

ADDENDUM TO THE SMITH CANAL GATE PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

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Acronyms and Abbreviations

AAQA	ambient air quality analysis
Basin Plan	Water Quality Control Plan for the Sacramento River and San Joaquin River Basins
CAAQS	California Ambient Air Quality Standards
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
Final EIR	Final Environmental Impact Report
FIRM	Flood Insurance Rate Map
fixed wall	fixed dual sheet pile wall
FY	fiscal year
Map Mod	Flood Map Modernization Program
NAAQS	National Ambient Air Quality Standards
NAVD 88	North American Vertical Datum of 1988
Project	Smith Canal Project
RD	Reclamation District
SFHA	Special Flood Hazard Area
SJAFCA	San Joaquin Area Flood Control Agency
SJVAPCD	San Joaquin Valley Air Pollution Control District

Project Purpose and Background

The California Environmental Quality Act (CEQA) requires public agencies to analyze and disclose impacts on the physical environment likely to be caused by a proposed project. The San Joaquin Area Flood Control Agency (SJAFCFA), as lead agency, certified a Final Environmental Impact Report (Final EIR) for the Smith Canal Gate Project on November 19, 2015, in compliance with CEQA, and the SJAFCFA board approved the Final EIR's Alternative 1 as the Smith Canal Project (Project). SJAFCFA, in partnership with Reclamation Districts (RDs) 1614 and 828, is implementing the Project to build, operate, and maintain a fixed wall with a gate structure near the mouth of Smith Canal, in and adjacent to the city of Stockton, county of San Joaquin, primarily within the boundaries of RD 828 and RD 1614.

In 2005, as part of the Federal Emergency Management Agency (FEMA) Flood Map Modernization Program (Map Mod), FEMA began requiring levee owners to submit documentation showing that their levees provided a 100-year level of flood protection. Conducted from fiscal year (FY) 2003 to FY 2008, Map Mod was FEMA's effort to update Flood Insurance Rate Maps (FIRMs) nationwide. As part of the National Flood Insurance Program, FEMA develops FIRMs to identify areas at risk of flooding and to determine flood insurance rates. RD 1614 and RD 828 both determined that levees along Smith Canal would not meet FEMA criteria.

Primarily due to extensive encroachments that prevented access for maintenance and inspection, Smith Canal levees were not able to meet the levee certification requirements of the Code of Federal Regulations, Title 44, Section 65.10, which include criteria for design, operation plans, maintenance plans, and certification by a registered civil engineer. In October 2009, FEMA released the official FIRMs placing the areas behind the Smith Canal levees in a FEMA-designated Special Flood Hazard Area (SFHA). SFHAs are defined as areas that would be inundated in the event of a 100-year flood.

SJAFCFA, in partnership with Smith Canal levee owners RD 1614 (north bank levee) and RD 828 (south bank levee), led a process of evaluating options for restoring FEMA accreditation to the Smith Canal area. SJAFCFA evaluated several alternatives, determining in-place rehabilitation of the levees was economically infeasible and would have greater environmental impacts than the other alternatives considered. SJAFCFA concluded that the environmentally superior and most cost-effective alternative would be constructing a fixed dual sheet pile wall (fixed wall) and gate structure at the mouth of Smith Canal.

Purpose of Addendum

Since certification of the Final EIR, SJAFCFA's engineering team has proposed design refinements to the Project. This Addendum describes the design refinements, as compared to the design features that were described in the Final EIR. This Addendum also discusses how the design refinements change the impact analysis described under Alternative 1 in the Final EIR, and explains the basis for

SJAFCA's conclusion that the design refinements do not meet any of the criteria listed under Section 15162 of the CEQA Guidelines that require preparation of a subsequent EIR.

Pursuant to Section 15164 of the State CEQA Guidelines (Cal. Code Regs. tit. 14, § 15164), an addendum to a previously certified environmental impact report (EIR) is appropriate when: (1) minor technical changes or additions are necessary to make the previous EIR adequate, or (2) none of the conditions requiring a subsequent EIR under Section 15162 of the CEQA Guidelines are present. An addendum does not need to be circulated for public review but must be considered in agency decision-making.

