

Sherman Island “Little Baja and Manzo Ranch” Fish
Release Sites Project

State Clearinghouse No. 20140502035

Notice of Determination, Response to Comments on Initial
Study/Proposed Mitigated Negative Declaration, and Mitigation
Monitoring and Reporting Program

November 2014



California Department of Water Resources
3500 Industrial Blvd.
West Sacramento, CA 95691

Notice of Determination

To:

Office of Planning and Research
1400 Tenth St., Rm 113
Sacramento, CA 95814

From:

California Department of Water Resources
1416 Ninth Street
Sacramento, CA 95814
Contact: Kathleen Buchnoff
Phone: 916-653-6426

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

State Clearinghouse Number (if submitted to State Clearinghouse): 2014-05-2035

Project Title: Sherman Island "Little Baja and Manzo Ranch" Fish Release Sites Project

Project Applicant: California Department of Water Resources

Project Location (include county): The area between 4601 and 4801 W Sherman Island Road, Rio Vista, Sacramento County

Project Description:

The Sherman Island "Little Baja and Manzo Ranch" Fish Release Sites Project are being designed and constructed to comply with the National Marine and Fisheries Services' (NMFS) Biological Opinion (BiOp) on the Long-term Operations of the Central Valley Project and State Water Project (2009) and the Department of Fish and Wildlife's (CDFW) Longfin Smelt Incidental Take Permit (ITP) for the California State Water Project Delta Facilities and Operations (2009). The purpose of the project is to build new facilities to release fish that have been salvaged from the State's John E. Skinner Delta Fish Protective Facility and the federal Tracy Fish Salvage Facility back into the Delta. The Department of Water Resources (DWR) implemented this project in response to the Suite IV.4 Actions contained in the Reasonable and Prudent Alternative (RPA) of the BiOp governing the operation of the Delta facilities of the State Water Project. Specifically, the RPA requires DWR to comply with Action IV.4.3 (3) of the BiOp which concerns the survival rates of salvaged fish. The overall goal of the project is to reduce predation of salvaged fish at the fish release sites and increase salvaged fish survival rates.

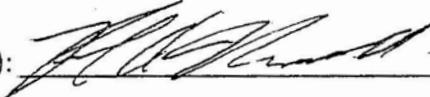
The construction of the Little Baja and Manzo Ranch fish release sites includes: levee improvements and county road realignment to be completed by Reclamation District 341; installation of two automated access gates for access to the sites from the county road to the release site access road on top of the levee; replacement of the aggregate base road on the levee crown with asphalt concrete paving, installation of an asphalt concrete operation pad on top of the levee crown at each of the fish release sites; construction of concrete foundations for support site lighting and a downspout at each of the fish release sites; construction of a fish release system (including piles, a screened intake pipe, and a release pipe) with security fencing and a gate at each of the fish release sites; construction of a log boom for protection of each fish release site; and providing electrical service to the fish release sites, via a new Pacific Gas & Electric pole line with service road.

This is to advise that the California Department of Water Resources has approved the above described project on November 14, 2014 and has made the following determinations regarding the above described project.

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

This is to certify that the Mitigated Negative Declaration with comments, responses and record of project approval is available to the General Public at:

California Department of Water Resources
Attn: Kathleen Buchnoff
1416 Ninth Street, Room 252-17
Sacramento, CA 95814

Signature (Public Agency):  Title: Chief, Bay-Delta Office

Date: 11/10/14 Date Received for filing at OPR: _____

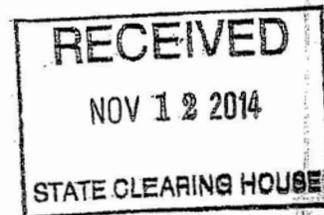


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1.0 Introduction

1.1 Review of the Initial Study/Mitigated Negative Declaration (IS/MND), SCH No. 2014-05-2035

Copies of the IS/MND were distributed to the Governor’s Office of Planning and Research, State Clearinghouse (SCH), and the appropriate resource agencies. A Notice of Intent (NOI) was hand-delivered to the SCH. A Notice of Availability (NOA) of the IS/MND and DWR’s Notice of Intent to adopt a MND was published in the Stockton Record on May 16, 2014. A 30-day public review period began on May 13, 2014, and ended on June 11, 2014. Comment letters were received from the following entities:

Date of Correspondence	Commenter
State Agencies	
May 21 2014	Central Valley Regional Water Quality Control Board
June 10 2014	California State Lands Commission
June 10 2014	Delta Protection Commission
Private Organizations	
June 8 2014	Rio Vista Windsurfing Association, Sherman Island Kite Boarding Organization
June 6 2014	San Francisco Boardsailing Association
Individuals	
May 31 2014	Skip Gonzales
June 1 2014	Nancy Peck
June 1 2014	Bonnie Webb
June 1 2014	Cookie Roadhouse
June 2 2014	Hal Sloane
June 2 2014	Maureen Murphy
June 3 2014	Matt Kowta
June 4 2014	Bruce Jamieson
June 4 2014	John Holland
June 5 2014	Russ Anderson
June 5 2014	John Weaver
June 5 2014	Jason Augustino
June 5 2014	Jay Rocklin, Joe Filan
June 6 2014	Lori Makabe
June 6 2014	Wayne Makabe
June 7 2014	Mike Nunez
June 9 2014	Jeff Finn
June 10 2014	Leora Vestel
June 10 2014	John P. Stuart
June 10 2014	Victor Soskin
June 10 2014	John Daniel

