

State Route 84 Niles Canyon Safety Widening Project (EA 17440)

Response to 1/19/2010 San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Comments on the Application for 401 Water Quality Certification

Comment No.	Application Section(s)	Comment
1	Application Box 19, Page 33 Sections 5.1 and 5.2, Table 4-2 page 28	<p>The application notes, “Due to permanent impacts to waters of the State being less than 0.1 acre, Caltrans is proposing no compensatory mitigation.” This statement implies the Water Board does not require mitigation if permanent impacts are less than 0.1 acres, which is false. A project proponent must ensure no net loss of wetlands and ensure that avoidance, minimization, and mitigation of impacts to waters and wetlands are provided*; as such, the Water Board will not permit the project as proposed without a demonstration of impact avoidance and minimization, and finally, compensatory mitigation where avoidance and minimization of impacts have been demonstrated.</p> <p>Note that construction of the free-span bridge over Stonybrook Creek is “self-mitigating” for construction of the bridge and widening of the roadway over the creek. The Water Board will not grant mitigation credits for impacts to waters of the State or riparian habitat along Alameda Creek as a result of construction of the Stonybrook Creek bridge. However, the Water Board will grant such credit for removal of the structures at Stonybrook Creek’s confluence with Alameda Creek.</p>
Response to Comment No 1		<p>The Department proposes to mitigate for 0.016 acres of permanent impact to wetlands with out of kind, onsite restoration of Stonybrook Creek. The restoration of Stonybrook Creek is recommended by the California Department of Fish and Game (CDFG).</p> <ol style="list-style-type: none"> 1) The existing box culvert will be replaced with a free span bridge to allow passage of juvenile and adult fish. The free span bridge will also be less of an impediment to the movement of sediment and woody debris and will allow the creek to naturally adjust its substrate elevation and channel form without interference from the structure. Design plans for Stonybrook Creek Bridge are in Appendix A of the revised application (Attachment A). 2) Modifications will be made to the Stonybrook channel to improve fish passage, including re-grading the channel bottom and filling a downstream scour hole. More details are included in section 1.3.1 Culvert Replacement at Stonybrook Creek of the revised application (Attachment A) 3) Three structures will be removed from Stonybrook Creek to improve connectivity with Alameda Creek. These structures include an old grade control feature, an old road remnant, and an old bridge abutment. Pictures of these structures are included in the Technical Memorandum in Attachment B.

* Governor’s Executive Order W-59-93, a.k.a. California Wetlands Conservation Policy

2	Application Box 19, Page 24 Section 4.1.1	<p>The application notes that “Areas of temporary impacts to Alameda Creek and Stonybrook Creek will be restored to pre-project conditions. These areas are expected to regain their previous habitat values within one year following restoration activities.” The Water Board disagrees with the claim that only one year will be needed following restoration activities to restore the riparian habitat values at locations where the mature tree and shrub layers have been removed. As noted below, the Water Board will not accept a mitigation plan that does not include a ten- to twenty-year minimum monitoring period for areas of impact to riparian habitat.</p>
Response to Comment No 2		<p>Modifications were made to the proposed project to minimize impacts to riparian trees and vegetation in response to SFBRWQCB comments. Please see response to Comment No 3 for more information.</p> <p>The project’s impact calculations have been revised to reflect the modifications made to the proposed project and to accurately reflect permanent impacts to riparian habitat. Locations where mature trees will be removed are now considered permanent impacts. A revised Permanent and Temporary Impact Area Map is included in Attachment C. The Department has prepared a Conceptual Onsite Mitigation and Monitoring Proposal, which is included as Appendix Q of the revised application (Attachment A). The species planted onsite, arroyo willow (<i>Salix lasiolepis</i>) and big leaf maple (<i>Acer Macrophyllum</i>), are considered fast-growing; therefore, the Department proposes one year of plant establishment period combined with a 5 year monitoring period for onsite restoration and enhancement activities. Mitigation requirements that are not met through onsite restoration and enhancement will be addressed at an offsite location, as described below.</p> <p>A draft Streambed Alteration Agreement is included as Attachment D. The final Streambed Alteration Agreement will be forwarded to the SFBRWQCB upon completion. The Department will follow all conditions of the Streambed Alteration Agreement, including conditions pertaining to riparian mitigation. In accordance with CDFG policy, the Department proposes to mitigate coast live oaks at a 5:1 ratio, native riparian tree species at a 3:1 ratio, and replace non-native trees with native tree species at a 1:1 ratio. A total of 63 arroyo willows and 5 big leaf maples will be planted along the banks of Alameda Creek and Stonybrook Creek. The 5 big leaf maples are proposed as replacements for the 5 non-native species. Mitigation for impacts to coast live oak, alder, bay-laurel, big leaf maple, and sycamore will occur at an offsite location to be determined. The off-site mitigation monitoring plan will include three years of plant establishment period and 5 years of monitoring. Please see Attachment E.</p>

