
Public Draft

**Initial Study and Mitigated Negative
Declaration for
Union Pacific Railroad
Milepost 165.89 Bridge Replacement,
Sacramento Subdivision**

Prepared for
California Regional Water Quality Control Board

March 2012

CH2MHILL®

2525 Airpark Drive
Redding, California 96001

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Acronyms and Abbreviations

APE	area of potential effect
BMP	best management practice
BO	biological opinion
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CO ₂	carbon dioxide
CVFPB	Central Valley Flood Protection Board
EPA	U.S. Environmental Protection Agency
FRAQMD	Feather River Air Quality Management District
GGS	giant garter snake
GHG	greenhouse gas
HFC	hydrofluorocarbon
lb/day	pounds per day
MLD	most likely descendant
MND	Mitigated Negative Declaration
MP	milepost
NO _x	nitrogen oxide
NRHP	National Register of Historic Places
O ₃	ozone
PFC	perfluorocarbon
PM _{2.5}	particulate matter less than 2.5 micrometers in aerodynamic diameter
PM ₁₀	particulate matter less than 10 micrometers in aerodynamic diameter
project or proposed project	Union Pacific Railroad Milepost 165.89 Bridge Replacement Project
NHPA	National Historic Preservation Act
ROG	reactive organic gas
SHPO	State Historic Preservation Officer
SO ₂	sulfur dioxide
State Water Board	State Water Resources Control Board
SWPPP	stormwater pollution prevention plan
ton/day	tons per day

UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
Water Board	Central Valley Regional Water Quality Control Board

SECTION 1

Project Information

1. **Project Title:** Union Pacific Railroad (UPRR) Milepost (MP) 165.89 Bridge Replacement Project (project or proposed project).

2. **Lead Agency Name and Address:**

California State Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, California 95670

3. **Contact Person and Phone Number:** Genevieve (Gen) Sparks, 916/464-4745.

4. **Project Location:**

The proposed project is located approximately 3,500 feet northwest of Rio Oso, California, in the northwestern quarter of Section 21, Township 13 North, Range 4 East (Nicolaus, California 1992 quadrangle), approximate longitude 121°32'0.65"W and latitude 38°57'58.63"N, Sutter County, California (see Figure 1-1; figures are located at the end of their respective section).

5. **Project Sponsor's Name and Address:**

Union Pacific Railroad Company
1400 Douglas Street, STOP 0910
Omaha, Nebraska 68179-0910

6. **General Plan Designation:** Agriculture – 20-acre minimum parcel size.

7. **Zoning:** Agriculture and Floodplain.

8. **Description of Project:** See Section 2, Project Description.

9. **Surrounding Land Uses and Setting:**

The surrounding area is characterized primarily by agricultural land uses.

10. **Other Public Agencies Whose Approval is Required (for example, permits, financing approval, or participation agreement):**

UPRR would obtain the necessary environmental and construction permits to support construction of the proposed project. Permits from the following agencies were considered or anticipated to be required:

- **Navigational Channel Determination, U.S. Coast Guard** – In accordance with Title 33 *Code of Federal Regulations* Section 2.40, the U.S. Coast Guard makes navigability determinations on specific waterways to determine its jurisdiction. UPRR would consult with the U.S. Coast Guard to request a navigability determination for Yankee Slough.
- **Endangered Species Act Consultation, U.S. Fish and Wildlife Service (USFWS)** – The Endangered Species Act establishes a national program to conserve threatened and endangered species of fish, wildlife, and plants, and the ecosystems that support them. Section 7(a) of the Act requires that the lead agency consult with USFWS on any activity that might affect species listed as endangered or threatened. Accordingly, consultation with USFWS addressed species issues associated with the proposed project, and a biological opinion (BO) has been issued on the proposed project (see Appendix A).
- **Section 404 of the Clean Waters Act, U.S. Army Corps of Engineers (USACE)** – Section 404 of the Clean Waters Act requires that consultation with USACE occur when the discharge of dredged or fill material enter into “waters of the United States,” including wetlands. UPRR would obtain approval under Section 404 from USACE.

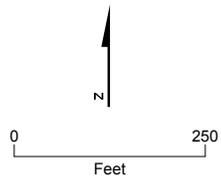
- **Central Valley Regional Water Quality Control Board** – The Central Valley Regional Water Quality Control Board (Water Board), issues permits for activities that could cause impacts on surface waters and groundwater, including construction activities. The Water Board requires that a National Pollutant Discharge Elimination System permit be obtained if pollutants would be discharged to surface water. The construction contractor would prepare a stormwater pollution prevention plan (SWPPP) and obtain the Waste Discharge permit for construction.

The Water Board also issues a Water Quality Certification under authority of Section 401 of the Clean Water Act to obtain a Section 401 waiver or certification. A Section 401 permit is required when waters of the United States receive discharge of fill or dredged material. A waiver or certification is required when a Section 404 permit has been submitted to USACE. UPRR would obtain approval under Section 401 from the Water Board.

- **Section 106 Consultation, State Historic Preservation Officer (SHPO)** – Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of federal undertakings on historic properties (properties determined eligible for inclusion in the National Register of Historic Places [NRHP]). A cultural resources investigation report has been prepared, and USACE is conducting consultation with SHPO.
- **Central Valley Flood Protection Board (CVFPB)** – Yankee Slough is a CVFPB-regulated stream. The CVFPB requires that an encroachment permit be filed for all work that would be conducted within the floodways under its jurisdiction and on levees adjacent to any stream that may affect those floodways. An encroachment permit is currently under review by CVFPB for the proposed project.
- **Sutter County** – Sutter County requires that all proposed development projects occurring within identified floodplains in the county obtain a permit prior to development. Sutter County is currently reviewing a floodplain development permit for the proposed project.



LEGEND
 PROJECT AREA



VICINITY MAP



**FIGURE 1-1
 PROJECT LOCATION MAP**

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION
 FOR UPRR MILEPOST 165.89 BRIDGE REPLACEMENT,
 SACRAMENTO SUBDIVISION

USGS 24K QUAD: NICOLAUS
 TOWNSHIP 13 NORTH, RANGE 04 EAST, SECTION 21

Project Description

2.1 Background

The UPRR MP 165.89 bridge is approximately 3,500 feet northeast of Rio Oso, California. The existing bridge, constructed in 1957, spans Yankee Slough, a tributary to Bear River. The existing bridge consists of a 24-span, 360-foot-long timber stringer trestle-ballast deck bridge. Although the existing bridge was built in 1957, ongoing routine maintenance has altered the original structure. Routine maintenance includes replacing (when necessary) the timber piles, timber stringers, bent caps, track, and ballast retainers.

2.2 Project Goals and Objectives

The primary project objective of the proposed project is to replace an existing railroad bridge that is structurally deficient and poses a safety risk to the continued use of this rail line for interstate commerce. The project goals are as follows:

- Improve rail safety and maintain rail safety standards
- Minimize stream impacts

2.3 Proposed Project

2.3.1 Project Summary

The proposed project consists of replacing an existing 24-span, 360-foot-long, timber stringer trestle-ballast deck bridge. The replacement bridge would consist of 12, 30-foot spans of pre-stressed concrete box girder with timber ties for a total length of 360 feet. The proposed bridge would be on the same alignment as the existing bridge, and the total project area would be approximately 50-feet wide by 360 feet in length, for a total disturbance area of 0.40 acre. The existing 24 support piles would be cutoff at ground level, and would be replaced with the 12 new timber piles.

At the west and east abutments, 75 cubic yards and 5 cubic yards of soil would be excavated, respectively; however, excavation would occur outside of the ordinary high water mark. Eleven bents (row of piles) would be driven in the channel, with each bent consisting of three piles. The piles would not act as a fill component in the channel. The total area of piles in the channel is less than 3 square feet per bent, for a total of less than 33 square feet for the bridge. Pile driving would use a combination of on- and off-track equipment depending on site and traffic conditions. The proposed bridge's east abutment would be placed approximately 3 feet outside the existing east abutment to avoid impacts on the levee system.

The bridge would be accessed via the existing UPRR maintenance road from Catlett Road. If necessary, minor grading, clearing, and grubbing would be completed to gain access to mobilize and demobilize equipment. Small off-track equipment would be used for this work.

Construction methods have been designed so that most work can be done from the track and the existing bridge, and outside the upper channel banks to minimize streambed impacts. If needed, a crane pad and/or temporary crossing would be constructed; material would come from the soil excavated underneath the bridge and from upland areas near the project site, and would cover approximately 0.07 acre. Seventy-five cubic yards and 5 cubic yards of soil would be excavated at the west and east abutments, respectively. There would be an excavator and truck (such as a boom truck) within the upland portion of Yankee Slough to assist with the bridge demolition and construction of the new bridge.

The proposed bridge replacement has been designed to minimize the impacts on the stream channel and surrounding area. Impacts on the surrounding habitat would be minimal and temporary, with any disturbed areas returned to preconstruction conditions following construction completion.

2.3.2 Construction schedule

Construction in the channel would be done during the dry season. Construction is scheduled to commence in late May 2012 and be completed by August 30, 2012. The work would be conducted sporadically as construction windows become available. Piles would be driven and pier caps would be set in approximately 5 weeks. Pile driving would occur 5 days a week (Monday through Friday and occasional Saturdays) from 7 a.m. to 5 p.m.

An additional 2 weeks would be required to dismantle the existing bridge. Other track materials such as ballasts, ties, and panels would be installed after bridge construction is complete. The excavator and boom truck would be onsite for short periods of time; possibly 1 day for bridge demolition and bridge set up (assume maximum of 24 hours), and a second day for cleanup. Table 2-1 presents the general construction schedule.

TABLE 2-1
General Construction Schedule
Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision

Construction Phase	Start Date	Completion Date
Mobilization	May 30, 2012	June 15, 2012
Clear and Grub Project Site	June 15, 2012	June 16, 2012
Pile Driving and Cap Installation	June 1, 2012	July 15, 2012
Prepare for Change-out	July 15, 2012	August 1, 2012
Change-out	August 2, 2012	August 3, 2012
Demolish and Remove Existing Bridge	August 6, 2012	August 10, 2012
Demobilization	August 10, 2012	

Note:

Change-out occurs when actual track is removed and replaced onto new piles and supports. This process generally takes 24 hours to complete.

2.4 Environmental Review

The following environmental reviews and surveys have been completed to date:

- Consultation with USFWS commenced in February 2001. USFWS issued a biological opinion on August 16, 2011.
- A cultural resources records search was conducted using the archives of the Northeast Information Center of the California Historical Resources Information System.
- A wetland delineation was submitted to USACE, and a letter of concurrence was provided by USACE February 2, 2012 (see Appendix B). The proposed project would be covered under Nationwide Permit Number 14, Linear Transportation Projects.

SECTION 3

Statement of Findings and Determination

The Water Board conducted this Initial Study to evaluate the potential impacts on implementing the proposed project. Project-specific mitigation measures have been developed to fully mitigate potential impacts to a less than significant level. The proposed project has been designed to avoid or mitigate any potentially significant environmental effects identified; therefore, the preparation of an environmental impact report is not required.

In light of the whole record, there is no substantial evidence that the proposed project would have a significant effect on the environment. If substantial changes alter the character or impacts of the proposed project, another environmental impact determination would be necessary.

The proposed project would include measures to mitigate impacts on the following resources to a less than significant level:

- Biological resources
- Hydrology and water quality

Draft copies or notice of this Mitigated Negative Declaration (MND) were distributed to the following:

- State Clearinghouse
- CVFPB
- California Department of Fish and Game (CDFG)
- State Water Board
- USACE
- USFWS
- County of Sutter

Pursuant to Section 21082.1 of the California Environmental Quality Act (CEQA), the Water Board has independently reviewed and analyzed the Initial Study and MND for the proposed project and finds that these documents reflect the independent judgment of the Water Board. As lead agency, the Water Board confirms that the recommended mitigation measures detailed in these documents are feasible and would be implemented as stated in the MND.