June 10 2014	Melissa Baum
June 11 2014	James MacDonald
June 11 2014	Allen Giesbrecht
June 11 2014	Terri Henderson
June 11 2014	Gil Gaus
June 11 2014	Mark Picketts
June 11 2014	Bradford Smith
June 11 2014	Moussa Ba
June 11 2014	Thorsten Pray
June 11 2014	Robert Ansell
June 11 2014	Bill Yard
June 11 2014	Dean Volpi
June 11 2014	Denice Hutten
June 11 2014	Shela Seaton
June 11 2014	William Yard
June 11 2014	Jeff Roberts
June 11 2014	Robert C. Hawkins, Law Offices of Robert C. Hawkins
June 11 2014	Marcia Marcellini
June 11 2014	Jay Uhalt
June 11 2014	Ross Libenson
June 11 2014	Robert W. MacKenzie, MacKenzie Land Law
June 11 2014	Michael Schonberg
June 11 2014	Michelle Nowicki
June 11 2014	Barbara Hudspeth
June 11 2014	Marc LaRhette
June 11 2014	Tom Reilly
June 11 2014	Bruce Boring
June 11 2014	Vince Hayes
June 11 2014	David Lyon
June 11 2014	Matthew Stinemetze
June 11 2014	Mark Flory
June 11 2014	Michael Vestel
June 11 2014	John W. Smay
June 12 2014	Jeff Beall
June 12 2014	James Beall
June 12 2014	Hendrik Dahlkamp
June 13 2014	Don Lester
June 16 2014	Lodewijk Kint

All original letters received in the table above are located in Appendix A (Commenters Letters) and all comments are addressed in Appendix B (Comment Form) attached to the end of this document.

1.2 Preparation of this Memorandum

Comment letters were reviewed and the responses were prepared as presented in Section 2. Many comments were similar and were grouped into one response based on categories including: aesthetics, construction schedule, biological, land use, project design, recreation, water quality, and general. Based on the comments and recommendations received, minor changes and edits to the IS/MND have been identified as reflected in the Section 3, Errata. The Errata reflects minor alterations made for project improvements that would not change any of the IS/MND findings. Minor amendments or additional mitigations identified where appropriate, including the changes to the text have been identified in Section 3, and/or incorporated into the Mitigation Monitoring and Reporting Program (MMRP) presented in Section 4. This MMRP is to be implemented by DWR to ensure significant environmental effects are avoided.

No substantive modifications to the project description were made based on the comments. There were also no substantial revisions to the IS/MND based on reviewers identifying new, avoidable significant effects. None of the edits contain changes and/or additional details that warrant the recirculation of the IS/MND because the changes do not result in any new impact not previously described and analyzed; revisions to the project do not meet the criteria for recirculation under CEQA Guidelines §15073.5.

2.0 Response to Comments

Responses to comments presented in this section are summarized from all comments and responses included in Appendix B. See the attached Appendix B for fully addressed comments.

2.1 Aesthetics (Comments 1 through 7 in Appendix B)

DWR Response: As stated in Section 3.1.1 and 3.1.2 of the IS/MND, several structures that are similar in size and aesthetics currently occur on Sherman Island and along the Sherman Island Levee. During temporary construction activities, views would not be eliminated and after construction activities, construction equipment would be removed. The proposed fish release site structures would not alter the view of the Sacramento River for those traveling along the corridor since the county road follows the levee toe for the portion of levee where the structures will be placed.

After completion of construction, the structures will not alter the view of the Sacramento River and the public will be able to use the levee road for recreation activities permitted in the area.

Existing, authorized pedestrian access along the levee and waterfront will be temporarily restricted during construction for public safety. Existing, authorized access along the crown of the levee and waterfront will not be blocked post construction.

2.2 Access (Comments 8 through 23 in Appendix B)

DWR Response: The project will not restrict lawful public access to the Sacramento River, and distressed windsurfers will not be prevented from accessing the levee from the water. The project will therefore not prevent the public ingress to or egress from the river.

The current use of the levee by windsurfers and kiteboarders as launch sites constitutes an unauthorized encroachment on a flood control project levee. Any future modifications for use of the launch sites will require authorization from RD 341, the issuance of an encroachment permit from the CVFPB and concurrent approval from the USACE.

Existing, authorized pedestrian access along the levee and waterfront will be temporarily restricted during construction for public safety. Existing, authorized access along the crown of the levee and waterfront will not be blocked post construction.

Sherman Island County Park will be accessible throughout the entire construction project. A temporary service access road will be open to the County Park.

2.3 Biological (Comments 24 through 25 in Appendix B)

DWR Response: At the existing fish release sites, DWR performs periodic removal of underwater debris to increase the survival of salvaged fish in accordance with the 2009 National Marine Fisheries Service Biological Opinion.

In effort to prevent invasive species introduction as a result of construction related activities, the project will require that in-water construction equipment and vessels will be local from the Delta region, and that the vessel operators are familiar with the California Aquatic Invasive

Species Management Plan (California Department of Fish and Game, January 2008). Additionally, Best Management Practices will be implemented at all times.