As directed in California Public Resources Code § 21166(a), once a Final EIR has been certified, a lead agency may not prepare a subsequent or supplemental environmental impact report unless "[s]ubstantial changes are proposed in the project which will require major revisions of the environmental impact report."

Section 15162 of the CEQA Guidelines (Cal. Code Regs. tit. 14, § 15162) provides as follows:

(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

Organization of Addendum

Chapter 1 provides an overview of the project, describes the CEQA process to date, and identifies the need to prepare an addendum. Chapter 2 describes the minor modifications to the Project, Chapter 3 discusses the environmental effects of these modifications and explains the basis for SJAFCFA's conclusion that none of the changes in the impact analysis meets the criteria listed under Section 15162 of the CEQA Guidelines that require preparation of a subsequent EIR

Introduction

Since certification of the Final EIR, SJAFCA's engineering team has identified several refinements to the Project design components. This chapter describes the changes in comparison to the Project as it was described and analyzed in the Final EIR and adopted by the lead agency.

Design Refinements

A description of each change is summarized below.

Revised Wall Alignment

The original design for the fixed wall under the Project had a bend in the fixed wall alignment that jutted out towards the San Joaquin River. Under the design refinements, the alignment would run straight across the mouth of Atherton Cove and Smith Canal from Dad's Point to the Stockton Golf and Country Club (golf course), shifting the proposed gate structure approximately 150 feet closer to Atherton Island. In addition, the connection point to Dad's Point would be shifted slightly to the east, avoiding the tip of Dad's Point, and the gate structure would be shifted approximately 30 feet north.

The design refinements would also increase the top elevation of the fixed wall from 14.9 feet to 15.0 feet (North American Vertical Datum of 1988 [NAVD 88]). The design refinements also call for five 48-inch tidal culverts to be installed through the fixed wall whereas the Project called for six 36-inch tidal culverts. Planter boxes would also be added to the top edge of the fixed wall on the Atherton Cove and Smith Canal side of the wall. The planter boxes would have vegetation that would hang down over the top edge of the wall.

Pile Driving Method

The Project included the use of 24-inch steel pipe piles to construct the base of the gate structure. The Project also assumed that the pipe piles could be installed using up to 1,200 strikes per day with an impact hammer pile driver. The design refinements would increase the pile size for the gate structure base to 36-inches, which could require up to 3,200 strikes per day.

Dolphin and Fender Piles

Under the design refinements, thirty-five 36-inch steel pipe dolphin piles would be added to the San Joaquin River side of the fixed wall, and 2 fender piles were added to each side of the gate structure. The dolphin piles would be installed in a line parallel to the fixed wall, with approximately 40 feet between each pile and the fixed wall. Two 36-inch steel pipe fender piles were also added to each side of the gate structure. No comparable features were included in Alternative 1.

Riprap

The design refinements would include the addition of riprap to the fixed wall tie-ins at Dad's Point and the golf course, as well as on both sides of the gate structure, in order to provide scour protection during flood events. Riprap would be placed using either an excavator or a clamshell bucket, and silt curtains would be used during in-water riprap placement.

Moreing Road Culverts

The Project included the installation of three 48-inch corrugated metal pipe culverts under Moreing Road as a non-essential feature intended to hydraulically connect Atherton Cove to Smith Canal. These culverts have been removed as part of the design refinements.

Dad's Point Floodwall

The Project included approximately 700 linear feet of grade raise to a minimum of 14.9 feet along Dad's Point to match the grade of Louis Park to comply with California Department of Water Resource's Urban Levee Design Criteria. In addition, to obtain the same minimum elevation of 14.9 feet at the Louis Park boat launch area at the base of Dad's Point, the Project included a 100-foot long and approximately 5-foot high reinforced concrete floodwall to be constructed along the river behind the boat launch.

The design refinements would require the construction of approximately 1,660 linear feet of continuous single sheet pile floodwall instead of 700 feet of reinforced concrete wall. Most of the sheet pile wall would be entirely underground, but a concrete cap would be installed on top of the sheet pile wall in areas where it would be exposed. Fill material would be added in a more limited extent with the sheet pile wall, and minimal excavation would be needed to accommodate the base of the concrete cap. As with the fixed wall, the design refinements would raise the top elevation of Dad's Point improvements to an elevation of 15.0 feet NAVD 88.