Date of Draft Report _____

Date of Final Report _____

Approved by the Water Board _____

Environmental Impacts Analysis/Checklist

4.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the lead agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case, because revisions in the proposed project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MIGHT have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MIGHT have a “Potentially Significant Impact” or “Potentially Significant Unless Mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because potentially significant effects (1) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed on the proposed project, nothing further is required.

Genevieve Sparks

Date

4.2 Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (for example, the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (for example, the project will not expose sensitive receptors to pollutants, according to a project-specific screening analysis).
2. Answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. After the lead agency has determined that a particular physical impact might occur, then the checklist answers must indicate whether the impact is “Potentially Significant,” “Less than Significant with Mitigation,” or “Less than Significant.” “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect might be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an environmental impact report is required.
4. “Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program environmental impact report, or other California Environmental Quality Act process, an effect has been adequately analyzed in an earlier environmental impact report or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Incorporation,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (for example, general plans and zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify the following:
 - a) The significance criteria or threshold, if any, used to evaluate each question
 - b) The mitigation measure identified, if any, to reduce the impact to less than significant

4.3 Initial Study/Environmental Impacts Checklist

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
I. AESTHETICS. Would the proposed project:				
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a. The site is not considered a unique scenic vista or scenic resource.</p> <p>b. The project site is not located adjacent to a state-designated scenic highway.</p> <p>c. The proposed project is consistent with the existing visual character of the property and its surroundings. Construction equipment and materials might be temporarily visible to a limited number of adjacent residents; therefore, impacts are considered to be less than significant.</p> <p>d. There would be no adverse effect on daytime or nighttime views in the area.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on aesthetics are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
II. AGRICULTURE AND FORESTRY RESOURCES. Would the proposed project:				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Involve other changes in the existing environment which, because of their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a, b, c, d, e. The area surrounding the proposed project location is primarily characterized as agriculture lands. Adjacent land areas are designated as grazing land and other land, as defined by the California Department of Conservation, Division of Land Resource Protection. The project site is directly within a floodplain, with adjacent lands zoned for agriculture by Sutter County Planning and would not conflict with the existing zoning or Williamson Act-contracted lands.</p> <p>The proposed project is not located within forest land, as defined in Public Resources Code Section 12220(g), timberland as defined by Public Resources Code Section 4526, or timberland as defined by Government Code Section 51104(g).</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on agriculture and forestry resources are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
III. AIR QUALITY. Would the proposed project:				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone [O ₃] precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a. Construction and operation of the project would not conflict with or obstruct implementation of an air quality plan. The proposed action is located in Sutter County, which is within Feather River Air Quality Management District (FRAQMD). FRAQMD is in the process of preparing an air quality plan for particulate matter less than 2.5 micrometers in aerodynamic diameter (PM_{2.5}), due to the U.S. Environmental Protection Agency (EPA) in December 2012, to address attainment of the federal PM_{2.5} standard. The Northern Sacramento Valley Planning Area Attainment Plan for attaining the state ozone standard was released for review in June 2010. Construction would result in a minor, short-term increase in emissions. Operation would not be expected to result in a net increase in emissions when compared to existing conditions. The construction contractor would comply with the FRAQMD fugitive dust emission requirements (see Appendix C). Therefore, the project would be consistent with applicable air quality plans and the impact would be less than significant.</p> <p>b, c. FRAQMD regulates air quality within Sutter and Yuba Counties. Sutter County lies within the Sacramento Valley Air Basin, which is bordered by mountain ranges to the west, north, and east, with prevailing winds that generally blow from the south to north.</p> <p>Table 4-1 summarizes the attainment status for Sutter County. The Sutter County <i>General Plan Draft Environmental Impact Report</i> states that “a wide variety of activities contribute to the emission of criteria air pollutants including fuel combustion, petroleum production, farming operations, and motor vehicles” (Sutter County, 2010). Other contributions come from waste disposal, cleaning and surface coatings, solvent evaporation, and natural sources. Natural sources make up approximately 5 percent of Sutter County’s total emissions. Farming operations in Sutter County contribute approximately 42 percent to the total particulate matter emissions (11.51 tons of particulate matter per day from farming operations with 27.26 tons of particulate matter per day for the entire county [Sutter County, 2010]).</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
TABLE 4-1 Attainment Status for Sutter County <i>Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision</i>				
	Designation/Classification			
Pollutant	State Standard	Federal Standard		
Ozone – 1-hour	<ul style="list-style-type: none"> – Southern portion of county: serious nonattainment – Remaining: nonattainment – transitional 	NA		
Ozone – 8-hour	Nonattainment – transitional	<ul style="list-style-type: none"> – Southern portion of county: severe nonattainment – Sutter Buttes >2,000 feet: nonattainment – Remaining: unclassified/attainment 		
PM ₁₀	Nonattainment	Unclassified		
PM _{2.5}	Attainment	Nonattainment		
Carbon Monoxide	Attainment	Unclassified/attainment		
NO ₂	Attainment	Unclassified/attainment		
SO ₂	Attainment	Unclassified/attainment		
Sulfates	Attainment	NA		
Lead (Particulate)	Attainment	NA		
Hydrogen Sulfide	Unclassified	NA		
Visibility-reducing Particles	Unclassified	NA		
Source: FRAQMD, 2010a.				
Notes:				
NA = not applicable				
PM ₁₀ = particulate matter 10 micrometers or less in aerodynamic diameter				
SO ₂ = sulfur dioxide				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact																			
<p>Air quality effects were evaluated in terms of daily and annual emissions from construction. Construction activities such as excavation, grading, and vehicle travel would create a short-term increase in PM₁₀ and PM_{2.5} from dust and exhaust emissions. Exhaust emissions of nitrogen oxide (NO_x) and reactive organic gases (ROG) from construction can contribute to ozone formation. Emissions were estimated for construction activities for replacing the bridge. Construction was assumed to occur over a 9-week period. Construction equipment emissions were estimated using URBEMIS2007 Version 9.2.4. It was assumed that 0.4 acre would be disturbed. Appendix D contains the construction emission calculations and URBEMIS2007 output.</p> <p>Construction emissions were evaluated by comparison to the FRAQMD thresholds (FRAQMD, 2010b). Table 4-2 presents the average daily construction emissions. The average daily emissions would be less than the FRAQMD thresholds; therefore, construction of the proposed action would not have an adverse effect on air quality.</p> <p>TABLE 4-2 Average Daily Construction Emissions <i>Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Emission Source</th> <th colspan="4">Emissions (lb/day)</th> </tr> <tr> <th>NO_x</th> <th>ROG</th> <th>PM₁₀</th> <th>PM_{2.5}</th> </tr> </thead> <tbody> <tr> <td>Construction Activities</td> <td>16.6</td> <td>2.0</td> <td>0.8</td> <td>0.7</td> </tr> <tr> <td>FRAQMD Threshold^a</td> <td>25</td> <td>25</td> <td>80</td> <td>NA</td> </tr> </tbody> </table> <p>^aThe FRAQMD threshold for NO_x and ROG emissions from construction is 25 lb/day averaged over the project length.</p> <p>Notes: lb/day = pounds per day</p> <p>d. Sensitive receptors are facilities such as hospitals, schools, convalescent facilities, or residential areas. Project construction and operation would occur in a low-density area, with few sensitive receptors. Construction activities would be temporary, result in emissions less than the Yolo-Solano Air Quality Management District thresholds, and would be located away from sensitive receptors; therefore, the impact would be less than significant, because operation of the project would not generate emissions.</p> <p>e. Operation of the proposed project would not create any objectionable odors.</p> <p>Cumulative:</p> <p>Because of the project level, construction impacts would be less than significant, and the cumulative air quality impact from construction would also be considered less than significant. Operation of the proposed project would not generate air emissions; there would be no cumulative impacts from operation.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>					Emission Source	Emissions (lb/day)				NO _x	ROG	PM ₁₀	PM _{2.5}	Construction Activities	16.6	2.0	0.8	0.7	FRAQMD Threshold ^a	25	25	80	NA
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	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the proposed project:				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Interfere substantially with the movement of any native resident, migratory fish, or wildlife species; with established native resident or migratory wildlife corridors; or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact												
<p>Discussion:</p> <p>a, c, d. Althouse & Meade staff conducted an onsite evaluation on November 12, 2008. The evaluation included walking the proposed development to compile species lists, search for special-status plants and animals, and photograph the site. A summary of the biological resources identified onsite was included in the Application for Department of the Army Permit (USACE, 2011), as submitted by Olsson and Associates on January 3, 2011, and referenced in the biological opinion issued by USFWS on August 16, 2011 (Appendix A).</p> <p>The information below summarizes the Althouse & Meade evaluation, as included in the Army Permit.</p> <p>Vegetation</p> <p>The project area is within the UPRR right-of-way and has been used for access and maintenance roads. Therefore, vegetation in the project area is highly disturbed and consists of grasses and shrubs, with a mixture of disturbed grass/shrub and riparian vegetation on the upper banks. Vegetation adjacent to the bridge includes valley oak (<i>Quercus lobata</i>), smartweed (<i>Polygonum</i> sp.), and narrow-leaved willow (<i>Salix exigua</i>).</p> <p>Threatened and Endangered Species</p> <p>A list of special-status species that could potentially occur in the vicinity of the project site was compiled by using the CDFG California Natural Diversity Database (CNDDDB) RareFind database and from information retrieved from the USFWS website regarding federal-listed Threatened and Endangered Species for the State of California. A list of species of special concern that could potentially occur in the vicinity of the project site was also compiled using the CDFG CNDDDB RareFind database (see Figure 4-1).</p> <p>Three species of concern were identified to potentially occur within the vicinity of the project site. Table 4-3 presents the identified species of concern that may occur within the project area, their state and/or federal status, and their impact evaluation.</p>																
<p>TABLE 4-3 Special-status Species and Species of Special Concern <i>Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision</i></p> <table border="1"> <thead> <tr> <th>Common Name (Scientific Name)</th> <th>Status</th> <th>Impact Evaluation</th> </tr> </thead> <tbody> <tr> <td>Swainson's hawk (<i>Buteo swainsoni</i>)</td> <td>ST</td> <td>May occasionally and/or seasonally occur within the project area.</td> </tr> <tr> <td>Sacramento Splittail (<i>Pogonichthys macrolepidotus</i>)</td> <td>SC</td> <td>Not likely to occur within the project area.</td> </tr> <tr> <td>Giant Garter Snake (GGS) (<i>Thamnophis gigas</i>)</td> <td>FT ST</td> <td>Known to occur within the project area.</td> </tr> </tbody> </table> <p>Notes: FT = federally listed as threatened ST = state listed as threatened SC = CDFG designated as species of special concern</p>					Common Name (Scientific Name)	Status	Impact Evaluation	Swainson's hawk (<i>Buteo swainsoni</i>)	ST	May occasionally and/or seasonally occur within the project area.	Sacramento Splittail (<i>Pogonichthys macrolepidotus</i>)	SC	Not likely to occur within the project area.	Giant Garter Snake (GGS) (<i>Thamnophis gigas</i>)	FT ST	Known to occur within the project area.
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	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>Swainson's Hawk</p> <p>Swainson's hawk (<i>Buteo swainsoni</i>) arrives at their nesting site in March or April, often returning to their original nest. Younglings hatch sometime between March and July and do not leave the nest for approximately 30 days. Nesting habitat consists of solitary trees, bush, or small groves, and sometimes on a rock ledge. Although the project site is located within the known range of Swainson's hawk, it is not likely the species would suffer any significant impacts due to project construction. No hawks or nesting sites were observed during initial site visits. Land use beyond the project site is dominated by agricultural fields, with a great deal of human activity from the railroad and farm fields. No vegetation removal outside of the existing property is required, and any disturbed grounds would be returned to preconstruction conditions following construction.</p> <p>Sacramento Splittail</p> <p>Sacramento splittail (<i>Pogonichthys macrolepidotus</i>) adults migrate upstream from brackish areas in the late winter and spring to spawn in freshwater. Splittail spawn in floodplains on submerged vegetation in temporarily flooded upland and riparian habitat. Spawning may also occur in the lower reaches of rivers and sloughs. Splittail larvae and juveniles remain upstream in shallow, vegetated areas near spawning sites until floodplains begin to dry. The juveniles then migrate downstream to tidal freshwater.</p> <p>Although the proposed project site may provide suitable habitat to the Sacramento splittail, the project is out of the known range of occurrences, as shown by the CNDDDB. Although the species is endemic to the lakes and rivers of the Central Valley, it is now confined to the San Francisco Bay Delta, Suisun Bay, Suisun Marsh, Napa River, Petaluma River, and other parts of the Sacramento-San Joaquin Estuary.</p> <p>Giant Garter Snake</p> <p>GGs (<i>Thamnophis gigas</i>), is highly aquatic and is known to inhabit primarily marshes and sloughs, and will sometimes inhabit streams, ponds, and small lakes, with cattails, bulrushes, willows, or other emergent or water-edge vegetation which is used for basking and cover. The snake also relies heavily on rice fields in the Sacramento Valley. Essential habitat components consist of adequate water during the active season of early spring through mid-fall, emergent, herbaceous wetland vegetation, upland habitat with grassy banks and openings in waterside vegetation for basking, and higher elevation upland habitats for cover and refuge from flood waters during the inactive wintering season.</p> <p>The proposed project will affect a total of 0.47 acre of upland habitat. Construction activities associated with the project occurring in snake upland habitat may harass snakes. The construction will remove vegetation cover and basking sites, fill or crush burrows or crevices, obstruct snake movement, and may result in the direct disturbance, displacement, or injury of snakes. Without mitigation, this impact is considered significant.</p> <p>Waters of the United States</p> <p>The proposed project spans Yankee Slough. Yankee Slough is a perennial slough and is considered a water of the U.S. by the USACE and mapped as a water feature on the U.S. Geological Survey Nicolaus 7.5-minute quadrangle.</p> <p>b. No riparian habitat is within the immediate construction area; therefore, there would be no disturbance to any identified riparian or other sensitive natural community.</p> <p>e. The proposed project does not require the removal of trees and would not conflict with any local policies or ordinances protecting biological resources.</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>f. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plans.</p> <p>Cumulative:</p> <p>With the implementation of mitigation (including consultation with USFWS), no significant cumulative impacts on biological resources are anticipated.</p> <p>Mitigation:</p> <p>See Table 5-1.</p>				