2.4 Construction Schedule (Comments 26 through 28 in Appendix B)

DWR Response: Construction windows are based on avoiding impacts to special status species that have the potential to occur within the project area. Construction schedule and rational have been adequately addressed in Section 2.4 of the IS/MND. Additionally, the Central Valley Flood Protection Board will not allow construction during their established flood season (November – April).

2.5 Land Use (Comments 29 through 32 in Appendix B)

DWR Response: DWR will ensure that all requirements of CEQA and other applicable regulations are met. See Section 1.5 of the IS/MND for all permits required for this project.

2.6 Project Design (Comments 33 through 35 in Appendix B)

DWR Response: Development of new fish release sites is a requirement of the 2009 National Marine Fisheries Service Biological Opinion for operation of the State Water Project and Federal Central Valley Project. In a 2010 Release Site Predation Study, DWR in collaboration with CDFW and the U.S Bureau of Reclamation, evaluated the predation impacts at existing fish salvage release sites in the Delta. Using the results of this study, a series of site criteria including distance from existing release sites, water depth, water flow, levee conditions, habitat, fish life history, and distance from federal and state fish salvage facilities, specific site design criteria were established to determine the suitable locations for new fish release sites. In addition to these site criteria, consideration was given to transportation and traffic, existing state or federally owned property parcels, and safety of operation. In consultation with the state and federal fisheries agencies, the Little Baja and Manzo Ranch locations were determined to be the most suitable locations for construction of new fish release sites.

In addition to constructing two fish release sites, the project also includes needed improvements to the levee and county roads. Levee improvements are being constructed to the Army Corps of Engineers standards and cannot be modified.

The location of a new power line will run parallel to the levee and, where the county road runs along the levee toe, adjacent to the county road. A pedestal will be set near the power line at a point parallel to each of the release sites and from there the lines will be trenched underground, perpendicular to the levee, going up the landside levee slope to the release facility. The overhead power line will not run on top of levee road and will not be in the path of recreation users in the area.

2.7 Recreation (Comments 36 through 49 in Appendix B)

DWR Response: The current use of the levee by windsurfers and kiteboarders as launch sites constitutes an unauthorized encroachment on a flood control project levee. Any future modifications for use of the launch sites will require authorization from RD 341, the issuance of an encroachment permit from the CVFPB and concurrent approval from the USACE.

Because the launch sites are unauthorized encroachments, the project will have no impact on existing, legal recreational access to the river. The project will not prevent access to or parking at the adjacent County Park facility, and as stated in Section 3.14 of the IS/MND there will be no impact to other public facilities in the project area as a result of the construction or operation of the fish release site. Therefore the project will not result in a significant physical impact to existing recreational facilities in the project area.

2.8 Water Quality (Comments 50 through 51 in Appendix B)

DWR Response: DWR will ensure that all requirements of CEQA and other applicable regulations are met. See Section 1.5 of the IS/MND for all permits required for this project.

2.9 General Comments (Comments 52 through 71 in Appendix B)

The Department of Water Resources is implementing the Sherman Island “Little Baja and Manzo Ranch” Fish Release Sites Project. This project is required to be in compliance with the National Marine and Fisheries Services’ (NMFS) Biological Opinion (BiOp) on the Long-term Operations of the Central Valley Project and State Water Project (2009) and the California Department of Fish and Wildlife’s (CDFW) Longfin Smelt Incidental Take Permit (ITP) for the California State Water Project Delta Facilities and Operations (2009).

Development of new fish releases sites is a requirement of the 2009 National Marine Fisheries Service Biological Opinion for operation of the State Water Project and Federal Central Valley Project. As stated previously, in a 2010 Release Site Predation Study, DWR in collaboration with CDFW and the U.S Bureau of Reclamation, evaluated the predation impacts at existing fish salvage release sites in the Delta. Using the results of this study, a series of site criteria including distance from existing release sites, water depth, water flow, levee conditions, habitat, fish life history, and distance from federal and state fish salvage facilities, specific site design criteria were established to determine the suitable locations for new fish release sites. In addition to these site criteria, consideration was given to transportation and traffic, existing state or federally owned property parcels, and safety of operation. In consultation with the state and federal fisheries agencies, the Little Baja and Manzo Ranch locations were determined to be the most suitable locations for construction of new fish release sites.

The current use of the levee by windsurfers and kiteboarders as launch sites constitutes an unauthorized encroachment on a flood control project levee. Any future modifications for use of the launch sites will require authorization from RD 341, the issuance of an encroachment permit from the CVFPB and concurrent approval from the USACE.

Because the launch sites are unauthorized encroachments, the project will have no impact on existing, legal recreational access to the river. The project will not prevent access to or parking at the adjacent County Park facility, and as stated in Section 3.14 of the IS/MND there will be no impact to other public facilities in the project area as a result of the construction of operation of the fish release site. Therefore the project will not result in a significant physical impact to existing recreational facilities in the project area.