Dredging

The Project included some dredging at the fixed wall tie-ins to the golf course and Dad's Point. However, SJAFCA has determined that material may need to be removed from the channel bottom along the entire alignment of the fixed wall to provide a level surface, as well as dredging in an additional area to allow barge access for pile driving during periods when water surface elevations may be low. Material would be dredged using a combination of a long arm backhoe, a dragline, and a clamshell bucket, and silt curtains would be used along the limits of dredging. All dredged material would be disposed of at the Lovelace Materials Recovery Facility in Manteca or at the North County Recycling Center and Sanitary Landfill in Lodi, which were specified as material disposal sites under the Project. Alternatively, the dredge material could be disposed of at an upland site with no connectivity to waters of the United States. Any upland disposal site selected would be closer to the project site than the two facilities described above to avoid longer truck trips than was originally described under the Project. Selection criteria for the disposal site would include ensuring that no special-status species habitat would be present, that the use of the site would be compatible with local land use regulations, and that deposit of material would not result in any adverse environmental impacts. SJAFCA would also obtain a report of waste discharge or a waiver of reports

of waste discharge from the Central Valley Regional Water Quality Control Board prior to discharging dredged material to the site.

Control Building Removal

The Project included the construction of a 400-square-foot gate structure control building at the end of Dad's Point. However, SJAFCA determined that the building was not necessary. Gate control would instead be installed in a weatherproof enclosure on Dad's Point, adjacent to the fixed wall tie-in.

Introduction

This chapter describes any new or incrementally more severe effects on environmental resources that may result from proposed design refinements to the Project in relation to the analysis conducted in the Final EIR. The conclusions in this Addendum are based on information contained in the Final EIR, including the environmental setting, methods, significance criteria, and impact analysis.

Unaffected Resources

The Final EIR analyzed and disclosed the Project's likely effects on environmental resources. For the resources listed below, the proposed design refinements addressed in this Addendum do not result in any new or incrementally more severe effects beyond those already described in the Final EIR. Therefore, these resources are not discussed further in this document.

- Flood Risk, Hydrology, and Geomorphology Mineral Resources
- Transportation and Navigation
- Greenhouse Gases and Climate Change
- Wildlife
- Recreation
- Utilities and Public Services
- Public Health and Environmental Hazards
- Cultural Resources
- Geology and Soils
- Agricultural Resources and Land Use
- Environmental Justice and Socioeconomics
- Growth-Inducing and Cumulative Impacts

Affected Resources

The following discussion contains a description of potential changes to previously disclosed impacts from the Final EIR, as well as a description of any new impacts that may result from the design refinements, where applicable. For revised impact discussions, the original significance finding from

the Final EIR is provided in the impact title, and a revised significance finding is provided at the end of each revised impact discussion.

Water Quality and Groundwater Resources

Revised Impacts

Impact WQ-1: Violation of Water Quality Standards for Turbidity as a Result of Construction Activities (less than significant with mitigation)

Impact WQ-1 for Alternative 1 in the Final EIR stated that there is some risk that construction activities, such as in-water excavation, could cause turbidity levels to exceed the thresholds specified in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). The addition of the riprap at the tie-ins and around the gate structure, along with the dredging of material from the channel bottom, would increase the amount of channel disturbance caused by project construction. This increase in disturbance would potentially increase turbidity levels above limits described in the Basin Plan. However, silt curtains would be used as needed, which would ensure that in-water construction-related increases in turbidity would be temporary and local. The implementation of Mitigation Measures WQ-MM-1a: Prepare and Implement a Turbidity Monitoring Program, WQ-MM-1b: Implement Construction Best Management Practices, and WQ-MM-1c: Prepare and Implement a Stormwater Pollution Prevention Plan, would still reduce this impact to a less-than-significant level, similar to what was described for the Project.