<p>V. CULTURAL RESOURCES. Would the proposed project:</p>				
(a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Discussion:</p> <p>a, b, c. The cultural resource investigation included a records search of the NRHP online database, known as the National Register Information System, and literature review through the Northeast Center of the California Historical Resources Information System to identify prior cultural resource studies and previously recorded historic properties within 0.5 mile of the project site. The total area of potential effect (APE) for the proposed project comprises 0.5 acre. A 0.5-mile buffer zone around the APE was included in the records search. Available literature indicates no known cultural resources at the project site or within 0.5 mile of it. Four linear surveys have been conducted along the UPRR corridor in this area. None of these surveys recorded any archaeological sites within 0.5 mile of the bridge. Neither historical, archaeological, nor paleontological resources, nor unique geological features are known to exist within or adjacent to the APE. The existing bridge is not listed in the NRHP and has not been determined eligible for listing in the NRHP, and no NRHP-listed or eligible historic properties are located within 0.5 mile of the project. Therefore, the proposed project would have no impacts on historical, archaeological, or paleontological resources and would not disturb any unique geological feature. Appendix E presents the cultural resources investigation report.</p> <p>If cultural or paleontological resources were discovered during ground-disturbing activities, construction work near the discovery should cease and the area be protected until the find can be evaluated by a qualified archaeologist or paleontologist.</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>d. No human remains are anticipated to be present onsite; therefore, the proposed project is not likely to disturb any human remains, including those interred outside of formal cemeteries. If human remains were encountered during construction, this would be a significant impact requiring mitigation. With mitigation, the impact would be considered less than significant.</p> <p>Cumulative: No substantial cumulative impacts on cultural resources are anticipated with this project.</p> <p>Mitigation: See Table 5-1.</p>				
VI. GEOLOGY AND SOIL. Would the proposed project:				
(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a, c, d. The proposed project does not fall within an Alquist-Priolo Earthquake Fault Zone (California Department of Conservation, 2011). The proposed project is not anticipated to be susceptible to strong seismic ground shaking or landslides.</p> <p>b. Construction activities would result in ground disturbance to surface areas and stockpiling of excavated materials. Soil erosion or loss of topsoil during construction activities would be minimized through adherence of best management practices (BMP) and preventive measures, as outlined in the contractor's SWPPP. UPRR would file a Notice of Intent with the State Water Board in accordance with the General Permit for Stormwater Discharges Associated with Construction Activity. UPRR would confirm that the SWPPP is kept on the project site and that water quality standards are followed.</p> <p>e. The proposed project does not involve the use of septic tanks or alternative wastewater disposal.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts are anticipated, because impacts associated with geology and soils would be mitigated to a level of less than significant.</p> <p>Mitigation:</p> <p>See Table 5-1.</p>				
VII. GREENHOUSE GAS EMISSIONS. Would the proposed project:				
(a) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>Discussion:</p> <p>a, b. Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from the following (EPA, 2011):</p> <ul style="list-style-type: none"> • Natural factors, such as changes in the sun’s intensity or slow changes in the Earth’s orbit around the sun • Natural processes within the climate system (for example, changes in ocean circulation) • Human activities that change the atmosphere’s composition (for example, through burning fossil fuels) and the land surface (for example, deforestation, reforestation, urbanization, and desertification) <p>GHGs include the following pollutants (EPA, 2011):</p> <ul style="list-style-type: none"> • Carbon dioxide (CO₂) is a naturally occurring gas, which is a by-product of burning fossil fuels and biomass, as well as land use changes and other industrial processes. It is the principal anthropogenic GHG that affects the Earth’s radiative balance. • Methane has a global warming potential approximately 20 times that of CO₂. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion. • Nitrous oxide has a global warming potential approximately 300 times that of CO₂. Major sources of nitrous oxide include soil cultivation practices, especially the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning. • Hydrofluorocarbons (HFC) are compounds containing only chlorine, fluorine, hydrogen, and carbon. HFCs have been introduced as a replacement for the chlorofluorocarbons identified as O₃-depleting substances. • Perfluorocarbons (PFC) are compounds containing only fluorine and carbon. Similar to HFCs, PFCs have been introduced as a replacement for chlorofluorocarbons. PFCs are also powerful GHGs used in manufacturing and emitted as by-products of industrial processes. • Sulfur hexafluoride is a colorless gas (soluble in alcohol and ether, and slightly soluble in water) and a very powerful GHG used primarily in electrical transmission, distribution systems, and dielectrics in electronics. <p>Construction of the project would generate GHG emissions. FRAQMD has not established GHG thresholds for construction or operation of projects. Construction activities would include activities that emit GHGs, such as the use of heavy equipment and associated construction vehicles.</p> <p>Construction would result in a minor, short-term increase in GHG emissions (approximately 20,178 metric tons of CO₂). According to the draft National Environmental Policy Act guidance for considering direct GHG emissions, a value of 25,000 metric tons of CO₂ equivalent would indicate whether a qualitative or quantitative assessment may be meaningful for decision makers under the National Environmental Policy Act (Council on Environmental Quality, 2010). Therefore, construction emissions would be less than 25,000 metric tons CO₂ and would not have an environmental effect.</p> <p>Operation of the project would not generate additional GHG emissions beyond what is already occurring under existing conditions. Construction GHG emissions from the project would be minimal, would not significantly affect the environment, and would not conflict with GHG planning or policies. Therefore, there would be no impact on appreciable GHG emissions.</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>Cumulative: No substantial cumulative impacts on GHG emissions are anticipated, because the impacts associated with this resource area are considered less than significant.</p> <p>Mitigation: No mitigation is required.</p>				
<p>VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the proposed project:</p>				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Emit hazardous emissions, handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) If located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a, b. A very minor amount of hazardous waste is anticipated to be present onsite because of construction activities related to project implementation. Hazardous materials (for example, gasoline, oil, and lubricants) used during construction could potentially be released. Implementation of the SWPPP (as described in Section VI, Geology and Soils) would assure that any impact from the release of such materials would be reduced to a level of less than significant.</p> <p>c. The distance to the nearest school is greater than 0.25 mile.</p> <p>d. The proposed project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (California Environmental Protection Agency, 2011).</p> <p>e. The proposed project is located outside the established approach and departure clear zones for the nearest airfields (Wagner Aviation and Sunrise Dusters). The proposed project would not conflict with operations of the airport.</p> <p>f. The proposed project is located more than 9 miles from the nearest airstrip and would not result in a hazard to onsite construction workers.</p> <p>g. The proposed project does not involve a use or activity that could interfere with emergency response or emergency evacuation plans for the area.</p> <p>h. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on hazards and hazardous materials are anticipated, because the impacts associated with this resource area are considered less than significant.</p> <p>Mitigation:</p> <p>See Table 5-1.</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the proposed project:				
(a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, causing a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
(i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a, f. The proposed project is located over Yankee Slough, approximately 0.74 mile from its confluence with Bear River, which is a tributary to Feather River. Construction activities would result in ground disturbance to surface areas and stockpiling of excavated materials. As stated in Section VI, Geology and Soils, erosion could occur if appropriate BMPs are not implemented during construction, resulting in some potential for soils to enter Yankee Slough. Impacts on surface water quality during the construction phase of the proposed project would be minimized by conducting the majority of construction activities from the existing railroad track and bridge outside the upper channel banks. The majority of construction would occur during the dry season. However, prior to construction activities commencing, UPRR would develop and implement an SWPPP to reduce the amount of sediment discharged from the site. To assure no impact on water quality, additional mitigation has been proposed to help reduce the level of impact.</p> <p>b. The proposed project would have no impact to groundwater supplies.</p> <p>c, d, e. Substantial alteration of the existing drainage patterns would not take place; however, construction activities could temporarily impede existing drainage patterns. After construction is complete, disturbed areas would be restored to the original contour, and surface water drainage in the area would continue unimpeded.</p> <p>g. No new housing would be constructed for the proposed project.</p> <p>h. The proposed project would not place structures within a 100-year flood hazard area that would impede or redirect flood flows.</p> <p>i. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, nor would the proposed project result in the failure of a levee or dam.</p> <p>j. The threat of a tsunami wave is not applicable to inland Central Valley locations. There is no documented threat of mudflows affecting the project site.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts are anticipated, because impacts associated with hydrology and water quality would be mitigated to a level of less than significant.</p> <p>Mitigation:</p> <p>See Table 5-1.</p>				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the proposed project:				
(a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a. The project site is surrounded primarily by existing agricultural land. The proposed project does not have the potential to physically divide the community.</p> <p>b. The proposed project would not conflict with any established land use plan, policy, or regulation of an agency with jurisdiction over the proposed project. Areas near the project site are zoned Agricultural by Sutter County Planning. The purpose of the proposed project is consistent with the existing use.</p> <p>c. No habitat conservation or natural community conservation plans apply to the project site.</p> <p>Cumulative:</p> <p>Because there are no impacts to land use, no cumulative impacts on land use would occur.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
XI. MINERAL RESOURCES. Would the proposed project:				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>Discussion:</p> <p>a, b. The project site is not identified in the general plan as having any known mineral resource value or as being located within any "Critical Mineral Resource Overlay" area (Sutter County, 2011).</p> <p>Cumulative:</p> <p>No cumulative impacts on mineral resources are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
<p>XII. NOISE. Would the proposed project:</p>				
(a) Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Expose persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the proposed project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) If within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) If within the vicinity of a private airstrip, expose people residing or working in the project site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>Discussion:</p> <p>a, b, d. During construction, there would be a temporary increase in noise level in the project vicinity above existing ambient noise level. The most noticeable construction noise would likely be related to pile driving, vehicle backup warning devices, and general construction noise. The duration of project construction is anticipated to continue for approximately 7 weeks. A limited number of sensitive receptors are located within the project area. The nearest home is located approximately 0.2 mile from the proposed project. Project construction would take place during the daytime, approximately 7 a.m. to 5 p.m. Monday through Friday and occasional Saturdays. Because of the limited number of sensitive receptors in the area and the short duration of construction, this impact is considered less than significant.</p> <p>c. There would be no noticeable increase to ambient noise as a result of the project.</p> <p>e, f. The proposed project is not located within an airport land use plan area or within 2 miles of any public airport. The nearest private airstrips are located more than 9 miles from the project site.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on noise are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
<p>XIII. POPULATION AND HOUSING. Would the proposed project:</p>				
(a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a. The proposed project would not induce population growth.</p> <p>b, c. The proposed project would not displace housing or people, or require replacement housing.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on population and housing are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				