3.0 Errata and Text Changes

3.1 Changes to Project Description

Changes to Introduction text to reflect improvements of temporary roads and maintenance of existing features, from *Section 1.2: Project Purpose* (page 1-1):

In addition to the construction of the fish release sites, the levee and the county road (West Sherman Island Road), at the two sites and between the sites, will be improved. The design of these levee and road improvements is being led by Reclamation District 341 (RD 341) and will be constructed under a separate contract handled by RD 341. These improvements are being made due to concerns regarding levee stability, settlement, and seepage. Improvements will widen the levee crown at the location of the fish release sites to allow operation of the fish release facilities, and improve the safety of traffic on the county road. Improvements will also support a temporary county road and PG&E service road. Maintenance and construction of existing siphon pipes will be made during the levee improvements and county road realignment. The coordinated efforts between DWR and RD 341 will ensure that the needs for the fish release sites are incorporated into the levee and road improvement design and that the fish release site design includes the final levee design

Changes to Introduction text to reflect approximate sizes of staging areas, from *Section 1.3: Project Location and Setting* (page 1-1):

Two staging and spoil areas have been identified. The primary staging and temporary spoil area is located approximately 500 feet downstream of the Little Baja fish release site and is situated adjacent to the levee. It is approximately 700 feet long and 150 feet wide (2.4 acres). The secondary staging and temporary spoil site is located next to the Manzo Ranch release site and is adjacent to the levee. It is approximately ~~700~~ 1,525 feet long and ~~50~~ 150 feet wide (~~0.8~~ 5.0 acres). The staging and spoils areas are mainly comprised of opens areas with weedy, non-native annual vegetation. See Figure 2 for staging and spoil area locations.

Changes to Figure 2: Staging and Spoil Site Locations of the Little Baja and Manzo Ranch Fish Release Sites based on changes of staging area sizes, from *Section 1.3: Project Location and Setting* (page 1-4):

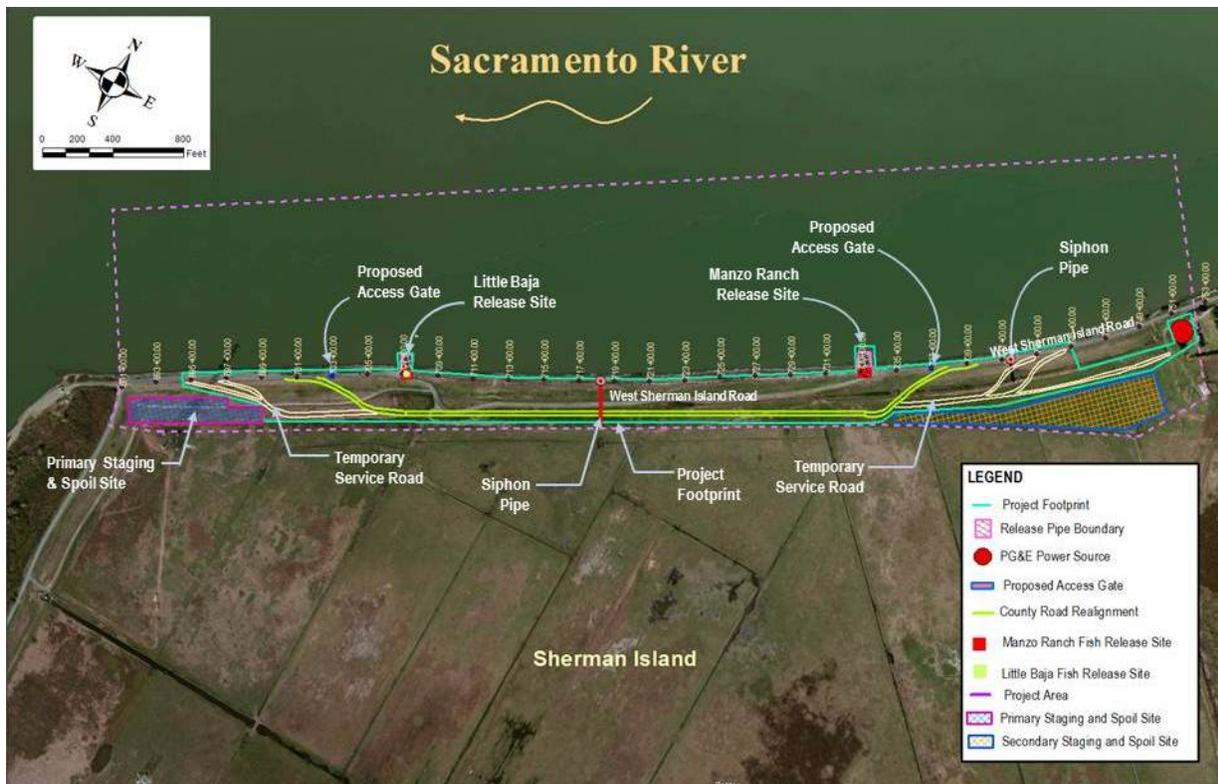


Figure 2: Staging and Spoil Site Locations of the Little Baja and Manzo Ranch Fish Release Sites

Changes to Construction Methods and Activities text to reflect approximate levee construction designs, from *Section 2.2.1: Levee Improvements and County Road Realignment* (page 2-2):

RD 341, using the guidelines of USACE’s Public Law 84-99 Flood Control and Coastal Emergency Act (PL 84-99), and taking into account the potential effects of sea level rise, sets the minimum elevation of the levee at 14.5 feet. The levee will be constructed with a 4 horizontal to 1 vertical landside slope. The levee crown at each of the two sites will be 64 feet long and be constructed to have an overall crown width of approximately ~~50~~ 55.0 feet. The length from crown high point to waterside hinge will be approximately 31 feet and have a slope of 6.7 percent. The length from crown high point to landside hinge will be approximately ~~17~~ 19 feet and have a slope of 2 percent. The elevation of the crown high point is approximately 18.0 ~~14.5~~ feet. Between the two fish release sites the levee crown will be raised approximately 1 foot to account for settlement and the landside slope will be re-graded to meet PL 84-99 standards.