The Impact WQ-3: Accumulation of Contaminants, Organic Material, and Nutrients Resulting from a Reduction in Water Circulation in Atherton Cove and Smith Canal (less than significant)

The Moreing Road culverts that were part of the Project in the Final EIR were meant to increase water circulation between Atherton Cove and Smith Canal and therefore improve water quality in Atherton Cove. However, the design refinements would include removal of the Moreing Road culverts from project design. Removal of the Moreing Road culverts would result in a small increase in residence time at the upstream end of Atherton Cove when compared to the Project as described in the Final EIR, and overall there would be no discernable change in residence time when comparing the Project to existing conditions (Moffat & Nichol 2015:82). As overall residence time would not increase without construction of the Moreing Road culverts when compared to existing conditions, this impact would remain less than significant with the design refinements.

New Impacts

None.

Air Quality

Revised Impacts

Impact AQ-1: Generation of Construction-Related Criteria Pollutant Emissions in Excess of San Joaquin Valley Air Pollution Control District Thresholds (less than significant)

Impact AQ-1 stated that construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction employees' vehicle trips, and truck hauling trips. The Project assumed a combination of construction phases that would produce the highest daily emissions in each construction year as the peak day for impact purposes in order to convey a worst-case scenario, and determined that the Project would not generate emissions in excess of the San Joaquin Valley Air Pollution Control District's (SJVAPCD) thresholds. The design refinements alter the usage of construction equipment; however, the emissions that would occur with the inclusion of the design refinements would still be within the worst-case scenario that was assumed, which did not exceed any SJVAPCD thresholds, and this impact would remain less than significant.

Impact AQ-2: Generation of Construction Emissions in Excess of San Joaquin Valley Air Pollution Control District Ambient Air Quality Screening-Level Thresholds (less than significant)

Impact AQ-2 under the Project stated that the SJVAPCD's 2015 *Guidance for Assessing and Mitigating Air Quality Impacts* introduced screening-level thresholds for construction and operational emissions to help determine when an ambient air quality analysis (AAQA) must be performed. An AAQA would entail the use of air dispersion modeling to determine whether increased emissions from a proposed project would cause or contribute to a violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS). It is presumed that projects with emissions below the threshold would not be in violation of the CAAQS or NAAQS. As part of the impact analysis, the SJVAPCD's AAQA screening level thresholds were annualized and converted to tons per year for comparison to the Project's annual emissions. The analysis from the Project indicated that construction emissions would not exceed the calculated annual AAQA equivalency threshold of 12.5 tons per year, and that consequently, project-related construction emissions would not result in a violation of CAAQS or NAAQS standards, and the impact was determined to be less than significant. The design refinements would result in modifications to the anticipated construction emissions; however, the emissions that would occur with the inclusion of the design refinements would still be within the worst-case scenario modeled for Alternative 1 in the Final EIR, and there would still be no violation of CAAQS or NAAQS standards. Therefore, this impact would remain less than significant with the design refinements.

New Impacts

None.

Noise

Revised Impacts

Impact NOI-1: Exposure of Noise-Sensitive Land Uses to Noise during Construction of Wall Structures (significant and unavoidable)

The Final EIR used a generalized approach to assess construction noise where the combined noise level of the three loudest pieces of equipment that would likely operate at the same time and at the same location were evaluated (impact hammer pile driver, crane, and truck). This provided a reasonable worst case assessment of construction noise. The analysis concluded that residences and outdoor activity areas located within approximately 275 feet of an active construction site could be exposed to construction noise in excess of the noise standard used to assess significance (the Federal Transit Administration-suggested daytime standard of 80 A-weighted decibel equivalent sound level). The conclusion was that this impact would be significant and unavoidable because noise would exceed the impact threshold at residential and outdoor activity areas, even with attenuation measures.

The revised fixed wall alignment and the single sheet pile floodwall along Dad's Point would bring construction activity closer to residences on Atherton Island; however, this would not place additional residences within the impact distance of 275 feet.

In addition, the proposed change to the pile driving does not change the original assessment of construction noise because the analysis assumed that construction noise would occur throughout the workday. The other design refinements to the Project would not add construction activity that is closer to noise sensitive receptors than was assumed in the prior analysis.

The design refinements are not expected to result in additional significant noise impacts beyond those that were identified in the original analysis. This impact would remain significant and unavoidable, even with mitigation.