<p style="text-align: center;">3</p>	<p>Page 2, Section 1.3</p>	<p>It is noted that “[A] temporary construction access road and construction zone between the new widening and Alameda Creek may be installed.” It is also noted that “[T]he decision to utilize the identified temporary construction access road location will be left to the contractor. Other construction methods, such as constructing the retaining wall from the existing roadway, may be preferable.” Construction of the access road and bench will involve elimination of all riparian trees and vegetation in the area. The application notes 1,373 linear feet (0.3126 acres) or temporary impact to Alameda Creek, due to construction accesses and working bench.”</p> <p>Because the temporary construction access road and bench will result in permanent impact to the mature riparian habitat of Alameda Creek, and the impact is suggested to be avoidable, yet not avoided, the Water Board will not provide certification for the project as proposed.</p> <p>Impacts associated with the temporary construction access road include removal of a “mature riparian canopy,” including maples (17 total), alders (10 total), walnuts (3 total), and willow (3 total) up to 70 inches in diameter, sycamores (24 total), up to 150 inches in diameter, and live oaks (17 total) and bay laurels (27 total) up to 110 inches in diameter. The Water Board considers these proposed impacts to be significant. Should the Department convincingly demonstrate the proposed impacts to be unavoidable and minimized, and we decide to certify the project, we will require mitigation based on linear feet and area of riparian habitat lost, and due to the mature state of riparian area removed, a minimum monitoring period of ten to twenty years. Considering the significance of the proposed impacts, and the considerable cost to the State to mitigate for the proposed impacts, the Water Board strongly recommends the Department re-submit the project application without construction of a temporary access road and bench in the existing riparian zone. Should the temporary roads and/or work benches not be withdrawn from the project plans, we will need construction details for these elements prior to issuing certification.</p> <p>Additionally, the Department is proposing to remove the temporary access roads and benches at the onset of the first construction rainy season and then rebuild these elements at the end of the rainy season. Water Board staff view this as a high-risk activity that will leave large areas of creek bank unstabilized during the rainy season, when Alameda Creek is subject to very high flows. In order to adequately stabilize these areas, the temporary features would need to be removed and fully revegetated prior to the rainy season, which would require their removal at least four weeks prior to the first storm.</p>
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<p>Response to Comment No 3</p>	<p>In response to SFBRWQCB comments, modifications were made to the proposed project. Impacts to riparian trees and vegetation were avoided and minimized by eliminating the initially proposed temporary access road / work bench from the project design. Design has revised the initially proposed method of construction. Retaining walls will be constructed from the roadway in-lieu of using workbenches. This change in construction method will impact the project's traffic handling plan. The revised project design includes 8 feet of permanent impact from the face of the retaining walls due to the placement of the retaining wall and rock-slope protection (RSP). RSP is required to shore up the wall and will be used by maintenance after construction ends. A revised project description is included in Section 1.3 of the supplementary document (Attachment A). Revised project plans are included as in the revised application as Appendix A. A Permanent and Temporary Impact Area Map showing the reduction in work area is included as Attachment C. A field survey was conducted by Department Biologist Kevin Melanephy on March 23, 2010 to assess the revised impacts to riparian trees. The results of this survey are summarized in the table included as Attachment E.</p>
<p>4</p>	<p>Application Box 18, Appendix B</p> <p>The reported impacts of 1,373 linear feet in box are not identified within the red-hashed permanent impact polygons in Appendix B. Please provide a narrative explaining how the 1,373 linear feet of impacts were derived and identify the exact location of the impact area.</p> <p>It appears that the impacts to riparian habitat are significantly greater than 1,373 linear feet. Please describe the various reasons for impacts to riparian vegetation, with a discrete impact measurement for each different project activity, and exact locations of these proposed impacts. Note that the Department will be required to mitigate for linear feet and acreage of riparian habitat lost, as opposed to implementation of a set tree planting ratio.</p>

