

**Reinitiation of Consultation on the
Coordinated Long-Term Operation of the
Central Valley Project and State Water Project**

**2017 -
2022**

Project Management Plan

**Bureau of Reclamation, Bay-Delta Office;
National Marine Fisheries Service, Central Valley Office, and
U.S. Fish and Wildlife Service, Bay-Delta Office**

1.0 MISSION STATEMENTS OF THE PARTICIPATING AGENCIES

The mission of the Bureau of Reclamation (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 U.S. Fish and Wildlife Service (USFWS) is working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

The National Marine Fisheries Service (NMFS) is responsible for the stewardship of the nation's ocean resources and their habitat.

2.0 PURPOSE OF THIS PROJECT MANAGEMENT PLAN

The primary purpose of this Project Management Plan (PMP) is to clearly define the roles, responsibilities, procedures, and processes regarding communication, coordination, direction and documentation that will result in successful reinitiation of Endangered Species Act (ESA) Section 7 consultation and associated National Environmental Policy Act (NEPA) processes with USFWS and NMFS on the coordinated long-term operation of the Central Valley Project (CVP) and State Water Project (SWP) (Project). The PMP will guide management of the Project and participation by the three Federal agencies (i.e., Reclamation, USFWS, and NMFS) such that the Project objectives (see Section 5.0) are satisfied and completed in accordance with the associated schedule.

This PMP is a living document, designed as a tool for the multi-agency participants (*i.e.*, Reclamation [and its consultants], USFWS, and NMFS) to actively use throughout the duration of the Project. This PMP will be revised as the Project details are developed and elaborated on through time. Details of the PMP will be commensurate with the schedule and scope at the point in time being considered.

3.0 PROJECT PURPOSE

The overarching purpose of the Project is to continue the operation of the CVP in coordination with operation of the SWP, for its authorized purposes, in a manner that:

- is consistent with Federal Reclamation law; other Federal laws and regulations; Federal permits and licenses; State of California water rights, permits, and licenses; and
- enables Reclamation and the Department of Water Resources (DWR) to satisfy their contractual obligations to the fullest extent possible.

The overall goal of the Project is to achieve a durable and sustainable biological opinion (BO) issued jointly by the USFWS and NMFS (or two closely coordinated BOs) that accounts for the updated status of the species, operation of new facilities constructed or expected to be constructed, and modifications to the operation of the CVP and SWP.

Objectives for this overall consultation process include:

- “Fresh Look Concept”: The federal agencies aim to analyze revising operation of the CVP and SWP, including appurtenant facilities, hatcheries, and inclusion of possible restoration, to account for new science and recent information.
- Biological objectives: Reclamation, USFWS, and NMFS hope to focus the Proposed Action on meeting biological objectives, such as food or temperature, rather than solely on operational ones.
- Best available science: Reclamation, USFWS, and NMFS will use best available science and set appropriate biological objectives to attain water use and species conservation goals.
- Science-based adaptive management: The Proposed Action is anticipated to include adaptive management for adjustments over time based on new science.
- Transparency: Reclamation will establish an expanded stakeholder engagement process, and will include a broad range of stakeholders.
- Peer review: Peer review and/or independent review of new tools used and specific analysis is an important objective of this consultation.

4.0 PROJECT BACKGROUND

The CVP and SWP are currently operated in accordance with the 2008 USFWS BO and the 2009 NMFS BO, both of which concluded that the coordinated long-term operation of the CVP and SWP, as proposed in Reclamation’s 2008 Biological Assessment (BA), was likely to jeopardize the continued existence of listed species and designated critical habitat. Both BOs included Reasonable and Prudent Alternatives (RPAs) designed to allow the CVP and SWP to continue operating without causing jeopardy or adverse modification to designated critical habitat. Reclamation accepted and then implemented the USFWS and NMFS RPAs.

Reclamation completed the court-ordered NEPA process on the Coordinated Long-term Operation of the CVP and SWP with issuance of a Record of Decision (ROD) on January 11, 2016.

On August 2, 2016, Reclamation requested reinitiation of ESA Section 7 consultations with the USFWS and NMFS on the Coordinated Long-term Operation of the CVP and SWP. Several factors resulted in Reclamation requesting reinitiation of consultation under the ESA, including the apparent decline in the status of the listed species, the recent multiple years of drought, and the evolution of best available science. This consultation is expected to update the system-wide operating criteria for the LTO consistent with Section 7 requirements, to investigate the potential

of including new conservation measures for listed species, and to review the existing RPA actions included in the 2008 USFWS BO and 2009 NMFS BO to determine their continued substance and efficacy in meeting the requirements of Section 7 of the ESA.

Prior to the 2008 USFWS BO and the 2009 NMFS BO being upheld by the U.S. Court of Appeals, Reclamation and the California Department of Water Resources (DWR) were developing concepts for modifications to RPA actions to avoid jeopardy of listed species and improve their feasibility and sustainability over the long term. Reclamation, DWR, USFWS, NMFS and California Department of Fish and Wildlife (DFW) aim to continue to explore these opportunities and include appropriate actions to avoid jeopardy in the NEPA alternatives and proposed action.

5.0 PROJECT OBJECTIVES

In order to achieve the identified overarching purpose, the three Federal agencies need to:

- Develop a new Proposed Action that reflects current conditions, incorporates new facilities proposed by the California WaterFix (CWF) project, and includes a suite of actions intended to result in issuance of a non-jeopardy BO(s);
- Prepare a BA and a joint BO (or coordinated BOs) using best available science in a timely manner;
- Provide analyses regarding the potential effects of the Proposed Action to listed and proposed aquatic and terrestrial species, and their critical habitats;
- Provide appropriate information on Essential Fish Habitat (EFH) that will result in conclusion of consultation with NMFS under the Magnuson-Stevens Fishery Conservation and Management Act (MSA);
- Evaluate the Proposed Action and alternatives in compliance with NEPA, including preparation of an environmental impact statement (EIS) and associated ROD.

