draft Supplement Section 4.7, Land Use, facility siting and operation under the Phase 2 Expansion alternatives would not conflict with any existing land use plans. CCWD will submit a consistency determination to the Council that will include detailed findings regarding consistency with all relevant policies in the Delta Plan including but not limited to DP P2.

4.3 Local and Regional Agencies

Table 4-5. Local and Regional Agencies that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Page Number
Letter	L_CCCSD	Roger S. Bailey	General Manager	Central Contra Costa Sanitary District	C-49
Letter	L_CCCFC	Jorge Hernandez	Staff Engineer	Contra Costa County Flood Control and Water Conservation District	C-51
Letter	L_EBRPD	Brian W. Holt	Principal Planner	East Bay Regional Park District	C-60
Letter	L_MWD	Stephen Arakawa	Manager, Bay Delta Initiatives	The Metropolitan Water District of Southern California	C-62
Oral comment	L_SJWC	Andy Gere	President and CEO	San Jose Water Company	C-67
Oral comment	L_SCVWD	Garth Hall	Deputy Operating Officer	Santa Clara Valley Water District	C-72
Letter	L_WID	Hanspeter Walter	--	Woodbridge Irrigation District	C-77
Letter	L_Zone7	Elke Rank	Water Resources Planner	Alameda County Flood Control and Water Conservation District, Zone 7	C-90

Central Contra Costa Sanitary District, Roger S. Bailey, General Manager, September 5, 2017

L_CCCSD_01 The commenter suggests that the Contra Costa County Refinery Recycled Water Project be included as a component of the Phase 2 Expansion Project to provide water supply yield.

Response

CCWD, Santa Clara Valley Water District (SCVWD), and Central Contra Costa Sanitary District (Central San) are working together to evaluate the feasibility of operating the Contra Costa County Refinery Recycled Water Project in conjunction with both existing facilities and the proposed Phase 2 Expansion facilities. A water exchange arrangement in which recycled water from Central San could be provided to CCWD to serve to existing industrial customers could result in the creation of up to 22,000 acre-feet per year of new water supply for SCVWD. A description of this partnership has been added to the Final Supplement.

Contra Costa County Flood Control and Water Conservation District, Jorge Hernandez, Staff Engineer, September 6, 2017

L_CCCFC_01 The comment reiterates and clarifies comments submitted by the Contra Costa County Flood Control and Water Conservation District (CCCFC) on the 2010 Final EIS/EIR regarding the need for a County drainage permit for installation of a temporary bridge and conveyance pipelines across Kellogg Creek, Brushy Creek, and other drainages.

Response

The comment reiterates and clarifies comments submitted by CCCFC on the 2010 Final EIS/EIR regarding the need for a County drainage permit for installation of a temporary bridge and conveyance pipelines across Kellogg Creek, Brushy Creek, and other drainages. For responses to the comments in the attached 2009 comment letter on the 2009 Draft EIS/EIR, please refer to **Final EIS/EIR Volume 4, Section 3.6, Master Response 6, Local Hydrology and Drainage** (Chapter 3, p. 3-55 et seq.). As explained therein, none of the proposed alternatives would result in increased flood releases into Kellogg Creek during operation and none of the proposed alternatives would result in a significant change in flooding along lower Kellogg Creek. By design, the expanded reservoir would continue to provide flood control benefits equivalent to existing conditions. Therefore, additional analysis is not warranted and mitigation for flooding is not required. The potential impacts of raising the dam on drainage to Kellogg Creek have not changed since the Final EIS/EIR and are not re-evaluated in the Supplement; therefore, comments on this topic are outside the scope of the Supplement. CCWD is unfamiliar with the County's reference to "reports from downstream constituents of reservoir stormwater releases during a storm event exacerbating flooding downstream" in January 2017. However, stormwater releases were not made from Los Vaqueros Reservoir to Kellogg Creek in January 2017. The only flooding issue CCWD was made aware of in January 2017 was ultimately determined to be related to Brushy Creek, not Kellogg Creek; Los Vaqueros Reservoir operations are not connected in any way to Brushy Creek. Consistent with California law, the inundation mapping and Emergency Action Plan for Los Vaqueros were updated following the expansion to 160 TAF.

CCWD and Reclamation also received a letter from CCCFC on March 30, 2010, commenting on the Final EIS/EIR (CCCFC, 2010). CCWD staff considered those comments and responded in a memorandum presented to the CCWD Board of Directors on March 31, 2010 (CCWD, 2010). The response indicated that CCWD would continue to work with CCCFC to address CCCFC's concerns and permitting requirements. As with Phase 1, for the Phase 2 Expansion, CCWD would be required to comply with applicable County permitting and development fee requirements and to implement conditions of approval of County permits.

East Bay Regional Park District, Brian W. Holt, Principal Planner, August 24, 2017

L_EBRPD_01 The commenter expresses concern that construction of the Phase 2 Expansion could cause operational and financial impacts to regional EBRPD facilities. The commenter also notes that EBRPD would work with CCWD to develop public outreach materials to inform the public of the temporary closure of the Los Vaqueros Reservoir.

Response

Please refer to **Final EIS/EIR Volume 4, Section 3.11, Master Response 11, Recreation** (Chapter 3, Section 3.11.3, pp. 3-135 through 3-138), which addresses comments about potential effects on other recreational facilities/areas resulting from the closure of the Los Vaqueros Watershed during construction. CCWD appreciates EBRPD's input on efforts to inform recreationists of Phase 2 Expansion impacts.

L_EBRPD_02 The commenter states that portions of the Transfer-Bethany Pipeline alignment along Armstrong Road and near Byron Airport contain constructed wetlands and habitat for several special-status species, and that temporary impacts during construction could conflict with the provisions of the East Contra Costa County HCP/NCCP. The commenter requests that CCWD coordinate with the ECCCHC in acquiring compensatory mitigation lands for any offsite mitigation.

Response

CCWD appreciates the opportunity to coordinate with the EBRPD and ECCCHC to avoid and minimize impacts in the Transfer-Bethany Pipeline alignment. Please see response to comment F_USFWS_01, where this issue is also raised, for a detailed discussion of the Supplement's coverage of impacts on preserve lands that are owned or managed by the EBRPD and the ECCCHC.

L_EBRPD_03 The commenter notes that the proposed pipeline to Brentwood Water Treatment Plant and ECCID's Bixler Intake would affect bicycle and pedestrian access along the portion of EBRPD's Delta de Anza Trail that crosses State Route 4 along Neroly Road. The commenter requests that appropriate signage be available to re-route pedestrians and bicyclists during construction.

Response

As stated in Mitigation Measure 4.15.1d (Section 4.15, Recreation, p. 4.15-12 of the Draft Supplement), CCWD would consult with EBRPD to prepare and implement a public outreach program to inform current and potential future trail users of the temporary closure to the Delta de Anza Trail, and inform potential trail users of detours accessible to pedestrians, bicyclists, and wheelchair users.

L_EBRPD_04 The commenter suggests that Lake Del Valle water levels should be maintained at a level that supports recreation even in dry years, and that the Phase 2 Expansion Project should include investments in recreational infrastructure at Lake Del Valle/Del Valle Regional Park and Bethany Reservoir State Recreation Area.

Response

Lake Del Valle provides storage for South Bay Aqueduct water, and as shown in Draft Supplement Chapter 2, Figures 2-1 through 2-4, the Phase 2 Expansion would result in water deliveries to Local Agency Partners via the South Bay Aqueduct. Although maintenance of water levels in Lake Del Valle is not among the Phase 2 Expansion project's objectives, it is anticipated that the provision of additional water through the South Bay Aqueduct could help meet EBRPD's expressed goals with respect to lake levels. However, investments in recreational infrastructure outside of the Phase 2 Expansion project's area of impact on recreational resources are outside the scope of this project.

The Metropolitan Water District of Southern California, Stephen Arakawa, Manager, Bay Delta Initiatives, September 5, 2017

L_MWD_01 See Master Response 2, Section 3.2.2, California WaterFix.

L_MWD_02 See Master Response 2, Section 3.2.2, California WaterFix.

L_MWD_03 The commenter requests clarification about how filling from Rock Slough Intake would not be constrained by the Old and Middle River flow restrictions.

Response

Please see response to comment **S_DWR_07**, where this issue is also raised, for a detailed discussion of how CCWD operations would be constrained by OMR flow restrictions.

L_MWD_04 The commenter requests an explanation of the differences in the CCWD no-fill/no-diversion period and the use of the Freeport and Rock Slough intakes under the action alternatives and the No Action Alternatives.

Response

The action alternatives propose to eliminate the Los Vaqueros no-fill/no-diversion period requirement, which dates from the 1993 USFWS and NMFS biological opinions and 1994 memorandum of understanding with CDFW for the original Los Vaqueros Reservoir Project for the protection of listed fish species, because this requirement was made redundant by the more recent OMR flow requirements that apply to wider Delta operations. The assumptions for the use of the Freeport Intake have been updated based on input from EBMUD, to allow potential partner diversions under the action alternatives in addition to the 3.2 TAF/year of CCWD CVP contract water previously assumed, and the action alternatives propose to construct facilities to allow water to be conveyed from Rock Slough Intake to the Transfer Facility; thus, assumptions about when it is possible to fill Los Vaqueros Reservoir using the Freeport Intake and Rock Slough Intake are provided for the action alternatives. See also responses to comments L_MWD_02 and L_MWD_03.

L_MWD_05 The commenter requests rationale for using annual average timeframes for analysis instead of monthly time-step timeframes.

Response

Potential impacts of the action alternatives were evaluated at the shorter timesteps of the modeling simulations, and the results were summarized as annual averages. See Appendix B. More detailed information is available upon request from CCWD, as is the full set of modeling results.

L_MWD_06 The commenter asks where diversions that are not stored in Los Vaqueros Reservoir are delivered.

Response

Diversions for the partners would either be stored in Los Vaqueros Reservoir for later delivery or delivered directly to the partners. Direct deliveries from the Delta occur during wet years and also wetter months of dry years. For instance, out of the 46 TAF/year average annual total deliveries to the south-of-Delta wildlife refuges, 39 TAF/year is diverted from the Delta and delivered directly through the Transfer-Bethany Pipeline to the California Aqueduct.

L_MWD_07 See Master Response 2, Section 3.2.2, California WaterFix.

L_MWD_08 See Master Response 2, Section 3.2.2, California WaterFix.

L_MWD_09 See Master Response 2, Section 3.2.2, California WaterFix.

L_MWD_10 See Master Response 2, Section 3.2.2, California WaterFix.

San Jose Water Company, Andy Gere, July 12, 2017

L_SJWC_01 The commenter expresses support for the Phase 2 Expansion Project. This comment is acknowledged.

Santa Clara Valley Water District, Garth Hall, July 12, 2017

L_SCVWD_01 The commenter asks if CCWD has or plans to get biological opinions for the operation of the Phase 2 Expansion.

Response

CCWD has a 1993 USFWS Biological Opinion on delta smelt for the operation of the Los Vaqueros Project, a 1993 NMFS Biological Opinion on winter-run chinook for the Los Vaqueros Project, a 2012 USFWS Biological Opinion for the operation and maintenance of the watershed, and a 2009 DFW Incidental Take Permit for the maintenance and operation of the Los Vaqueros Project and Alternative Intake Project. These permits will be updated to account for the changes in facilities and operations proposed under the Phase 2 Expansion.

L_SCVWD_02 The commenter asks if existing regulations on the operations of CCWD intakes will be modified.

Response

The Phase 2 Expansion proposes operations that are coordinated with the CVP and SWP Delta operations. Pages 2-35 through 2-48 of the Draft Supplement describe how the existing Los Vaqueros Reservoir system operates and the changes that are proposed. The proposed Phase 2 Expansion operations do not affect the ability of the CVP and SWP to comply with existing Old and Middle River flow requirements. Revised Section 4.3, Delta Fisheries and Aquatic Resources, shows the change in net flows on Old and Middle River that would result from the proposed operations of the Phase 2 Expansion. As noted in response to comment L_SCVWD_01, permits will be updated to account for the changes in facilities and operations proposed.

Woodbridge Irrigation District, Hanspeter Walter, September 1, 2017

L_WID_01 The commenter states that the Draft Supplement does not accurately describe WID's water rights and makes a fundamental and fatal error in the related discussion and analysis of Phase 2 Expansion impacts to those rights; that the Draft Supplement misinterprets certain agreements between WID and EBMUD, specifically the settlement agreements executed in the years 1938 and 1965; that the 1938 agreement with EBMUD did not limit WID's rights to fully exercise its water rights; that WID's water right Permit 3890 (now License 5945) predates Camanche Reservoir and allows WID to divert water released from Pardee Reservoir; that the 1965 Agreement involved settlement of WID's water rights Permit 6931 (now License 8214) and operations of Camanche Reservoir, but did not affect WID's right to exercise License 5945.

Response

The following is a description of WID water rights and agreements with EBMUD regarding water rights priority and obligations.

A. WID's Pre-1914 Water Rights and 1938 Agreement with EBMUD

On September 22, 1924, EBMUD filed Application 4228 with the predecessor agency of the SWRCB for an appropriative water right for Pardee Reservoir, which was then in the planning stages. EBMUD subsequently received Permit 2459 on April 17, 1926 ("Pardee Right"),[1] authorizing EBMUD to divert water from the Mokelumne River and store it in Pardee Reservoir. The Pardee Reservoir was completed and placed into operation in 1929.

WID claims a pre-1914 appropriative water right senior to EBMUD's Pardee Right, which it acquired from the Stockton and Mokelumne Canal Company ("Pre-1914 Right"). The parties initially did not agree on the scope and extent of the Pre-1914 Right, and EBMUD brought an action against WID in October 1933 to "determine the extent to which the Irrigation District's right

[1] The Pardee Right was converted from a permit to a license (License 11109) in 1981.

to divert and use water from the Mokelumne River is superior to the right of the Utility District to store, divert or use the waters of said river…" (3rd Recital, 1938 Agreement).

The parties agreed to resolve the uncertainty concerning the scope and quantity of WID's senior water right in a January 7, 1938 settlement agreement between WID and EBMUD ("1938 Agreement"). The 1938 Agreement defines and quantifies WID's Pre-1914 Right and the flow required from EBMUD to avoid causing injury to WID's Pre-1914 Right. Section 1(a) defines WID's Pre-1914 Right as an amount between 30,000 and 45,000 acre-feet in a given year, depending on the amount of Mokelumne River inflow into Pardee Reservoir between October 1 and September 30. The 1938 Agreement defines WID's Pre-1914 Right as follows:

a) 30,000 acre-feet when Pardee inflow did not exceed 250,000 acre-feet;

b) 35,000 acre-feet when Pardee inflow exceeded 250,000 acre-feet but did not exceed 325,000 acre-feet;

c) 40,000 acre feet when Pardee inflow exceeded 325,000 acre-feet but did not exceed 400,000 acre-feet; and

d) 45,000 acre-feet when Pardee inflow exceeded 400,000 acre-feet.

The 1938 Agreement required EBMUD to release such amounts from Pardee Reservoir to WID, subject to additional terms and conditions, including but not limited to conditions on the rate and timing of WID's diversions. The Agreement acknowledged WID's Permit 3890, a post-1914 right with a 1928 priority date, which is subject to EBMUD's right to first exercise its Pardee Right.[2] In sum, the 1938 Agreement allowed EBMUD to fully exercise its Pardee Right so long as it made the required base supply available to WID as provided in the Agreement.

B. WID's Post-1914 Water Rights and 1965 Agreement with EBMUD

Several water rights developments occurred on the Mokelumne River between the 1938 Agreement and 1965, when EBMUD and WID entered into a new water management agreement:

1) WID filed Application 10240 in 1941 and received Permit 6931 in 1947.

2) EBMUD filed Application 13156 in 1949 to appropriate water at Pardee Dam and Reservoir (in addition to the Pardee Right) and at a new location, Camanche Dam and Reservoir, downstream of Pardee. Permit 10478 was issued on the application in 1956 ("Camanche Right").

3) WID's Permit 3890 went to license (License 5945) in 1960.

4) Camanche Reservoir began operation in 1964.

[2] Permit 3890 was converted into a license (License 5945) in 1960. EBMUD's commitment with respect to Permit 3890 was subsequently modified by the 1965 Agreement in the manner described in this section.

The 1965 Agreement and WID's Regulated Base Supply (RBS)

The continued development of the Mokelumne River by EBMUD and WID resulted in a complex set of interrelated water rights among the two agencies. As a consequence, the parties executed the 1965 Agreement to definitively resolve all claims – known and unknown, existing and future – relative to EBMUD's and WID's respective rights to the waters of the Mokelumne River. The 1965 Agreement did not cancel or supersede the 1938 Agreement, but restated, modified, and supplemented its terms.

The key term of the 1965 Agreement was the provision to WID of a "Permanent Regulated Base Supply" (RBS) – a fixed quantity of water that EBMUD agreed to release to satisfy all of WID's water rights for irrigation use: 60,000 acre-feet per year, subject to a reduction of not more than 35 percent in extremely dry years. The 1965 Agreement increased the volume of base supply that EBMUD is to release to WID under the 1938 Agreement to account for WID's post-1914 appropriations. In exchange, EBMUD received the certainty that it could fully utilize the Pardee Right and Camanche Right, provided that it met the RBS flow requirements. The 1965 Agreement also provided for an additional "interim" supply to WID for an "interim period" which EBMUD extended twice before the interim period ended in 1988 pursuant to the express terms of the 1965 Agreement. The parties have since made narrow amendments to the 1965 Agreement, mostly recently in 2009, but the RBS quantity is unchanged. The 1965 Agreement, as amended, continues to authorize EBMUD to fully exercise its Pardee and Camanche Rights in exchange for releasing the RBS quantity to WID.