Two existing siphons occur within the project area (Figure 2). Maintenance and construction of the siphon pipes will be made during the levee improvements. The siphon pipe at station 718 + 13 will be replaced under the berm and exit to beyond the new toe road. The connection between the existing and new siphon pipe will be on top of the levee crest. At station 741 + 51, the siphon pipe will be extended with approximately 100-feet of new siphon pipe.

New fill material will be brought to the project site by truck or possibly by barge, depending on the determination by the construction contractor.

Changes to Figures 3 and 4: Little Baja and Manzo Ranch Fish Release Sites Schematics based on clarification of in water structures, from *Section 2.2.2: Site Access Gates* (pages 2-3 and 2-4):



Figure 1: Little Baja Fish Release Site Schematic



Figure 2: Manzo Ranch Fish Release Site Schematic

Changes to Construction Methods and Activities text to reflect approximate levee construction designs, from *Section 2.2.3: Paved Operation Areas for Fish Release Truck* (page 2-4):

The fish release sites will be used at any hour of the day and night and in all types of weather. The entire gated section of levee crown, approximately ~~0.5~~ 0.7 miles in length, will be converted to asphalt concrete road from aggregate base road. The set-up of the release operations requires the truck operator to drive in reverse and make tight turns. To enhance the safety of operation, an asphalt concrete paved truck operation area will be built at each site to aid the truck operator's use of the release facilities.

Changes to Construction Methods and Activities text to reflect approximate fish release system designs, from *Section 2.2.5: Fish Release System* (page 2-5):

The grated steel-framed equipment platform will be adjacent to and on the waterside of the operation pad. The platform will be framed with steel members and will have a steel grate walking surface. The platform is approximately 20 feet by 12 feet and is supported on up to six driven steel pipe piles, one in each corner of the platform and two centered on the long dimension of the platform. The platform will be used for personnel access, support of the fish release and water intake pipes, support of the fish screen retrieval track, and for housing pumps, electrical panels and control panels. An 8-foot tall chain link fence topped with barbed wire and razor wire will be provided around the perimeter of the platform for security. An automated, remote-controlled single swing gate, supported on the steel platform, will be provided on the landside of the platform. The gate will be a 15 foot wide swing chain link gate. The fish release pipe will extend from the platform into the water for the releasing of fish from the fish release truck's tank into the Sacramento River. The approximate dimensions of the pipe will be a nominal 16-inch diameter pipe that transitions to a nominal 12-inch diameter stainless steel and will be approximately 100 feet long set at a slope of approximately ~~3.0~~ 2.75 to ~~3.5~~ 3.73H:1V. The fish release truck will back up to the platform and attach a hose to the end of the fish release pipe to empty the contents of the truck into the pipe.

To aid in the release of the truck contents, a water intake pump and pipe will be used to draw water out of the Sacramento River and into the fish release pipe. The water intake pipe will be adjacent and parallel to the fish release pipe, set at the same slope. The intake pipe will be nominal 16-inch diameter stainless steel, will be approximately ~~80~~ 93 feet long, and will house a submersible turbine pump for withdrawing flows of up to 3.5 cubic feet per second (cfs) out of the Sacramento River. The pump will have a capacity of 3.5 cfs, which will be used for final flushing of the release pipe following the release of fish. During the release of fish, the pump flow will be throttled to approximately 1.75 cfs. The pump will discharge at the platform end of the water intake pipe and will connect to the fish release pipe using a manifold in a manner that will direct the water down the fish release pipe to facilitate flushing. The manifold will be designed to evenly distribute water from the intake pipe into the fish release pipe, directing the water down the length of the release pipe. The water end of the intake pipe will terminate approximately 5 feet before the end of the fish release pipe. A docking manifold will be installed at the end of the intake pipe for docking of a

fish screen. The fish screen will be designed for Delta Smelt screening criteria and will have an automatic interior and exterior brushed screen cleaning system. The screen will be cylindrical, positioned in a vertical orientation, perpendicular to the flow of the river. The screen will be removable via a track system that straddles the water intake pipe. An automatic closing device at the entry end of the intake pipe will be provided to ensure water intake does not occur when the screen is not in the docked position.

Changes to Construction Methods and Activities text to reflect approximate sizes of staging and spoils area designs, from *Section 2.2.7: Staging and Spoils Areas* (page 2-8):

During construction, designated staging and spoil areas will be available to the contractor as described in Section 1.3 Project Location and identified in Figure 2. The primary staging and temporary spoil site downstream of the Little Baja site is approximately 700 feet by 150 feet. The secondary staging and temporary spoil site along the levee toe is approximately ~~700~~ 1,525 feet by ~~50~~ 150 feet. These sites are shown in Figure 2.