6.0 AUTHORITIES/CONSTRAINTS

- Reclamation Act of 1935 and Rivers and Harbor Act of 1937 provide for the construction and operation of the CVP.
- Central Valley Project Improvement Act (CVPIA), 1992, Section 3406(a)(1) added protection and restoration of fish and wildlife as project purposes and fish and wildlife mitigation as operations, maintenance and replacement (OM&R) costs of the CVP.
- Fish and Wildlife Coordination Act (Public Law 85-24) authorizes the Secretary of the Interior “to provide that wildlife conservation shall receive equal consideration and be coordinated with other features of water-resource development programs through the effectual and harmonious planning, development, maintenance, and coordination of wildlife conservation and rehabilitation ... the Secretary of the Interior is authorized (1) to provide assistance to, and cooperate with, Federal, State, and public or private agencies and organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat, in controlling losses of the same from disease or other causes”
- Departmental Manual Part 255 DM 1, Chapter 1, Section 1.1 delegates authority to the Assistant Secretary of the Interior to take the following actions, either directly or by providing financial assistance to non-Federal parties, regarding the construction and/or continued operation and maintenance of any Federal reclamation project:

- Plan, design, and construct, including acquiring lands or interest therein as needed for: (a) fish passage and screening facilities at any non-Federal water diversion or storage project; or (b) Projects to create or improve in-stream habitat.
 - Acquire or lease water or water rights from willing sellers or lessors; or
 - Monitor and evaluate the effect of Reclamation actions on ESA-listed species.
- Endangered Species Act
 - National Environmental Policy Act
 - Magnuson-Stevens Fishery Conservation and Management Act

7.0 SCOPE

Reclamation must define and evaluate a Proposed Action for Section 7 consultation on listed and proposed species and their designated critical habitats. This Proposed Action will be different from the Proposed Action description included in the 2008 BA that was the basis for the current 2008 USFWS and 2009 NMFS BOs. The reinitiation of consultation will use a “fresh-look” concept, and evaluate modifications to operations of the CVP and SWP, including new facilities and habitat. The BA will include an analysis of effects associated with the new Proposed Action.

In addition, the Proposed Action undergoing ESA Section 7 consultation must also be evaluated as a Federal action under NEPA. The NEPA process will include the development and analysis of alternatives to the Proposed Action, as well as preparation of a public draft EIS, final EIS, and ROD.

The project area includes the CVP and SWP Service Areas and facilities, as described below:

A. CVP Facilities.

- The CVP facilities include reservoirs on the Trinity, Sacramento, American, Stanislaus, and San Joaquin rivers.
 - A portion of the water from Trinity River is stored and re-regulated in Clair Engle Lake, Lewiston Lake, and Whiskeytown Reservoir, and diverted through a system of tunnels and powerplants into the Sacramento River.
 - Water is also stored and re-regulated in Shasta and Folsom reservoirs.
 - Water from these reservoirs flows into the Sacramento River.
 - Water is stored in the New Melones Reservoir for water rights holders in the Stanislaus River watershed and CVP contractors in the northern San Joaquin Valley.
- The Sacramento River carries water to the Sacramento-San Joaquin Delta (Delta). The Jones Pumping Plant at the southern end of the Delta lifts the water into the Delta Mendota Canal (DMC). This canal delivers water to CVP contractors, who divert water directly from the DMC, and exchange contractors on the San Joaquin River, who divert directly from the San Joaquin River and the Mendota Pool. CVP water is also conveyed to the San Luis Reservoir for deliveries to CVP contractors through the San Luis Canal.

Water from the San Luis Reservoir is also conveyed through the Pacheco Tunnel to CVP contractors in Santa Clara and San Benito counties.

- The CVP provides water from Millerton Reservoir on the San Joaquin River to CVP contractors located near the Madera and Friant-Kern canals.
- B. State Water Project Facilities. DWR operates and maintains the SWP, which delivers water to agricultural and municipal and industrial (M&I) contractors in northern California, the San Joaquin Valley, the Bay Area, the Central Coast, and southern California.
- SWP water is stored and re-regulated in Lake Oroville and released into the Feather River, which flows into the Sacramento River.
 - Water is exported from the Delta at the Banks Pumping Plant and other facilities. The Banks Pumping Plant lifts the water into the California Aqueduct, which delivers water to the SWP contractors and conveys water to the San Luis Reservoir.
 - The SWP also delivers water to the Cross-Valley Canal, when the systems have capacity, for CVP water service contractors.
- C. California WaterFix Facilities. The CWF project would construct a new water delivery system for conveying water from the north Delta to the south Delta in order to respond to increased demands on the water system and address risks to water supply reliability, water quality, and the aquatic ecosystem. The components of the proposed new conveyance system are as follows:
- Three new north Delta fish-screened intakes on the Sacramento River between Clarksburg and Walnut Grove
 - New single-bore tunnel, leading to an intermediate forebay on Glannvale Tract
 - New 40-foot-inside diameter dual-bore tunnels from intermediate forebay to south Delta
 - New Clifton Court Forebay consolidated pumping plant
 - Expanded Clifton Court Forebay
 - New siphon and canal connections constructed between the north cell of the expanded Clifton Court Forebay and the SWP and CVP pumping plants
 - New control structures to regulate the relative quantities of water flowing from the north Delta and the south Delta.
 - Continued use of SWP and CVP south Delta intake facilities

The planning horizon of the BA and EIS will be through the year 2070, with anticipated 2030, 2050, and 2070 levels of analysis.

The schedule to successfully complete the Project is described in Section 8.0 Schedule/Milestones.

7.1 RECLAMATION TASKS

Tasks that Reclamation will take the lead on include the following:

- Alternatives development, where the preferred alternative will become the draft proposed action for the ESA consultation
- Preparation of an administrative draft EIS, public draft EIS, final EIS, and ROD
- Development of the Proposed Action for ESA Section 7 and MSA consultation and inclusion in the NEPA process
- Preparation of a new BA
- Completing a peer review process during development of the BA
- Agency and stakeholder coordination
- Formal consultation coordination
- Preparation of its Administrative Record (AR)

General descriptions of the above tasks are provided below.

Task 1 - Preliminary Modeling Analyses and Assessments - Reclamation will develop a Conceptual Framework which outlines potential components of an initial Proposed Action and provides recommendations for conceptual modeling activities and feasibility assessments. The Conceptual Framework will identify the scope and extent of initial modeling activities and assessments needed to develop an initial Proposed Action for further discussion and analysis under the ESA and NEPA. This may include initial analyses and assessments of existing RPA actions to determine their continued substance and efficacy in meeting the requirements of Section 7 of the ESA. Reclamation will conduct the modeling activities using readily available tools such as CalSim II and other hydrologic and biological models and associated spreadsheets. Reclamation will prepare assessments of the potential components that are anticipated to be included in an initial Proposed Action.