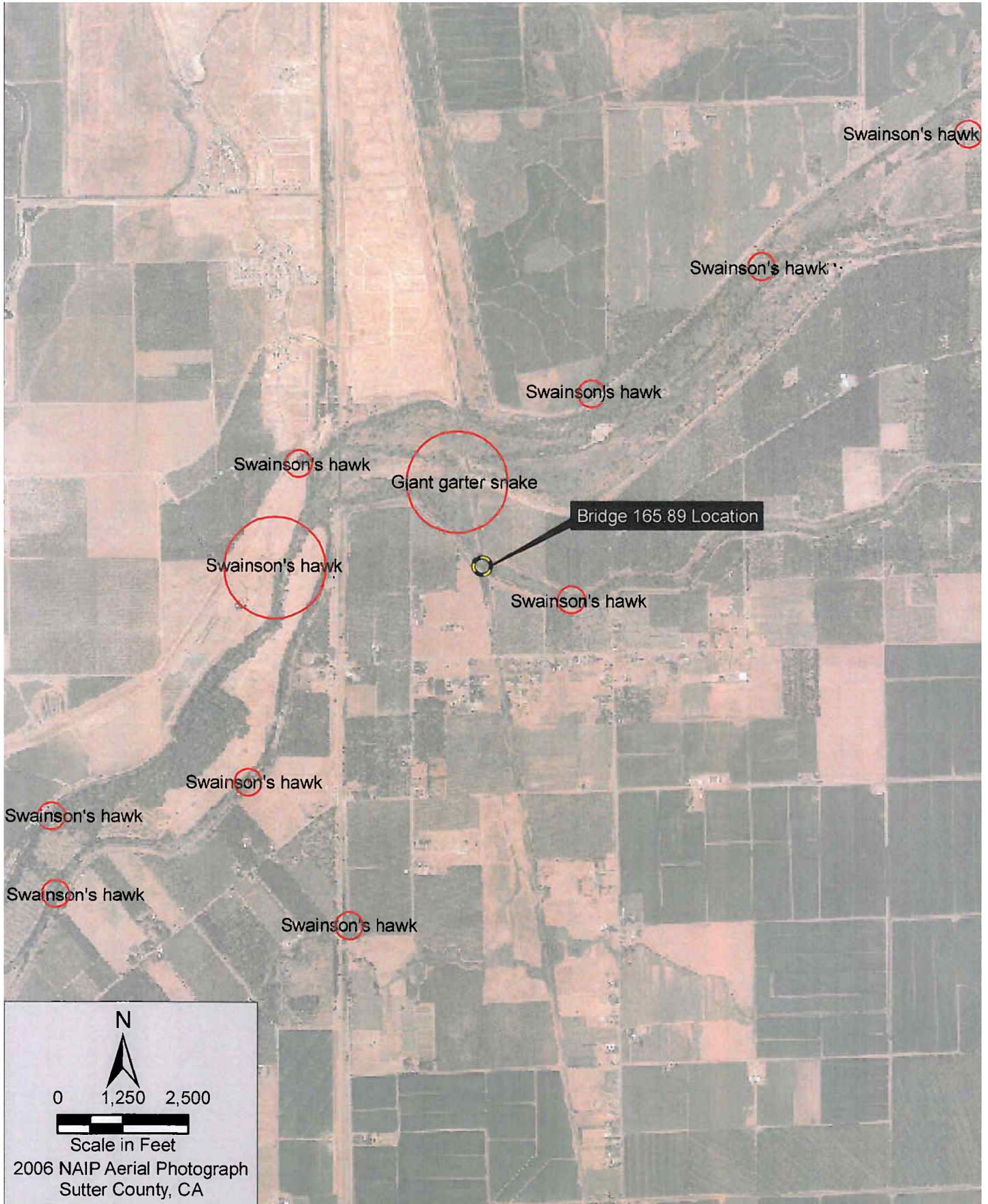
	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposed project:				
(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
(i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a (i-v). The proposed project is located in a rural area, in the northeast portion of Sutter County. The project would not result in any substantial adverse physical impact on government or service-related facilities, or require new government or service-related facilities.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on public services are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
XV. RECREATION. Would the proposed project:				
(a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
<p>Discussion:</p> <p>a. The proposed project would not increase recreational use or require expansion of recreational facilities.</p> <p>b. No recreational facilities are proposed as part of the proposed project.</p> <p>Cumulative:</p> <p>No cumulative impacts on recreation are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
<p>XVI. TRANSPORTATION/TRAFFIC. Would the proposed project:</p>				
(a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Substantially increase hazards due to a design feature (such as sharp curves or dangerous intersections) or incompatible uses (such as farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
(f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a. The proposed project is located on an existing UPRR track. During construction, trains would be re-routed to different tracks to avoid the project area. A minimal amount of worker traffic may utilize the roadways surrounding the project site (4th Avenue, Rio Oso Road, and Highway 70) during construction; however, this traffic would be minimal and would not noticeably affect local roadways.</p> <p>b, c, d, e. The proposed project would not result in a significant increase in traffic, modify the level of service in the area, affect air traffic patterns, or create traffic hazards or incompatible uses. Emergency access would not be affected.</p> <p>f. The proposed project would not conflict with alternative transportation plans.</p> <p>Cumulative:</p> <p>No substantial cumulative impacts on transportation are anticipated, because the impacts associated with this resource area are considered less than significant.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
XVII. UTILITIES AND SERVICE SYSTEMS. Would the proposed project:				
(a) Exceed wastewater treatment requirements of the applicable State Water Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Require or result in the construction of new water or wastewater treatment facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Have sufficient water supplies available to serve the proposed project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
(e) Result in a determination by the wastewater treatment provider that serves or may serve the proposed project that it has adequate capacity to serve the project's projected demand in addition to the providers existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Discussion:</p> <p>a, b, e, f, g. No impacts on wastewater treatment facilities or solid waste disposal are anticipated with this project.</p> <p>c. The proposed project is not expected to have any significant impact on stormwater drainage facilities.</p> <p>d. The proposed project would result in no change to the water delivery volume.</p> <p>Cumulative:</p> <p>No cumulative impacts on utilities and service systems are anticipated with this project.</p> <p>Mitigation:</p> <p>No mitigation is required.</p>				
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
(a) Does the proposed project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Does the proposed project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
projects, and the effects of probable future projects?)				
(c) Does the proposed project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Discussion:</p> <p>a, b, c. As identified in Sections I through XVI, potential impacts would be less than significant with implementation of mitigation proposed as part of the proposed project (see Table 5-1).</p> <p>Mitigation:</p> <p>See Table 5-1.</p>				



SOURCE: FIGURE PREPARED BY OLSSON AND ASSOCIATES, 2010

FIGURE 4-1
THREATENED AND ENDANGERED SPECIES MAP
 INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR UPRR
 MILEPOST 165.89 BRIDGE REPLACEMENT, SACRAMENTO SUBDIVISION

SECTION 5

Summary of Project Impacts and Mitigation Measures

Table 5-1 lists impacts, identified in Section 4 of this Initial Study and MND, as requiring mitigation and lists the associated mitigation measures required to assure identified impacts are reduced to a less than significant level. Measures presented in Table 5-1 would be implemented during the proposed project.

TABLE 5-1
 Summary of Project Impacts and Mitigation Measures
Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision

Impact	CEQA Checklist Item Requiring Mitigation	Mitigation	Level of Significance after Mitigation
Biological Resources			
BR-1: Construction could result in impacts on the GGS.	IVa	<ul style="list-style-type: none"> • Construction activity within habitat should be conducted between May 1 and October 1. For construction activities occurring outside of this window, USFWS should be contacted to determine if additional measures are necessary to minimize and avoid take. • Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided GGS habitat within or adjacent to the project area as environmentally sensitive areas. These areas should be avoided by construction personnel. • A USFWS-approved biological monitor shall be onsite during ground disturbing activities associated with the proposed project. • Construction personnel should receive USFWS-approved worker environmental awareness training. This training instructs workers to recognize GGS and their habitat. • The project area should be surveyed for GGS by a USFWS-approved biologist 24 hours prior to construction activities. The survey of the project area should be repeated if a lapse in construction activity of 2 weeks or greater has occurred. If GGS is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake would not be harmed. Report any sightings and any incidental take to USFWS immediately: 916/414-6620. • Any dewatering habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling dewatered habitat. • After completion of construction activities, remove any temporary fill and construction debris, where feasible, and restore areas to pre-project conditions. • This project would result in less than 20 acres of temporary habitat loss lasting one season, which qualifies as Level 1 impacts, as outlined in the Programmatic Consultation, requiring the restoration of 0.47 acre of impacted habitat. Snake habitat shall be restored in accordance with the Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat (USFWS, 1997) (see Appendix F). 	Less than Significant

TABLE 5-1

Summary of Project Impacts and Mitigation Measures

Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision

Impact	CEQA Checklist Item Requiring Mitigation	Mitigation	Level of Significance after Mitigation
		<ul style="list-style-type: none"> Areas that are restored would be monitored at the end of the first year, and a monitoring report would be submitted to USFWS. Monitoring reports documenting the restoration effort would be submitted to USFWS: (1) following completion of the restoration implementation and (2) 1 year from restoration implementation. 	

Cultural Resources

CR-1.	Vd	<p>If human remains are encountered, no further disturbance shall occur on the construction site near the remains until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98 (State Health and Safety Code Section 7050.5). The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner would notify the Native American Heritage Commission in Sacramento, which would determine and notify a most likely descendant (MLD). The MLD may inspect the site of the discovery with the permission of the landowner or an authorized representative. The MLD shall complete the inspection within 48 hours of notification by the Native American Heritage Commission. The MLD may recommend scientific removal and analysis of human remains and items associated with Native American burials.</p>	Less than Significant
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Geology/Soils

GS-1: Construction activities could expose soils to potentially significant wind and water erosion.	Vib	<p>Soil erosion or loss of topsoil during construction activities would be minimized through adherence to the BMPs and preventive measures, as outlined in the contractor's SWPPP. UPRR would file a Notice of Intent with the State Water Board in accordance with the General Permit for Stormwater Discharges Associated with Construction Activity. The SWPPP would be kept on the project site and that water quality standards are followed. The SWPPP would incorporate sediment and erosion controls such as silt fences and erosion control blankets. Following the completion of construction activities, disturbed areas would be stabilized. Potential impacts would be mitigated as follows:</p> <ul style="list-style-type: none"> Temporary erosion and sediment control BMPs would be placed and operational at the end of each construction day, and maintained until permanent erosion control features are in place. When construction is complete, stabilizers such as weed-free mulch would be applied to disturbed areas within 10 days to reduce the potential for short-term erosion. BMPs such as filter fences and catch basins would be placed below construction activities to intercept sediment before it reaches the waterway. These structures would be installed prior to any clearing or grading activities. Spoil sites would be located where they do not drain directly into a surface water feature. Temporary spoil sites would be protected from erosion using BMPs. Sediment control measures would be in place prior to the onset of the rainy season and would be monitored and maintained in good working condition until disturbed areas have been stabilized. 	Less than Significant
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TABLE 5-1

Summary of Project Impacts and Mitigation Measures*Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision*

Impact	CEQA Checklist Item Requiring Mitigation	Mitigation	Level of Significance after Mitigation
		<ul style="list-style-type: none"> Erosion and sediment control measures listed in permits obtained for the proposed project would be implemented. Section 1 lists applicable permits. 	