In summary, EBMUD's obligation to WID under the 1965 Agreement is to release the specified RBS flows below Camanche Reservoirs for diversion by WID. EBMUD has no legal obligation to release water to WID in excess of the RBS. The 1965 Agreement allows EBMUD to fully exercise its Pardee Right and Camanche Right provided it releases the RBS water for diversion by WID. By the clear terms of the 1965 Agreement, the RBS releases fully satisfy EBMUD's obligations to WID with respect to all of WID's appropriative water rights, including its Pre-1914 Right and its Licenses 5945 and 8214.[3]

WID's Right to Divert Above RBS

In wetter years when Camanche and Pardee Reservoirs are full, EBMUD may bypass water through and/or make releases from Camanche Reservoir in excess of the RBS quantity and EBMUD's other downstream obligations such as its obligations to senior riparian diverters and obligations which arise from other agreements and regulatory requirements like the Joint Settlement Agreement. Such water is hereinafter referred to as "excess flows." Excess flows are typically bypassed or regulated at Camanche Dam to comply with the flood control requirements in EBMUD's USACE agreement. The 1938 and 1965 Agreements between EBMUD and WID do not prohibit WID from diverting

[3] Several of the Parties' water rights actually incorporate the 1965 Agreement and require compliance with its terms. For example, WID's License 8214 expressly subjects WID's diversions, whatever their claim of right, to the 1965 Agreement as amended, because it states that "diversions by licensees within the maximum quantity set forth above [i.e., 414.4 cfs] shall be in accordance with the terms of [the 1965 Agreement], or as said agreement may hereafter by amended… ." Similarly, amendments made to EBMUD's Camanche Right (Permit 10478) in 2016 inserted a term requiring EBMUD to release the RBS water from Camanche Reservoir in accordance with the 1965 Agreement and Supplementary Agreements.

these excess flows, and EBMUD has no basis or reason to object if WID diverts the excess flows. It is entirely WID's decision to divert excess flows and to ascertain the extent to which diversion of such excess flows are consistent with the terms of its Licenses, applicable water rights priorities, and applicable law.[4]

While WID may rely on License 5945 or 8214 to support its diversions from the Mokelumne River in excess of the RBS under certain conditions, excess flow water is typically not available in the river for diversion by WID unless and until all of the following occur: (1) EBMUD has fully exercised its Pardee and Camanche Rights, consistent with the 1965 Agreement as amended, (2) EBMUD has released sufficient water to satisfy downstream obligations, (3) EBMUD releases water in addition to both of the foregoing, typically to comply with the flood control requirements of the USACE, and (4) WID is prepared and able to divert such excess water at the time it flows past its point of diversion consistent with the terms of its licenses, obligations it may have to bypass water for senior downstream uses, and applicable law and regulations. As these excess flow releases are generally made to meet EBMUD's flood control requirements, the timing and quantity of the releases are dependent on hydrological conditions and other factors. As such, excess flows in the Mokelumne River below Camanche Dam are intermittent, and are not firm or reliable.

WID's comment asserted that the Phase 2 Expansion could affect the availability to WID of excess flows. WID's premise is incorrect. EBMUD's analysis of model results demonstrates the Phase 2 Expansion would not significantly affect EBMUD's release of excess flows into the Lower Mokelumne River – in fact, it would result in a modest net total increase in excess flows. That analysis is explained later in this response. However, even if it is assumed the Phase 2 Expansion may reduce excess flows, any effect on the availability of excess flows would not be an impact caused by the Phase 2 Expansion, and would not require mitigation. As described above, WID may divert excess flows when such flows are available in the river. However, with or without the Phase 2 Expansion, WID is not assured that excess flows will be present in the river at all. Under the 1965 Agreement, WID is assured only that the RBS will be released from Camanche Reservoir. Even if flows above RBS are released from Camanche, neither WID nor EBMUD can reliably predict the timing or extent of those releases. WID agreed to the intermittent, unreliable availability of flows above RBS when it signed the 1965 Agreement, and in return, WID received EBMUD's agreement to provide a regulated and reliable annual supply, up to the RBS quantity, to WID. Because the excess flows have been unreliable by nature since the parties' 1965 Agreement, even if it is assumed the Phase 2 Expansion might reduce those flows – which it would not – such a reduction is permissible and anticipated by the 1965 Agreement and therefore is not an effect of the Phase 2 Expansion itself. This is because the Phase 2 Expansion involves nothing more than what EBMUD and WID already agreed to in 1965: that the District may fully exercise its Pardee and Camanche Rights before releasing water above the RBS quantity for WID's use. In summary, even if excess flows were to be reduced by the Phase 2

[4] WID's License 5945 (Application 5807, Permit 3890) authorizes direct diversion at a rate of up to 300 cfs. License 5945 overlaps with WID's Pre-1914 Right because it includes a "combining condition" limiting WID's simultaneous diversions under License 5945 and its Pre-1914 Right to no more than 300 cfs. License 5945 also contains a term prohibiting WID from diverting regulated flows or releases from storage resulting from storage projects developed after License 5945's January 20, 1928 priority date. That limitation prevents WID from using License 5945 to divert water previously stored by EBMUD in Camanche Reservoir. WID's most junior license, License 8214 (Application 10240, Permit 6931), authorizes direct diversion at rate of 114.4 cfs. License 8214 supplements License 5945; each license allows diversion during a different (but overlapping) season, and License 8214 – like License 5945 – contains a "combining condition" limiting WID's simultaneous diversions under License 5945, License 8214 and WID's Pre-1914 Right to a combined 414.4 cfs.

Expansion, that reduction would be an effect of the 1965 Agreement and not of the Phase 2 Expansion.

WID's comments are based on the incorrect premise that a negative effect on flows above RBS, if demonstrated, would constitute a new, Project-caused impact to WID. Nevertheless, EBMUD analyzed the results of the Phase 2 Expansion modeling performed for the Draft Supplement to determine if the Phase 2 Expansion would reduce excess flows, compared to WID's historic diversions. When performing this analysis, EBMUD conservatively relied on monthly historic diversion information provided by WID as an attachment to its September 1, 2017 comment letter on the Draft Supplement. EBMUD did not attempt to verify the historic diversion information provided by WID but has accepted the figures as true for purposes of this analysis. For each case (i.e., Baseline, Project, Cumulative), the modeling results showed monthly WID diversions based on RBS. The model results also showed excess flows, which were used to develop flood control releases at WID. For each case, on a month-by-month basis EBMUD added the modeled WID diversions (based on RBS) and flood control releases at WID, then compared this number against WID's historic diversions. This showed how much excess flow might be released to the Lower Mokelumne River, relative to WID's historic diversions.

EBMUD completed this evaluation for each month for which it had modeled data and historic diversions from WID, resulting in an 87-year period from 1926 to 2012 (although WID provided historic diversions through 2015, EBMUD's modeling for the Draft Supplement only extends through 2012).

Using this methodology, EBMUD then compared the Baseline and Phase 2 Expansion results by comparing, on a month to month basis, the excess flows that might be released to the Lower Mokelumne River, relative to WID's historic diversions under each modeling case. In some months, compared to the Baseline case the Phase 2 Expansion case showed a reduction in excess flows relative to WID's historic diversions. However, in other months, compared to the Baseline case, the Phase 2 Expansion case showed more excess flows relative to WID's historic diversions. The latter result may be attributed to the fact that, during certain dry years, EBMUD would be taking water from the Los Vaqueros Reservoir, allowing it to divert less water from the Mokelumne, thereby resulting in the release of more excess flows to the Lower Mokelumne River.

The comparison of Baseline to Phase 2 Expansion showed no significant effects associated with these changes in excess flows. Over the 87 years analyzed (a total of 1,044 months), there were 22 months showing a reduction in excess flows relative to WID's historic diversions under the Phase 2 Expansion case compared to the Baseline case, and 13 months showing an increase excess flows relative to WID's historic diversions under the Phase 2 Expansion case compared to the Baseline case. The largest monthly reduction in excess flows was observed in October 1959, when compared to the Baseline case, the Phase 2 Expansion case decreased excess flows by 1,494 acre-feet relative to WID's historic diversions, in a year when WID's total historic diversions were 91,150 acre-feet. Each of the other 21 months with reductions in flow showed a decrease of less than 1,000 acre-feet. Taking into account all 22 months with reductions, the average reduction is 307 acre-feet. The largest monthly increase in excess flows was observed in September 1932, when compared to the Baseline case the Phase 2 Expansion case increased excess flows by 3,422 acre-feet relative to WID's historic diversions in a year when WID's total historic diversions were 86,990 acre-feet. The

Baseline-to-Phase 2 Expansion comparison demonstrates that, over the long term and in all but a relative handful of individual months, the Project would increase excess flows or leave them unchanged, resulting in a net total *increase* of 1,248 acre-feet in excess flows under the Phase 2 Expansion case over the entire 87-year period.

While analysis of the entire 87-year period shows a net increase in excess flows relative to WID's historic diversions, it does show a decrease in certain months. However, examining the entire 87-year period may, to some extent, distort the Phase 2 Expansion's likely effects in any given month. This is because the historical diversion data WID provided shows that WID's use of Mokelumne River water has fundamentally and structurally changed over time. Changes in land use and conservation in the WID service area have resulted in a reduction in demand, such that historical diversions over the past four decades have been significantly lower than in earlier decades. Between 1926 and 1977, WID's average annual water use was 96,898 acre-feet, and in 26 years during that period, WID's diversions exceeded 100,000 acre-feet. In contrast, between 1978 and 2015, WID's diversions dropped to an annual average of 60,691 acre-feet, with no years above 100,000 acre-feet. These reduced diversions are the result of changes in crops and irrigation practices in the WID service area. A review of historical crop patterns in WID's service area between 1928 and 2017 shows a shift from high water use crops like alfalfa and clover to low water use, drip irrigated perennial/long-lived crops like vineyards and orchards. These structural changes suggest that demand will not revert to previous levels. The onset of the persistent reduction in water use, while somewhat gradual, also appears to correlate with the extreme 1976-1977 drought, an event that led to reduced water demand throughout California due to increased water conservation efforts. Because WID's diversions after the drought have been consistently lower than in the previous decades, due to structural changes that are likely to persist, WID's diversions between 1978 and 2012 are more representative of WID's contemporary water use practices than the previous 50-year period. As such, the period from 1978 to 2012 may be a more appropriate period to review for potential Project impacts. (Even choosing this period may overestimate typical WID diversions, as a review of the WID historic diversions provided by WID shows that since 2000, there were rarely years where its diversions exceeded the RBS.)

When comparing the Baseline to the Phase 2 Expansion over the 1978-2012 period, there were only four months out of 420 where there would be less excess flow relative to WID's historic diversions. There were also three months showing an increase in water available to WID. Over the full 35-year period, the Phase 2 Expansion case resulted in a net decrease in water available to WID of 1,122 acre-feet. To place this net reduction in context, WID's reported total actual historical diversions during the same period were 2,174,729 acre-feet. The 1,122-acre-foot net reduction is equivalent to approximately one-twentieth of one percent of WID's net historic diversions.

In addition to the Baseline-to-Phase 2 Expansion analysis, EBMUD also completed a Cumulative analysis by comparing the Cumulative modeling results against the Baseline modeling results. The Cumulative analysis, like the Baseline-to-Project analysis, demonstrates the Project would have no significant effect on EBMUD's release of excess flows. Compared to the Baseline case, of the 1,044 months during the 87-year period, the Cumulative case showed decreased excess flows relative to WID's historic diversions in 92 months, while it showed increased excess flows relative to WID's historic diversions in 55 months. Compared to the Baseline case, the Cumulative case showed a net total reduction in excess flows relative to WID's historic diversion of 99,104 acre-feet over the 87-year

modeled period. Total WID historic diversions for that same period were 7,213,400 acre-feet. This reduction represents a 1.4 percent reduction in excess flows, relative to WID's historic diversions, across the full 87-year period under Cumulative conditions.

However, for the reasons explained above, as under Project conditions, examining the entire 87-year period may not be representative of the Project's likely effects under cumulative conditions. Looking at the modeling results from 1978 through 2012, the Cumulative case shows a 5,881-acre-foot net total *increase* in excess flows relative to WID's historic diversions over this period, compared to the baseline scenario. Thus, relative to WID's contemporary water use patterns, under cumulative conditions the Phase 2 Expansion actually benefits WID by resulting in increases in excess flows in the Lower Mokelumne River.

This analysis shows that the project would not significantly affect excess flows relative to WID's historic diversions.

L_WID_02 The commenter states that the Draft Supplement assumptions and modeling that WID only diverts a maximum of 60 TAF from the Mokelumne River are wrong and present an inaccurate description of environmental conditions and the project's potential impacts. The commenter states that the Draft Supplement needs to be revised to recognize and more accurately reflect WID's water rights and historic and planned diversions from the Mokelumne River.

Response

As described in response to comment L_WID_01, modeled assumptions regarding WID diversions in the Draft Supplement are correct, and the Phase 2 Expansion would not significantly affect excess flows relative to WID's historic diversions. In addition, contrary to the comment's assertion, based on the table of historic diversions attached to WID's comment letter, the modeling assumption regarding diversion of WID's RBS under the 1965 Agreement of either 39 TAF or 60 TAF reasonably approximates WID's water use in recent years and therefore was appropriately included in the baseline modeling case. (Please also see response to comment L_WID_01, subsection B, for a description of structural changes in WID's water use patterns that have occurred since the late 1970s.) Further, the commenter has not presented any evidence that use of WID's RBS allocation in the baseline modeling case resulted in mischaracterization of the Phase 2 Expansion's environmental effects.

L_WID_03 The commenter states that the Draft Supplement misrepresents North San Joaquin Water Conservation District's (NSJWCD) water rights priority and historical diversions, rendering the conclusions flawed, and states that the modeling assumptions should be revised to make water available to WID License 5945 before any water is diverted for NSJWCD.

Response

As described in response to comment L_WID_01, EBMUD has an obligation, pursuant to its agreements with WID, to release the Permanent Regulated Base Supply (RBS) water to WID. So

long as EBMUD meets the RBS flow requirements, it may fully utilize its rights. EBMUD stores and releases water for NSJWCD pursuant to its Camanche Right (Permit 10478), NSJWCD's Permit 10477, and a 1963 agreement between the parties. NSJWCD's water right allows storage and diversion at Camanche Reservoir. NSJWCD's temporary water right Permit 10477, issued pursuant to Water Code Section 1462, authorizes the appropriation of water that is excess to the needs of EBMUD under Permit 10478, and allows NSJWCD to divert directly to use or to store water from December 1 to July 1. Under an agreement between NSJWCD and EBMUD, entered into in 1963 and amended in 1969, EBMUD stores up to 20 TAF of Permit 10477 water for NSJWCD when capacity is available in EBMUD's Mokelumne reservoirs so that NSJWCD can receive its supplies after July 1. Permit 10477 allows that water to be stored in Camanche Reservoir. In years when water is available to NSJWCD under the 1963 agreement, EBMUD allocates a portion of the water stored in Camanche Reservoir for release and diversion by NSJWCD during the irrigation season.

The commenter referenced WID License 5945, which, by its express terms, "does not apply to regulated flow or released storage resulting from appropriations under applications filed or other development proposed subsequent to the filing of Application 5807." Application 5807 was filed in 1928, more than 20 years before EBMUD proposed the development of Camanche Reservoir by filing Application 13156 in 1949. Therefore, WID has no right under License 5945 to divert any flows regulated by Camanche Dam nor any water released from storage in Camanche Reservoir.

Finally, the Draft Supplement correctly represents NSJWCD's water right and diversions. The EIR/EIS analysis includes diversion by NSJWCD up to 20 TAF, which is based on the limit of NSJWCD's water right, EBMUD's agreements with NSJWCD, and NSJWCD's projection of its future water use.

L_WID_04 The commenter states that the Phase 2 Expansion will have significant adverse impacts to WID's exercise of its water rights and its water supply reliability. The commenter disagrees with the Draft Supplement conclusions that effects will be negligible, claiming that these conclusions are based on a misrepresentation of WID's water rights. The commenter states that the conclusion must be revised after proper modeling of WID water rights and use.

Response

As described in response to comment L_WID_01, modeled assumptions regarding WID diversions in the Draft Supplement are correct, and the Phase 2 Expansion would not significantly affect excess flows in the Lower Mokelumne River relative to WID's historic diversions.

L_WID_05 The commenter states that the Draft Supplement analysis uses inappropriate averaging over long periods that obscures the potential real-world impacts of the Phase 2 Expansion.

Response

Appendix D-4 provides a table of monthly results over the modeled hydrologic period of record organized by year type as defined by the Joint Settlement Agreement, which confirms the

conclusions of the Draft Supplement. In addition, response to comment L_WID_01, subsection B provides further analysis showing no significant impact to excess flows in the Lower Mokelumne River relative to WID's historic diversions.

L_WID_06 The commenter states that the Draft Supplement's reliance on EBMUD's 10478 permit extension EIR is inappropriate and disagrees with the assessment that cumulative impacts on groundwater recharge from the Phase 2 Expansion will be less than significant. The commenter states that the 10478 permit extension EIR characterized WID's water rights in the same way as the Draft Supplement, and is therefore flawed. The commenter also states that, to the extent that EBMUD's 10478 EIR is being incorporated by reference, much more analysis is required, and requests additional detail and specific reference to analysis in the 10478 permit extension EIR.

Response

As described in response to comment L_WID_01, EBMUD correctly analyzed WID water rights and EBMUD's obligation to release water for WID's benefit. Additional analysis on the conclusion that cumulative impacts on groundwater recharge from the Phase 2 Expansion would be less than significant is provided below in the response to comment L_WID_07.

L_WID_07 The commenter states that given that the Eastern San Joaquin Sub-basin has been classified by the State under the Sustainable Groundwater Management Act (SGMA) as being in a critical condition of overdraft, the potential cumulative impacts of the Phase 2 Expansion on groundwater recharge needs to be better explained and more thoroughly examined. The commenter states that the Draft Supplement does not discuss or acknowledge these current conditions, and that there is insufficient support and rationale for the conclusion that the overall small reduction in flows would result in impacts on groundwater recharge that are less than significant.

Response

The DWR categorized the Eastern San Joaquin Sub-basin to be in critical overdraft under SGMA (DWR, 2016). According to the 2004 Eastern San Joaquin Groundwater Basin Groundwater Management Plant (GWMP), the Eastern San Joaquin basin is experiencing an estimated long-term overdraft of 150,000 to 160,000 acre-feet per year (San Joaquin County Department of Public Works, 2004). The average annual recharge in the Eastern San Joaquin Sub-basin is estimated to be on the order of 750,000 to 900,000 acre-feet, of which 198,000 acre-feet is seepage from all surface water sources in the basin (2004 Eastern San Joaquin GWMP) including the Mokelumne River and all other rivers that serve as a source of recharge for the Eastern San Joaquin Sub-basin (DWR, 2003; USGS, 2012; San Joaquin County Department of Public Works, 2004). The water budget for the Eastern San Joaquin Sub-basin is currently being updated with the development of a Groundwater Sustainability Plan as required by SGMA, but the 2004 Eastern San Joaquin GWMP estimated that approximately 867,000 acre-feet of groundwater pumping occurs in the sub-basin annually.

EBMUD evaluated the Project effects on groundwater seepage by looking at stream channel losses. Stream channel losses are a function of various parameters such as river stage and groundwater depth, and can result from shallow to deep percolation to groundwater (recharge), evapotranspiration, and temporary bank storage. Groundwater recharge is only one of several components that comprise channel losses, and reductions in channel loss do not result in an acre-foot for acre-foot reduction in stream seepage to groundwater.