Task 2 – Development of the Proposed Action for Section 7/MSA Consultation and NEPA - The Proposed Action will include an accurate description of the proposed coordinated long-term operation of the CVP and SWP. The Proposed Action will be developed, as appropriate, relying on input from the stakeholder/public engagement process, NEPA public scoping process, Collaborative Science Adaptive Management Program (CSAMP), Interagency Ecological Program (IEP), existing information compiled during the 2011-2016 NEPA process, 2016 CWF BA and BO, 2008 Reclamation BA, 2008 USFWS BO, 2009 NMFS BO, the 2009 NMFS RPA with 2011 amendments, and the 2014 updated project description. The project area will include the CVP and SWP service areas and facilities, including new Delta conveyance facilities and operations, potential actions outside of the Delta to address issues such as climate change and U.S. Army Corps of Engineers flood control rule curve updates, and potential cumulative effects. In addition, the new Proposed Action developed for ESA Section 7 consultation and evaluation under NEPA will likely include the following components:

- Friant Dam operations, including San Joaquin River Restoration flows
- Trinity River operations, including the Trinity River Restoration Program and long-term plan for Klamath River fall augmentation flows

- Clear Creek channel maintenance flows
- Delta Smelt Resiliency Strategy implementation
- Shasta Reservoir storage and temperature management adjustments
- Changes to Old and Middle River (OMR) actions, the Inflow to Export ratio, Fall X2 actions, and refinement of an OMR index
- New Melones Revised Plan of Operation
- Coordinated Operations Agreement (COA) negotiations
- Folsom Dam/Lower American River operational changes, including the Water Control Manual Update and the revised Flow Management Standard (if available)
- State Water Resources Control Board (SWRCB) Water Quality Control Plan updates
- Habitat restoration, including predation control and management
- Hatchery operations and management, including the Delta Smelt Conservation Hatchery

Reclamation will begin development of the Proposed Action by examining RPA actions that have been identified as problematic, reviewing previously submitted alternatives to RPA actions (*e.g.*, San Luis Delta Mendota Water District/Westland Water District/San Joaquin River Exchange Contractors Water Authority alternative), beginning analysis of new components included in the consultation (*e.g.*, Friant Dam, Trinity River, California WaterFix), and developing areas that need further analysis (*e.g.*, climate change, new science, flood curve updates, results of COA negotiations, and predation studies).

The Proposed Action will include a description of: (1) the action to be consulted upon; (2) where the action will take place; (3) when the action will take place; (4) Reclamation's and DWR's authority to take the action; (5) measures that relate to how the action will be accomplished; and (6) conservation measures such as avoidance measures, seasonal restrictions, compensation, or restoration/creation. The Proposed Action description will include appropriate maps and figures to illustrate the location and appropriate details described in the text. The project maps and narratives will describe all the areas to be affected directly or indirectly by the Federal action.

Task 3: Analytical Tools – Reclamation will identify appropriate tools (*e.g.*, models, research, business practices) to be used to evaluate impacts of the Proposed Action to the biological environment. Reclamation assumes that various hydrologic and hydrodynamic models, temperature models, biological models for different life stages of fish species, statistical relationships between physical conditions and fish species, conceptual models for ecological conditions and individual fish species, and habitat models for fish, wildlife and plants may be required to evaluate biological impacts using best available science. Reclamation assumes that CalSim II (and/or CalSim III if available and peer reviewed) and DSM2 will be used for water supply and water quality modeling. Potential biological impacts of the Proposed Action will be evaluated using output from various models which may include Delta Smelt and anadromous salmonids life cycle models (if available), Upper Sacramento River Water Quality Model (USRWQM), Reclamation Temperature Models (HEC5Q, *etc.*), Reclamation Egg Mortality Model, SALMOD, IOS, OBAN, Delta Passage Model, WUA, DSM2 Particle Tracking Model, RMA models, and similar models (or best

scientifically valid peer reviewed models available with coordination among Reclamation, DWR, USFWS, and NMFS).

Task 4: Biological and Operational Modeling - Reclamation will conduct operational and biological modeling activities necessary to evaluate the effects associated with the Proposed Action. The Proposed Action and a base model will be two of the simulations modeled. The modeling will represent operational and regulatory conditions such as the 1986 COA, the SWRCB Decision 1641, the CVPIA, and water transfers.

Task 5- Preparation of a Public Draft EIS, Final EIS, and ROD – Reclamation will oversee the development of a new EIS, including issuance of a Notice of Intent, conducting a public scoping process, and preparation of an administrative draft EIS, public draft EIS, final EIS, and ROD.

Task 6 – Preparation of a New BA – Reclamation will prepare a new BA for aquatic and terrestrial species drawing largely from the Reclamation’s 2008 aquatic species BA, Reclamation’s 2008 terrestrial species BA, the 2008 USFWS BO, the 2011 USFWS Draft BO, the 2009 NMFS BO, the 2009 NMFS RPA with 2011 amendments, the 2014 updated proposed action, the 2016 CWF BA and BO, and 2011-2016 NEPA process. The BA will also include input from the new parallel NEPA process and other parallel processes such as CSAMP and IEP. This task also involves the development of an effects analysis within the framework of an aggregate analysis. Examples for focused effects analyses may include, but are not limited to, flow, water temperature, water export (pumping), critical habitat, and migration and passage (dams, pumping plants or gates). A peer review will be done of the BA with technical experts from all signatory agencies of this PMP, or through the Delta Stewardship Council’s Independent Science Board.

Task 7 - Agency Coordination – Reclamation will facilitate hosting regularly scheduled interagency meetings, as needed, throughout the development of the BA and EIS. These interagency meetings are intended to provide coordination among the Federal agencies, applicant (*i.e.*, DWR), and DFW involved in the ESA Section 7 consultation and NEPA processes and to strive for the effective and efficient completion of the Project.

Task 8 – Formal Consultation Coordination - Once the final BA is transmitted to USFWS and NMFS, as appropriate, Reclamation will provide technical support by providing additional technical information requested by USFWS and NMFS. Reclamation will attend meetings with USFWS and NMFS during formal consultation to discuss the BA and development of the BO(s).

Task 9 – Water User Coordination – Reclamation will coordinate with water users during the informal and formal pieces of the ESA consultation process to meet the requirements of Public Law No 114-322.

Task 10 – Reclamation Administrative Record – Reclamation will identify, acquire, and organize its AR, documenting the decision-making process and the basis for Reclamation’s BA and NEPA process. The AR will consist of all documents and materials directly or indirectly considered by decision-makers. Each agency will be responsible for its own administrative record.

7.2 USFWS TASKS

The USFWS assumes that by working collaboratively and following the guidance in the PMP, a complete BA will be submitted by Reclamation. Given this, the tasks that USFWS will take or share the lead on include the following:

Task 1 – Preparation of a New BA – USFWS will assist in the preparation of a new BA for aquatic and terrestrial species drawing largely from the Reclamation’s 2008 aquatic species BA, Reclamation’s 2008 terrestrial species BA, the 2008 USFWS BO, the 2011 USFWS Draft BO, the 2009 NMFS BO, the 2014 updated proposed action, the 2016 CWF BA and BO, and 2011-2016 NEPA process. The BA may also include input from the NEPA process and other parallel processes. This task also involves the development of an effects analysis within the framework of an aggregate analysis. Examples for focused effects analyses may include, but are not limited to, flow, water temperature, water export (pumping), critical habitat, and migration and passage (dams, pumping plants or gates).