Hazards and Hazardous Materials

HM-1: Small amounts of hazardous materials such as diesel fuel or hydraulic oil could be released to the environment.	VIIa,b	Mitigation measures listed in Section VI, Geology and Soil, also apply to hazards and hazardous materials. Prior to construction, UPRR would prepare an SWPPP that would include BMPs for the management and handling of hazardous materials and define a protocol for emergency procedures and handling and disposal of hazardous materials if an accidental spill occurs during construction.	Less than Significant
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Hydrology/Water Quality

HWC-1: Construction could impact surface water quality in adjacent streams from sedimentation and increased erosion during the wet winter season.	IXa,f	Mitigation measures listed in Section VI, Geology and Soil, also apply to water quality control. Implementation of these mitigation measures would assure that impacts on water quality are less than significant.	Less than Significant
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SECTION 6

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Appendix A
U.S. Fish and Wildlife Service Biological Opinion



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In reply refer to:
81420-2011-F-0398-1

AUG 16 2011

Ms. Nancy Haley
Chief, California North Branch
U.S. Army Corps of Engineers, Sacramento District
650 Capitol Mall, Suite 5-200
Sacramento, California 95814

Subject: Biological Opinion on the Proposed Union Pacific Railroad 165.89 Bridge Replacement Project, Sutter County, California

Dear Ms. Haley:

This responds to your February 3, 2011, request for informal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Union Pacific Railroad (UPRR) (applicant) 165.89 Bridge Replacement project (proposed project), Sutter County, California. Your request was received by the Service on February 14, 2011. The Service has reviewed the biological information you submitted describing the effects of the proposed project on the federally-listed as threatened giant garter snake (*Thamnophis gigas*) (snake), and does not concur with your determination that this species is not likely to be adversely affected by the proposed project. The Service has determined that the proposed project is likely to adversely affect the snake, and it is appropriate to append the project to the *Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter, and Yolo Counties, California* (1-1-97-F-0149) (programmatic). The Service has not designated critical habitat for the snake; therefore, none will be affected. This response is in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The findings and recommendations in this formal consultation are based on: 1) your February 3, 2011 letter requesting informal consultation on the proposed project; 2) the undated Biological Assessment (BA), *UPRR Bridge 165.89 Sacramento Subdivision, Sutter County*; 3) February-April 2011, electronic mail (email) and telephone correspondence between representatives of the Service, and Olsson Associates, the applicant's consultant; 4) a March 22, 2011, site visit made by representatives of Olsson Associates, UPRR, and the Service; and 5) additional information available to the Service.

TAKE PRIDE
IN AMERICA 

Consultation History

- February 14, 2011* The Service received a February 3, 2011, letter from the U.S. Army Corps of Engineers (Corps) requesting the initiation of informal consultation on the proposed project.
- March 22, 2011* The Service, Olsson Associates, and UPRR (applicant) attend a site visit along the bridge within the proposed project area
- March 23, 2011* The Service sent an email providing conservation measures to Olsson Associates
- April 26, 2011* The Service received an email from Olsson Associates agreeing they can implement the proposed conservation measures for the proposed project.

BIOLOGICAL OPINION

Project Description

The applicant has proposed to replace the existing UPRR Bridge 165.89 (bridge) which is located in a rural area of Sutter County, California, approximately 0.67 miles northeast of the town of Rio Oso. The bridge spans over Yankee Slough which drains into the Bear River approximately 400 feet downstream.

The existing bridge was constructed in 1957 and consists of a 24 span, 360-foot long, Timber Stringer Trestle – Ballast Deck bridge. The replacement bridge will consist of 12, 30-foot spans of pre-stressed concrete box girder with timber ties for a total length of 360 feet. Seventy-five cubic yards and 5 cubic yards of soil will be excavated at the west and east abutments, respectively. Pile driving will use a combination of on-and off-track equipment based on site and traffic conditions. If needed, a crane pad and/or a temporary crossing would be constructed; material would come from the soil excavated underneath the bridge and from upland areas near the project site, and would cover approximately 0.07 acre. If necessary, minor grading, clearing, and grubbing will be completed to gain access to mobilize and demobilize equipment. There will be an excavator and trucks (such as a boom truck) within the upland portion of Yankee Slough, to assist with the bridge demolition and the construction of the new bridge. These vehicles will be there for short periods of time; maybe one long day for bridge demolition and bridge set up and another day for clean-up. This area will be approximately 50 feet wide by 360 feet in length, for a total area of approximately 0.40 acre.

Yankee Slough which is within the project area, is a perennial slough which provides suitable aquatic habitat for the snake. Project activities are proposed within 200 feet of this aquatic feature, and therefore the associated upland habitat for the snake will be affected. The nearest

occurrence of the snake reported in the California Natural Diversity Database (CNDDDB) is within 0.50 mile from the project area.

Conservation Measures

The biological conservation measures, as proposed below and in the project materials reviewed by the Service, are considered part of the proposed action evaluated by the Service in this biological opinion. The following are general conservation measures outlined in the programmatic, and are a summary of the project specific conservation measures which help to minimize possible effects on the snake and its habitat:

1. Construction activity within habitat should be conducted between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is lessened because snakes are expected to actively move and avoid danger. Between October 2 and April 30 contact the Service's Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.
2. Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project area as Environmentally Sensitive Areas. These areas should be avoided by all construction personnel.
3. A Service-approved biological monitor shall be on-site during all ground disturbing activities associated with the proposed project.
4. Construction personnel should receive Service-approved worker environmental awareness training. This training instructs workers to recognize giant garter snakes and their habitat(s).
5. Twenty-four hours prior to construction activities, the project area should be surveyed for giant garter snakes by a Service-approved biologist. The survey of the project area should be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. Report any sightings and any incidental take to the Service immediately by telephone at (916) 414-6620.
6. Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.
7. After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions.

Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

8. This project will result in less than 20 acres (i.e., 0.47 acre) of temporary habitat loss lasting one season, which qualifies as Level 1 impacts as outlined in the Programmatic Consultation, requiring the restoration of 0.47 acre of impacted habitat. The applicant proposes to restore snake habitat in accordance with the *Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat* (Guidelines; Service 1997).
9. The applicant will monitor all areas which are restored at the end of the first year, and submit a monitoring report to the Service. Monitoring reports documenting the restoration effort will be submitted to the Service: (1) upon the completion of the restoration implementation; and (2) one year from restoration implementation. Monitoring reports should include photo-documentation, date restoration was completed, what materials were used, what plantings were used, and justification for any substitutions to the Guidelines.

Action Area

The action area is defined in 50 CFR §402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” For the proposed action, the Service considers the action area to be the footprint for removal and installation of the bridge, the access routes, and the staging areas.

Appending to the Programmatic Biological Opinion

The Service has determined that it is appropriate to append the proposed project to the programmatic and that the activities described for the proposed project are appropriate to be covered by the programmatic. This letter is an agreement by the Service to append the proposed project to the programmatic and represents the Service's biological opinion on the effects of the proposed project. Compensation for projects appended to the programmatic involves adhering to the programmatic, except as approved by the Service. Compensation implemented through the programmatic should lead to the development of protected habitat areas distributed across the landscape.

The Service is tracking the amount of incidental take, quantified as acres of snake habitat modified or degraded, exempted through appending to the programmatic. The Service reevaluates the effectiveness of the snake programmatic consultation at least every six months to ensure continued implementation will not result in unacceptable effects to the species or the habitats upon which it depends.

The programmatic identifies three levels of project impacts and appropriate conservation measures for each impact level (below). It is the Service's intent that following these Guidelines

and Avoidance Measures will reduce habitat degradation while increasing the protected habitat areas across the species' range. These measures include the following:

1. Avoidance of take and disturbance of habitat (Levels 1, 2, and 3);
2. Minimization of disturbance and habitat loss (Levels 1, 2, and 3);
3. Restoration of temporary habitat disturbance and associated impacts to snake habitat (Levels 1 and 2);
4. Replacement of permanent and temporal habitat loss (Levels 2 and 3);
5. Management and monitoring of restored and replacement habitat (Levels 1, 2, and 3); and
6. A management plan for the long-term protection of the restored and replaced habitat area(s) to protect the area(s) in perpetuity as habitat for the snake (Levels 2 and 3).

The agreed upon conservation responsibilities of the applicant are as follows:

1. Construction activities associated with the proposed project will result in temporary loss of approximately 0.47 acre of upland habitat for the snake (Level 1). The applicant will restore the temporarily affected 0.47 acre of habitat for the snake to pre-project conditions within the same season, or at most, the same calendar year. The applicant will also monitor the restored areas with a photo documentation report due one year from the implementation of the restoration showing pre-and post-project area photos.

Status of the Species/Environmental Baseline for the Giant Garter Snake

Refer to pages 9-10 of the Programmatic Consultation for the status of the snake.

Status of the species within the action area – The Draft Recovery Plan for the Giant Garter Snake subdivides the range of the species into four recovery units (Service 2003). The action area for the proposed project is within the Southern Sacramento Valley Recovery Unit, within the American Basin population.

Seventy-five CNDDDB (2010) records are known from the American Basin. According to the CNDDDB (2010), the nearest snake record to the proposed project site is within 0.50 mile from the project area. The action area contains habitat components that can be used by the snake for feeding, resting, mating, and other essential behaviors, as well as for movement corridors. In addition, the action area is located along Yankee Slough, which is hydrologically connected to other known snake occurrences including one just 0.50 mile north of the action area, as well as several occurrences in the East Canal. Because of the biology and ecology of the snake, the presence of suitable habitat within the proposed project, and observations of the species, the Service has determined that the snake is reasonably certain to occur within the action area.

Factors affecting species in the action area – The action area is small (0.47 acre) and mostly limited to Yankee Slough and adjacent lands. The past and future use of the access road and railroad bridge which spans over the slough, would be the only known potential factors currently affecting the snake in the action area.

Effects of the Action

The proposed project will affect giant garter snakes inhabiting a total of 0.47 acre of upland habitat. It will result in the temporary loss of 0.47 acre of upland habitat due to the construction activities and the associated temporary loss of this habitat for less than one season.

Construction activities associated with the project occurring in snake upland habitat may harass snakes. The construction will remove vegetation cover and basking sites, fill or crush burrows or crevices, obstruct snake movement, and may result in the direct disturbance, displacement or the injury of snakes.

The proposed project, as described, fits within the parameters of the level of take anticipated in the programmatic and is not likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the snake in the wild.

INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

Amount or Extent of Take

The Service anticipates incidental take of the giant garter snake will be difficult to detect for the following reasons: (1) The cryptic nature of the species and its highly aquatic nature make the finding of an injured or dead specimen unlikely; (2) this species occurs in habitats that makes detection difficult; and (3) losses may be masked by seasonal and annual fluctuations in numbers, chance events, changes in water regime, or additional environmental disturbance. Due to the

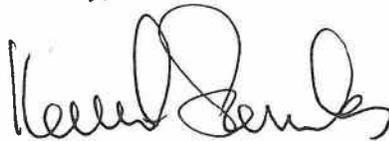
difficulties in quantifying the number of individuals that will be taken as a result of the proposed action, the Service is quantifying take incidental to this project as the number of acres of suitable habitat for the snake that will become unsuitable for this species as a result of the action. The Service estimates that all snakes inhabiting 0.47 acre of upland habitat will be harassed, harm, or injured as a result of the proposed action. The incidental take associated with the proposed action on the snake is hereby exempted from prohibitions of take under section 9 of the Act.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation for the proposed UPRR 165.89 Bridge Replacement Project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this programmatic biological opinion for the UPRR 165.89 Bridge Replacement Project, please contact Jason Hanni, Fish and Wildlife Biologist, or Kellie Berry, Chief, Sacramento Valley Division at (916) 414-6645.

Sincerely,



for Susan K. Moore
Field Supervisor

cc:

Michelle Morely, Olsson Associates, Lincoln, Nebraska

Mark McCune, Union Pacific Railroad Company, Omaha, Nebraska

LITERATURE CITED

- California Natural Diversity Data Base (CNDDDB). 2010. California Natural Heritage Division. California Fish and Game, Sacramento, California.
- U.S. Fish and Wildlife Service (Service). 2003. Revised Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). U.S. Fish and Wildlife Service, Portland, Oregon. ix + 192 pp.
- _____. 1997. Standard Avoidance and Minimization Measures During Construction Activities in Giant Garter Snake Habitat.

Appendix B

Letter of Concurrence, U.S. Army Corps of Engineers



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

February 2, 2012

Regulatory Division (SPK-2011-00051)

Union Pacific Railroad Company
Attn: Mr. Mark McCune
1400 Douglas Street STOP 0910
Omaha, Nebraska 68179-0910

Dear Mr. McCune:

We are responding to your January 12, 2011 request for a Department of the Army permit for the UPRR Bridge 165.89 Replacement Project. This project involves activities, including discharges of dredged or fill material, in waters of the United States to replace an existing railroad bridge (Bridge 165.89) that is structurally deficient. The project is located on Yankee Slough in Section 21, Township 13 North, Range 4 East, Mount Diablo Meridian, Latitude 38.96599°, Longitude -121.53346°, Sutter County, California.

Based on available information, **we concur with the estimate of potential waters of the United States, as depicted on Figure F-5, prepared November 2010 Figure F-5 Olsson Associates** (enclosure 1). The approximately 0.102 acres of wetlands or other water bodies present within the survey area may be jurisdictional waters of the United States. These waters may be regulated under Section 404 of the Clean Water Act. A copy of our RGL 08-02 Preliminary Jurisdictional Determination Form for this site is enclosed (enclosure 2). Please sign and return a copy of the completed form to this office.

Further, the project as proposed, resulting in temporary impacts to approximately 0.07 acres of intermittent stream, is authorized by Nationwide Permit Number (NWP) 14, Linear Transportation Projects (enclosure 3). However, until Section 401 Water Quality Certification for the activity has been issued or waived, our authorization is denied without prejudice. Once you have provided us evidence of water quality certification, the activity is authorized and the work may proceed subject to the conditions of certification and the NWP. Your work must comply with the general terms and conditions listed on the enclosed NWP information sheets and the following special conditions:

Special Conditions

1. To ensure your project complies with the Federal Endangered Species Act, you must implement all of the mitigating measures identified in the enclosed U.S. Fish and Wildlife Service letter of concurrence (81420-2011-F-0398-1, dated August 18, 2011), including those ascribed to the Corps therein (enclosure 4). If you are unable to implement any of these measures, you must immediately notify this office and the U.S. Fish and Wildlife Office so we may consult as appropriate, prior to initiating the work, in accordance with Federal law.

2011
M.L.M.
FEB 10 2012
SLC

2. You shall notify this office of the start and completion dates for each phase of the authorized work within 14 calendar days prior to initiation of construction activities within waters of the U.S. and 14 calendar days following completion of construction activities.

3. Within 60 days following completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, you shall submit pre- and post-construction site photographs and as-built drawings with a description of the work conducted on the project site to this office for review. The drawings shall include the following:

a. The Department of the Army Permit number.

b. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings. The drawing should show all "earth disturbance," wetland impacts, structures, and the boundaries of any on-site and/or off-site mitigation or avoidance areas.

c. A description and list of all deviations between the work as authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings the location of any deviations that have been listed.

4. You are responsible for all work authorized herein and ensuring that all contractors and workers are made aware and adhere to the terms and conditions of this permit authorization. You shall ensure that a copy of the permit authorization and associated drawings are available for quick reference at the project site until all construction activities are completed.

5. You and your authorized contractor shall allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that work is being or has been accomplished in accordance with the terms and conditions of this verification.

You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work (enclosure 5).

This verification is valid until March 18, 2012, when the existing NWP's are scheduled to be modified, reissued, or revoked. It is incumbent upon you to remain informed of changes to the NWP's. We will issue a public notice when the NWP's are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Failure to comply with the General Conditions of this NWP, or the project-specific Special Conditions of this authorization, may result in the suspension or revocation of your authorization.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2011-00051 in any correspondence concerning this project. If you have any questions, please contact Ms. Krystel Bell at our California North Branch Office, 1325 J Street, Room 1350 J Street, Sacramento, California 95814-2922, via email Krystel.L.Bell@usace.army.mil, or by telephone at 916-557-7745. For more information regarding our program, please visit our website at www.spk.usace.army.mil/regulatory.html.

Sincerely,

A handwritten signature in black ink, appearing to read "Nancy Arcady Haley". The signature is fluid and cursive, with a small "for" written to the left of the main name.

Nancy Arcady Haley
Chief, California North Branch

Enclosures

Copies Furnished without enclosures:

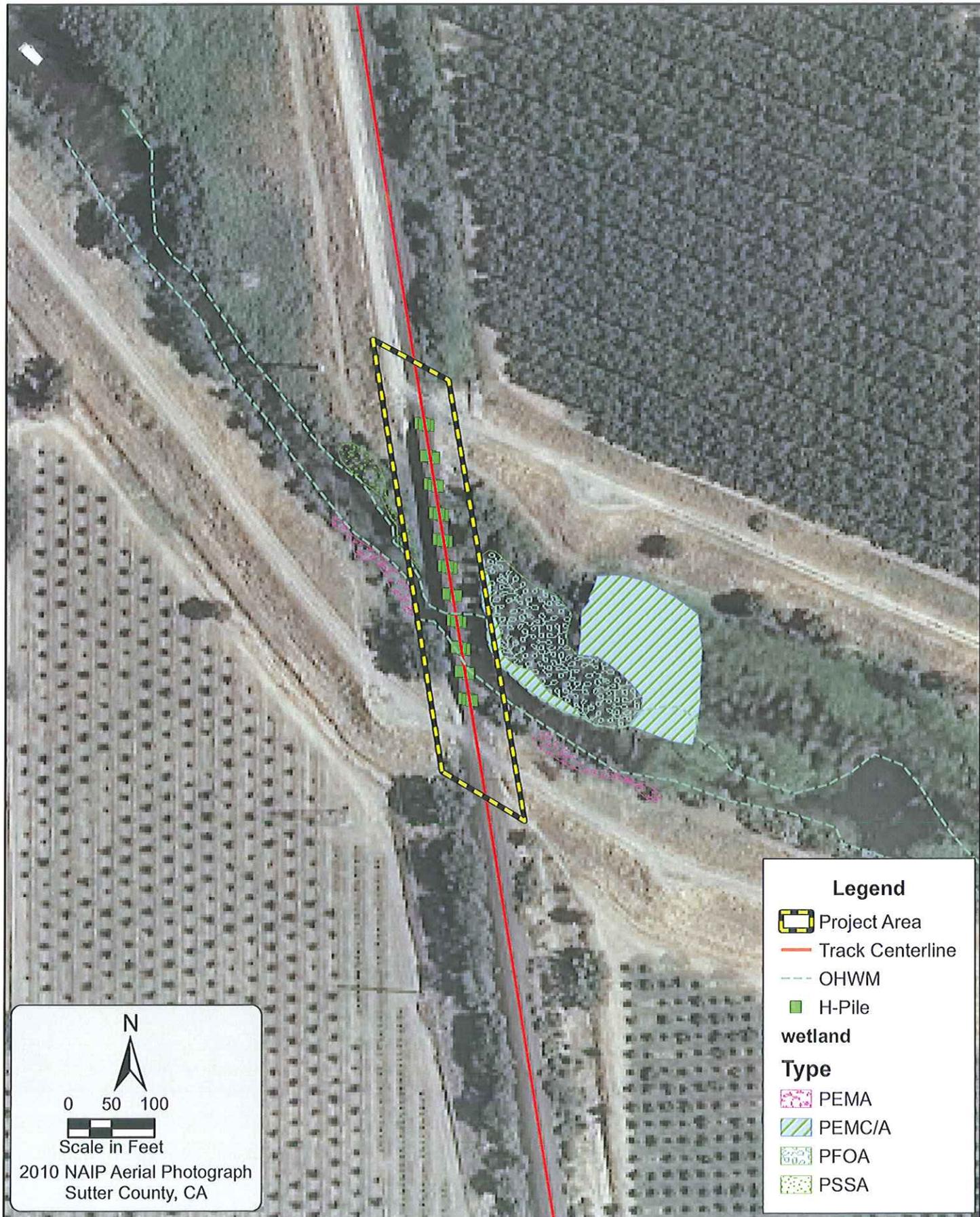
Mr. Jason Hanni, US Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Room W-2605, Sacramento, California 95825

Ms. Liz Lee, Central Valley Regional Water Quality Control Board, 11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114

Mr. John Schoonover, CH2M HILL, 2525 Airpark Drive, Redding, California 96001

Mr. Kent Smith, California Department of Fish and Game, 1701 Nimbus Road Rancho Cordova, California 95670

F:\Projects\0082021\ENVA\gis\165.89\Maps.mxd



Legend

- Project Area
- Track Centerline
- OHWM
- H-Pile

wetland

Type

- PEMA
- PEMC/A
- PFOA
- PSSA

N

0 50 100

Scale in Feet

2010 NAIP Aerial Photograph
Sutter County, CA

PROJECT: 008-2021	
DRAWN BY: JM	
DATE: November 3, 2010	

WETLAND MAP
 UPRR Bridge 165.89
 Sacramento Subdivision
 Sutter County, California

OLSSON
ASSOCIATES

11111 Levee Mall, Suite 111
P.O. Box 24509
Lincoln, NE 68501-4009

TEL: 402.474.6371
FAX: 402.474.5160
www.olssoneng.com

FIGURE
F - 8

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

Sacramento District

This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Regulatory Branch: California North File/ORM #: SPK-2011-00051 PJD Date: August 29, 2011

State: CA City/County: Sutter County Nearest Waterbody: Yankee Slough Location (Lat/Long): 38.96599°, -121.53346° Size of Review Area: 0.102 acres	Name/Address Mark McCune Of Property Union Pacific Railroad Company Owner/ 1400 Doulgas Street STOP 0910 Potential Omaha, Nebraska 68179-0910 Applicant
---	---

Identify (Estimate) Amount of Waters in the Review Area <u>Non-Wetland Waters:</u> 125 linear feet ft wide 0.102 acre(s) Stream Flow: Intermittent <u>Wetlands:</u> acre(s) Cowardin N/A Class:	Name of any Water Bodies Tidal: on the site identified as Section 10 Waters: Non-Tidal: <input checked="" type="checkbox"/> Office (Desk) Determination <input type="checkbox"/> Field Determination: Date(s) of Site Visit(s):
---	--

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply – checked items should be included in case file and, where checked and requested, appropriately reference sources below)

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- Data sheets prepared by the Corps.
- Corps navigable waters' study.
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24K; CA-NICOLAUS
- USDA Natural Resources Conservation Service Soil Survey.
- National wetlands inventory map(s).
- State/Local wetland inventory map(s).
- FEMA/FIRM maps.
- 100-year Floodplain Elevation (if known):
- Photographs: Aerial
 Other
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Kristel Bell 29 Aug 2011
 Signature and Date of Regulatory Project Manager (REQUIRED) Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:
 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.