RiverWare modeling completed subsequent to publication of the Draft Supplement confirmed the Draft Supplement's conclusion that cumulative groundwater impacts would be less than significant. EBMUD's model runs indicate that the average annual channel loss is expected to range between 44,540 and 47,230 acre-feet under the No Project/No Action Alternative. Under cumulative conditions, annual channel loss is expected to range between 44,580 and 47,180 acre-feet without the Project and between 44,590 and 47,160 acre-feet with the Phase 2 Expansion project. Relative to the No Project/No Action Alternative, under cumulative conditions the model outputs for specific hydrologic years show increases in channel losses in some years and decreases in others, ranging from an increase in annual channel losses of approximately 140 acre-feet, to a decrease in annual channel losses of approximately 260 acre-feet. On average, under cumulative conditions with the Phase 2 Expansion, annual channel losses are approximately 65 acre-feet lower than under baseline conditions (i.e., No Project/No Action Alternative), a *de minimis* reduction of approximately 0.1 percent.

These reductions in channel losses would result in minimal reductions in groundwater recharge, if at all, because groundwater recharge is only a fraction of total channel losses. Given that groundwater recharge is only one of several components contributing to channel losses, the annual average reduction in seepage to groundwater would be something less than 65 acre-feet. Further, due to the effects of groundwater levels on the rate of stream seepage, these *de minimis* reductions in channel losses may not actually translate into a reduction in stream seepage to groundwater since changes in groundwater levels are not accounted for in the estimates of channel losses in EBMUD's model. Decreases in groundwater levels that would result in higher channel losses, and therefore more seepage, are not represented in the model. As a result, EBMUD's subsequent modeling confirmed the Draft Supplement's conclusion that cumulative impacts to groundwater, if any, would be less than significant.

EBMUD's modeling also confirmed that, under cumulative conditions, the Phase 2 Expansion's effects on channel losses would vary by year, but over the 92-year period of record, would actually result in a small net increase in channel losses. In terms of inter-annual variation, in 1991 and 1992, under cumulative conditions the channel losses with the Project are higher than without by 130 and 200 acre-feet, respectively; otherwise, under cumulative conditions, changes in channel losses resulting from the Project range from a decrease of 30 acre-feet to an increase of 60 acre-feet. Over the 92-year period-of-record, however, total channel losses under cumulative conditions, but without the Project, were 4,188.4 TAF, while total channel losses with the Project were a bit higher, at 4,188.5 TAF. Thus, the modeling confirms that the Phase 2 Expansion would not result in a cumulatively considerable contribution to cumulative groundwater impacts.

L_WID_08 The commenter states that the Draft Supplement analysis of the cumulative effects of the Protest Dismissal Agreement (PDA) is inadequate.

Response

EBMUD completed updated modeling to assess potential cumulative impacts, and that modeling confirmed all of the Draft Supplement's conclusions regarding cumulative impacts. The updated modeling included implementation of PDA components whose implementation is certain and concrete enough to allow for quantitative analysis. This includes the supply of both dry year and wet year water to the North San Joaquin Water Conservation District (NSJWCD) under certain conditions. During dry years when water is not otherwise available to NSJWCD under Permit 10477 and the 1963 agreement between EBMUD and NSJWCD, EBMUD would release up to 6,000 acre-feet of water if EBMUD's projected End-of-September Total System Storage is greater than 550 TAF, and up to 3,000 acre-feet when EBMUD's End-of-September Total System Storage is between 525 and 550 TAF. During wet years, EBMUD would release 8,000 acre-feet of additional water for NSJWCD.

As noted in the Draft Supplement, however, certain components of the PDA:

> remain subject to the discretion of the agencies involved, including the discretion to disapprove an element or require implementation of mitigation measures or alternatives to address any significant environmental impacts that may be identified during the CEQA review process. At this point, environmental review pursuant to CEQA has not yet been initiated on PDA elements other than the DREAM Project discussed above, and therefore the various elements of the PDA are still subject to potential modification. (Draft Supplement, Appendix A at page A-62).

As to the PDA, the following terms were not included in EBMUD's modeling:

1. The PDA includes a term, Term 6, regarding the temporary storage of water that San Joaquin County seeks under its Application 29835. In 1990, the County applied to the SWRCB to appropriate water from the Mokelumne River pursuant to its Application 29835. The County amended that application in 2014 and anticipates that additional amendments are likely to be made in the future. The County does not have a timeline for moving forward with Application 29835 and has not yet completed permitting requirements including preparation of CEQA documentation for the application. The PDA acknowledges this water right application. In the PDA, the County recognizes that Mokelumne River flows are highly variable and likely to diminish as more water is diverted by EBMUD and other senior diverters. In light of these facts, PDA Term 6 states in part, that in the future based upon issuance of a water right permit under Application 29835 and subject to an operating agreement to be developed by EBMUD and the County, the County may request EBMUD to, and EBMUD shall, collect and temporarily store for County in Camanche Reservoir or Pardee Reservoir or in both reservoirs, Mokelumne River water not to exceed 48,000 acre-feet annually which County would be entitled to divert and store under the County's permit. It is uncertain if or when the SWRCB will issue a permit to the County under Application 29835 or what type of terms and conditions will be placed on the permit to avoid impacting senior water rights holders and instream uses. Upon issuance of the permit to the County by the SWRCB,

EBMUD and the County would then have to negotiate an operating agreement for the County's use of EBMUD facilities. Given the uncertainties regarding issuance of the permit and final terms and conditions on the permit and the operating agreement between the County and EBMUD necessary to effectuate Term 6, it is not possible to analyze PDA Term 6 quantitatively. However, the Draft Supplement text does discuss PDA Term 6 qualitatively.

2. Another PDA term requires EBMUD to provide funding for a groundwater banking demonstration project. In compliance with this term, EBMUD has been working with NSJWCD and the County on development of the Demonstration Recharge, Extraction, and Aquifer Management (DREAM) Project. This one-time demonstration project involves EBMUD supplying up to 1,000 acre-feet of Mokelumne River water to NSJWCD to irrigate farmlands that would otherwise pump groundwater. In exchange, EBMUD can extract up to 500 acre-feet of groundwater for export to EBMUD customers. Given that this is a one-time pilot of short duration that would not overlap with operation of the Phase 2 Expansion, and that it involves small amounts of water, it is not considered relevant to the cumulative scenario and therefore was not included in the modeling for the Phase 2 Expansion. Any potential future groundwater banking projects that EBMUD might pursue in San Joaquin County are highly speculative at this point.

CEQA does not require an EIR's cumulative impact analysis to speculate as to impacts of potential future actions that have not yet reached the point where CEQA review has been initiated, and where it would not be reasonable and practical for those actions to be included in cumulative impact analysis. See, e.g., City of Maywood v. Los Angeles Unified School District (2012) 208 Cal.App.4th 362. For this reason and others stated above, these provisions of the PDA were appropriately excluded from EBMUD's modeling analysis.

Alameda County Flood Control and Water Conservation District, Zone 7, Elke Rank, September 5, 2017

L_Zone7_01 The commenter requests that third-party water transfers from willing sellers be added as an additional source of water available for Zone 7 diversions.

Response

Third-party water transfers have been added as an additional source of water available for Zone 7 in Table 2-5 of Chapter 2, Project Description in the Draft Supplement. This does not change the sensitivity analysis and discussion in Appendix C of the Draft Supplement regarding the potential for the Phase 2 Expansion Project to facilitate water transfer to south-of-Delta agencies, since Zone 7 would receive deliveries of transfer water using the same project facilities and mechanisms as ACWD would, and the analysis evaluated the overall capacity available in the LVE system to accommodate such potential transfers.

L_Zone7_02 The commenter requests that the option to receive water through exchange in the Delta be added to the description of how water can be delivered to Zone 7.

Response

Delivery of water to the south-of-Delta partner agencies through exchange in the Delta, rather than through the Transfer-Bethany Pipeline, was evaluated in Alternative 3 of the 2010 Final EIS/EIR as a "reduced facility" alternative. As discussed in Section 2.2 of the Final EIS/EIR, Alternative 3 was screened out due to significant and unavoidable impacts to Delta fisheries resources because of the potential for fish entrainment associated with water diversion from the Delta.

4.4 Organizations

Table 4-6. Organizations that Submitted Comments on the Draft Supplement

Comment Format	Comment ID	Name of Commenter	Title	Organization/ Affiliation	Page Number
Letter	O_CEMC	Mike N. Oliphant	Project Manager	Chevron Environmental Management Company	C-93
Letter	O_CFBF	Justin E. Fredrickson	Environmental Policy Analyst	California Farm Bureau Federation	C-99
Letter	O_RTD	Barbara Barrigan-Parilla Tim Stroshane	Executive Director Policy Analyst	Restore the Delta	C-102
Letter	O_SMD	Juan Pablo Galvan	Land Use Manager	Save Mount Diablo	C-108

Chevron Environmental Management Company, Mike N. Oliphant, Project Manager, Mining and Specialty Portfolio, August 17, 2017

O_CEMC_01 Chevron Environmental Management Company (CEMC) identifies Chevron's decommissioned pipeline alignments in Alameda and Contra Costa Counties that could be encountered during Phase 2 Expansion Project subsurface construction activities in the vicinity of these former pipeline rights-of-way, and requests that information be added to the EIS/EIR record regarding the locations of the intersections of the former pipeline alignments and the proposed elements of the Phase 2 Expansion Project.

The commenter also identifies the potential for subsurface soil along and near the decommissioned pipeline rights-of-way to be affected by undocumented residual weathered crude oil, or encountering abandoned pipeline with asbestos-containing materials.

Response

This is an extension of an issue that was raised by this commenter in 2010 and addressed the Response to Comments in **Final EIS/EIR Volume 4, Section 3.10.3, Chevron Facilities and Operation** (Chapter 3, p. 3-127 et seq.). At that time, CEMC identified, among other things, an intersection between the proposed Delta-Transfer Pipeline and two historical petroleum pipelines (Chevron's double Tidewater Associated Oil Company Pipeline [TAOC] and Old Valley Pipeline [OVP]). This information was incorporated into the Final EIS/EIR, and reflected in Revised Draft EIS/EIR Figure 4.12-1 and the revised analysis in **Final EIS/EIR Volume 4, Section 4.12, Utilities and Public Service Systems** (p. 5.2-20 et seq.). The Draft Supplement relied on the information provided in the Final EIS/EIR. In its August 2017 letter on the Draft Supplement, the commenter identifies additional intersections of decommissioned Chevron pipeline rights-of-way

with proposed pipeline elements of the Phase 2 Expansion Project. CCWD appreciates CEMC's attention to the Phase 2 Expansion project and provision of this information.

This Supplement has been revised to reflect these intersections in Final Supplement Figure 4.12-1. These intersections include:

1. OVP and TAOC with the Delta-Transfer Pipeline (also identified in Final EIS/EIR; see Final EIS/EIR Figure 4.12-1)
2. OVP and TAOC with the ECCID Intertie Pipeline
3. OVP and TAOC with the Neroly High-Lift Pump Station Discharge Pipeline
4. OVP and TAOC with the Brentwood Pipeline

Information provided by the commenter on Chevron's former pipelines has been used to revise the Supplement analysis and will be incorporated in project planning and construction design. In order to include the information provided by the commenter, as described above, the description of existing utility infrastructure along conveyance facility alignments (Draft Supplement Section 4.12, Utilities and Public Service Systems, pp. 4.12-7 and 4.12-8) has been revised. These text changes and Final Supplement Figure 4.12-1 is included in Chapter 5, Revisions to the Draft Supplement, in this document. The potential for intersecting known and/or previously unidentified utility pipelines or other utility facilities during construction was addressed in **Final EIS/EIR Volume 2, Section 4.12, Utilities and Public Services Systems**. A comparison of the pipelines evaluated in the Final EIS/EIR impact analysis and newly identified pipelines cited by the commenter indicates that there is no new information that would change the conclusion for **Impact 4.12.1**, which addresses the project's potential to result in disruption to utilities and public service systems (**Final EIS/EIR Volume 2, Section 4.12, Utilities and Public Services Systems** [p. 4.12-9 et seq.]) The Final EIS/EIR determined that this impact would be Less-than-Significant with Mitigation for all four action alternatives. Implementation of adopted Mitigation Measure 4.12.1a would avoid or minimize potential utility disruptions or conflicts identified in Impact 4.12.1. This mitigation measure would apply to the Chevron pipelines decommissioned in the 1940s and 1970s as indicated in the commenter's letter, as well as to the pipelines proposed as part of the Phase 2 Expansion.

Unforeseen hazardous conditions are addressed in **Final EIS/EIR Volume 2, Section 4.13, Hazardous Materials/Public Health** (p. 4.13-15). Existing federal, state and local worker safety and emergency response regulations (**Final EIS/EIR Volume 2, Section 4.13, Hazardous Materials/Public Health** [pp. 4.13-1 through 4.13-4] and **Draft Supplement Section 4.13, Hazardous Materials/Public Health** [p. 4.13-3]) require that if any unforeseen hazardous materials are discovered during construction, the contractor coordinate with the appropriate agencies for the safe handling, sampling, transportation, and disposal of encountered materials. Alameda and Contra Costa counties have adopted County Hazardous Materials Area Plans (for their respective jurisdictions) that outline the procedures that county regulatory and response agencies will use to coordinate management, monitoring, containment, and removal of hazardous materials in the event of an accidental release. The contractor would also be required to comply with Cal-OSHA worker health and safety standards that ensure safe workplaces and work practices. In the event that asbestos, PCBs, radioactive nucleotides or other previously undiscovered hazardous materials are

found during project construction or operation, these measures would be used to address unexpected hazardous conditions.

Potential residual crude oil in subsurface soils and asbestos-containing material in abandoned pipelines, as discussed in the commenter's letter, do not constitute different types of hazardous materials that have not been discussed in or would not be addressed by the actions and regulations already identified in **Final EIS/EIR Volume 2, Section 4.13, Hazardous Materials/Public Health** (pp. 4.13-4 and 4.13-15).

California Farm Bureau Federation, Justin E. Fredrickson, Environmental Policy Analyst, September 1, 2017

O_CFBF_01 The commenter notes that the Phase 2 Expansion is just one small piece in an overall diversified statewide water portfolio, and has a relatively small size and regional focus, limiting the ability of the project to provide broader water supply reliability benefits.

Response

Local Agency Partners participating in the Phase 2 Expansion studies do include member agencies of the SLDMWA, many of which are agricultural water districts. For the Final Supplement, the operations for the Phase 2 Expansion have been updated to include specific operations for three agricultural partners: Del Puerto Water District, San Luis Water District, and Westlands Water District. These operations are optimized in conjunction with Bay Area water supply reliability, water quality, and refuge water supply operations. See updates to the Project Description in Chapter 2 of the Final Supplement and revised Section 4.2, Delta Hydrology and Water Quality, and Section 4.3, Delta Fisheries and Aquatic Resources, in Appendix B of the Final Supplement for updated modeling results.

Restore the Delta, Barbara Barrigan-Parilla, Executive Director; Tim Stroshane, Policy Analyst, September 5, 2017

O_RTD_01 The commenter states their concerns about the limitations of the Delta Plan amendment on the Delta Stewardship Council's conveyance, storage, and operations. The comment is noted.

O_RTD_02 The commenter states for the record their concerns about the ACWA Storage Integration Study. The commenter states that inclusion of the Phase 2 Expansion Project in the ACWA Storage Integration Study does not reflect badly on the project. The comment is noted.

O_RTD_03 The commenter requests that Figure 2-13 be updated to show the Los Vaqueros Pipeline and Mokelumne Aqueduct in relation to the proposed EBMUD-CCWD intertie pump station.

Response

The requested revision to Figure 2-13 has been made and an updated figure is provided in Chapter 5 of this Final Supplement.

O_RTD_04 See Master Response 3, Section 3.3.3, Water Rights.

O_RTD_05 The commenter asks for clarification about long-term water transfer or exchange agreements that would be needed.

Response

In addition to modifications to the relevant water rights permits, new long-term transfer or exchange agreements would be needed for water to be diverted under the water rights of CCWD or one Local Agency Partner for use by another Local Agency Partner; these transfers were not covered by the 2015 Long-Term Water Transfer Final EIS/EIR by Reclamation and SLDMWA. The quantity and timing of the proposed diversion, storage, and delivery of water under these agreements is described generally in this Supplement, and these agreements would rely on the environmental documentation and analysis to meet the requirements of CEQA and NEPA review.

The format of these agreements has not yet been determined; for instance, there could be one multi-party agreement among all of the partners, including CCWD, or several agreements between specific agencies. CCWD would, at minimum, need to be a signatory to long-term transfer agreements with Local Agency Partners for the use of water stored under CCWD's Los Vaqueros water right. Whether CCWD would need to be a signatory to agreements between other buyers and sellers, who would be using CCWD facilities for diversion and storage of water, has yet to be determined. CCWD and the Local Agency Partners could develop a general agreement for the use of Phase 2 Expansion facilities, defining broad and comprehensive operational rules and parameters for diversion, storage, and delivery of water under various scenarios.

O_RTD_06 The comment summarizes Phase 2 Expansion benefits, and is acknowledged.

O_RTD_07 The comment requests inclusion of a map showing the locations of minority and low-income populations by census tract and city in relation to proposed project facilities, and requests additional data on populations for whom English is not a first language.

Response

A figure showing the locations of the minority and low-income populations discussed in Draft Supplement Section 4.18, Environmental Justice, has been prepared and is provided in Final Supplement Chapter 5. Information on limited English speaking households has been included in Final Supplement Chapter 5 under the header for Section 4.18, Environmental Justice. This additional setting information does not alter the conclusions of the Draft Supplement about the Phase 2 Expansion. The Lead Agencies will consider information about limited English speaking households in further public outreach efforts for the Phase 2 Expansion.

O_RTD_08 The comment expresses agreement with the assessment of Alternative 1B with respect to water supply reliability benefits and growth-inducing impacts and is noted.

O_RTD_09 The comment expresses agreement with the assessment of Alternative 1B with respect to the California WaterFix Project and is noted.

Save Mount Diablo, Juan Pablo Galvan, Land Use Manager, August 18, 2017

O_SMD_01 The commenter correctly summarizes the habitat findings shown in Table 4.6-4 of the Draft Supplement, and states the anticipated impacts to sensitive vegetation communities and grasslands from that Phase 2 Expansion. The commenter states that the Draft Supplement does not clearly indicate the total Project impact to all plant communities, sensitive or otherwise. They suggest that the Final Supplement should explicitly state the scale of impact on each vegetation community type.

Response

The commenter is referred to **Final EIS/EIR Volume 2, Section 4.6, Biological Resources, Table 4.6-19** (Habitat Impact and Mitigation Summary, Alternative 4; page 4.6-183) and **Table 4.6-17** (Habitat Impact and Mitigation Summary, Alternatives 1 and 2; page 4.6-181), which respectively summarize the habitat impacts from the Phase 1 Expansion and those expected from Phase 2 Expansion as of the Final EIS/EIR. The difference between the habitat impacts presented in these tables approximates the incremental increase in impacts from currently proposed Phase 2 Expansion, which differs somewhat in footprint from that analyzed in the Final EIS/EIR, but not by an amount that would change the significance of impacts on non-sensitive plant communities. The approximate impact to grasslands would be 780 acres, the approximate impact to valley oak woodland and riparian lands would be 150 acres, and the approximate impact on upland scrub would be negligible (less than 1 acre). These impacts were fully addressed in the Final EIS/EIR and conclusions and mitigation described in that document related to these vegetation communities have not changed.