Task 2 – Participation in the NEPA Process as a Cooperating Agency – It is assumed that USFWS will participate as a NEPA cooperating agency during Reclamation’s development of a supplemental or new EIS, including during preparation of an administrative draft EIS, public draft EIS, final EIS, and ROD.

Task 3 - Agency Coordination – Reclamation and USFWS will alternate in facilitating and hosting weekly or biweekly interagency meetings, as needed, throughout development of the BA. These interagency meetings are intended to provide coordination among the Federal agencies and applicant involved in the ESA Section 7 consultation and NEPA processes and to strive for the effective and efficient completion of the Project.

Task 4 – USFWS Notification Letter – Within 30 days of receipt of the draft BA, USFWS will submit a notification letter to Reclamation indicating whether the draft BA contains all the information necessary to initiate Section 7 consultation.

Task 5 – USFWS Draft BO – The USFWS will issue a draft BO for Reclamation to review. The BO will be reviewed by technical experts from all agencies that sign this PMP or through the Delta Stewardship Council’s Independent Science Board. Reclamation will facilitate review by water users in accordance with Public Law 114-322.

Task 6 – USFWS Final BO – The USFWS will issue a final BO to Reclamation.

Task 7 – USFWS Administrative Record - Identify, acquire, and organize the administrative record (AR), documenting the decision-making process and the basis for USFWS’ BO. The AR will consist of all documents and materials directly or indirectly considered by decision-makers.

7.3 NMFS TASKS

NMFS assumes that by working collaboratively and following the guidance in the PMP, a complete BA will be submitted by Reclamation. Given this, the tasks that NMFS will take or share the lead on include the following:

Task 1 – Preparation of a New BA – NMFS will assist in the preparation of a new BA for ESA-listed species and designated critical habitats for those species in the action area. The BA may also include input from the NEPA process and other parallel processes. This task also involves the development of an effects analysis within the framework of an aggregate analysis. Examples for focused effects analyses may include, but are not limited to, flow, water temperature, water export (pumping), critical habitat, and migration and passage (dams, pumping plants or gates).

Task 2 – Participation in the NEPA Process as a Cooperating Agency – Reclamation assumes that NMFS will participate as a NEPA cooperating agency during Reclamation’s development of a new EIS, including during preparation of an administrative draft EIS, public draft EIS, final EIS, and ROD.

Task 3 - Agency Coordination – Reclamation, USFWS, and NMFS will alternate hosting regularly scheduled interagency meetings, as needed, throughout development of the BA. These interagency meetings are intended to provide coordination among the Federal agencies and applicant (*i.e.*, DWR) involved in the ESA Section 7 consultation and NEPA processes and to strive for the effective and efficient completion of the Project.

Task 4 – NMFS Notification Letter – Within 30 days of receipt of Reclamation’s final BA and request to initiate ESA section 7 formal consultation, NMFS will submit a notification letter to Reclamation indicating whether the final BA contains all the information necessary to initiate Section 7 consultation.

Task 5 – NMFS Draft BO –NMFS will issue a draft BO for Reclamation to review. The draft BO will include, among other chapters, effects analyses, jeopardy and adverse modification analyses, and incidental take statement, including proposed reasonable and prudent measures and terms and conditions. Reclamation will facilitate review by water users in accordance with Public Law 114-322. NMFS may seek a peer review of the draft BO from an independent science panel, if funds are available.

Task 6 – NMFS Final BO –NMFS will issue a final BO to Reclamation. The final BO will include consideration and/or integration of comments received by NMFS from Reclamation and DWR during the draft BO review process.

Task 7 – NMFS Administrative Record – NMFS will identify, acquire, and organize its administrative record (AR), documenting the decision-making process and the basis for NMFS’ BO. The AR will consist of all documents and materials directly or indirectly considered by the decision-maker.

8.0 SCHEDULE/MILESTONES

Table 1 lists the major Project milestones such as completion of a project deliverable. There are smaller milestones that are not included on this table, but are included in the project schedule (see Attachment 2). If there are any scheduling delays which may impact a milestone or delivery date, the senior management team of the three Federal agencies (see section 9, below) must be notified immediately so proactive measures may be taken to minimize slippage in deliverable due dates.

Table 1 - Project Milestones

Milestone	Duration	Timeframe
Complete Contracting Process/Award Consultant Contract(s)	11 months	August 2016 thru June 2017
Prepare and Publish NOI in Federal Register	7 months	March 2017 thru September 2017
Develop and Select Proposed Action for Analysis	10 months	January thru October 2017
Conduct Public Scoping Process/Meetings	1 month	September 2017
Prepare 1 st and 2 nd Administrative Draft EIS and Complete Internal and External Review Processes	23 months	October 2017 thru August 2019
Prepare 1st and 2nd Draft BA and Submit to USFWS and NMFS	20 months	October 2017 through May 2019
USFWS and NMFS Sufficiency Review	4 months	June through September 2019
Prepare Final BA and Submit to USFWS and NMFS	7 months	October 2019 through April 2020
Incorporate Comments, Prepare Public Draft EIS, Complete Internal and External Review Processes, and Publish Draft EIS	5 months	September 2019 thru January 2020
Public Comment Period	3 months	February through April 2020
USFWS and NMFS Prepare Draft BO(s)	12 months	May 2020 through April 2021
Reclamation and Peer Review of Draft BO(s)	4 months	May 2021 through August 2021
Incorporate Comments, Prepare Final EIS, and Complete Internal and External Review Processes, and Publish Final EIS	15 months	May 2020 through July 2021
USFWS and NMFS Prepare and Issue Final BO(s)	6 months	September 2021 through February 2022
Prepare and Sign ROD		March 2022

Note: Green pertains to ESA process and blue pertains to NEPA process

9.0 ROLES AND RESPONSIBILITIES

Detailed below are the roles and responsibilities of the core teams, interagency teams, and stakeholders for the Project. It is recognized that team members and stakeholder representatives

may change during the duration of the Project due to various factors, including, but not limited to turnover, reassignment, etc. Other agency representatives may be invited to the various meetings, as appropriate.

9.1 CORE TEAMS

The Core Team for the Project is composed of Reclamation as the Federal Action Agency, USFWS and NMFS as the regulatory agencies, and the consultants selected to support the process. Roles and responsibilities for each team are identified below.