3.2 Changes to Biological Resources Section

Giant Garter Snake (*Thamnophis gigas*)

Changes to text of Mitigation Measure Bio-3 (pages 3-46 to 3-47) in response to United States Fish and Wildlife Service (USFWS) informal review of the Biological Assessment for USFWS Managed Species:

Mitigation Measure Bio-3: Avoid and minimize impacts to special status wildlife

Giant garter snake: Standard construction BMP's such as limiting speeds on the project site will be implemented. Additionally, exclusion fencing will be placed along the southern boundaries of the project area to prevent GGS from entering the work areas during the active season (May 1 – October 1). Exclusion fencing will be maintained throughout the entirety of the project until completion. Pre-construction surveys for GGS will occur 24 hours prior to construction activities and after any lapse in construction of two weeks or greater has occurred. The irrigation/drainage ditches will be dewatered and will remain dry for at least 30 consecutive days after April 15 and prior to excavation or filling of the dewatered habitat. Excavation/Filling of the irrigation/drainage ditches will be conducted between May 1 and October 1, during the snake's active season. An environmental monitor will either be present or on call during on-land work activities. If a GGS is identified in the work zone, work will not proceed until the snake has moved on its own out of the work zone and USFWS and CDFW have been consulted. If deemed necessary by USFWS or CDFW, loss of potential GGS habitat will be mitigated.

4.0 Mitigation Monitoring and Reporting Program

4.1 Introduction

In accordance with the California Environmental Quality Act (CEQA), the California Department of Water Resources (DWR) has prepared an ~~initial study/mitigated negative declaration~~ IS/MND that identifies adverse environmental impacts related to construction of the proposed Sherman Island Little Baja and Manzo Ranch Fish Sites Project (Proposed Project). The IS/MND also identifies mitigation measures that would be implemented to reduce potential significant impacts to a less-than-significant level.

Section 21081.6 of the California Public Resources Code, and Sections 15091(d) and 15097 of the State CEQA Guidelines, require public agencies “to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” A Mitigation Monitoring and Reporting Program (MMRP) is required for the Proposed Project because the IS/MND identifies potentially significant adverse impacts related to construction and implementation activities, and mitigation measures have been identified to mitigate those impacts.

DWR is the Lead Agency that must adopt the MMRP for the Proposed Project. Adoption of this MMRP would occur along with approval of the Proposed Project.

4.2 Purpose of Mitigation Monitoring and Reporting Program

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during construction of the Proposed Project. The MMRP may be modified by DWR during project implementation, as necessary, in response to permit conditions by regulatory and permitting agencies, changing conditions or other refinements. **Table 1** has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation and environmental protection measures, monitoring and mitigation timing, the person and/or agency responsible for implementing the measure, and space to confirm implementation of the measures. Measures that are numbered, are the mitigation measures identified in the IS/MND, and the numbering of these mitigation measures follows the numbering sequence found in the IS/MND. Measures identified as “Protection Measures” are measures included in the project and identified in Section 2.6, “Environmental Protection Measures” in the IS/MND.

4.3 Roles and Responsibilities

DWR is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. DWR, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor or other designated agent as long as DWR maintains final responsibility for ensuring that the actions are taken. The responsible

party for implementation of each item would identify the staff members responsible for coordinating with DWR on the MMRP.

DWR will be responsible for overall administration of the MMRP and for verifying that DWR staff members and/or the construction contractor has completed the necessary actions for each measure. DWR will designate an employee to oversee the MMRP. The designee will be charged with the following duties:

- ▶ ensure that routine inspections of the construction site are conducted by appropriate DWR staff; check plans, reports, and other documents required by the MMRP; and conduct report activities;
- ▶ serve as a liaison between DWR and other responsible agencies (where necessary), and the construction contractor regarding mitigation monitoring issues;
- ▶ complete forms and maintain reports and other records and documents generated by the MMRP; and
- ▶ coordinate and ensure that corrective actions or enforcement measures are taken, if necessary.

4.4 Mitigation Monitoring Plan

Table 1 will guide DWR in its evaluation and will be the basis for annual reporting.

The column categories identified in **Table 1** are described below:

- ▶ **Mitigation Measure/Environmental Commitment** - This column lists the mitigation measures according to the number in the IS/MND, and provides the text of the mitigation measures.
- ▶ **Party Responsible for Monitoring** - This column identifies the entity responsible for complying with the requirements of the mitigation measure.
- ▶ **Timeframe for Implementation** - This column lists the time frame in which the mitigation will take place.
- ▶ **Monitoring Compliance** - This column is for verifying compliance. This column should be filled in with the description of the type of action taken to verify implementation and dated and initialed by the designee, based on the documentation provided by the construction contractors, its agents (qualified individuals), or through personal verification by DWR.

Table 1			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
3.1 Aesthetics			
None.			
3.2 Agricultural & Forest Resources			
None.			
3.3 Air Quality			
<p>Mitigation Measure AQ-1: Reduce Construction-Related Emissions</p> <p>The DWR and/or the contractor shall implement the following measures recommended by the Sacramento Metropolitan Air Quality Management District to reduce construction related emissions.</p> <ul style="list-style-type: none"> • Water all exposed surfaces two times daily or as necessary to control fugitive dust. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. • Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways shall be covered. • Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day or as necessary. Use of dry power sweeping is prohibited. 	DWR	Prior to the start of and during construction as appropriate.	