O_SMD_02 The commenter acknowledges that CCWD has acquired mitigation lands and created habitat for the Phase 1 Expansion. They request that the Final Supplement clarify what portion of CCWD's mitigation land holdings are intended to cover impacts from the Phase 2 Expansion, and also request clarification of how the USFWS will select mitigation ratios for listed species.

Response

As compensatory mitigation for the Phase 1 Expansion, the 2011 USFWS Biological Opinion identified that CCWD would preserve a minimum of 4,890 acres of habitat. Under the ITP for Phase 1 Expansion, CCWD was required to acquire and provide the permanent protection and management of 5,079 acres of habitat lands. Due to the size, location and habitat values of the various parcels purchased, CCWD ended up acquiring approximately 6,000 acres during land acquisition for Phase 1 Expansion compensation. The additional land (approximately 950 acres) was part of an almost 4,000-acre ranch in San Joaquin County purchased primarily for kit fox and

riparian habitat values. Because of its distance from the impacts in Contra Costa County, CDFW limited the portion of this ranch that could be used for mitigation of the Phase 1 Expansion to 3,021 acres. These 3,021 acres are managed by CCWD as the Corral Hollow Habitat Management Unit under a Habitat Management Plan approved by CDFW and USFWS. Both CDFW and USFWS have agreed that the remaining approximately 950 acres can be used to mitigate future projects; CCWD will consider the excess habitat lands adjacent to the Corral Hollow Habitat Management Unit in developing the compensatory mitigation package for Phase 2 Expansion.

The anticipated mitigation approach for Phase 2 Expansion was outlined in Draft EIS/EIR Table 4.6-17 (Habitat Impact and Mitigation Summary, Alternatives 1 and 2; page 4.6-181 in Volume 2 of the 2010 Final EIS/EIR). Response to comment **F_USFWS_02** includes discussion of applicable mitigation ratios, and notes that the final compensatory package would be determined in consultation with the USFWS and CDFW.

O_SMD_03 The commenter states that the Draft Supplement fails to visually show that the proposed Transfer-Bethany pipeline runs near or through several properties that are managed by Contra Costa County and the EBRPD, and that these sites support rare plant and wildlife species. The commenter suggests that a pipeline under Armstrong Road would have fewer impacts on rare amphibians and protected lands than an alignment on the side of the road. Finally, the comment addresses the two planned HCP/NCCP properties that would be bisected by the proposed Transfer-Bethany Pipeline.

Response

The commenter is correct that all action alternatives include the proposed Transfer-Bethany Pipeline. Figure 1 in the SMD comment letter accurately shows the location of the Transfer-Bethany Pipeline and its relationship to existing and proposed preserve lands. The Transfer-Bethany Pipeline was included in Alternatives 1 and 2 in the certified Final EIS/EIR, and is not a new component of the Phase 2 Expansion.

The Final EIS/EIR and Draft Supplement both acknowledge that preserve lands in the pipeline alignment support several rare plant and wildlife species. The results of focused habitat, wildlife, and botanical surveys within the Transfer-Bethany Pipeline alignment, including surveys of Campos and Casey parcels, were presented in the Final EIS/EIR and relied on in the Draft Supplement.

CCWD became aware that two parcels that the Transfer-Bethany Pipeline route bisects, the Campos and Casey parcels, were planned HCP/NCCP properties, following comments on the Draft Supplement published in June 2017. For reference, the Campos property was added into the ECCCHC Preserve System in April 2017 and the ECCCHC Governing Board recommended funding the purchase of the Casey property, which is still under option, on June 26, 2017. The current conservation status of the parcels is acknowledged in this Final Supplement. The impacts on biological resources on these parcels are included in the Phase 2 Expansion on environmental documents and do not change as a result of the change in ownership or conservation status. The planned route through the Campos and Casey parcels would physically impact these parcels and

could result in greater mitigation obligations for the Phase 2 Expansion, but would not put deed restrictions on these sites at risk. As discussed further in response to comment **F_USFWS_01**, CCWD and Reclamation continue to work with stakeholders to evaluate feasible alternatives that minimize impacts to preserve lands. Remaining impacts would be mitigated as set forth in the Final EIS/EIR and Draft Supplement.

The specific location of the proposed Transfer-Bethany Pipeline near Armstrong Road is described in response to comment **F_USFWS_01**. Several construction options are under consideration including reducing the width of the alignment near preserve lands, and pipeline placement to the east of Armstrong Road, which would avoid and/or minimize impacts to preserve lands and EBRPD lands. Due to local access needs, CCWD is not considering pipeline construction within Armstrong Road. As also discussed in detail in response to comment **F_USFWS_01**, CCWD and Reclamation are examining other Transfer-Bethany Pipeline route concepts that would bypass preserve lands on Armstrong Road. As proposed, the alignment to the east of Armstrong Road would not impact created wetlands on EBRPD's Byron Vernal Pool Preserve.

O_SMD_04 The commenter recommends that the Final Supplement analyze an alternative alignment for the Pipeline that does not bisect HCP/NCCP lands or other properties that have been protected for conservation purposes.

Response

As stated in response to comment **F_USFWS_01**, CCWD is continuing to coordinate with several agencies regarding the final alignment of this pipeline. It is expected that given the resources in the project area, alternative alignments that would bypass HCP/NCCP preserve lands including the Campos and Casey parcels would likely encounter other preserve lands and sensitive habitat located south and east of the airport on Byron Hot Springs Road. CCWD and Reclamation continue to work with stakeholders to evaluate feasible alternatives that minimize impacts to preserve lands.

4.5 Individuals

Table 4-7. Individuals who Submitted Comments on the Draft Supplement

Comment Letter Format	Comment Letter ID	Name of Commenter	Page
Email	I_Achziger	Kim Achziger	C-115
Oral comment	I_Collier	Gary Collier	C-116
Email	I_Deeble	Tom Deeble	C-122
Email	I_Frayseth	Leland Frayseth	C-123
Email	I_Gilmore	Dennis Gilmore	C-128
Comment card and oral comment	I_Grunwald	Bryan Grunwald	C-129
Comment card and oral comment	I_Harris	Gary Harris	C-133
Email	I_Hooper	Mike Hooper	C-140
Email	I_Jennings	Carolyn Jennings	C-142
Comment card	I_Johnson	Walter Johnson	C-143
Email	I_Keller-Moore	Stacy Keller-Moore	C-144
Email	I_Linder	C.A. Linder	C-145
Email, comment card, and oral comment	I_Meade	John Meade	C-146
Email	I_Moran	Joe Moran	C-153
Oral comment	I_Ohlson	Bruce Ohlson	C-155
Email	I_Stoeffler	David Stoeffler	C-160
Comment card	I_Summers	Karen Summers	C-161
Email	I_Thomason	Thomas Thomason	C-162
Comment card and oral comment	I_Thuman	Linda Thuman	C-163

Kim Achziger, September 6, 2017

I_Achziger_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

Gary Collier, July 11, 2017

I_Collier_01 The commenter expresses support for the Phase 2 Expansion Project and an interest in expanding the project's environmental and recreational (i.e., fishing) benefits to areas further to the south than currently planned.

Response

Currently, working with additional Project partners further south than those described in Draft Supplement Section 1.2.3, Project Partners (p. 1-12 et seq.) is not within the scope of the Phase 2

Expansion project. However, the commenter's statement of support for the project and provision of similar benefits elsewhere in California is acknowledged.

Tom Deeble, August 28, 2017

I_Deeble_01 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Deeble_02 The commenter asks about plans to protect an expanded dam from rain damage.

Response

See Final EIS/EIR Master Response 6, Section 3.6.3, Flood Management Procedures, Dam Safety Maps and Plans (Volume 4, p. 3-59 et seq.). The erosion on the Los Vaqueros face observed during the 2017 rainy season was superficial and did not affect the structural components of the dam.

I_Deeble_03 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

Leland Frayseth, July 25 and June 30, 2017

I_Frayseth_01 The commenter states that the geology may have changed in the project vicinity due to the presence of a sinkhole on Los Vaqueros Road and landslides on roads into Los Vaqueros from the north and south.

Response

The Supplement impact analysis consequently focused on landslides and other geologic hazards in locations where the Phase 2 Expansion could worsen existing geologic hazards. Draft Supplement Impact 4.4.3 (page 4.4-16 et seq.) evaluates the potential impacts of the Phase 2 Expansion related to worsening existing soil stability.

However, as discussed in Draft Supplement Section 4.4, Geology, Soils, and Seismicity, an agency must analyze how environmental conditions might affect a project's residents or users only where the project itself might worsen existing environmental hazards in a way that will adversely affect them. Impacts associated with exposure of project structures and operators to existing geological conditions are not considered to be impacts within the ambit of CEQA.

I_Frayseth_02 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Frayseth_03 The commenter requests an analysis of evaporation and seepage losses.

Response

The analysis of reservoir volumes and deliveries is included in the reservoir operations modeling analysis described in Section 4.2, Delta Hydrology and Water Quality, of the Draft Supplement. This analysis includes estimates of projected evaporation and other losses that occur in the reservoir. The evaporation rate include in the analysis varies by surface area that is dependent on reservoir level,

and generally ranges from 6 to 9 percent. The cost of evaporation would be accounted for in the overall operations and maintenance of the proposed project. The analysis of operations and maintenance costs is not required as part of the impacts evaluation subject to CEQA or NEPA.

I_Frayseth_04 The commenter states that Appendix B.1 does not discuss how construction of the Phase 2 Expansion Project would not conflict with construction of the California WaterFix. The commenter expresses concern about water quality delivered to CCWD customers during Phase 2 Expansion construction. The commenter requests that the Phase 2 Expansion Project be put on the back burner until California WaterFix plays out.

Response

Comment noted. The proposed project facilities described in Chapter 2, Project Description, of the Draft Supplement are not located in the immediate vicinity of the proposed facilities included in the California WaterFix Project. The construction schedule for the California WaterFix Project has not yet been determined. See the California WaterFix website at www.californiawaterfix.com/design-construction for more information. Note that schedule information is subject to change. See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction about water quality delivered to CCWD customers during Phase 2 Expansion construction.

I_Frayseth_05 The commenter asks about the value of CCWD existing facilities that will be demolished as part of the project and how the value will be recovered.

Response

At this time, no facilities have been identified for demolition without replacement. The financial analysis of the value of existing facilities that will be replaced is outside the scope of the Draft Supplement and not subject to CEQA or NEPA. The recovery of costs related to previous investments in facilities that will be replaced as part of the proposed project is subject to future negotiation with the Local Agency Partners and other funding agencies. As noted above in the previous response, results of financial analysis related to the proposed project would be incorporated into CCWD's Ten Year Capital Improvement Plan when available.

I_Frayseth_06 The commenter expresses disagreement with the description of the Rock Slough Intake as "fully screened" in attached letters of support for the Phase 2 Expansion project from several representatives and water agencies.

Response

Comment noted. The Rock Slough Intake is fully screened. CCWD and Reclamation have identified potential improvements to associated facilities located at the Rock Slough Intake that may improve the process for debris removal in front of the screens. Currently no changes to the fish screens have been proposed.

I_Frayseth_07 The commenter notes that he has requested a copy of CCWD's Water Management Plan from Reclamation staff.

Response

Comment noted. The Water Management Plan is not contained or referenced in the Draft Supplement, and was released in May 2018. A copy has been provided to the commenter.

I_Frayseth_08 The commenter notes that he has requested copies of the quarterly progress reports described in the Los Vaqueros Reservoir Expansion Project Memorandum of Understanding from Reclamation and CCWD.

Response

Comment noted. The quarterly progress reports are not contained or referenced in the Draft Supplement. Updated information on the Local Agency Partners is included in Chapter 1, Introduction and Summary, of the Final Supplement.

I_Frayseth_09 The commenter states that Rock Slough Intake capacity should not be expanded because water quality at Rock Slough is known to be frequently poor.

Response

The Rock Slough Intake capacity is described in Draft Supplement Chapter 2, Project Description. The proposed Phase 2 Expansion project does not include modifications to the Rock Slough Intake capacity. Analysis of the proposed operations and water quality at Rock Slough and the other CCWD intakes is included in Draft Supplement Section 4.2, Delta Hydrology and Water Quality. Water quality at Rock Slough generally varies by season and by year type (i.e. wet, above average, below average, etc.).

I_Frayseth_10 The commenter summarizes the evaporative losses from Los Vaqueros Reservoir.

Response

Comment noted. See response to comment I_Frayseth_03 for additional information on analysis of reservoir evaporation rates.

I_Frayseth_11 The commenter states that the estimated schedule for two years to refill Los Vaqueros Reservoir after construction, presented in the Funding Application for California Water Commission Water Storage Investment Program funding, is unrealistic.

Response

Comment noted. Draft Supplement Chapter 2, Project Description, includes analysis of the rate of reservoir filling over a wide range of conditions and year types. The duration for initial filling of the expanded reservoir will depend on a number of conditions. The reservoir does not need to be at full

capacity to begin operations, and would be operated over a wide range of capacities depending on current conditions.

I_Frayseth_12 The commenter questions whether CCWD monitors water quality at its intakes.

Response

Comment noted. Monitoring of water quality at CCWD intakes at the Los Vaqueros Reservoir would continue following construction of the proposed Phase 2 Expansion project.

I_Frayseth_13 The commenter expresses opposition to proceeding with the project. The commenter requests the business case for CCWD customers. The commenter asks about blending and emergency water supply during construction. The commenter states that Delta intake water quality is salty in dry years and will be increasingly salty in the future.

Response

Comment noted. See previous responses for information on future financial analysis. See also Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction for information on emergency water supply to CCWD during construction.

Dennis Gilmore, August 29, 2017

I_Gilmore_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

Bryan Grunwald, July 20, 2017

I_Grunwald_01 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Grunwald_02 The commenter asks whether it would be more cost-effective for EBMUD to construct and operate a desalination plant to meet its dry-year demand rather than participating in the Phase 2 Expansion Project.

Response

The construction and operation of an EBMUD-owned desalination plant is not within the scope of the Phase 2 Expansion Project, and is not considered as an alternative to the Phase 2 Expansion project as it would not meet most of the Project objectives or Purpose and Need of the Project. Please see **Final EIS/EIR Volume 1, Section 3.2.3, Alternatives Not Carried Forward** (p. 3-11), which states, "Desalination with storage (enlarge Los Vaqueros Reservoir) for Bay Area Water Supply Reliability. This alternative was not advanced for further study primarily because of potential environmental issues related to energy use and disposal of brine. Additionally, it represented among the highest cost per unit of water supply developed under any of the plans considered."

Gary Harris, July 27, 2017

I_Harris_01 The commenter asks if the California WaterFix will affect the Phase 2 Expansion Project. The commenter asks if the Phase 2 Expansion Project has the Governor's approval.

Response

See Master Response 2, Section 3.2.2, California WaterFix regarding the effect of California WaterFix on the Phase 2 Expansion. The Phase 2 Expansion Project is a joint project proposed for the benefit of CCWD, the Local Agency Partners, and the Refuges. The governor of the state of California does not have a role in approving this project. See Section 1.5 of the Draft Supplement for a description of the CCWD and federal decision process regarding the environmental impacts analysis for this project, and Section 2.5.2 for the state decision processes related to this project.

I_Harris_02 The commenter asks about the effects of the Phase 2 Expansion Project on Temperance Flat or Sites Reservoir.

Response

The Phase 2 Expansion will not affect Sites Reservoir or Temperance Flat Reservoir. See Section 1.3.6 of the Draft Supplement for additional information regarding how the Phase 2 Expansion may be integrated with other projects such as Sites and Temperance Flat Reservoirs. The Association of California Water Agencies (ACWA) Integration Study referenced in that section describes the large volume of water available almost every year in the form of surplus flows in the California water system. In the event that more than one storage project seeks to divert the same surplus flow, access to the water would be determined by water rights priority, operational agreements, and regulatory permits to be negotiated among project participants and stakeholders. Each proposed storage project has its own unique operational opportunities and characteristics, such that integration of operations may increase system-wide benefits above the benefits of each individual project.

I_Harris_03 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

I_Harris_04 The commenter asks if there are any restrictions on the amount of water diverted from the Delta.

Response

Delta diversions from the Rock Slough, Old River, and Middle River Intakes are limited both by the physical capacity of the facilities, as described in Section 2.1.1 of the Draft EIS/EIR, and by the terms of the biological opinions, incidental take permit, and water rights permits for CCWD's operations, as described in Section 2.1.2 of the Draft EIS/EIR.

I_Harris_05 The commenter asks if the Governor approves of the project, and if this project affects California WaterFix.

Response

See response to comment I_Harris_01.

I_Harris_06 The commenter asks how much the water will cost, whether Reclamation is supportive of the project, and if the project will help the grasslands.

Response

See Master Response 1, Section 3.1.1, CCWD Customer Concerns for discussion of project costs. See Section 2.3.3 of the Draft Supplement and Master Response 3, Section 3.3.3 for discussion of Reclamation's role in the project to acquire water for the south-of-Delta wildlife refuges through the Refuge Water Supply Program. It is assumed that by "grasslands" the commenter is referring to the wildlife refuge area near Los Banos that is managed by the Grassland Resource Conservation District, which receives water from the Refuge Water Supply Program.

Mike Hooper, August 6, 2017

I_Hooper_01 See Master Response 1, Sections 3.1.2, Operations During and Immediately Following Construction, and 3.1.3, CCWD Customer Concerns.

Carolyn Jennings, September 2, 2017

I_Jennings_01 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

Walter Johnson, August 17, 2017

I_Johnson_01 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Johnson_02 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

Stacy Keller-Moore, September 4, 2017

I_Keller-Moore_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

C.A. Linder, July 25, 2017

I_Linder_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

John Meade, July 17 & July 18, 217

I_Meade_01 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

I_Meade_02 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Meade_03 The commenter states that the Local Agency Partners did not conserve water sufficiently during the recent drought (i.e., 2014 to 2017) and that several are "in aggressive growth mode without accompanying infrastructure and utility services," and questions the Draft Supplement's conclusions with respect to the Phase 2 Expansion's potential to induce growth. The comment does not specify which Local Agency Partners it references with either of these statements.