Response to Comment No 4	<p>The revised impact mapping shows the locations where mature trees will be removed as permanent impacts. Please see Permanent and Temporary Impact Area Map in Attachment C.</p> <p>The 1,373 linear feet of impacts were derived by calculating the length of waters of the U.S., other waters (other waters) that would be impacted by the temporary construction work benches. This did not include riparian habitat. The temporary construction work benches have been removed from the project as requested by the SFBRWQCB.</p> <p>Reasons for permanent impacts to riparian vegetation include placement of roadways, retaining walls, and RSP. Discrete impact measurements for project activities are shown in the Permanent and Temporary Impact Area Map in Attachment C.</p>
5	<p>3.1.3, Pages 15-16</p> <p>The application does not note the amount of new and reworked impervious area proposed for the project. Additionally, the application did not mention the area of impervious area that would be treated using underground pipe storage.</p>
Response to Comment No 5	<p>The project will add 1.14 acres of new impervious area and will rework 1.54 acres of impervious area. The area treated using storage pipes is 2.70 acres. Please see section 3.1.3 of the revised application (Attachment A)</p>
6	<p>Application Box 20</p> <p>It is noted that a Notice of Determination is in preparation. The Water Board cannot issue a 401 certification before a Notice of Determination has been prepared by the Department.</p>
Response to Comment No 6	<p>The final Negative Declaration is included as Appendix O of the revised application (Attachment A).</p>
7	<p>Application Box 24</p> <p>Please note the planned implementation dates of the projects listed.</p>
Response to Comment No 7	<p>The State Route 84 Alameda Creek Bridge Replacement Project (EA 160300) is expected to be constructed in 2013, 2014, and 2015. The State Route 84 Safety Improvements, Palomares Rd & I-680 Project (EA 2A3300), which proposes to widen shoulders and improve sight distance, is expected to be constructed in 2012 and 2013. The SFPUC Fish Passage Project-Niles Dam Removal Project was completed in 2006.</p>
8	<p>Application page 10</p> <p>The Water Board will need the final Corps jurisdictional verification and accordingly revised impact figures before certification may be issued.</p>
Response to Comment No 8	<p>The Department received confirmation of the extent of U.S. Army Corps of Engineers jurisdiction for the project on February 5, 2010. The U.S. Army Corps of Engineers' jurisdictional verification letter and maps are included as Attachment F.</p>

9	Application Box 18	Permanent impacts to Stonybrook Creek from shading associated with the widened roadway are not included in the dredge and fill table.
Response to Comment No 9		The additional 15 feet of shading associated with the widened roadway and culvert replacement across Stonybrook Creek were not included in the dredge and fill table because increased shading is a beneficial impact to Stonybrook Creek. Decreases in shading due to the removal of riparian vegetation have been minimized by revising the project design in response to SFBRWQCB comments.
10	Box 19, Section 5	The Water Board cannot issue certification without an acceptable Mitigation and Monitoring Plan. The application materials do not include such a Plan. Such a Plan would include details for mitigation of any permanently impacted wetlands, riparian restoration activities, and details for activities at Stonybrook Creek.
Response to Comment No 10		A Conceptual Onsite Mitigation and Monitoring Proposal is included in the revised application (Attachment A) as Appendix Q. A Final Offsite Mitigation and Monitoring Plan will be submitted to the SFBRWQCB for review and approval prior to project construction. The Offsite MMP will consist of 3 years plant establishment combined with 5 years of monitoring and reporting.
11	Box 19, Section 5	The application does not include details for restoration activities at Stonybrook Creek. Some specific details omitted, include: 1) Details for stabilizing right bank upstream of bridge, below the private driveway; 2) Plans detailing the new bridge invert design slope including any use of native material (i.e. boulders, cobbles etc.); 3) Final design plans showing how the slope will be restored to new bridge invert; and, 4) Details of activities to be performed at the confluence with Alameda Creek.
Response to Comment No 11		<ol style="list-style-type: none"> 1) No work will be done on the right bank upstream of the bridge, below the private driveway. This was determined at the field meeting on September 10, 2009. The original recommendations for work at Stonybrook Creek are included in the Technical Memorandum in Attachment B. The correspondence from the CDFG is included in Attachment G and does not recommend work at the location below the private driveway. 2) The Stonybrook Creek Bridge Rock Lining Details (Sheet C-3) is included in the revised application (Attachment A) as Appendix A. 3) Final design plans showing how the slope will be restored to new bridge invert were included in Appendix A of the original application submittal as Profile Sheet P-5. 4) Please see the last paragraph in section 1.3.1 of the revised application (Attachment A) and the Conceptual Onsite Mitigation and Monitoring Proposal for a description of activities at the confluence of the creeks. The location is shown on Layout Sheet L-5.