New Impacts

None.

Vegetation and Wetlands

Revised Impacts

Impact VEG-1: Loss of Special-Status Plants (less than significant with mitigation)

Impact VEG-1 stated that construction of Alternative 1 could affect special-status plants if they are present, although the Final EIR found there was low potential for any special-status plant species to occur in the study area. However, special-status plant surveys did not correspond to the blooming period of all special-status species with potential to occur in the study area, and not all areas were accessible. Therefore, the conclusion that they are absent could not be absolutely confirmed, and any loss of special-status plants would be a significant impact. Implementation of Mitigation Measures VEG-MM-1a: Conduct Floristic Surveys for Special-Status Plants during Appropriate Identification Periods; VEG-MM-1b: Avoid or Compensate for Effects on Special-Status Plants; VEG-

MM-1c: Install Exclusion Fencing around Sensitive Resource Areas; VEG-MM-1d: Conduct Mandatory Contractor/Worker Awareness Training for Construction Personnel; and VEG-MM-1e: Retain a Biological Monitor would reduce this impact to a less-than-significant level.

Under the design refinements, an as yet undetermined upland location may be used for the disposal of dredged material. Without having been previously surveyed during appropriate blooming periods, the disposal site would have the potential to contain special-status plant species. However, implementation of Mitigation Measures VEG-MM-1a, VEG-MM-1b, VEG-MM-1c, VEG-MM-1d, and VEG-MM-1e would ensure that this impact would remain less than significant with mitigation.

Impact VEG-2: Loss of Nonnative Riparian Habitat (less than significant with mitigation)

Impact VEG-2 stated that construction of the Project would require the removal of up to 0.81 acre of nonnative riparian vegetation along Dad's Point and at the golf course fixed wall tie-in. Placement of riprap at the two fixed wall tie-ins would likely increase the impact acreage since vegetation would need to be removed before placing the riprap. However, while the addition of the riprap would likely increase riparian impacts, implementation of Mitigation Measures VEG-MM-1c, VEG-MM-1d, VEG-MM-1e, and VEG-MM-2: Compensate for Loss of Nonnative Riparian Habitat would still reduce the impact to a less-than-significant level.

Impact VEG-4: Loss of Tidal Perennial Drainage (less than significant with mitigation)

Impact VEG-4 stated that construction of the Project would result in the loss of up to 0.54 acre of tidal perennial drainage as a result of placing structures in waters of the United States. The design refinements would involve placement of additional fill in waters of the U.S. (e.g., riprap), which would increase the acreage of impact on tidal perennial drainage to approximately 0.65 acre. However, while the addition of the riprap would directly increase impacts on tidal perennial drainage, implementation of Mitigation Measures VEG-MM-1c, VEG-MM-1d, VEG-MM-1e, and VEG-MM-4: Compensate for Loss of Tidal perennial Drainage would still reduce the impact to a less-than-significant level.

New Impacts

None.

Fish and Aquatic Resources

Revised Impacts

Impact AQU-1: Temporary Disturbance of Fish and Degradation of Aquatic Habitat during Construction Activities (less than significant with mitigation)

Impact AQU-1 stated that construction activities under the Project would result in temporary water quality effects, such as increases in turbidity and suspended sediment associated with in-water and ground-disturbing activities, which may cause injury to fish by disrupting normal behaviors and potentially increasing the susceptibility of some individuals to predation. The placement of riprap and the dredging proposed under the design refinements would potentially increase turbidity and

suspended sediments in the immediate project area as well as upstream and downstream of the project (depending on tidal flows). However, while there is potential for turbidity and suspended sediment levels to increase during construction, implementation of Mitigation Measure AQU-MM-1: Limit In-Water Construction Activity to Periods of the Year That Minimize Impacts on Fish and Fish Habitat would still reduce the impact to a less-than-significant level.

Impact AQU-2: Temporary Noise Disturbance to Fish during Construction Activities (less than significant with mitigation)

Impact AQU-2 stated that construction activities associated with the Project would result in temporary noise and physical disturbance that may cause injury or death of fish by disrupting normal behaviors and potentially increasing the susceptibility of some individuals to predation. The design refinements include an increase in the number of strikes needed to install the gate structure base piles, and also include the installation of the dolphin and fender piles. The additional strikes needed to drive the piles would increase the cumulative sound exposure level, which would increase the risk of injury or death of fish.