Response

The analysis of the Phase 2 Expansion Project's potential to induce growth (see Draft Supplement Section 4.20) focuses on the extent to which an alternative could provide additional water supply to one or more Local Agency Partners that might support growth. As shown in Draft Supplement Table 4.20-1, Water Supply Benefit Potential to Induce Growth by Local Agency Partner, of the ten potential Local Agency Partners, seven would receive water that could support or remove an obstacle to growth; Brentwood, ECCID, and SLDMWA would not. Only SFPUC and Zone 7 would receive supplemental supply from the Phase 2 Expansion alternatives; therefore, the analysis focuses on these agencies. SFPUC would use supplemental supply to make the cities of San Jose and Santa Clara permanent wholesale customers. It is unclear from the comment why the extent to which the cities of San Jose and Santa Clara or Zone 7's retailers implemented water conservation measures between 2014 and 2017 would be relevant to the potential for the Phase 2 Expansion alternatives to induce growth. However, it is noted that as of December 2017, the City of San Jose had achieved a 26.8 percent cumulative savings since June 2015 (as compared to 2013), the City of Santa Clara 18.5 percent, and Zone 7's retailers had achieved 33.2 percent (City of Pleasanton), 27.3 percent (City of Livermore), 33.7 percent (California Water Service Company Livermore), and 27.1 percent (Dublin San Ramon Services District) (SWRCB, 2018). As described in Draft Supplement Section 4.20.2.5, approximately 1 TAF/year may be available to SFPUC and its wholesale customers for unplanned growth. However, although SFPUC has requested 16.7 TAF/year, none of the Phase 2 Expansion alternatives would be able to meet this demand in all years, though each Phase 2 Expansion alternative would meet the total SFPUC demand in some years. Similarly, supplemental supply from the project would not increase the overall planned supply for Zone 7. The conclusions for each alternative in Section 4.20 acknowledge that some level of unplanned growth could be supported by supplemental supply from the Phase 2 Expansion, but that no alternatives would provide the entire requested supplemental supply in all years.

I_Meade_04 The commenter states that the benefits to CCWD are not clearly defined and costs are not discussed. The commenter is also concerned about the closure of the Marina and loss of access to hiking trails during construction, in addition to not having storage during construction.

Response

A cost/benefit type of analysis is not required as part of the impacts evaluation under CEQA or NEPA. However, CCWD is continuing to analyze the benefits and costs of the proposed project for CCWD. See also Master Response 1, Section 3.1.3, CCWD Customer Concerns.

See Final EIS/EIR Volume 4, Section 3.11, Master Response 11, Recreation, which addresses the closure of recreational activities within Los Vaqueros Watershed during project construction. The Phase 2 Expansion Project includes several improvements to recreational and interpretative facilities at the Los Vaqueros Watershed, including expanded Marina facilities and a new 0.5-mile ADA-accessible interpretive trail surrounding the Mortero Wetland Complex at the northern end of the Los Vaqueros Watershed, as described in Section 2.2.4.7 of the Draft Supplement.

I_Meade_05 The commenter asks why the Phase 2 Expansion Project is not being evaluated in comparison to the other five CALFED storage project options.

Response

The Supplement to the Final EIS/EIR is intended to evaluate the environmental impacts of the Phase 2 Expansion, not all of the CALFED storage projects. Two of the other CALFED storage projects are also seeking funding Proposition 1 funding from the California Water Commission. For additional information, see Section 1.3.6 of the Draft Supplement.

I_Meade_06 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Meade_07 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Meade_08 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Meade_09 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

I_Meade_10 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Meade_11 See response to comment I_Meade_03.

I_Meade_12 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

I_Meade_13 See response to comment I_Meade_05.

Joe Moran, July 12 - September 5, 2017

I_Moran_01 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Moran_02 The commenter states that alternatives to major dam building should be considered for Delta water storage.

Response

The purpose of the Supplement to the Final EIS/EIR is to assess the impacts of the Phase 2 Expansion. The Phase 2 Expansion alternatives are described in Chapter 2 of the Draft Supplement, Project Description. The Supplement does not include an impact assessment of actions outside of the project description for the Phase 2 Expansion. For additional information regarding future water supply planning, please see CCWD's 2015 Urban Water Management Plan (https://www.ccwater.com/DocumentCenter/View/2216) and the Bay Area Regional Reliability Drought Contingency Plan (http://www.bayareareliability.com/wp-content/uploads/2017/12/BARR-DCP-Final-12.19.17.pdf?64a49b&64a49b).

I_Moran_03 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

Bruce Ohlson, July 25, 2017

I_Ohlson_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

David Stoeffler, July 31, 2017

I_Stoeffler_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

Karen Summers

I_Summers_01 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Summers_02 The commenter asks what the decreases in sodium concentration in CCWD delivered water would be.

Response

CCWD uses chloride concentration as a measure of salinity in this and other analyses because it is commonly measured and the basis of several Delta water quality regulations set forth by the SWRCB. Sodium concentration was not modeled in this analysis. The equations for converting salinity measured as chloride concentration or electrical conductivity (EC), the more common unit of measurement for salinity, to sodium concentration in Delta water vary depending on the sources of the water (Sacramento River, San Joaquin River, San Francisco Bay, etc.) at the location and time

of interest. The improvement in sodium concentration of delivered water is likely to be around the same percentage as the improvement in chloride concentration. As an example, Richard Denton & Associates (2015) used historical data measurements to determine the relationship between EC, as measured in microsiemens per centimeter (μS/cm), and chloride (Cl) and sodium (Na), measured in milligrams per liter concentration, at the Barker Slough Pumping Plant in the northern Delta as follows:

$Cl = 0.00011\ EC^2 + 0.036\ EC$

$Na = 0.00006\ EC^2 + 0.0656\ EC$

Using these equations, a 50 percent reduction in EC from 500 μS/cm to 250 μS/cm would produce 65 percent reduction in Cl, and a 58 percent reduction in Na. A 20 percent reduction in EC from 500 μS/cm to 400 μS/cm would produce a 30 percent reduction in Cl and a 25 percent reduction in Na. The reader must be cautioned that these equations were developed for a specific location within the Delta; similar equations are available for other sites in the Delta and can be used accordingly.

I_Summers_03 See Master Response 1, Section 3.1.3, CCWD Customer Concerns.

I_Summers_04 See Master Response 1, Section 3.1.2, Operations During and Immediately Following Construction.

I_Summers_05 The commenter asks if CCWD will have first priority for water from the expanded 275 TAF Los Vaqueros Reservoir among water agency partners.

Response

CCWD customer needs would retain first priority in the operations of CCWD facilities, as noted in Master Response 1, Section 3.1.3, CCWD Customer Concerns.

Thomas Thomason, July 25, 2017

I_Thomason_01 The commenter expresses support for the Phase 2 Expansion Project. The comment is acknowledged.

Linda Thuman, July 25, 2017

I_Thuman_01 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

I_Thuman_02 See Master Response 2, Section 3.2.2, California WaterFix.

I_Thuman_03 The commenter asks about the Los Vaqueros Dam spillway and flood risk to downstream communities.

Response

See Final EIS/EIR Master Response 6, Section 3.6.3: Flood Management Procedures, Dam Safety Maps and Plans. As stated in Draft Supplement Section 4.5, Local Hydrology, Drainage, and Groundwater, Impact 4.5.6, the analysis of the dam raise to 275 TAF for Alternatives 1A, 1B, and 2A was fully addressed in the Final EIS/EIR and conclusions have not changed.

I_Thuman_04 The commenter states that a lot of wildlife depend on Los Vaqueros Reservoir and asks what will happen to the wildlife when the reservoir is empty.

Response

The potential effects to wildlife from draining the reservoir were examined in the Final EIS/EIR. Special-status wildlife that occur in the Los Vaqueros Watershed are not dependent upon the reservoir and would be unaffected by reservoir draw-down. For other common and special-status wildlife species, approximately 90 managed stock ponds in the Los Vaqueros Watershed would continue to provide a water source. Also, as discussed in Final EIS/EIR Impact 4.6.16 (Final EIS/EIR Volume 2, page 4.6-173), draining the reservoir would have less-than-significant impacts on Pacific Flyway bird species, as water-dependent migratory birds would use other nearby reservoirs and water bodies as foraging and stopover locations during construction.

I_Thuman_05 See Master Response 4, Section 3.4.2, Bicycle Routes within the Los Vaqueros Watershed.

I_Thuman_06 The commenter would like to know whether there is future expansion planned and whether there will be public access during the construction phase. The commenter expresses a concern about traffic during construction.

Response

There is no future expansion beyond that described as the Phase 2 Expansion planned at this time. As noted in Final EIS/EIR Volume 4, Chapter 2, Project Description Update (p. 2-24), the reservoir would be out of operation and closed to public access during the construction period. Please refer to Final EIS/EIR Volume 4, Section 3.11, Master Response 11, Recreation (Chapter 3, Section 3.11.2, p. 3-132 et seq.), which addresses the closure of recreational activities within Los Vaqueros Watershed during project construction.

Traffic impacts from construction of the Phase 2 Expansion are discussed in Draft Supplement Section 4.9, Traffic and Transportation. Impacts 4.9.1 and 4.9.2 evaluate impacts on local roads and traffic from the increase in construction-related vehicles and construction near roadways, respectively. Impacts would be significant but would be mitigated to a less-than-significant level with implementation of a suite of measures including scheduling truck trips outside of peak commute hours, dispersal of construction traffic on local roads, use of signage and flaggers, and road repair post-construction. No traffic impacts would occur due to the closure of the reservoir to public access during construction.

References

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Chapter 5 Revisions to the Draft Supplement to the Final EIS/EIR

5.1 Introduction

This chapter presents changes to the text of the Draft Supplement made in response to comments (as presented in Chapters 3 and 4) or to clarify and provide applicable updates of the text in the Draft Supplement. None of these revisions substantially change the conclusions of the analysis, nor the determinations of effects that are included in the Draft Supplement. The text revisions in this chapter represent four main categories of changes: (1) clarifications/refinements made in response to comments; (2) updated information due to project revisions; (3) clarification/refinement due to updated information; and (4) clarifications/corrections made due to editorial errors. Text changes are prefaced by a brief explanation, including where appropriate, reference to the master response in Chapter 3 or comment number in Chapter 4. In each change, new language is underlined, while deleted text is shown in ~~strikethrough~~, except where the text is indicated as entirely new, in which case no underlining is used for easier reading.

Text changes presented here are shown in select text sections of the Draft Supplement only; particularly in the sections that present impact conclusions and/or mitigation measures. Text revisions are not shown for all related text sections throughout the Draft Supplement. For example, neither Draft Supplement Chapter 1, Introduction and Summary text nor Chapter 3, Project Description, has been fully revised to reflect the project facility refinements presented in detail in Section 2.2.1 of this response to comments documents (Vol. 3 of the Final Supplement). The Final Supplement comprises all four volumes and it is necessary to review the revisions made to the text presented in this section to understand what aspects of the Draft Supplement have been updated and superseded.

5.2 Selected Text Revisions to the Draft Supplement to the Final EIS/EIR

Text changes to the Draft Supplement text are shown below following the order of sections in the Draft Supplement. Text revisions have only been made in select sections; there are no revisions in most sections.

Chapter 1 Introduction and Summary

Page 1-19 of the Draft Supplement is revised to add three new entries in Section 1.2.3.1, Local Agency Partners:

Del Puerto Water District (DPWD)

DPWD is a California special district that provides agricultural water deliveries to approximately 45,000 acres of productive farmland on the Westside of the San Joaquin Valley in Stanislaus, San Joaquin, and Merced Counties. DPWD's service area is located adjacent to the Delta-Mendota Canal, and extends from near Vernalis in the north to near Santa Nella in the south. DPWD has a CVP contract for 140,210 AFY and is a SLDMWA member agency. DPWD has recently partnered with the Cities of Modesto and Turlock to develop the North Valley Regional Recycled Water Program, which currently provides up to 16,500 AFY of tertiary-treated recycled water to DPWD, a quantity which will grow to 27,000 AFY by mid-2019, and then gradually up to 59,000 AFY by 2040. DPWD has made a portion of this supply available for environmental use by the south-of-Delta CVPIA-designated wildlife refuges under a long-term partnership with Reclamation's Refuge Water Supply Program.

San Luis Water District (SLWD)

SLWD is a special district of approximately 65,000 acres that provides agricultural irrigation water for agricultural operations and retail potable and wholesale water to unincorporated communities on the western side of the San Joaquin Valley near Los Banos. SLWD has an interim renewal CVP contract for 125,080 AFY. SLWD has limited access to groundwater, and supplements its CVP supplies with annual surface water transfers. SLWD is a SLDMWA member agency.

Westlands Water District (WWD)

WWD is a California water district that includes approximately 614,700 acres of land in western Fresno and Kings Counties of which approximately 565,000 acres are irrigable. WWD delivers surface water for agricultural irrigation as well as limited quantities of water for municipal and industrial (M&I) purposes. WWD also provides groundwater management services. WWD is a CVP contractor and is a SLDMWA member agency.

Page 1-26 of the Draft Supplement is revised to add a new entry in Section 1.2.3.5, Pilot Partnership Projects in Progress, in response to comment L_CCCSD_01:

Central Contra Costa County Sanitary District and SCVWD

CCWD, SCVWD, and Central Contra Costa County Sanitary District (Central San) signed a Memorandum of Understanding in May 2018, and are working together to evaluate the feasibility of operating the Contra Costa County Refinery Recycled Water Project in conjunction with both existing facilities and the proposed Phase 2 Expansion facilities. A water exchange arrangement in which recycled water from Central San could be provided to CCWD to serve to existing industrial customers could result in the creation of up to 22,000 acre-feet per year of new water supply for SCVWD.

Page 1-32 of the Draft Supplement is revised to add a new entry to Section 1.3, Changes in Conditions, since the Final EIS/EIR, in response to comment S_SWRCB_02:

1.3.15 Bay-Delta Water Quality Control Plan

The State Water Resources Control Board has a four-phase approach to updating the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan). Phase I addressed lower San Joaquin River flow objectives and southern Delta salinity objectives, and released a draft revised Substitute Environmental Document for public review and comment in September 2016. Phase II updates other elements of the Bay-Delta Plan, including Delta outflows, Sacramento and tributary inflows (other than the San Joaquin River inflows), and ecosystem regime shift. In Phase III, the SWRCB will consider changes to water rights and other actions to implement changes to the Bay-Delta Plan from Phases I and II. Phase IV will develop and implement flow objectives in the Sacramento River Watershed to address public trust needs, with consideration for other beneficial uses of water. Changes in the applicable water quality control plan could cause operational changes in any water project in California, including the Phase 2 Expansion Project.

Chapter 2 Project Description

Page 2-5 of the Draft Supplement is revised to add a new paragraph at the top of the page with information about operations:

Operations of the Phase 2 Expansion Project in all action alternatives would seek to maximize water supply benefits to the Local Agency Partners and Refuges, and minimize pumping and conveyance costs through use of exchanges of stored water to meet demands when appropriate. For example, if one partner has its own water available in the Delta to put in storage in Los Vaqueros Reservoir and another partner has a demand for its own previously stored water, both partners' operations could be accommodated by exchanging the water already in storage to the first partner and directly delivering the available Delta water to the second partner. Such an exchange also would avoid the cost of pumping water up gradient to storage in Los Vaqueros Reservoir.

The last paragraph of Section 2.3.3, Updates to Operations for Refuges, on page 2-38 of the Draft Supplement is revised to add a sentence before the last sentence of the paragraph:

Also, the Refuge Water Supply Program has acquired 12.3 TAF of annual water supplies north of the Delta, and Phase 2 Expansion facilities would be used to enable the transfer of this water to meet the Incremental Level 4 obligations of the south-of-Delta CVPIA wildlife refuges in all non-wet water year types.

Table 2-3 on page 2-39 of the Draft Supplement is revised to remove CCID's pre-1914 water right as a potential source of storage in response to comments S_DWR_15 and S_DWR_16:

~~ECCID~~	~~None (pre-1914)~~	~~S000404~~	~~Indian Slough~~

Table 2-5 on page 2-43 of the Draft Supplement is revised to remove ECCID's pre-1914 water right as a potential source of storage in response to comments S_DWR_15 and S_DWR_16; to add third-party water transfers as a potential source of water for BAWSCA, at BAWSCA's request, and for Zone 7, in response to comment L_Zone7_01; to remove the footnote about third-party transfers (Appendix B of the Final Supplement contains analysis of the potential impacts of third-party transfers); and to add information about DPWD, SLWD, and WWD that has been developed since the Draft Supplement was written.

Table 2-5. Local Agency Partner Phase 2 Expansion Water Sources and Demands

Local Agency Partner	Additional Source of Water Available for Phase 2 Expansion Diversions	Demand from Phase 2 Expansion	Dedicated Storage in Los Vaqueros Reservoir
ACWD	Extra SWP Table A Allocation Third-party water transfers from willing sellers[a]	Up to 24 TAF/year in certain drier years	Yes, including reserved storage of 10 TAF in Alternatives 1A & 1B
BAWSCA	Third-party water transfers from willing sellers ~~None~~	10 TAF/year in certain drier years	Yes, including reserved storage of 10 TAF in Alternatives 1A & 1B and 5 TAF in Alternative 4A
BBID	None	20 TAF/year in critically dry years; additional fall demand in low precipitation months	Yes, including reserved storage of 30 TAF in Alternatives 1A & 1B and 5 TAF in Alternative 4A.
Brentwood	None ~~ECCID Contract~~	For water quality blending	Yes, including reserved storage of 2 TAF under Existing Conditions and 5 TAF under Future Conditions
DPWD	Extra CVP allocation	Carryover management of 7 TAF/year	Yes, for seasonal management of water
EBMUD	Water available under EBMUD's Mokelumne River water right in certain wetter years ~~(available for other partners' use)~~	Up to 30 TAF/year in certain drier years	None; option to call on exchange with CCWD or other parter based on stored Mokelumne River water ~~stored water based on other partners' use of Mokelumne River water~~
ECCID	~~ECCID pre-1914 water right~~ None	For water quality blending	Yes, including reserved storage of 3 TAF under Existing Conditions and 6 TAF under Future Conditions
SCVWD	Extra CVP allocation (may be available for other partners' use) Extra SWP Table A Allocation	At least 10 TAF/year in certain drier years and for groundwater recharge	Yes, including reserved storage of at least 20 TAF in Alternatives 1A & 1B and 4 TAF in Alternative 4A
SFPUC	None	16.7 TAF/year in all years + up to 57 TAF/year in drier years	None
SLDMWA	Third-party water transfers from willing sellers[a] CVP water made available by wheeling of Level 2 Refuge supplies Member agency extra CVP allocation	Limited by Phase 2 Expansion operational constraints	None

Table 2-5. Local Agency Partner Phase 2 Expansion Water Sources and Demands (contd.)