Reclamation’s Core Team responsibility includes preparing a BA adequate for ESA Section 7 and MSA consultations, and completing the NEPA process. As the Federal Action Agency and NEPA Lead Agency, Reclamation is ultimately responsible for development of the Proposed Action.

Table 2 - Reclamation (Federal Action Agency) Teams

Name	Title	Project Role	Phone	Email
SENIOR MANAGEMENT TEAM				
David Murillo	Mid-Pacific Regional Director	High level policy decision maker	(916) 978-5000	dmurillo@usbr.gov
Pablo Arroyave	Assistant Regional Director	High level policy decision maker	(916) 978-5013	parroyave@usbr.gov
Michelle Banonis	Bay-Delta Office Area Manager	Conduit among the stakeholder engagement, CSAMP/CAMT, NEPA, and Section 7 consultation processes Provide overall policy direction	(916) 414-2401	mbanonis@usbr.gov
Ron Milligan	Central Valley Operations Office Manager	CVP operations expert Provide overall direction on characterization of operations	(916) 979-2199	rmilligan@usbr.gov
CORE TEAM				
Janice Piñero	Conservation and Conveyance Division Chief	Project oversight Program Manager	(916) 414-2428	jpintero@usbr.gov
Katrina Harrison	Project Manager	ESA Section 7 and NEPA lead Project Manager	(916) 414-2425	kharrison@usbr.gov

		Operations and Modeling Co-Lead COR		
Patti Idlof	Special Assistant	Strategic planning	(916) 414-2404	pidlof@usbr.gov
Kristin White	Water Resources Branch Chief	Central California Area Office Representative Operations and modeling Co-Lead	(916) 989-7226	knwhite@usbr.gov
John Hannon	Fish Biologist	Science Division liaison Biological Resources Lead	(916) 414-2439	jhannon@usbr.gov
Ben Nelson	Natural Resources Specialist	Environmental compliance support Liaison with DWR	(916) 414-2424	bcnelson@usbr.gov
Carolyn Bragg	Natural Resources Specialist	Environmental compliance support	(916) 414-2433	cbragg@usbr.gov
Luke Davis	Natural Resources Specialist	Environmental compliance support	(916) 414-2429	ldavis@usbr.gov
TECHNICAL RESOURCES (AS NEEDED)				
Donna Garcia	CVO Project Manager	Liaison between BDO and CVO	(916) 979-0264	dcgarcia@usbr.gov
Jeff Rieker	Supervisory Hydraulic Engineer	CVP operations expert	(916) 979-2197	jrieker@usbr.gov
Nancy Parker	Hydraulic Engineer	CALSIM Modeling Expert	(303) 445-2532	nparker@usbr.gov
Erwin Van Nieuwenhuysse	Interagency Ecological Program/Pelagic Organism Decline Manager	Delta fisheries technical lead	(916) 414-2406	EVanNieuwenhuysse@ usbr.gov
Josh Israel	Fish Biologist	Sacramento River technical lead	(916) 414-2417	jaisrael@usbr.gov
Paul Zedonis	Supervisory Natural Resources Specialist	Northern California Area Office Representative	(530) 276-2047	pzedonis@usbr.gov

Allen Lindauer	Operations and Maintenance Division Chief	Tracy Office Representative	(209) 836-6252	alindauer@usbr.gov
Kevin Tanaka	DOI – Office of the Solicitor	Legal Review	(916) 978-6134	kevin.tanaka@sol.doi.gov

Table 3 - USFWS (Regulatory Agency) Teams

Name	Title	Project Role	Phone	Email
SENIOR MANAGEMENT TEAM				
Paul Souza	Pacific Southwest Regional Director	Director - High level decision maker	916-414-6469	paul_souza@fws.gov
Dan Castleberry	Assistant Regional Director, Fisheries	High level decision maker	916-978-6178	dan_castleberry@fws.gov
Kaylee Allen	Field Supervisor, Bay-Delta Fish and Wildlife Office	Provide overall policy direction	913-930-5632	kaylee_allen@fws.gov
CORE TEAM				
Jana Affonso	Assistant Field Supervisor	Provide overall direction	916-930-2664	jana_affonso@fws.gov
Kim Squires	Section 7 Coordinator	Provide overall direction	916-930-5634	kim_squires@fws.gov
TECHNICAL RESOURCES (AS NEEDED)				
Maral Kasparian	Senior Section 7 Biologist	Consultation lead/Delta Smelt and terrestrial	916-930-5614	maral_kasparian@fws.gov
Derek Hilts	Hydrologist	Modeling/technical support	916-930-5628	derek_hilts@fws.gov
Matt Nobriga	Fisheries Biologist	Delta Smelt lead	916-930-5609	matt_nobriga@fws.gov

Table 4 - NMFS (Regulatory Agency) Teams

Name	Title	Project Role	Phone	Email
SENIOR MANAGEMENT TEAM				
Barry Thom	West Coast Regional Administrator	Director - High level decision maker	206-526-6150	barry.thom@noaa.gov
Maria Rea	Assistant Regional Administrator for	Provide overall policy direction	916-930-3623	maria.rea@noaa.gov

	California Central Valley Office			
CORE TEAM				
Garwin Yip	Water Operations and Delta Consultations Supervisor	Provide overall direction	916-930-3611	garwin.yip@noaa.gov
TECHNICAL RESOURCES (AS NEEDED)				
Brycen Swart	Fisheries Biologist	Whiskeytown/Clear Creek and Shasta/Sacramento Division lead Trinity River Division coordinator	916-930-3712	Brycen.swart@noaa.gov
Seth Naman	Fisheries Biologist	Trinity River Division lead	707-825-5180	seth.naman@noaa.gov
Jeff Stuart	Fisheries Biologist	Delta Division lead	916-930-3607	j.stuart@noaa.gov

9.2 INTERAGENCY TECHNICAL TEAMS

Interagency technical teams will be formulated following further decisions regarding the scope of the Proposed Action. It is anticipated that these team will focus on two separate efforts needed to complete the BA: (1) the Effects Analysis Technical Teams; and (2) the Alternatives Development and Proposed Action Technical Teams. These teams will also focus on development of the NEPA impact analyses and alternatives.

9.2.1 Effects Analysis Technical Teams

Meetings on the effects analysis will be held on a regular basis, or as requested by the Core Team, to provide input on proposed changes to the alternatives, Proposed Action, and associated effects and impact analyses.