However, while the increase in the number of strikes needed from an impact hammer would increase the risk of injury or death of fish, the mitigation measures listed for Impact AQU-2 would still reduce the impact to a less-than-significant level. Particularly, Mitigation Measure AQU-MM-1 calls for limiting in-water construction activity to periods of the year that minimize effects on fish, and the increased overall pile driving activity would not extend construction beyond the original in-water work window.

New Impacts

Impact AQU-5: Predation of Special-Status Fish Species during Project Operations

The Final EIR concluded that the presence of the fixed wall structure included as part of the Project would not result in an operations-related predation effect on protected fish species. However, the introduction of the dolphin and fender piles included in the design refinements would potentially increase habitat for invasive fish species beyond that created by the wall structure as analyzed under the Project. The installation of 2 fender piles adjacent to the gate structure and 35 dolphin piles 40 feet away from the gate and 16 feet apart on the main channel of the San Joaquin River could create an area in front of the gate that could be utilized by predatory fish. Each piling would provide both structure and shade in an offshore environment, which would likely attract both predators and prey. The vertical pilings would provide alterations to the local flow field by disrupting the flow and creating eddies downstream of the piling, and predator species may preferentially hold in the backside eddies created by pilings in a riverine system. These pilings also attract juvenile salmonids trying to avoid the local river currents and increase the overlap of predator and prey in a localized area, thus increasing the vulnerability of the prey.

However, pilings are structurally simple and do not provide the necessary habitat complexity to function as prey refugia. Largemouth bass appear to be attracted to the shade produced by these structures, while male smallmouth bass appear to use pilings as a reference point for locating nests for spawning. While bass and other predatory species may be attracted to the dolphin piles, the increased predator-prey overlap in time and space associated with the piles would adversely affect only a small portion of juvenile salmonids that travel through that section of the San Joaquin River.

Juvenile salmonids would be able to utilize the entire San Joaquin River channel outside of the dolphin pile area during their downstream migrations through the San Joaquin River, so there would be a less than significant impact on juvenile salmonids. Juvenile green sturgeon may also experience increased predation but they would also be able to access the San Joaquin River away from the dolphin pilings. The increased presence of predators associated with the dolphin pilings would be unlikely to affect adult salmonids or green sturgeon because of the large size of adult fish. The design refinements are not considered to result in a substantial adverse effect through habitat modification on special-status species, and is therefore considered to be less than significant.

Visual

Revised Impacts

Impact VIS-2: Substantial Degradation of the Existing Visual Character or Quality of the Site and Its Surroundings (significant and unavoidable)

Impact VIS-2 stated that the Project would introduce a large-scale industrial looking wall and gate structure that impounds Atherton Cove and Smith Canal and close off residents and recreational viewers, physically and visually, from the San Joaquin River. The placement of riprap proposed under the design refinements would likely increase the severity of the visual impact, as it would require further vegetation removal along Dad's Point and the bank adjacent to the golf course, and would also prevent vegetation from growing in the future. However, while the riprap placement may moderately increase the severity of the degradation of existing visual character of the site, the increase is not substantial. The impact would remain significant and unavoidable, even with mitigation.

New Impacts

None.

Conclusions

Implementation of the design refinements would not result in a substantial increase in the severity of previously identified significant effects. While installation of dolphin and fender piles would result in a new effect on special-status fish as compared to the operational project impacts disclosed in the Final EIR, the new impact would be less than significant. Therefore, the proposed inclusion of dolphin and fender piles are not substantial changes in the project which would require major revisions of the previous EIR, and no subsequent or supplemental environmental impact report should be prepared per CEQA Guidelines § 15162 and California Public Resources Code § 21166.

Chapter 4 References

Moffatt & Nichol. 2015. Smith canal gate hydrodynamic modeling alignment and gate width evaluation. February. Walnut Creek, CA. Prepared for Peterson Brustad, Inc. Folsom, Ca.