Local Agency Partner	Additional Source of Water Available for Phase 2 Expansion Diversions	Demand from Phase 2 Expansion	Dedicated Storage in Los Vaqueros Reservoir
SLWD	Extra CVP allocation Third-party water transfers from willing sellers	Carryover management of 7.5 TAF/year	Yes, for seasonal management of water
WWD	Extra CVP allocation	Direct delivery of up to 50 TAF/year of CVP allocation when Jones PP is constrained	Yes, for seasonal management of water
Zone 7	Extra SWP Table A Allocation Third-party water transfers from willing sellers	Up to 19 TAF/year in drier years	Yes, including preferential storage of up to 5 TAF/year of Delta Surplus Water in all years

~~Notes:~~

~~[a] Third-party transfers are not included in the Phase 2 Expansion analysis, but are discussed in the sensitivity study in Appendix C.~~

The third sentence of the last paragraph on page 2-21 of the Draft Supplement is revised to update the location of the proposed Neroly High-Lift Pump Station:

> The Neroly High-Lift Pump Station, including electrical, hydraulic, and mechanical systems, would be constructed on the existing CCWD property at the ~~Randall-Bold Water Treatment Plant site~~ the Antioch Service Center immediately upstream of Pumping Plant 4 and the Neroly Blending facilities (see Figure 2-12), which is already-developed land.

The first two paragraphs on page 2-24 of the Draft Supplement are revised to update the pipeline descriptions associated with the new location for the Neroly High-Lift Pump Station:

> The intake to the Neroly High-Lift Pump Station would be two 72-inch pipelines that would deliver water under gravity to a wet-well that would be constructed under the pump station location, as shown in Figure 2-12. The tap-in to Contra Costa Canal would require a gate structure on the canal to maintain water levels over the pump intake. ~~Crossing of Laurel Road would be required for the twin 72-inch pipelines; tunneling under the road could be required, if open trench construction (which would require traffic detours) could not be accommodated.~~ The suction pipe would need to cross under the existing 60-inch pipeline that conveys water from the Neroly Blending Facility to Randall-Bold Water Treatment Plant. The pump station would include 6 pumps, each with 50-cfs capacity, requiring about 12,000 kVA of new additional connected power load from the existing Western Area Power Administration transmission network that supplies CCWD facilities including ~~the Multipurpose Pipeline pump station at the Randall-Bold Water Treatment Plant~~ Pumping Plant 4 at the Antioch Service Center.
>
> The discharge from the Neroly High-Lift Pump Station would be a single 84-inch pipeline connecting to Los Vaqueros Pipeline, which is located immediately north of the proposed

location of the pump station, as shown in Figure 2-12a. ~~The discharge pipeline is proposed to extend southwesterly from the Neroly High-Lift Pump Station discharge header, passing through a flow meter (located inside a vault) and crossing perpendicular to the two-lane Neroly Road and the adjacent railroad tracks to a location approximately 200 ft. southwest of the railroad crossing. The alignment then turns west a short distance to a point near the top of the slope at the Lindsey Stormwater Detention Basin. From there the pipeline turns slightly to run southwesterly again and cross down the slope of the basin and run parallel to the slope, crossing under the existing box culvert at Antioch Creek to a connection point with the existing Los Vaqueros Pipeline. The total length of the discharge pipeline is approximately 1,155 feet.~~ At the connection location, isolation valves would be required at Los Vaqueros Pipeline and the pipeline from the Neroly High-Lift Pump Station.

The first full paragraph on page 2-46 of the Draft Supplement is revised to clarify the potential use of the Milpitas intertie:

SFPUC and BAWSCA could receive water through exchange or direct deliveries conveyed through existing facilities and interties. CCWD would deliver water as described above to SCVWD, which has customer agencies that are also members of BAWSCA, and then into SFPUC's Hetch Hetchy system through the existing Milpitas intertie. Water delivered through the Milpitas intertie would augment the Hetch Hetchy water supplies being delivered to the BAWSCA agencies through that portion of the San Francisco Regional Water System. The Milpitas intertie has a capacity of 40 MGD and is currently designated as an emergency intertie to support system outages on both the SCVWD and SFPUC sides. Water delivered through the Milpitas intertie from SCVWD to SFPUC is first treated at SCVWD's Penitencia Water Treatment Plant and then pumped through the intertie into the SFPUC Regional Water System. For extended use at higher flow rates, additional treatment may be required for pH and other parameters.

Page 2-48 of the Draft Supplement is revised to add updated operational preferences and requirements for three SLDMWA member agencies to Section 2.3.4, Updates to Local Agency Partner Operations:

2.3.4.10 Del Puerto Water District (DPWD)

DPWD would receive water from the project delivered through the new Transfer-Bethany Pipeline to the California Aqueduct and then to San Luis Reservoir for eventual exchange and delivery to its growers along the Delta-Mendota Canal. DPWD has also identified a need for the development of additional storage tools to manage the carry-over of their CVP contract allocation from the end of one contract year into the next, as well as the storage of its other supply sources. Up to 7 TAF/year of DPWD supply would be available from October through February to be stored in Los Vaqueros Reservoir, to be released to meet DPWD's irrigation demand in the following growing season from March through September.

2.3.4.11 San Luis Water District (SLWD)

In general, SLWD is interested in using the Delta intakes associated with the Phase 2 Expansion Project (Rock Slough, Freeport, Old River, and Middle River at Victoria Canal)

to divert either their own CVP water or transfer water acquired from Local Agency Partners or other willing sellers; this water would be either directly delivered to SLWD for real-time use or stored in Los Vaqueros Reservoir for later delivery. SLWD would receive water from the Phase 2 Expansion Project delivered through the new Transfer-Bethany Pipeline to the California Aqueduct and then to San Luis Reservoir. SLWD has identified a need for help in managing the carry-over of their CVP contract allocation from the end of one contract year into the next contract year. Approximately 7.5 TAF/year of SLWD capacity would be available for water storage in Los Vaqueros Reservoir, to be released to meet SLWD's irrigation demand in the following water year or growing season. SLWD would also use available capacity in the Phase 2 Expansion system to receive additional water when exports at Jones Pumping Plant are constrained.

2.3.4.12 Westlands Water District (WWD)

WWD would receive water from the project delivered through the new Transfer-Bethany Pipeline to the California Aqueduct, and then stored in San Luis Reservoir or directly delivered to WWD water users. WWD is interested in using available capacity in the Phase 2 Expansion system to receive water when exports at Jones Pumping Plant are constrained.

The first row of Table 2-6 on page 2-50 of the Draft Supplement is revised to clarify that the proposed Phase 2 Expansion Project will require a Clean Water Act Section 404 permit, in response to comment F_EPA_01:

Permit	Permitting Authority
Federal Permits/Approvals	
~~Clean Water Act Section 404/Rivers and Harbor Act Section 10 Dredge and Fill Permit~~	~~U.S. Army Corps of Engineers~~

Chapter 4 Affected Environment, Environmental Consequences, and Mitigation

Section 4.2 Delta Hydrology and Water Quality

Appendix B-1, Updated Modeling Analyses presents revisions to Tables 4.2-5 through 4.2-20 and new Tables 4.2-30 and 4.2-31 for Alternative 1B, to analyze the refined operations and in response to comments. These revisions and additional analyses do not change any impacts conclusions.

The following sentence in the third paragraph on page 4.2-34 of the Draft Supplement has been revised as shown for the reasons described in Master Response 3 in Section 3.2.2:

> Furthermore, changes in Delta inflows due to climate change ~~and the California WaterFix~~ could also increase salinity and degrade water quality in the Delta and reduce water deliveries to other water users.

Section 4.3 Delta Fisheries and Aquatic Resources

Appendix B-1, Updated Modeling Analyses, presents revisions to Tables 4.3-6 through 4.3-23 and new Tables 4.3-24 through 4.3-27 for Alternative 1B, to analyze the refined operations and in response to comments. These revisions and additional analyses do not change any impacts conclusions.

The second sentence of the second paragraph on page 4.3-18 of the Draft Supplement has been revised to fix a typographical error, in response to comment S_SWRCB_02:

> SWRCB D1641 requires CVP and SWP to manage the location of X2 during the February through ~~May~~ June period each year.

The following sentence is deleted from page 4.3-32 of the Draft Supplement for the reasons described in Master Response 3 in Section 3.2.2:

> ~~The Draft Biological Assessment for the California WaterFix found that the Proposed Action is likely to adversely affect winter-run and spring-run chinook salmon due to incidental take associate with facility construction, operation and maintenance.~~

Section 4.6 Biological Resources

The second paragraph on page 4.6-46 of the Draft Supplement is revised as follows for the reasons described in Master Response 3 in Section 3.2.2:

> The California WaterFix FEIR/S identified a significant impact to kit fox habitat that is more than 8 miles from the movement corridor lost under the Los Vaqueros Reservoir Total Project and can be mitigated to less than significant. The kit fox habitat impact of the WaterFix in combination with the Total Project would not result in a significant cumulative impact on kit fox movement corridors. ~~project would result in the loss of 334 acres of kit fox habitat (identified as a significant impact); however, the mitigation program for that project focuses on the preservation of contiguous areas of unprotected grassland that connect to more than 620 acres of existing kit fox habitat that was protected under the East Contra Costa County HCP/NCCP. Thus, the residual impact of the California Waterfix project on the loss of kit fox movement corridors would support the goals of the East Contra Costa County HCP/NCCP. The kit fox habitat that would be lost due to Waterfix is concentrated around the Clifton Court Forebay, over 8 miles from the movement corridor lost under the Total Project, and in combination with the Total Project would not result in a significant cumulative impact on kit fox movement corridors.~~

Section 4.8 Agricultural Resources

Text regarding the EBMUD-CCWD Intertie Pump Station has been revised based on discussion with City of Brentwood staff clarifying the intent and effect of the General Plan EIR and Statement of Overriding Considerations adopted in 2014.[1]

On page 4.8-2, the following text has been added under the heading "Local":

> *City of Brentwood General Plan and Priority Area 1 Specific Plan*
>
> The City of Brentwood's General Plan indicates that all of the land within the city limits is planned for urban development (City of Brentwood, 2014a) and the General Plan EIR assumed that the agricultural viability of all of the Important Farmlands within the city limits

[1] City of Brentwood, 2014. Findings of Fact and Statement of Overriding Considerations for the 2014 Brentwood General Plan Update. June. Available online at http://brentwood.generalplan.org/sites/default/files/Findings_Brentwood_Final.pdf.

would eventually be lost upon full buildout of the Brentwood General Plan (City of Brentwood, 2014b). The land on which the proposed EBMUD-CCWD Intertie Pump Station would be located is designated Mixed-Use Pedestrian Transit in the General Plan and is part of the Priority Area 1 Specific Plan area. Although the Specific Plan has not yet been adopted, the Draft EIR for the Specific Plan identifies this land as designated for urban uses (City of Brentwood, 2018).

Reference

City of Brentwood, 2018. Draft Environmental Impact Report for the Priority Area 1 Specific Plan (SCH: 2018042064). June. Available online at https://pa-1.specificplan.org/s/Priority_Area_1_Specific_Plan_Draft_EIR_June-2018.pdf.

On page 4.8-10, the third paragraph is revised as follows:

The EBMUD-CCWD Intertie Pump Station and associated infrastructure would be installed on up to 0.5 acre of Prime Farmland, located within an approximately 19-acre parcel. This pump station would be located at the existing EBMUD-CCWD Intertie. There are other existing water conveyance facilities in close proximity to this parcel, and long-term operation of the pump station would not preclude the use of other portions of the parcel for agricultural production. Therefore, permanent conversion would be limited to the 0.5 acre or less occupied by the pump station. Additionally, this parcel is located within the City of Brentwood Priority Area 1 Specific Plan Area and is identified for urban land uses in the Brentwood General Plan (City of Brentwood, 2018). Construction and operation of the EBMUD-CCWD Intertie Pump Station on this land would be consistent with the significant and unavoidable impact identified for conversion of farmland in the General Plan EIR, which assumed that the agricultural viability of all of the Important Farmlands within the city limits would eventually be lost upon full buildout. The EBMUD-CCWD Intertie Pump Station would not create new impacts over and above those identified in the Brentwood General Plan Final EIR, nor significantly change previously identified impacts, but would represent some of the buildout deemed significant and unavoidable in the General Plan EIR. Therefore, ~~C~~conversion of Prime Farmland would result in a significant impact. Implementation of **Mitigation Measure 4.8.2b** would require that this impact be mitigated through conservation of Prime Farmland at 1.5 times the area of impact under an agricultural conservation easement. Such conservation may be achieved through payment of an in-lieu fee established by city council resolution, per Brentwood's Agricultural Preservation Program (Municipal Code Section 17.730). Although the city's preservation program applies only to land use entitlements which will permanently convert more than 1 acre of agricultural land and the Phase 2 Project would convert 0.5 acre or less, the EBMUD-CCWD Intertie Pump Station would be located on a parcel included in the Priority Area 1 Specific Plan area, the whole of which is subject to this program. As clarified by the City of Brentwood in the Priority Area 1 Specific Plan Area Draft EIR, individual project applicants within this specific plan area are obligated to implement the preservation requirements (City of Brentwood, 2018). Because it would not avoid the permanent loss of Prime Farmland, even with mitigation, this impact would remain significant. Because the pump station must be located at the existing EBMUD-CCWD Intertie, this facility could not

be relocated to a site that is not designated Prime Farmland. Therefore, this impact would be unavoidable. However, the impact of up to 0.5 acre of permanent conversion would be substantially reduced compared to the 21.5 acres identified in the Final EIS/EIR.

On page 4.8-12, the following paragraph is added to the end of Mitigation Measure 4.8.2b:

> Alternatively, for farmland conversion within the City of Brentwood, the requirement to obtain a conservation easement may be satisfied by payment of an in-lieu fee established by city council resolution, if such fee is established prior to start of construction on important farmland. If no such fee has been established, a conservation easement shall be obtained as indicated in the above paragraph.

On page 4.8-15, Footnote 1 is deleted:

> ~~The parcel on which the EBMUD-CCWD Intertie Pump Station is proposed to be located was not identified as Important Farmland on the 2010 FMMP map, on which the City of Brentwood's General Plan EIR relies for its assessment of the impacts of the General Plan. Therefore, this specific parcel is not covered in the General Plan EIR's analysis of impacts of build-out on Prime Farmland, and would be additional to the acres of impact disclosed in the General Plan EIR.~~

Section 4.10 Air Quality

Table 4.10-11 on page 4.10-22 of the Draft Supplement has been revised as follows to reflect updated operational modeling for Alternative 1B described in Appendix B-1 (no additional operational modeling was completed for Alternatives 1A, 2A, and 4A; therefore, these numbers have not been revised) and updated emissions factors for PG&E electricity:

Table 4.10-11. Indirect GHG Emissions from Phase 2 Expansion Operational Electricity Use, All Alternatives (metric tons CO2e per year)

Alternative	Operational Emissions[a]	Net Increase Compared to Future Without Project	Change in Total Emissions Compared to Alternative 2 in Final EIS/EIR
Future Without Project[b]	~~8,279~~ 7,391	n/a	n/a
Alternative 1A	*26,134*	*17,855*	*-8,766*
Alternative 1B	~~28,190~~ 34,296	~~19,911~~ 26,905	~~-6,710~~ -604
Alternative 2A	*26,998*	*18,719*	*-7,902*
Alternative 4A	*24,556*	*16,277*	*-10,344*

Source: ESA, 2008, 2017; Climate Registry, 20156; CCWD, 2017; PG&E, 2015, CAPCOA, 2016

Notes:

[a] Annual CO2E emissions were calculated using emissions factors reported by utilities and the *California Climate Action Registry General Reporting Protocol* methodology.

[b] Future Without Project" includes power required for pumping at Banks and Jones Pumping Plants needed to deliver water to the SBA, SCVWD via San Luis Reservoir, and power required at CCWD's pumping facilities.

The second paragraph on Draft Supplement page 4.10-23 has been revised as follows to reflect the above-described changes to indirect GHG emission estimates. This impact would not be substantially more severe than previously disclosed.

> For the same reasons described in Impact 4.10.5 in Final EIS/EIR Volume 2, Section 4.10, the Phase 2 Expansion would not conflict with any applicable CARB early action strategies related to fuel efficiency and emission reduction methods for vehicles. Additionally, as shown in Table 4.10-11, the increase in indirect GHG emissions from electricity use for each Phase 2 Expansion alternative would be ~~no more than 20,000~~ up to 26,905 metric tons/year CO2e~~, which is under~~. This is greater than the 25,000 metric tons/year CO2e threshold used to classify major emitters; however, the net increase is greater than what was disclosed in the Final EIS/EIR in part because the GHG emissions factors of the portfolios of energy providers have fallen since preparation of the Final EIS/EIR; therefore, the "business as usual" Future without Project scenario would have lower emissions than estimated in the Final EIS/EIR, creating a larger gap between Future without Project and Alternative 1B. Overall, GHG emissions would still be less than analyzed in the Final EIS/EIR.

Section 4.12 Utilities and Public Service Systems

Pages 4.12-7 and 4.12-8 of the Draft Supplement have been revised as follows in response to comment O_CEMC_01:

> The Delta-Transfer Pipeline would cross as many as six BBID irrigation lines; three active petroleum pipelines (Chevron's Kettleman-Los Medanos Pipeline, Chevron's Bay Area Products Line, and one Kinder Morgan pipeline); two ~~historical~~ decommissioned petroleum pipeline~~s~~ rights-of-way (Chevron's double Tidewater Associated Oil Company Pipeline and Old Valley Pipeline); a Sprint fiber-optic cable line; a Western transmission overhead line; and two PG&E 500 kV overhead transmission lines. The Delta-Transfer Pipeline would also cross the Union Pacific Railroad tracks and would utilize a trenchless technique, such as jack and bore, to pass under the railroad crossing. (…)
>
> ~~The Neroly High Lift Pump Station would be constructed on existing CCWD property at the Randall-Bold Water Treatment Plant (east of SR 4). A new connection pipeline would cross underground utilities at the intersection of Laurel Road and Neroly Road to connect to the Contra Costa Canal, and second pipeline would cross under the Union Pacific Railroad tracks to connect to the Los Vaqueros Pipeline. Both pipelines would utilize a trenchless technique to cross underneath roads and the railroad tracks.~~
>
> The Pumping Plant #1 replacement would require upgraded electrical facilities, which would have some potential to disrupt existing utilities.

The Brentwood Pipeline would connect the Neroly Blending Facility to the intertie for the City of Brentwood Water Treatment Plant. It would cross underneath the SR 4 overpass and intersect with two decommissioned petroleum pipeline rights-of-way (Chevron's double Tidewater Associated Oil Company Pipeline and Old Valley Pipeline) using open-trench construction methods and would cross the Union Pacific Railroad tracks using a trenchlesstechnique. The Brentwood Pipeline would cross underneath several buried utility lines.