Table 5 – Effects Analysis Technical Teams

Team	Point Person	Key Members	Potential Key Issues/Roles/Responsibilities
Fisheries			Life-cycle model, SacPASS, etc

Surface Water Supply			CALSIM
Groundwater			MODFLOW / others
Economics			

9.2.2 Alternatives Development and Proposed Action Teams

These interagency technical teams will focus on reviewing the RPA actions for their efficacy, efficiency, and ability to achieve the desired biological goals and objectives. These teams will brainstorm new actions to include in the alternatives and/or proposed action. Alternatives Development meetings will be held on a regular basis, or as requested by the Core Team, to develop proposed alternatives and ensure that the proposed action is “as protective, or better” for the targeted listed species and designated critical habitats. When developing revisions, these teams will also ensure that the biological objective of the original RPA action is preserved

It is anticipated that the point people for the technical team will meet together with the Core Team and other group members as appropriate to discuss overall CVP / SWP operational issues across geographic areas.

Table 6 - Interagency Interdisciplinary Technical Teams to Address Alternatives Development and the Proposed Action

Team	Point Person	Other Key Members	Process/Key issues/roles/responsibilities
Shasta	Josh Israel	John Hannon Carolyn Bragg Randi Field NMFS DWR	Shasta fish passage Sacramento River temperature management Keswick release criteria
Trinity River	Ben Nelson	Charlie Chamberlain Paul Zedonis Tom Kisanuki NMFS	Clear Creek flows Clear Creek temperature Lower Klamath River flows
Sacramento River Tributaries	Ben Nelson	DWR Josh Israel Elissa Buttermore NMFS	Yolo Bypass Wilkins Slough Battle Creek
American River	Ian Smith	Kristin White	American River Flow Management Standard revisions

		Luke Davis Carolyn Bragg John Hannon Janice Piñero NMFS	American River Water Control Manual update
Delta and San Joaquin West side	Towns Burgess	Andrew Schultz Erwin Van Nieuwenhuysse DWR NMFS	Delta Cross Channel Head of Old River Barrier Georgiana Slough gate Old and Middle River reverse flow Coordinated Operations Agreement Delta outflow San Luis Reservoir
San Joaquin East Side	Carolyn Bragg	Kristin White John Hannon Thuy Washburn Towns Burgess NMFS	New Melones Revised Plan of Operations Water Quality Control Plan updates San Joaquin April-May Actions (I:E)
Friant	Katrina Harrison	Erika Kegel Rufino Gonzalez NMFS	San Joaquin River Restoration Program flows and recapture Deliveries to the Exchange Contractors from Friant
Feather River	DWR	Mike Ford Jason Kindopp Ryan Kurth NMFS	Oroville Operations

9.3 APPLICANT AND DESIGNATED NON FEDERAL REPRESENTATIVES

9.3.1 Applicant

DWR is the applicant. An applicant requires formal approval or authorization from the Federal Action Agency as a prerequisite to conducting an action [50 CFR 402.02]. The applicant has the opportunity to submit information for consideration during the consultation. The applicant is entitled to review a draft BO obtained through the Federal Action Agency and to provide comments through the Federal Action Agency. USFWS and NMFS will discuss the basis of their biological determination with the applicant and seek the applicant's expertise in identifying reasonable and prudent alternatives to the action if likely jeopardy to the species or adverse modification of critical habitat is determined. USFWS and NMFS will provide the applicant with a copy of the final BO(s).

9.3.2 Designated Non-Federal Representatives

Reclamation invited CVP and SWP water agencies to request designation as Designated Non-Federal Representatives on December 15, 2016. Agencies responded by January 31, 2017.

Reclamation responded to requests in February and March 2017. Designated non-federal representatives may comment on portions of the BA due to their specific technical expertise on the coordinated long-term operation of the CVP and SWP. Designated non-federal representatives are:

- Metropolitan Water District of Southern California
- Friant Water Authority
- State Water Contractors
- Kern County Water Agency
- San Luis and Delta Mendota Water Authority
- Santa Clara Valley Water District
- South Valley Water Association
- Contra Costa Water District
- South San Joaquin Irrigation District
- Tehama-Colusa Canal Authority
- Zone 7 Water Agency
- Stockton East Water District
- Reclamation District No. 108
- East Bay Municipal Utility District
- West Lands Water District
- Oakdale Irrigation District
- Glenn-Colusa Irrigation District

9.3 NEPA COOPERATING AGENCIES

As noted above, Reclamation anticipated that USFWS and NMFS will participate as Federal cooperating agencies during the NEPA process for the Project. Reclamation may request that other federal agencies participate as Federal cooperating agencies during the NEPA process. In addition, Reclamation expects to invite numerous agencies to participate in the NEPA process as non-Federal cooperating agencies similar to those that were invited to participate in the 2011-2016 NEPA process on the Coordinated Long-term Operation of the CVP and SWP.

9.4 SCHEDULE BASELINE AND ORGANIZATIONAL STRUCTURE (OS)

The Organizational Structure (OS) (see Attachment 1), was developed so that team members can quickly identify the interagency and intra-agency relationships among members, and to facilitate reviews and decisions. The OS includes primary agency positions/individuals, their agencies, and lines of authority (chains of command) for decision making.

10.0 COMMUNICATIONS PLAN/CONFLICT RESOLUTION

This section includes a communications matrix that describes the communications framework for the Project. It will serve as a guide for communications throughout the life of the Project and will be updated as communication requirements change. A Project Management Team Directory also is included in Tables 2 through 4 to provide contact information.

The Project leads and/or managers for Reclamation, USFWS, NMFS, and the consultant team will take the lead in ensuring effective communications for this Project. The communications requirements are identified in Table 7 Communications Matrix. The Communications Matrix will be a useful guide of how the Federal Agencies will be communicating, including what information to communicate, who is to do the communicating, when to communicate it, and to whom to communicate.