12	Appendix A	Structural plans for retaining wall N3 were not included in the project application.
Response to Comment No 12		Retaining wall N3 has been removed from the project. The project engineer determined that a wing wall on the bridge will be sufficient. The location of the wing wall is shown in Appendix A of the originally submitted application (Sheet Niles Canyon Safety Improvements Stonybrook Creek Bridge Structure Approach Type EQ(3)).
13	3.2.3, page 19	It is noted that “all disturbed soil areas shall be stabilization [sic] during the rainy season between October 15 and April 15. Note that the Department is required to implement erosion control (stabilization) at all times during the rainy season. The 2009 rainy season started before October 15 and the Department was not prepared--the Department must stabilize disturbed areas prior to a forecast rain event and not use October 15 as the trigger date for BMP implementation. Please remove this language from the certification application and contract documents.
Response to Comment No 13		Erosion control (stabilization) will be implemented at all times. Currently the Department’s specifications require stabilization of all disturbed soil areas during the rainy season (Oct 15 – Apr 15) and year round prior to any forecasted rain event. Section 3.2.3 of the application was revised in response to SFBRWQCB Comment No 13 (Attachment A).
14	3.2.5, Page 20	It is noted that a “Dewatering and Discharge Plan will be developed and approved at least 10 days prior to any dewatering activity.” Please note that the Water Board will require such a Plan be submitted for review and acceptance 20 days prior to any dewatering activity.
Response to Comment No 14		The specifications will be updated to include language requiring a Dewatering and Discharge Plan be submitted for SFBRWQCB review and acceptance 20 days prior to any dewatering activity. Section 3.2.5 of the application was revised in response to SFBRWQCB Comment No 14 (Attachment A).
15	Section 4	The Department must provide greater description of what “temporary” impacts entail for each area that is subject to “temporary effects.”
Response to Comment No 15		Please see section 4.1.1 of the revised application (Attachment A).
16	Table 4-2, page 27	In the table section Cold Freshwater Habitat, it is noted that “removal of riparian vegetation on one side of the creek may temporarily reduce shading of the creek and reduce nutrient loading.” It is also noted that “Measures will be implemented to minimize impacts to the extent possible, and mitigation measures will be implemented for unavoidable impacts, as described in Chapter 5.” Mitigation measures for loss of shade and reduced nutrient loading are not described in Chapter 5.
Response to Comment No 16		Mitigation measures to compensate for impacts due to the loss of riparian vegetation are discussed in the response to comment 2. Additionally, the widening of State Route 84 and bridge replacement will shade an additional 15 feet of Stonybrook Creek, also off-setting shading impacts due to vegetation removal. Reduction of nutrient loading in creek is beneficial to water quality.

17	Table 4-2, Page 28	Under “Freshwater Replenishment,” it is noted that “All unavoidable impacts to wetlands will be mitigated to assure no net loss as described in Chapter 5.” This is a false statement—see Comment 1.
Response to Comment No 17		Mitigation has been revised, please see the response to Comment No 1.
18	Section 5.3.1 page 34	It is noted that “Before construction begins, the project site will be photographed to document the existing vegetation. The photos will serve as an aid for the revegetation design and implementation.” This is vague—how, exactly, will the photographs be used? Please include more detail in the Final Mitigation and Monitoring Plan.
Response to Comment No 18		The Final Mitigation and Monitoring Plan will be submitted to the SFBRWQCB for review and approval prior to construction, and will address the use of set photopoints in the mitigation.
19	5.31., 5.3.2	It is noted in 5.3.1 that the stream banks will be regraded to their pre-construction contours, yet section 5.3.2 says that the temporarily impacted banks of Alameda Creek will be laid back. These two statements do not appear to be consistent. Please describe exactly what is being proposed.
Response to Comment No 19		The proposed project activities along the banks of Alameda Creek have been revised in response to SFBRWQCB comments. Temporary impacts to the banks of Alameda Creek are now reduced, as discussed at the April 8, 2010 meeting, and do not include re-grading.
20	Appendix E	The tables referenced in the Alameda Creek Hydraulic Report are not included.
Response to Comment No 20		The tables that are referenced in the Alameda Creek Hydraulic Report have been added to the report. Please see Appendix E of the revised application in Attachment A.
21	Section 5	The application does not specify how many non-native trees will be removed.
Response to Comment No 21		Three <i>Juglans nigra</i> (black walnut) and two <i>Schinus</i> sp. (pepper tree) will be removed. These trees will be replaced at a one to one ratio with native species (big leaf maples) as described in the project’s Conceptual Onsite Mitigation and Monitoring Proposal.

List of Attachments

- Attachment A.** State Route 84 Niles Canyon Safety Widening Project Section 401 Clean Water Act Water Quality Certification Application Package, Revision A
- Attachment B.** Interoffice Technical Memorandum from the California Department of Fish and Game entitled *State Highway 84 project at Palomares Road, Stonybrook Creek, Alameda County* signed by Kris Vyverberg, dated November 7, 2005
- Attachment C.** Permanent and Temporary Impact Area Map
- Attachment D.** Draft Streambed Alteration Agreement
- Attachment E.** Niles 1 Tree Impacts and Replacement Plan
- Attachment F.** U.S. Army Corps of Engineers Jurisdictional Determination
- Attachment G.** California Department of Fish and Game Correspondence