The ECCID Intertie Pipeline would cross underneath several overhead utility lines, and two overhead transmission lines - one south of Armstrong Road, and another at Brentwood Boulevard. The Intertie would cross several irrigation lines and would cross underneath canals between Marsh Creek and Concord Avenue and ECCID's main distribution canal. In addition, the ECCID Intertie Pipeline would cross Union Pacific Railroad tracks and two decommissioned petroleum pipeline rights-of-way (Chevron's double Tidewater Associated Oil Company Pipeline and Old Valley Pipeline).

Section 4.18 Environmental Justice

The following information is added to page 4.18-3 of the Draft Supplement in response to comment O_RTD_07. The Lead Agencies will consider limited English speaking households in their public outreach efforts for the Phase 2 Expansion project.

Limited English Speaking Households

For this analysis, a "limited English speaking household" is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English. By definition, English-only households cannot belong to this group (U.S. Census Bureau, 2016).

Information regarding limited English speaking households in the project area was derived from the 2015 American Community Survey administered and published by the U.S. Census Bureau, which provides estimates based on surveys conducted from 2011 to 2015. The percentage of limited English speaking households for Contra Costa County and the census tracts within 2 miles of Phase 2 Expansion components are presented in Table 4.18-1A. Census Tracts 3020.07 in Oakley; 3040.02 in Byron; and 3400.01 in Walnut Creek have more than 7 percent limited English speaking households; meaning a higher percentage than Contra Costa County as a whole. The highest percentage of limited English speaking households is at 11.8 percent in census tract 3040.02 in Byron.

Table 4.18-1A. Limited English Speaking Households for Contra Costa County and the Surrounding Affected Environment

	Total Number of Households	Limited English Speaking Households (percent)
County		
Contra Costa County	384,646	7.0%
Census Tracts		
Census Tract 4511.01	2,337	4.4%
Census Tract 3020.05	2,320	3.2%
Census Tract 3020.06	1,233	0.9%
Census Tract 3020.07	2,028	7.5%
Census Tract 3020.08	2,234	3.7%
Census Tract 3020.09	1,935	4.0%
Census Tract 3020.10	3,123	1.0%
Census Tract 3031.02	2,416	1.7%
Census Tract 3031.03	3,450	6.0%
Census Tract 3032.02	2,284	1.1%
Census Tract 3032.04	1,559	4.3%
Census Tract 3032.05	3,240	2.3%
Census Tract 3040.01	1,386	1.3%
Census Tract 3040.02	475	11.8%
Census Tract 3040.04	1,535	2.8%
Census Tract 3040.05	2,183	1.7%
Census Tract 3400.01	2,375	8.0%
Census Tract 3551.12	2,113	3.3%

Source: U.S. Census Bureau, 2016.

Reference

U.S. Census Bureau, 2016. S1602 Limited English Speaking Households, 2011-2015 American Community Survey 5-Year Estimates. Accessed on June 4, 2018.

Appendix E Draft Mitigation Monitoring and Reporting Program (MMRP)

Items 1, 2, 4 through 6, and 8 of Adopted Mitigation Measure 4.6.4a on Draft Supplement Appendix E, pages E-7 through E-8, are revised as follows in response to comment S_CDFW_05:

1. CCWD shall submit the name and credentials of a biologist qualified to act as construction monitor to USFWS and CDFW for approval at least 15 days before construction work begins. General minimum qualifications are a 4-year degree in biological sciences or other appropriate training and/or experience in surveying, identifying, and handling California tiger salamanders and California red-legged frogs.

2. A USFWS/CDFW-approved biologist (approved biologist) shall survey the work sites 2 weeks before the onset of construction. If California tiger salamanders or California red-legged frogs (or their tadpoles or eggs) are found, the approved biologist shall contact USFWS and CDFW to determine whether moving any of these life-stages is appropriate.

If USFWS approves moving the animals, the approved biologist shall be allowed sufficient time to move frogs and/or salamanders from the work sites before work begins. If these species are not identified, construction can proceed at these sites. The approved biologist shall use professional judgment to determine whether (and if so, when) the California tiger salamanders and/or California red-legged frogs are to be moved. The ~~USFWS~~ approved biologist shall immediately inform the construction manager that work should be halted, if necessary, to avert avoidable take of listed species.

4. A detailed California red-legged frog/California tiger salamander relocation plan will be prepared at least 3 weeks before the start of groundbreaking, and submitted to USFWS and CDFW for review. The purpose of the plan is to standardize amphibian relocation methods and relocation sites.

5. An ~~USFWS~~ approved biologist shall be present at the active work sites until California red-legged frogs and California tiger salamanders have been removed, and habitat disturbance has been completed. Thereafter, the contractor or CCWD shall designate a person to monitor onsite compliance with all minimization measures. An ~~USFWS~~ approved biologist shall ensure that this individual receives training consistent with USFWS requirements.

6. CCWD and its contractors shall initiate all work within potential California red-legged frog aquatic breeding habitat between May 1 and November 1 (i.e., generally identified as the nonbreeding season). ~~Project construction timing constraints are summarized in Section 4.6.3.~~

8. An ~~USFWS~~ approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and California tiger salamander and their habitat, the importance of these species and their habitat, the general measures that are being implemented to conserve the red-legged frog and tiger salamander as they relate to the project, and the boundaries within which the project construction shall occur.

Item 2 of Adopted Mitigation Measure 4.6.7a on Draft Supplement Appendix E, page E-14, is revised as follows in response to comment S_CDFW_06:

2. If kit fox occupancy is determined at a given site, the construction manager should be immediately informed that work should be halted within 200 feet of the den and the USFWS and CDFW contacted.

Mitigation Measure 4.8.2b on Draft Supplement Appendix E, page E-27, is revised as follows to address the changes described above under Section 4.8, Agricultural Resources:

Mitigation Measure 4.8.2b: For each acre of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance that is permanently converted to nonagricultural use, the

responsible agency for conversion of the land shall obtain 1.5 acres of agricultural conservation easement. An agricultural conservation easement is a voluntary, recorded agreement between a landowner and a holder of the easement that preserves the land for agriculture. The easement places legally enforceable restrictions on the land. The exact terms of the easement are to be negotiated in coordination with a local agriculture land trust, but restricted activities will include subdivision of the property, non-farm development, and other uses that are inconsistent with agricultural production. The mitigation lands must be of equal or better quality (according to the latest available FMMP data) and have an adequate water supply. In addition, the mitigation lands must be within the same county. Information presented in Impact 4.8.2 indicates that this compensatory mitigation would require acquisition of easements on about 0.75 acre (0.5 acres of impact x 1.5:1 mitigation ratio) acres of Prime Farmland within Contra Costa County.

Alternatively, for farmland conversion within the City of Brentwood, the requirement to obtain a conservation easement may be satisfied by payment of an in-lieu fee established by city council resolution, if such fee is established prior to start of construction on important farmland. If no such fee has been established, a conservation easement shall be obtained as indicated in the above paragraph.

Mitigation Measure 4.15.1d on Draft Supplement Appendix E, page E-34, is revised as follows to address the Neroly High-Lift Pump Station western site option as described in Final Supplement Appendix A:

Mitigation Measure 4.15.1d: Before any portion(s) of the Delta de Anza Regional Trail is closed for work related to the Brentwood Pipeline and/or Neroly High Lift Pump Station, and/or if EBRPD's proposed Marsh Creek Trail extension to Discovery Bay is developed and open to the public before or during construction of the ECCID Intertie Pipeline, CCWD shall consult with EBRPD to prepare and implement a public outreach program to inform current and potential future trail users of the temporary closure/rerouting of the Delta de Anza Trail and/or Marsh Creek Trail extension, and inform potential trail users of detours accessible to pedestrian, bicyclists, and wheelchair users.

The outreach program for the Delta de Anza Trail and/or Marsh Creek Trail extension closures shall be coordinated with EBRPD and shall include provisions for the posting of signage in the vicinity of the subject trail segment notifying users of impending trail closure and construction activities. The signs shall include information regarding the nature of construction activities, dates and duration of closure, and detour information. Signage shall be composed of or encased in weatherproof material, posted in conspicuous locations (e.g., park message boards, existing wayfinding signage, or kiosks), and maintained in good condition for the duration of the closure period. At the end of the closure period, CCWD or its contractors shall retrieve all notice materials.

Should the Delta de Anza Regional Trail require rerouting around the Neroly High Lift Pump Station (western site), CCWD shall construct the re-routed portion of the Delta de Anza Trail or shall provide an alternative temporary route during construction to maintain

prior to construction of the pump station to minimize disruptions in trail service to recreationalists. In addition, if the Delta de Anza trail is rerouted, CCWD shall provide EBRPD with a GIS data layer of the reroute after construction is completed.

5.3 Final Supplement Figures

Final Supplement Figure 2-5 clarifies labels and locations related to the shell borrow areas and depicts the refined proposed western site of the Neroly High-Lift Pump Station.

Final Supplement Figure 2-7 clarifies labels and locations related to the shell borrow areas.

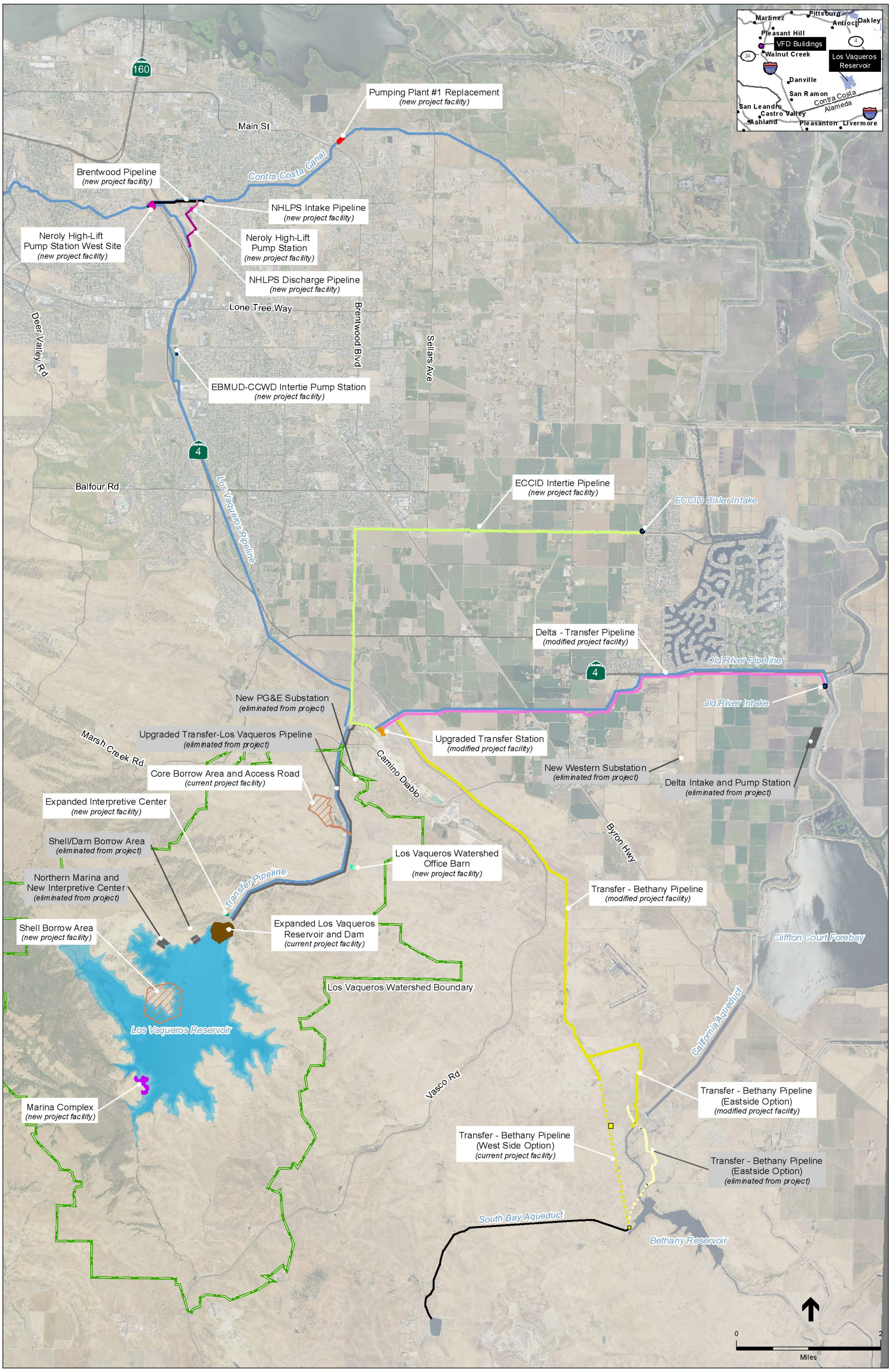
Final Supplement Figure 2-12a depicts both the original proposed site and the refined proposed western site of the Neroly High-Lift Pump Station, which is on existing CCWD property at the Antioch Service Center immediately upstream of Pumping Plant 4 and the Neroly Blending facilities.

Final Supplement Figure 2-13 shows the revised location of the proposed EBMUD-CCWD intertie pump station as described in Final Supplement Section 2.2.1, and shows the Los Vaqueros Pipeline and Mokelumne Aqueduct in relation to the proposed EBMUD-CCWD intertie pump station as described in response to comment O_RTD_03.

Final Supplement Figure 2-16 clarifies the proposed location of the expanded marina complex.

Final Supplement Figure 4.12-1 depicts intersections of decommissioned Chevron pipeline rights-of-way with proposed pipeline elements of the Phase 2 Expansion Project as described in response to comment O_CEMC_01.

Final Supplement Figures 4.18-1 depicts the locations of census tracts identified for the environmental justice analysis as described in response to comment O_RTD_07.



SOURCE: USDA, 2016; USGS, 2016; CCWD, 2019; ESA, 2019

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Figure 2-5

Previously Proposed Facilities and Phase 2 Expansion Facilities

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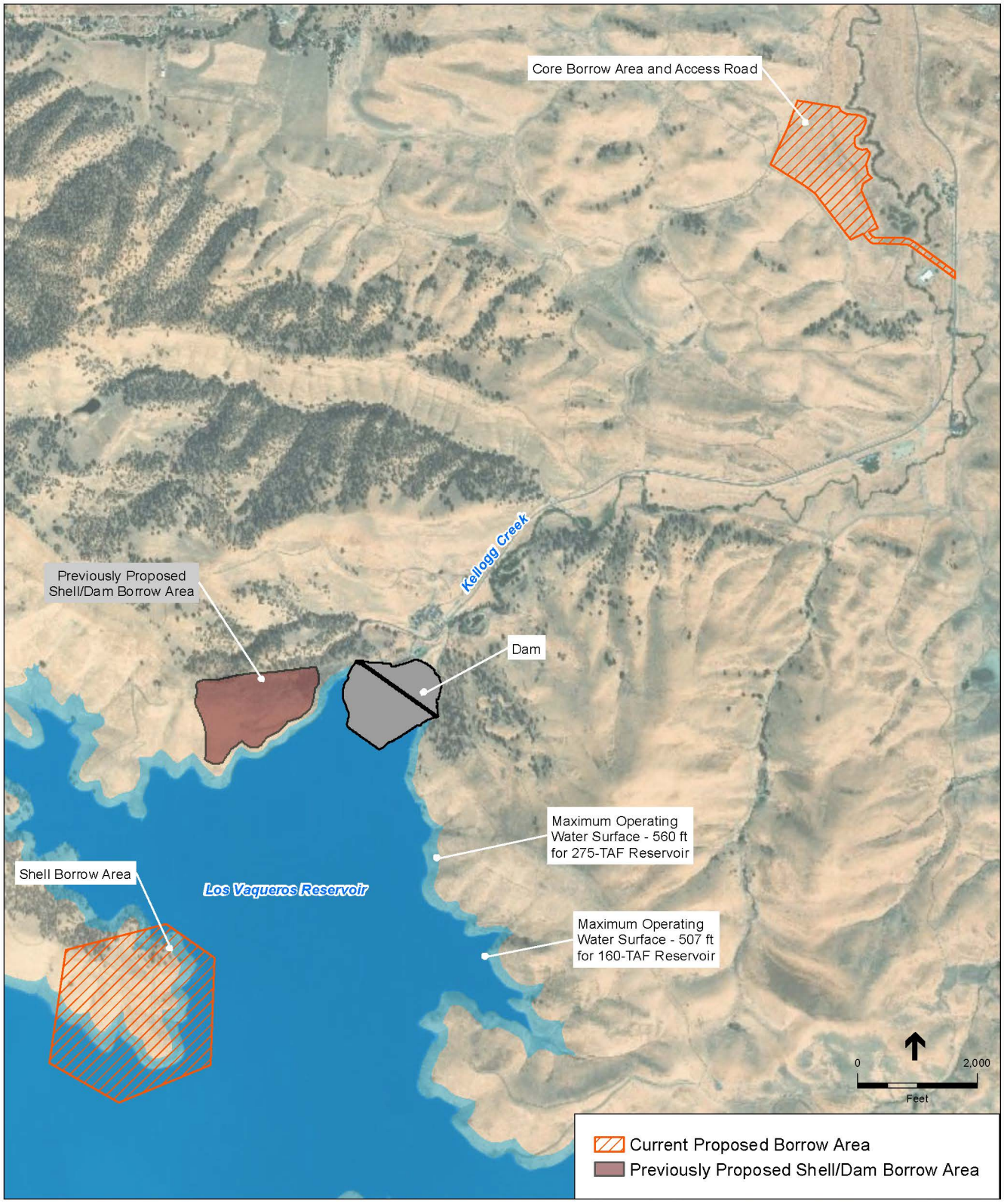