Table 7 - Communications Matrix

Communication Type	Description	Frequency	Format	Participants/Distribution	Deliverable	Lead
Interagency Collaboration Meetings	Meetings to discuss the ESA Section 7/MSA consultation and NEPA processes, focusing on policy questions	2 hour meetings monthly	In person or via conference call	Core Project Management Team and consultants	Notes and memo to files	Katrina Harrison, Janice Piñero, Jana Affonso, Garwin Yip
Interagency Interdisciplinary Technical Team Meetings	Meetings to discuss alternatives development and proposed action	As requested by the Core Team; monthly to start	In person or via conference call	Interagency Technical Teams (Tables 5 and 6)	Notes and technical memoranda, text, effects analysis, tracking matrix	See Tables 5 and 6 for interagency technical team leads
Senior Management Briefings	Briefings to keep senior management team apprised of progress in the Project, elevation of issues for resolution	Quarterly, or as requested	In person, via conference call, or in writing	Reclamation, USFWS, NMFS, and consultants	Briefing Papers	Katrina Harrison, Janice Piñero, Jana Affonso, Garwin Yip
Stakeholder Meetings	Meetings to provide updates and discuss issues associated with the BA and EIS	Quarterly, or as requested	In person or via conference call	water agencies, power users, environmental NGOs, fishing organizations	Meeting agenda, materials and summary	Michelle Banonis, Janice Piñero, Katrina Harrison, Patti Idlof
Public Meetings	Webinars to provide updates on the ESA/MSA and NEPA processes	Quarterly	Webinars/ conference calls	General public and stakeholders	PowerPoint presentation	Michelle Banonis, Janice Piñero, Katrina Harrison, Patti Idlof

11.0 QUALITY CONTROL/CHANGE MANAGEMENT

The Core Team will work together to identify potential major issues that could result in changes to the Project’s scope, schedule or budget. After identifying potential issues, the first step will be to discuss ways to avoid these types of changes while fully addressing the issue. If there is agreement that these issues could be resolved without changing the Project scope, schedule, or budget, the discussion will be documented in meeting notes so that the same issues are not brought up at a later date. If avoiding a change is not possible, the Core Team will implement the following process:

1. Notify the BDO Area Manager, USFWS Bay-Delta Office Field Supervisor, and NMFS Central Valley Office Supervisor that an issue could cause changes to the Project’s scope, schedule or budget.
2. Evaluate the potential changes to the Project scope, schedule or budget.
3. The Federal agencies will determine if the issue would need to be elevated, and elevate the issue as appropriate.
4. Reclamation, USFWS, and NMFS will work to determine if the change should move forward.
5. If a change to the PMP is warranted based on major changes to the Project, the Federal agencies will work together to make the appropriate changes to the PMP, initially in track changes. A version number will be assigned every time a major change is memorialized.

13.0 RISK MANAGEMENT PLAN

This process identifies risk items; assesses risk probabilities, cost and schedule impacts; defines mitigation strategies, and continually monitors changes in risk items. Given the complex nature of this consultation and the diversity of the involved parties, managing risks is very important. The agencies expect that issues will arise through this process, therefore, this Risk Management Plan describes a process to identify risks and take or recommend additional actions to mitigate any potential impacts.

Risk Identification: Reclamation, USFWS, and NMFS will work to identify potential risks. For each risk, they will document the risk category, internal versus external risk type, risk name, risk description, risk range, risk impact, priority level, pre- and post-mitigation probability and impact, and mitigation action. To ensure consistency, ranges are provided for risk probability and impact. The risk probability range goes from “Very Unlikely” to “Virtually Certain,” corresponding to numerical values from 1 to 5 (Table 8). The risk impact range goes from “Very Low” to “Very High,” also corresponding to numerical values from 1 to 5 (Table 8). The risk is then assigned a risk index that is the product of risk probability and impact values. The risk index is used to indicate a priority level from “Minor” to “Critical” (Table 9). This priority level helps the team identify the most significant risk items. Provided in Table 10 are three examples for risk identification.

The Federal agencies will use the risk priority and impact to develop mitigation actions for each risk item. Each mitigation action is assigned a responsible party.

Table 8 - Risk Indices Based on Risk Probability and Risk Impact

Risk Probability Risk Impact	Very Unlikely	Unlikely	Likely	Very Likely	Virtually Certain
	1	2	3	4	5

Very low	1	1	2	3	4	5
Low	2	2	4	6	8	10
Median	3	3	6	9	12	15
High	4	4	8	12	16	20
Very High	5	5	10	15	20	25

Table 9 - Risk Index and Risk Priority

Risk Index	1-4	5-10	11-15	16-20	21-25
Risk Priority	Minor	Attentive	Important	Urgent	Critical

Table 10 - Examples of Risk Assessment

Category	Risk Probability	Risk Impact	Risk Index	Risk Priority
Scope of Proposed Action	2	3	6	Attentive
Budget	4	4	16	Urgent
Schedule	3	5	15	Important

Risk Monitoring: On a quarterly basis, each risk item and mitigation action is evaluated for progress. Based on the current progress, risk probabilities and impacts are updated. Additionally, the list of risks will be revisited to determine if new risks have developed that could affect the Project.

Some initial risks are identified below:

1. CSAMP is not able to provide information in a timely manner to be used in the consultation and NEPA analyses
2. Disagreements between Reclamation, USFWS, and NMFS on the appropriate methods and tools for analysis of the Proposed Action
3. Disproportionate amount of work to complete the consultation and NEPA process
4. USFWS and NMFS desire to become NEPA co-lead agencies, making the process more cumbersome because more parties and their associated regulatory and decision-making processes would be involved
5. Additional measures that are not currently in place are required to avoid jeopardy to listed species or adverse modification of critical habitat.

14.0 APPENDICES

- A. Project Charter
- B. Project Schedule
- C. Project Baseline Budget
- D. Risk Register
- E. Stakeholder Engagement/Public Involvement Plan
- F. Organizational Structure
- G. Change Management Plan

H. Quality Management Plan

15.0 APPROVAL OF PMP

Directors Signatures:

David Murillo
Mid Pacific Regional Director
Bureau of Reclamation

Date

Paul Souza
Pacific Southwest Regional Director
U.S. Fish and Wildlife

Date

Barry Thom
West Coast Regional Administrator
National Marine Fisheries Service

Date

Appendix A – Project Charter

Appendix B – Project Schedule

Appendix C – Total Project Baseline Budget

Note: (1) Project budget should include total estimated project costs, funding (funded and unfunded), and tracking of budgeted and actual costs (obligations and expenditures).

<Insert Budget Here>

Appendix D – Risk Register

Defined Conditions for Impact Scales of a Risk on Major Project Objectives					
Project Objectives	Very Low	Low	Moderate	High	Very High
	1	2	3	4	5
Cost	<10% Cost Increase	10 - 20% cost increase	20-30% cost increase	30 - 40% cost increase	>40% cost increase
Schedule	Non-critical path delays that will not impact critical path	Non-Critical Path delays that may affect Critical Path & Critical Path delays <2 weeks	Non-Critical Path delays that may affect Critical Path and Critical Path delays of 2-4 weeks	4-6 week delay to critical path	>6 week delay to critical path
Scope	N/A	N/A	N/A	Additional work that will not affect the Critical Path	Any additional work that will affect the Critical Path
Probability Defined	Very Low= Unlikely (<10%)	Low= Unlikely (<25%)	Moderate= Possible (25-75%)	High= Likely (75-90%)	V. High= Probable (90%+)