U S Army Corps of
Engineers
Sacramento District

Nationwide Permit Summary

33 CFR Part 330; Issuance of Nationwide Permits - March 19, 2007 includes corrections of May 8, 2007 and addition of regional conditions December 2007

14. Linear Transportation Projects. Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10 acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 27.) (Sections 10 and 404)

Note: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4)

A. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact

the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP.

1. Navigation.

- (a) No activity may cause more than a minimal adverse effect on navigation.
- (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
- (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3 Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or

restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species.

(a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No

activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have “no effect” on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal “takes” of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties.

(a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to

notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWP 3 only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20 Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the

aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR

330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

22. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received an NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;

(b) A statement that any required mitigation was completed in accordance with the permit conditions; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification.

(a) **Timing.** Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) Forty-five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) **Contents of Pre-Construction Notification:** The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic

property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant

submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

(a) **28. Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

B. Regional Conditions:

I. Sacramento District (All States, except Colorado)

1. When pre-construction notification (PCN) is required, the prospective permittee shall notify the Sacramento District in accordance with General Condition 27 using either the South Pacific Division Preconstruction Notification (PCN) Checklist or a completed application form (ENG Form 4345). In addition, the PCN shall include:

a. A written statement explaining how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States;

b. Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and size (in acreage) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the high tide line should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation; and

c. Pre-project color photographs of the project site taken from designated locations documented on the plan drawing.

2. The permittee shall complete compensatory mitigation required by special conditions of the NWP verification before or concurrent with construction of the authorized activity, except when specifically determined to be impracticable by the Sacramento District. When project mitigation involves use of a mitigation bank or in-lieu fee program, payment shall be made before commencing construction.

3. The permittee shall record the NWP verification with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property against areas (1) designated to be preserved as part of mitigation for authorized impacts, including any associated covenants or restrictions, or (2) where structures such as boat ramps or docks, marinas, piers, and permanently moored vessels will be constructed in or adjacent to navigable waters (Section 10 and Section 404). The recordation shall also include a map showing the surveyed location of the authorized structure and any associated areas preserved to minimize or compensate for project impacts.

4. The permittee shall place wetlands, other aquatic areas, and any vegetative buffers preserved as part of mitigation for impacts into a separate "preserve" parcel prior to discharging

dredged or fill material into waters of the United States, except where specifically determined to be impracticable by the Sacramento District. Permanent legal protection shall be established for all preserve parcels, following Sacramento District approval of the legal instrument.

5. The permittee shall allow Corps representatives to inspect the authorized activity and any mitigation areas at any time deemed necessary to determine compliance with the terms and conditions of the NWP verification. The permittee will be notified in advance of an inspection.

6. For NWPs 29, 39, 40, 42, 43, 44, and 46, requests to waive the 300 linear foot limitation for intermittent or ephemeral waters of the U.S. shall include an evaluation of functions and services provided by the waterbody taking into account the watershed, measures to be implemented to avoid and minimize impacts, other measures to avoid and minimize that were found to be impracticable, and a mitigation plan for offsetting impacts.

7. Road crossings shall be designed to ensure fish passage, especially for anadromous fisheries. Permittees shall employ bridge designs that span the stream or river, utilize pier or pile supported structures, or involve large bottomless culverts with a natural streambed, where the substrate and streamflow conditions approximate existing channel conditions. Approach fills in waters of the United States below the ordinary high water mark are not authorized under the NWPs, except where avoidance has specifically been determined to be impracticable by the Sacramento District.

8. For NWP 12, clay blocks, bentonite, or other suitable material shall be used to seal the trench to prevent the utility line from draining waters of the United States, including wetlands.

9. For NWP 13, bank stabilization shall include the use of vegetation or other biotechnical design to the maximum extent practicable. Activities involving hard-armoring of the bank toe or slope requires submission of a PCN per General Condition 27.

10. For NWP 23, the PCN shall include a copy of the signed Categorical Exclusion document and final agency determinations regarding compliance with Section 7 of the Endangered Species Act, Essential Fish Habitat under the Magnussen-Stevens Act, and Section 106 of the National Historic Preservation Act.

11. For NWP 44, the discharge shall not cause the loss of more than 300 linear feet of streambed. For intermittent and ephemeral streams, the 300 linear foot limit may be waived in writing by the Sacramento District. This NWP does not authorize discharges in waters of the United States supporting anadromous fisheries.

12. For NWPs 29 and 39, channelization or relocation of intermittent or perennial drainage, is not authorized, except when, as determined by the Sacramento District, the relocation would result in a net increase in functions of the aquatic ecosystem within the watershed.

13. For NWP 33, temporary fills for construction access in waters of the United States supporting fisheries shall be accomplished with clean, washed spawning quality gravels where practicable as determined by the Sacramento District, in consultation with appropriate federal and state wildlife agencies.

14. For NWP 46, the discharge shall not cause the loss of greater than 0.5 acres of waters of the United States or the loss of more than 300 linear feet of ditch, unless this 300 foot linear foot limit is waived in writing by the Sacramento District.

15. For NWPs 29, 39, 40, 42, and 43, upland vegetated buffers shall be established and maintained in perpetuity, to the maximum extent practicable, next to all preserved open waters, streams and wetlands including created, restored, enhanced or preserved waters of the U.S., consistent with General Condition 20. Except in unusual circumstances, vegetated buffers shall be at least 50 feet in width.

16. All NWPs except 3, 6, 20, 27, 32, 38, and 47, are revoked for activities in histosols and fens and in wetlands contiguous with fens. Fens are defined as slope wetlands with a histic epipedon that are hydrologically supported by groundwater. Fens are normally saturated throughout the growing season, although they may not be during drought conditions. For NWPs 3, 6, 20, 27, 32, and 38, prospective permittees shall submit a PCN to the Sacramento District in accordance with General Condition 27.

17. For all NWPs, when activities are proposed within 100 feet of the point of groundwater discharge of a natural spring, prospective permittees shall submit a PCN to the Sacramento District in accordance with General Condition 27. A spring source is defined as any location where ground water emanates from a point in the ground. For purposes of this condition, springs do not include seeps or other discharges which lack a defined channel.

II. California Only

1. In the Lake Tahoe Basin, all NWPs are revoked. Activities in this area shall be authorized under Regional General Permit 16 or through an individual permit.

2. In the Primary and Secondary Zones of the Legal Delta, NWPs 29 and 39 are revoked. New development activities in the Legal Delta will be reviewed through the Corps' standard permit process.

III. Nevada Only

1. In the Lake Tahoe Basin, all NWPs are revoked. Activities in this area shall be authorized under Regional General Permit 16 or through an individual permit.

IV. Utah Only

1. For all NWPs, except NWP 47, prospective permittees shall submit a PCN in accordance with General Condition 27 for any activity, in waters of the United States, below 4217 feet mean sea level (msl) adjacent to the Great Salt Lake and below 4500 feet msl adjacent to Utah Lake.

2. A PCN is required for all bank stabilization activities in a perennial stream that would affect more than 100 linear feet of stream

3. For NWP 27, facilities for controlling stormwater runoff, construction of water parks such as kayak courses, and use of grout or concrete to construct in-stream structures are not authorized. A PCN is required for all projects exceeding 1500 linear feet as measured on the stream thalweg, using in stream structures exceeding 50 cubic yards per structure and/or incorporating grade control structures exceeding 1 foot vertical

drop. For any stream restoration project, the post project stream sinuosity shall be appropriate to the geomorphology of the surrounding area and shall be equal to, or greater than, pre project sinuosity. Sinuosity is defined as the ratio of stream length to project reach length. Structures shall allow the passage of aquatic organisms, recreational water craft or other navigational activities unless specifically waived in writing by the District Engineer.

V. Colorado Only

1. Final Regional Conditions Applicable to Specific Nationwide Permits within Colorado.

a. Nationwide Permit Nos. 12 and 14, Utility Line Activities and Linear Transportation Projects. In the Colorado River Basin, utility line and road activities crossing perennial water or special aquatic sites require notification to the District Engineer in accordance with General Condition 27 (Pre-Construction Notification).

b. Nationwide Permit No. 13 Bank Stabilization. In Colorado, bank stabilization activities necessary for erosion prevention in streams that average less than 20 feet in width (measured between the ordinary high water marks) are limited to the placement of no more than 1/4 cubic yard of suitable fill* material per running foot below the plane of the ordinary high water mark. Activities greater than 1/4 cubic yard may be authorized if the permittee notifies the District Engineer in accordance with General Condition 27 (Pre-Construction Notification) and the Corps determines the adverse environmental effects are minimal. [* See (g) for definition of Suitable Fill]

c. Nationwide Permit No. 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

(1) For activities that include a fishery enhancement component, the Corps will send the Pre-Construction Notification to the Colorado Division of Wildlife (CDOW) for review. In accordance with General Condition 27 (Pre-Construction Notification), CDOW will have 10 days from the receipt of Corps notification to indicate that they will be commenting on the proposed project. CDOW will then have an additional 15 days after the initial 10-day period to provide those comments. If CDOW raises concerns, the applicant may either modify their plan, in coordination with CDOW, or apply for a standard individual permit.

(2) For activities involving the length of a stream, the post-project stream sinuosity will not be significantly reduced, unless it is demonstrated that the reduction in sinuosity is consistent with the natural morphological evolution of the stream (sinuosity is the ratio of stream length to project reach length).

(3) Structures will allow the upstream and downstream passage of aquatic organisms, including fish native to the reach, as well as recreational water craft or other navigational activities, unless specifically waived in writing by the District Engineer. The use of grout and/or concrete in

building structures is not authorized by this nationwide permit.

(4) The construction of water parks (i.e., kayak courses) and flood control projects are not authorized by this nationwide permit.

d. Nationwide Permits Nos. 29 and 39; Residential Developments and Commercial and Institutional Developments. A copy of the existing FEMA/locally-approved floodplain map must be submitted with the Pre-Construction Notification. When reviewing proposed developments, the Corps will utilize the most accurate and reliable FEMA/locally-approved pre-project floodplain mapping, not post-project floodplain mapping based on a CLOMR or LOMR. However, the Corps will accept revisions to existing floodplain mapping if the revisions resolve inaccuracies in the original floodplain mapping and if the revisions accurately reflect pre-project conditions.