SOURCE: USDA, 2016; USGS, 2016; CCWD, 2017; ESA, 2019

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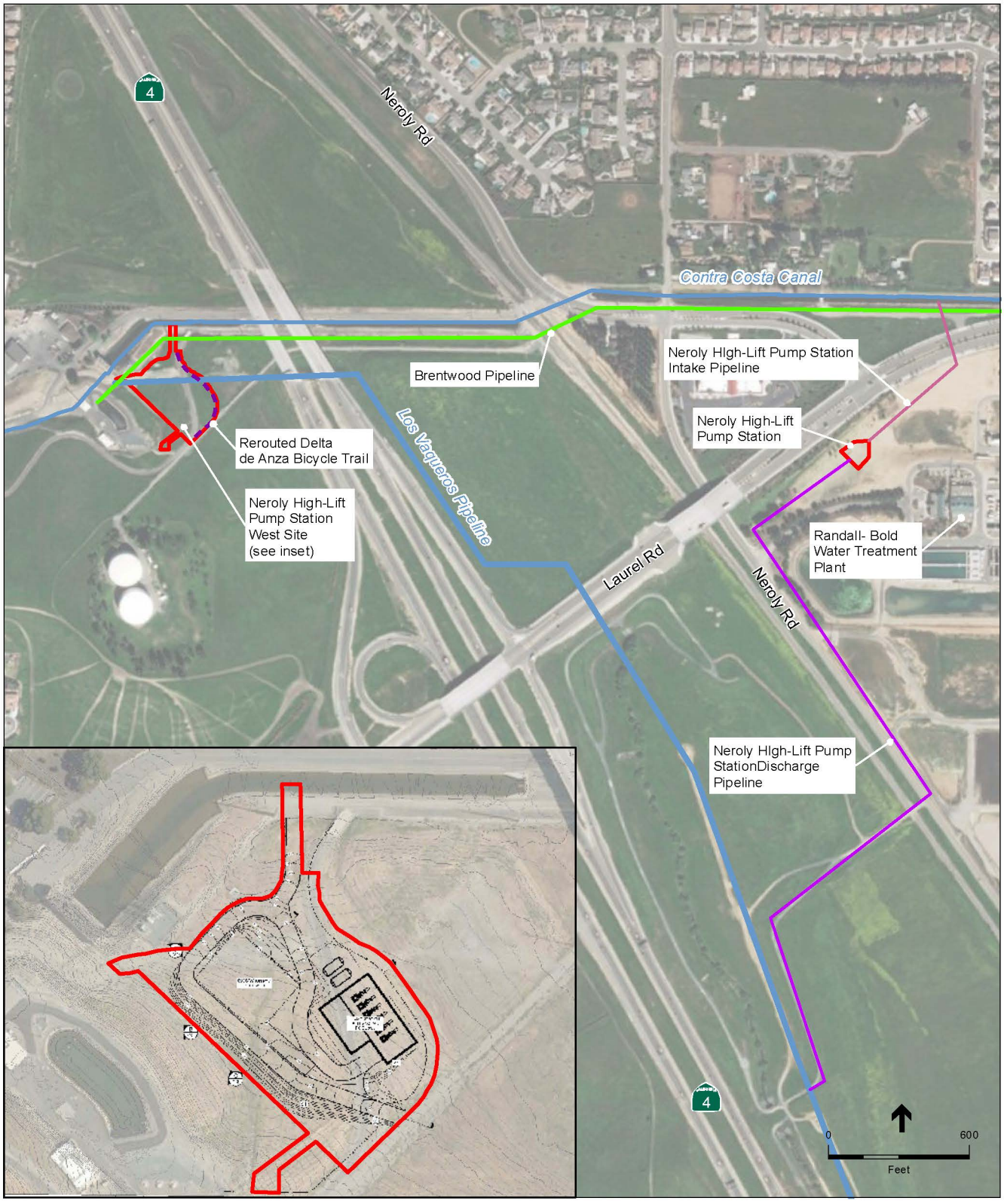
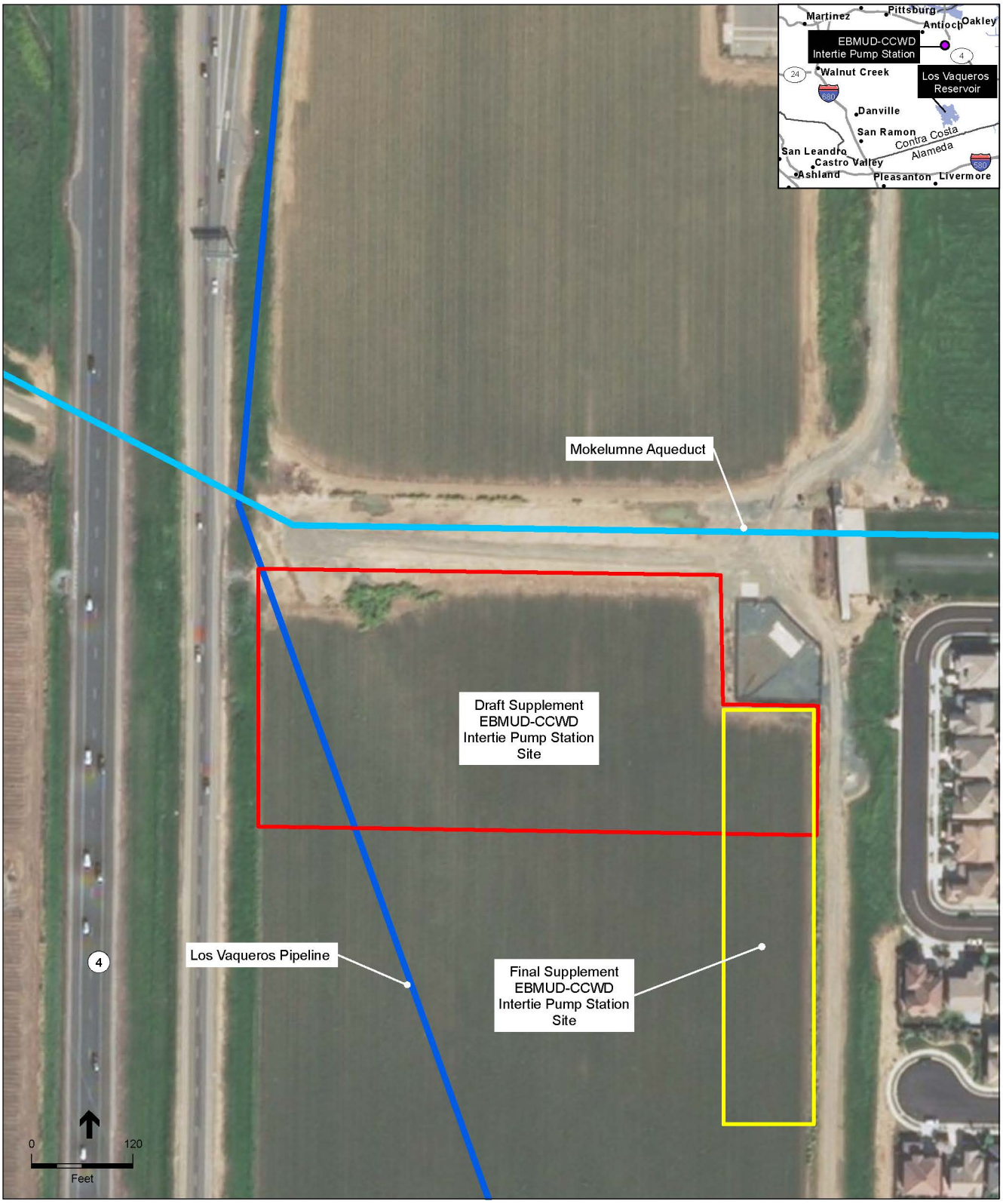
Figure 2-7

Plan View of Los Vaqueros Dam Raise and Shell/Core Borrow Areas



SOURCE: USDA, 2016; USGS, 2016; CCWD, 2019; ESA, 2019

Figure 2-12a
Neroly High-Lift Pump Station
West Site and Brentwood Pipeline



SOURCE: USDA, 2016; USGS, 2016; CCWD, 2017; ESA, 2017

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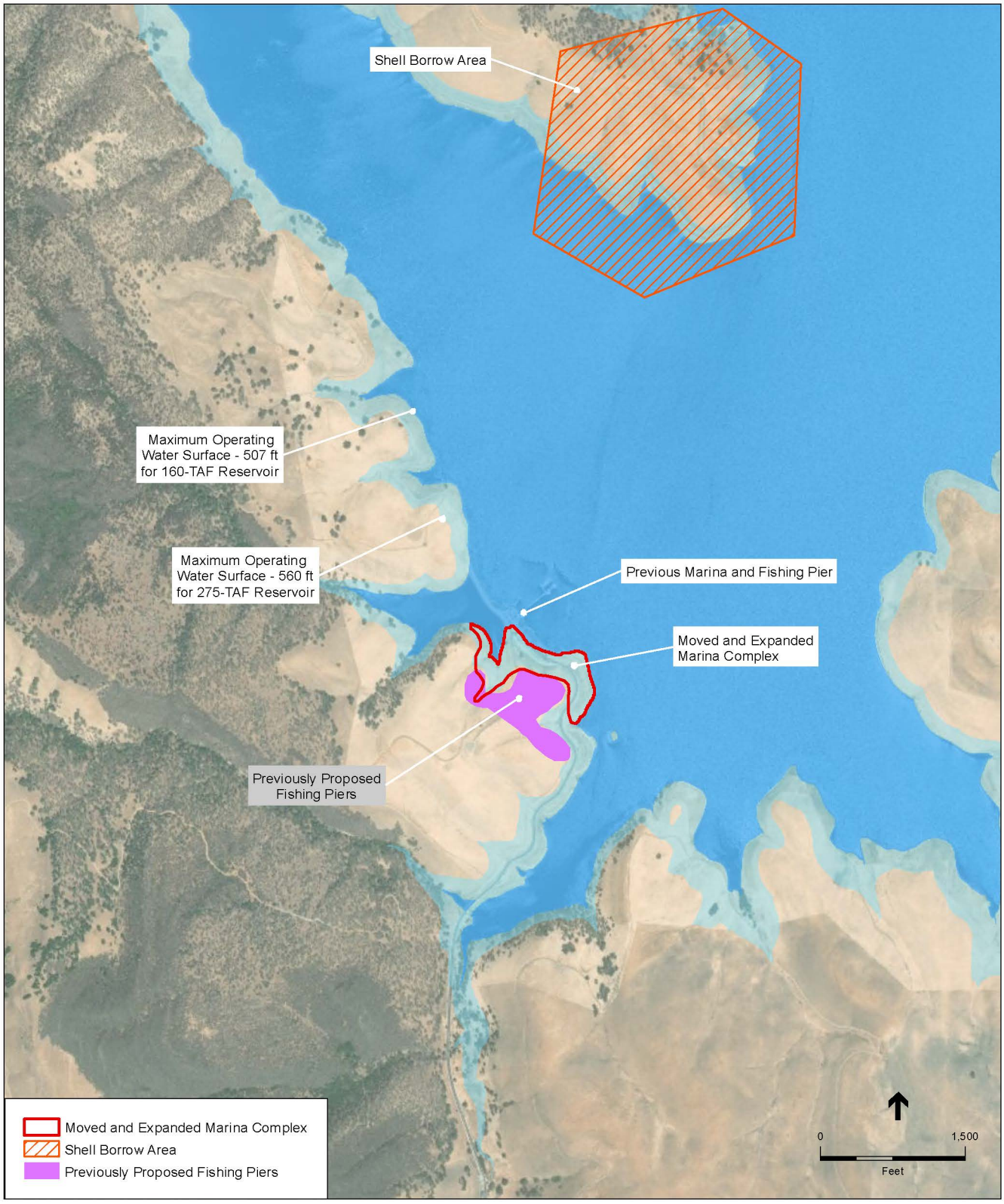
Figure 2-13

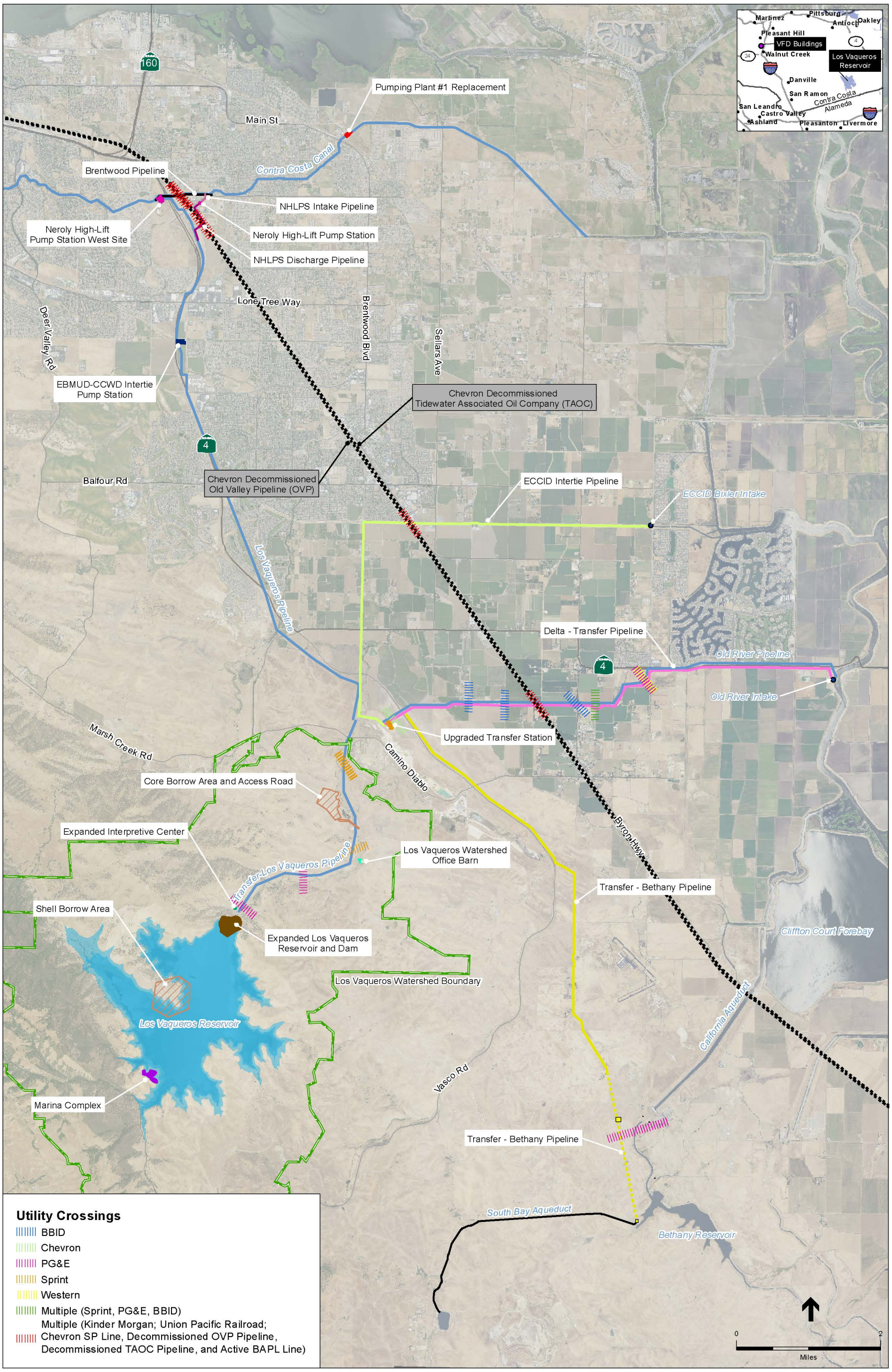
EBMUD-CCWD Intertie Pump Station



Los Vaqueros Reservoir Expansion Project Final Supplement to the Final EIS/EIR

SOURCE: USDA, 2016; USGS, 2016; CCWD, 2017; ESA, 2019

Figure 2-16
Marina Complex



SOURCE: USDA, 2016; USGS, 2016; CCWD, 2018; CEMC, 2018; ESA, 2019

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Potential Utility Crossings

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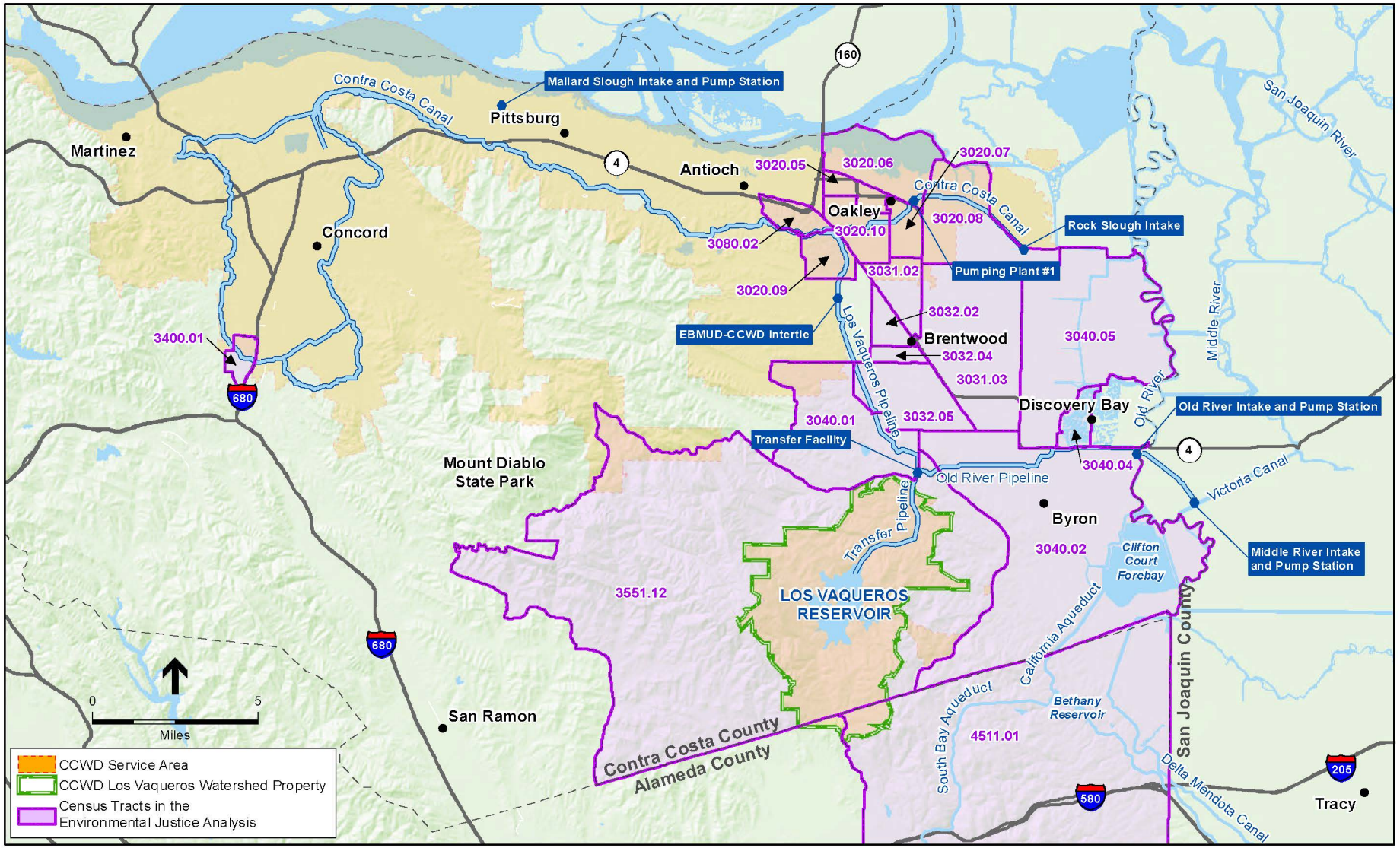

SOURCE: USGS; ESA, 2017; Census, 2017

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Figure 4.18-1

Census Tracts in the Environmental Justice Analysis

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