Table 1 (continued) Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>Mitigation Measure AQ-1: Reduce Construction-Related Emissions (continued)</p> <ul style="list-style-type: none"> • Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). • All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. 	DWR	Prior to the start of and during construction as appropriate.	
3.4 Biological Resources			
As an environmental commitment, in addition to the following mitigation measures, this project has been planned to correspond with work windows for special status fish and for giant garter snakes. In-water work will be restricted to occur between August 1 and October 31 to minimize impacts to migrating and spawning fish. On-land work will be restricted to occur between May 1 and October 1, which is when giant garter snakes are active and more capable of avoiding construction activities.	DWR	During scheduling.	

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>Mitigation Measure Bio-1: Avoid and minimize impacts to special status plants</p> <p>A botanist will conduct pre-construction surveys for special status plants, if any are identified (i.e., Bolander’s water-hemlock, woolly rose-mallow, Delta tule pea, legenere, delta mudwort, Tehama navarretia, Baker’s navarretia, shining navarretia, Lobb’s aquatic buttercup, Sanford’s arrowhead, side-flowering skullcap, Suisun Marsh aster, and/or saline clover), they will be flagged and avoided to the greatest extent feasible. If individuals cannot be avoided, CDFW will be consulted to determine if transplanting or propagation measures are warranted.</p> <p>If Mason’s lilaepsis is identified, it will be flagged and avoided to the greatest extent feasible. If individuals cannot be avoided, an attempt to transplant them via a CDFW approved method will be made.</p>	DWR	Prior to the start of and during construction as appropriate.	
<p>Mitigation Measure Bio-2: Avoid and minimize underwater sound pressure due to pile driving</p> <p>Underwater sound monitoring shall be performed during pile-driving activities. A qualified biologist or natural resource specialist shall be present during such work to monitor construction activities and compliance with terms and conditions of permits.</p> <p>Underwater sound reduction measures shall be employed, as needed, to ensure that levels do not exceed the threshold levels established by US Fish and Wildlife Service and the National Marine Fisheries Service (for fish greater than 2 grams).</p> <p style="text-align: center;">Peak pressure = 206 decibel Accumulated SEL = 187 decibel</p>	DWR	During pile driving activities.	

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>Mitigation Measure Bio-2: Avoid and minimize underwater sound pressure due to pile driving (continued)</p> <p>These underwater sound reduction measures shall include use of an impact hammer cushion block. Additionally, hammers shall be used only during daylight hours and initially shall be used at low energy levels and reduced impact frequency. Applied energy and frequency shall be gradually increased until necessary full force and frequency are achieved. If necessary, one or more of the following shall be implemented to further reduced sound:</p> <ul style="list-style-type: none"> • Pipe caissons shall be used to isolate the piles from waters to buffer underwater sound pressure levels if underwater sound monitoring indicates that underwater sound levels exceed threshold levels. The caissons shall be driven below the mud line using vibratory or hydraulic methods and the interior area dewatered before pipe piles are installed using impact methods. • The use of a bubble curtain surrounding the pile to be driven. 	DWR	During pile driving activities.	
<p>Mitigation Measure Bio-3: Avoid and minimize impacts to special status wildlife</p> <p>An environmental awareness training will be conducted by the environmental monitor for key construction personnel prior to commencement of construction. This training will include a brief overview of the life history of western pond turtle, Short-eared Owl, Swainson’s Hawk, Loggerhead Shrike, Song Sparrow (“Modesto” population), and giant garter snake (GGS), legal protections and penalties, and explain the relevant Environmental Commitments and Mitigation Measures.</p>	DWR	Prior to the start of and during construction as appropriate.	
<p>Mitigation Measure Bio-3: Avoid and minimize impacts to</p>	DWR	Prior to the start of and	

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>special status wildlife (continued)</p> <p>Additionally, pre-construction surveys and buffers shall be implemented as follows:</p> <ul style="list-style-type: none"> • Western pond turtle: A pre-construction survey for western pond turtles will be conducted immediately prior to construction. Construction personnel will be alerted during a tailgate meeting that western pond turtles may be present in the area and should be avoided. If a western pond turtle is identified within the work zone, work will not proceed until the turtle has moved out of the work zone. • Swainson’s hawk: If work is to be conducted during the nesting season (April 1-August 31), pre-construction surveys will be completed, between 30 and 14 days prior to construction, within a radius of 1/2 mile of the project site to identify any active nests (eggs or juveniles). Surveys will be completed in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (SWHA TAC 2000). If an active nest is identified, work will be postponed until September 1 or after the young have fledged. If that area cannot be avoided or work postponed, an appropriate buffer will be established and, if necessary, a qualified biologist will monitor the nesting pair for behavioral indications of disturbance during construction, upon CDFW consultation and approval. • Migratory birds, Short-eared Owl, Loggerhead Shrike, and Song Sparrow (“Modesto” population): If work is scheduled to take place during the nesting season (April 1-August 31), a pre-construction survey will be conducted within a radius of 250 feet of all activities for nests. If active nests are found in the project area, an appropriate non-disturbance buffer will be established in consultation with CDFW and 		during construction as appropriate.	