Risk Management Plan

Date Risk ID'd (last updated)	Risk ID	Description of Risk/Constraint (Include root causes, sources of information, the tolerance of the risk to project constraints, assumptions etc.)	Initial Qualitative Risk Analysis				Quantative Impact (Description of Impact)	Risk Response(s) (Responses to reduce or eliminate the risk)	Qualitative Risk Analysis w/Response			Status
			Project Objectives impacted (in order of priority): Schedule Cost Scope	Impact (1-5) 1=very low 2=low 3= moderate 4=high 5=v. high	Probability (1-5) 1=very low 2=low 3= moderate 4=high 5=v. high	Priority (Impact x probability) 1-4 = Minor 5-10 = Attentive 11-15 = Important 16-20 = Urgent 21-25 = Critical			Impact (1-5) 1=very low 2=low 3= moderate 4=high 5=v. high	Probability (1-5) 1=very low 2=low 3= moderate 4=high 5=v. high	Priority (Impact x probability) 1-4 = Minor 5-10 = Attentive 11-15 = Important 16-20 = Urgent 21-25 = Critical	
Initiation Phase												
09/12/16	IP-1	Developing appropriate scope and schedule for the effort	S, Sc	5	4	20	Highly aggressive initial schedule may lead to later schedule slips	Clearly communicate to all team members the aggressive schedule and importance of prioritizing work	4	3	12	Open
Planning Phase												
09/12/16	PP-1	Acceptance of Scope and Schedule	S, C, Sc	4	4	16	Revised scope, schedule and budget	Seeking concurrence with project scope in writing from all three agencies	4	3	12	Open
09/12/16	PP-2	Work Scope Changes	S, C, Sc	4	3	12	Revised scope, schedule and budget	Close coordination with stakeholders in order to limit scope changes	3	3	9	Open
09/12/16	PP-3	CSAMP Input is not timely	S, Sc	3	4	12	Reduces stakeholder acceptance of modeling results, may lead to conflict	Brief CSAMP early in the process, make the schedule clear to them, and let everyone know that Reclamation will move forwards without input if not received on time	3	3	9	Open
09/12/16	PP-4	Modeling tools disagreement	C, Sc	5	3	15	USFWS or NMFS may disagree with modeling tool used, requiring Reclamation to re-do modeling or requiring Reclamation to develop new models	Coordinate with USFWS and NMFS early and often, share draft of analytical tools TM	5	2	10	Open
09/12/16	PP-5	Co-NEPA lead agencies	Sc	5	2	10	USFWS or NMFS desire to be co-lead agencies with Reclamation, causing big schedule impacts due to increased review times	Initial signing of PMP verifies that USFWS and NMFS do not desire to be co-lead agencies	5	1	5	Open
09/12/16	PP-6	Additional RPAs or measures required	S, C, Sc	4	4	16	USFWS or NMFS may require additional RPAs in their Biological Opinions than analyzed in Reclamation's BA, causing impacts to future SWP / CVP operations	Coordinate with USFWS and NMFS early and often, share drafts, do peer review, etc.	4	3	12	Open
09/12/16	PP-7	Extended Review Time	C, Sc	3	4	12	Coordination with federal and state agencies may require more review time than scheduled/budgeted	Identify reviewers in advance and request priority for review of all documents	3	4	12	Open
09/12/16	PP-8	Establishing Acceptable Alternatives for Analysis	S, C, Sc	3	4	12	Developing a range of alternatives for the EIS/EIR that is deemed acceptable by stakeholders	Engage stakeholders in process and provide appropriate documentation/justification for concepts developed and selected for review in the	3	3	9	Open

See attached excel spreadsheet

Appendix E – Stakeholder Plan

DRAFT

Appendix F – Organizational Breakdown Structure

Appendix G – Change Management Plan

Change Request Form

Project: Reinitiation of Consultation on the Long Term Operations of the Central Valley Project and State Water Project

Request No.: _____

Project Phase & Task Name: _____

Budget: Impact? \$_____ Amount of Change in dollars.

Schedule: Impact? _____ Amount of Change in days.

Scope: Impact? Description below.

Description:

Include a description of the change either here or attached; this should also include a revised schedule and budget document.

Appendix H – Quality Management Plan

1.0 Introduction

1.1 Purpose of the Project Quality Management Plan

For the Reinitiation of Consultation on the Long Term Operations of the Central Valley Project and State Water Project the Quality Management Plan will address the biological and operational modeling, as well as environmental compliance and permitting documents.

2.0 Project Quality Management Overview

2.1 Organization, Responsibilities, and Interfaces

Name	Role	Quality Responsibility
<i>Name</i>	<i>Project Manager</i>	<i>Overall Quality Assurance Monitoring and auditing products; review of NEPA and ESA documents – Auditing products and process</i>
<i>Name</i>	<i>Modeling Team Lead</i>	<i>Ensure best available models are used – facilitate peer review of modeling – Auditing products and process</i>
<i>Name</i>	<i>Environmental Consultant Project Manager</i>	<i>Ensure necessary permits are obtained & adequately cover the work being planned – Auditing products and process</i>
<i>Name</i>	<i>CSAMP / CAMT</i>	<i>Reviewing modeling information and providing input on the best available science in a timely manner</i>

2.2 Tools, Environment, and Interfaces

Tool	Description
<i>Milestones</i>	<i>Schedule incorporates Reclamation, USFWS, and NMFS benchmarks and milestones.</i>
<i>Peer Review</i>	<i>Modeling will be reviewed by multi-disciplinary interagency teams</i>
<i>CSAMP / CAMT</i>	<i>Technical output will be presented at the XX CSAMP meetings, with CSAMP input to be received by the next meeting.</i>
<i>BiWeekly Core Team Coordination</i>	<i>Regular monitoring of process progression and communication between the various agencies. It includes identifying issues and tracking their resolution.</i>

3.0 Project Quality Management

The Reinitiation of Consultation on the Long Term Operations of the Central Valley Project and State Water Project will incorporate the following methods of Quality Assurance/Quality Control (QA/QC):

- Peer Review: Biological and operational modeling will undergo interagency peer review prior to incorporation into environmental compliance or permitting documents. Peer review teams will comprise of multiple agencies, or alternatively USFWS, NMFS, Reclamation, DWR, an DFW will each select a technical expert to represent them on the peer review.
- Environmental Permitting Reviews: Reviews and coordination with consultant team and agency staff to ensure NEPA and ESA documents include the required information and that they are suited to meet the laws and regulations for the work being executed.
- CSAMP / CAMT teams will review modeling information and technical analysis at the same time as peer review is ongoing. CSAMP / CAMT will provide input and quality checks in a timely manner, no more than 1 month from the date of receipt.