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>will depend on the species involved, site conditions, and the type of work proposed. No new project activity shall occur within the buffer zone until the young have fledged, until the nest is no longer active, or until a qualified biologist has determined in consultation with CDFW that reducing the buffer would not result in nest abandonment. Monitoring of the nest by a qualified biologist during construction shall be required to ensure that nests are not jeopardized.</p> <ul style="list-style-type: none"> • Giant garter snake: Standard construction BMP's such as limiting speeds on the project site will be implemented. Additionally, exclusion fencing will be placed along the southern boundaries of the project area to prevent GGS from entering the work areas during the active season (May 1 – October 1). Exclusion fencing will be maintained throughout the entirety of the project until completion. Pre-construction surveys for GGS will occur 24 hours prior to construction activities and after any lapse in construction of two weeks or greater has occurred. The irrigation/drainage ditches will be dewatered and will remain dry for at least 30 consecutive days after April 15 and prior to excavation or filling of the dewatered habitat. Excavation/Filling of the irrigation/drainage ditches will be conducted between May 1 and October 1, during the snake's active season. An environmental monitor will either be present or on call during on-land work activities. If a GGS is identified in the work zone, work will not proceed until the snake has moved on its own out of the work zone and USFWS and CDFW have been consulted. If deemed necessary by USFWS or CDFW, loss of potential GGS habitat will be mitigated. 			
Mitigation Measure Bio-4: Minimize fill of jurisdictional	DWR	Prior to the start of	

Table 1 (continued) Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>waters of the United States and waters of the state during construction, and compensate for unavoidable impacts.</p> <p>The following measures shall be implemented to minimize impacts to jurisdictional waters in navigable waters of the U.S., DWR shall implement the following measures:</p> <ul style="list-style-type: none"> • Minimize placement of structures in waters of the United States and waters of the state to the greatest extent feasible. • Locate all staging areas, parking areas, equipment, and storage areas for fuel, lubricants, and solvents in areas away from waters of the United States and waters of the state. 		construction.	
3.5 Cultural Resources			
None.			
3.6 Geology and Soils			
None.			
3.7 Greenhouse Gas Emissions			
<p>As an environmental commitment, the proposed project will incorporate the following Best Management Practices (BMPs) from DWR's Climate Action Plan-Phase I: Greenhouse Gas (GHG) Reduction Plan to avoid and minimize impacts related to greenhouse gas emissions:</p> <p>BMP 1. Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.</p>	DWR	Prior to the start of and during construction as appropriate.	

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>BMP 2. Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines.</p> <p>BMP 3. Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.</p> <p>BMP 4. Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.</p> <p>BMP 5. Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.</p> <p>BMP 6. Limit deliveries of materials and equipment to the site to off peak traffic congestion hours.</p> <p>BMP 7. Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the State airborne toxics control measure Cal. Code of Regs., tit. 13, §2485). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement.</p> <p>BMP 8. Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer’s recommendations, proper upkeep and replacement of filters and mufflers, and maintenance</p>			

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an Air Quality Control Plan prior to commencement of construction.</p> <p>BMP 9. Implement a tire inflation program on the jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an Air Quality Management Plan prior to commencement of construction.</p> <p>BMP 10. Develop a project specific ride share program to encourage carpools, shuttle vans, transit passes, and secure bicycle parking for construction worker commutes.</p> <p>BMP 11. Reduce electricity use in temporary construction offices by using high efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business.</p> <p>BMP 12. For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box type trailer is used for hauling, a SmartWay2 certified truck will be used to the maximum extent feasible.</p> <p>BMP 13. Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or</p>			

Table 1 (continued) Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
<p>lower maximum strength where appropriate.</p> <p>BMP 14. Develop a project specific construction debris recycling and diversion program to achieve a documented 50 percent diversion of construction waste.</p> <p>BMP 15. Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution, minimize, to the extent possible, uses of public roadways that would increase traffic congestion.</p>			
3.8 Hazards and Hazardous Materials			
<p>Mitigation Measure HM-1: All personnel involved in use of hazardous materials will be trained in emergency response and spill control. Diesel fuel and oil will be used, stored and disposed of in accordance with standard protocols for the handling of hazardous materials. Contracts will require contractors to prepare and make available to DWR, for review and acceptance, a spill prevention and control plan.</p>	DWR	Prior to the start of and during construction as appropriate.	
<p>Mitigation Measure HM-2: Soils and water contaminated by any hazardous materials spills during construction would be excavated, removed or mopped up from the site and disposed of at an appropriate regional landfill.</p>	DWR	During construction as necessary.	
<p>Mitigation Measure HM-3: The project contractor will be required to develop a fire protection and prevention plan which incorporates fire safety measures (e.g., spark arrestors, mufflers) on all equipment with the potential to create a fire hazard. The plan will ensure that fire suppression equipment is on site and that all construction employees have received appropriate fire safety training.</p>	DWR	Prior to the start of and during construction as appropriate.	
3.9 Hydrology and Water Quality			
None.			

Table 1 (continued)			
Summary of Mitigation Measures, Responsible Parties, and Timing			
Mitigation Measure/ Environmental Commitment	Party Responsible for Monitoring	Timeframe for Implementation	Monitoring Compliance (Provide Name/Date)
3.10 Land Use and Planning			
None.			
3.11 Mineral Resources			
None.			
3.12 Noise			
None.			
3.13 Populations and Housing			
None.			
3.14 Public Services			
None.			
3.15 Recreation			
None.			
3.16 Transportation/Traffic			
None.			
3.17 Utilities and Service Systems			
None.			