2. Final Regional Conditions Applicable to All Nationwide Permits within Colorado

e. Removal of Temporary Fills. General Condition 13 (Removal of Temporary Fills) is amended by adding the following: When temporary fills are placed in wetlands in Colorado, a horizontal marker (i.e. fabric, certified weed-free straw, etc.) must be used to delineate the existing ground elevation of wetlands that will be temporarily filled during construction.

f. Spawning Areas. General Condition 3 (Spawning Areas) is amended by adding the following: In Colorado, all Designated Critical Resource Waters (see enclosure 1) are considered important spawning areas. Therefore, In accordance with General Condition 19 (Designated Critical Resource Waters), the discharge of dredged or fill material is not authorized by the following nationwide permits in these waters: NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50. In addition, in accordance with General Condition 27 (Pre-Construction Notification), notification to the District Engineer is required for use of the following nationwide permits in these waters: NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37 and 38".

g. Suitable Fill. In Colorado, use of broken concrete as fill material requires notification to the District Engineer in accordance with General Condition 27 (Pre-Construction Notification). Permittees must demonstrate that soft engineering methods utilizing native or non-manmade materials are not practicable (with respect to cost, existing technology, and logistics), before broken concrete is allowed as suitable fill. Use of broken concrete with exposed rebar is prohibited in perennial waters and special aquatic sites.

h. Invasive Aquatic Species. General Condition 11 is amended by adding the following condition for work in perennial or intermittent waters of the United States: If heavy equipment is used for the subject project that was previously working in another stream, river, lake, pond, or wetland within 10 days of initiating work, one the

following procedures is necessary to prevent the spread of New Zealand Mud Snails and other aquatic hitchhikers:

(1) Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and keep the equipment dry for 10 days. OR

(2) Remove all mud and debris from Equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with either a 1:1 solution of Formula 409 Household Cleaner and water, or a solution of Sparquat 256 (5 ounces Sparquat per gallon of water). Treated equipment must be kept moist for at least 10 minutes. OR

(3) Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water greater than 120 degrees F for at least 10 minutes.

3. Final Regional Conditions for Revocation/Special Notification Specific to Certain Geographic Areas

i. Fens: All Nationwide permits, except permit Nos. 3, 6, 20, 27, 32, 38 and 47, are revoked in fens and wetlands adjacent to fens. Use of nationwide permit Nos. 3, 20, 27 and 38, requires notification to the District Engineer, in accordance with General Condition 27 (Pre-Construction Notification), and the permittee may not begin the activity until the Corps determines the adverse environmental effects are minimal. The following defines a fen:

Fen soils (histosols) are normally saturated throughout the growing season, although they may not be during drought conditions. The primary source of hydrology for fens is groundwater. Histosols are defined in accordance with the U.S. Department of Agriculture, Natural Resources Conservation Service publications on Keys to Soil Taxonomy and Field Indicators of Hydric Soils in the United States (<http://soils.usda.gov/technical/classification/taxonomy>).

j. Springs: Within the state of Colorado, all NWP, except permit 47 (original 'C'), require preconstruction notification pursuant to General Condition 27 for discharges of dredged or fill material within 100 feet of the point of groundwater discharge of natural springs. A spring source is defined as any location where groundwater emanates from a point in the ground. For purposes of this regional condition, springs do not include seeps or other discharges which do not have a defined channel.

4. Additional Information

The following provides additional information regarding minimization of impacts and compliance with existing general Conditions:

a. Permittees are reminded of the existing General Condition No. 6 which prohibits the use of unsuitable material. Organic debris, building waste, asphalt, car bodies, and trash are not suitable material. Also, General Condition 12 requires appropriate erosion and sediment controls (i.e. all fills must be permanently stabilized to

prevent erosion and siltation into waters and wetlands at the earliest practicable date). Streambed material or other small aggregate material placed along a bank as stabilization will not meet General Condition 12. Also, use of erosion control mats that contain plastic netting may not meet General Condition 12 if deemed harmful to wildlife.

b. Designated Critical Resource Waters in Colorado. In Colorado, a list of designated Critical Resource Waters has been published in accordance with General Condition 19 (Designated Critical Resource Waters). This list will be published on the Albuquerque District Regulatory home page (<http://www.spa.usace.army.mil/reg/>)

c. Federally-Listed Threatened and Endangered Species. General condition 17 requires that non-federal permittees notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project. Information on such species, to include occurrence by county in Colorado, may be found at the following U.S. Fish and Wildlife Service website: http://www.fws.gov/mountain%2Dprairie/endspp/name_county_search.htm

C. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

D. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term “discharge” means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic

resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands

contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWP, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a “single and complete project” is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal

interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

COMPLIANCE CERTIFICATION

Permit File Number: SPK-2011-00051

Nationwide Permit Number: NWP 14 Linear Transportation Projects.

Permittee: Mark McCune
Union Pacific Railroad Company
1400 Douglas Street STOP 0910
Omaha, Nebraska 68179-0910

County: Sutter

Date of Verification: February 2, 2011

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922
DLLS-CESPK-RD-Compliance@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the Corps of Engineers.

* * * * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

Signature of Permittee

Date



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In reply refer to:
81420-2011-F-0398-1

AUG 16 2011

Ms. Nancy Haley
Chief, California North Branch
U.S. Army Corps of Engineers, Sacramento District
650 Capitol Mall, Suite 5-200
Sacramento, California 95814

Subject: Biological Opinion on the Proposed Union Pacific Railroad 165.89 Bridge Replacement Project, Sutter County, California

Dear Ms. Haley:

This responds to your February 3, 2011, request for informal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Union Pacific Railroad (UPRR) (applicant) 165.89 Bridge Replacement project (proposed project), Sutter County, California. Your request was received by the Service on February 14, 2011. The Service has reviewed the biological information you submitted describing the effects of the proposed project on the federally-listed as threatened giant garter snake (*Thamnophis gigas*) (snake), and does not concur with your determination that this species is not likely to be adversely affected by the proposed project. The Service has determined that the proposed project is likely to adversely affect the snake, and it is appropriate to append the project to the *Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter, and Yolo Counties, California* (1-1-97-F-0149) (programmatic). The Service has not designated critical habitat for the snake; therefore, none will be affected. This response is in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The findings and recommendations in this formal consultation are based on: 1) your February 3, 2011 letter requesting informal consultation on the proposed project; 2) the undated Biological Assessment (BA), *UPRR Bridge 165.89 Sacramento Subdivision, Sutter County*; 3) February-April 2011, electronic mail (email) and telephone correspondence between representatives of the Service, and Olsson Associates, the applicant's consultant; 4) a March 22, 2011, site visit made by representatives of Olsson Associates, UPRR, and the Service; and 5) additional information available to the Service.

TAKE PRIDE
IN AMERICA 

Consultation History

- February 14, 2011* The Service received a February 3, 2011, letter from the U.S. Army Corps of Engineers (Corps) requesting the initiation of informal consultation on the proposed project.
- March 22, 2011* The Service, Olsson Associates, and UPRR (applicant) attend a site visit along the bridge within the proposed project area
- March 23, 2011* The Service sent an email providing conservation measures to Olsson Associates
- April 26, 2011* The Service received an email from Olsson Associates agreeing they can implement the proposed conservation measures for the proposed project.

BIOLOGICAL OPINION

Project Description

The applicant has proposed to replace the existing UPRR Bridge 165.89 (bridge) which is located in a rural area of Sutter County, California, approximately 0.67 miles northeast of the town of Rio Oso. The bridge spans over Yankee Slough which drains into the Bear River approximately 400 feet downstream.

The existing bridge was constructed in 1957 and consists of a 24 span, 360-foot long, Timber Stringer Trestle – Ballast Deck bridge. The replacement bridge will consist of 12, 30-foot spans of pre-stressed concrete box girder with timber ties for a total length of 360 feet. Seventy-five cubic yards and 5 cubic yards of soil will be excavated at the west and east abutments, respectively. Pile driving will use a combination of on-and off-track equipment based on site and traffic conditions. If needed, a crane pad and/or a temporary crossing would be constructed; material would come from the soil excavated underneath the bridge and from upland areas near the project site, and would cover approximately 0.07 acre. If necessary, minor grading, clearing, and grubbing will be completed to gain access to mobilize and demobilize equipment. There will be an excavator and trucks (such as a boom truck) within the upland portion of Yankee Slough, to assist with the bridge demolition and the construction of the new bridge. These vehicles will be there for short periods of time; maybe one long day for bridge demolition and bridge set up and another day for clean-up. This area will be approximately 50 feet wide by 360 feet in length, for a total area of approximately 0.40 acre.

Yankee Slough which is within the project area, is a perennial slough which provides suitable aquatic habitat for the snake. Project activities are proposed within 200 feet of this aquatic feature, and therefore the associated upland habitat for the snake will be affected. The nearest

occurrence of the snake reported in the California Natural Diversity Database (CNDDDB) is within 0.50 mile from the project area.

Conservation Measures

The biological conservation measures, as proposed below and in the project materials reviewed by the Service, are considered part of the proposed action evaluated by the Service in this biological opinion. The following are general conservation measures outlined in the programmatic, and are a summary of the project specific conservation measures which help to minimize possible effects on the snake and its habitat:

1. Construction activity within habitat should be conducted between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is lessened because snakes are expected to actively move and avoid danger. Between October 2 and April 30 contact the Service's Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.
2. Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project area as Environmentally Sensitive Areas. These areas should be avoided by all construction personnel.
3. A Service-approved biological monitor shall be on-site during all ground disturbing activities associated with the proposed project.
4. Construction personnel should receive Service-approved worker environmental awareness training. This training instructs workers to recognize giant garter snakes and their habitat(s).
5. Twenty-four hours prior to construction activities, the project area should be surveyed for giant garter snakes by a Service-approved biologist. The survey of the project area should be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. Report any sightings and any incidental take to the Service immediately by telephone at (916) 414-6620.
6. Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.
7. After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions.

Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

8. This project will result in less than 20 acres (i.e., 0.47 acre) of temporary habitat loss lasting one season, which qualifies as Level 1 impacts as outlined in the Programmatic Consultation, requiring the restoration of 0.47 acre of impacted habitat. The applicant proposes to restore snake habitat in accordance with the *Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat* (Guidelines; Service 1997).
9. The applicant will monitor all areas which are restored at the end of the first year, and submit a monitoring report to the Service. Monitoring reports documenting the restoration effort will be submitted to the Service: (1) upon the completion of the restoration implementation; and (2) one year from restoration implementation. Monitoring reports should include photo-documentation, date restoration was completed, what materials were used, what plantings were used, and justification for any substitutions to the Guidelines.

Action Area

The action area is defined in 50 CFR §402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” For the proposed action, the Service considers the action area to be the footprint for removal and installation of the bridge, the access routes, and the staging areas.

Appending to the Programmatic Biological Opinion

The Service has determined that it is appropriate to append the proposed project to the programmatic and that the activities described for the proposed project are appropriate to be covered by the programmatic. This letter is an agreement by the Service to append the proposed project to the programmatic and represents the Service's biological opinion on the effects of the proposed project. Compensation for projects appended to the programmatic involves adhering to the programmatic, except as approved by the Service. Compensation implemented through the programmatic should lead to the development of protected habitat areas distributed across the landscape.

The Service is tracking the amount of incidental take, quantified as acres of snake habitat modified or degraded, exempted through appending to the programmatic. The Service reevaluates the effectiveness of the snake programmatic consultation at least every six months to ensure continued implementation will not result in unacceptable effects to the species or the habitats upon which it depends.

The programmatic identifies three levels of project impacts and appropriate conservation measures for each impact level (below). It is the Service's intent that following these Guidelines

and Avoidance Measures will reduce habitat degradation while increasing the protected habitat areas across the species' range. These measures include the following:

1. Avoidance of take and disturbance of habitat (Levels 1, 2, and 3);
2. Minimization of disturbance and habitat loss (Levels 1, 2, and 3);
3. Restoration of temporary habitat disturbance and associated impacts to snake habitat (Levels 1 and 2);
4. Replacement of permanent and temporal habitat loss (Levels 2 and 3);
5. Management and monitoring of restored and replacement habitat (Levels 1, 2, and 3); and
6. A management plan for the long-term protection of the restored and replaced habitat area(s) to protect the area(s) in perpetuity as habitat for the snake (Levels 2 and 3).

The agreed upon conservation responsibilities of the applicant are as follows:

1. Construction activities associated with the proposed project will result in temporary loss of approximately 0.47 acre of upland habitat for the snake (Level 1). The applicant will restore the temporarily affected 0.47 acre of habitat for the snake to pre-project conditions within the same season, or at most, the same calendar year. The applicant will also monitor the restored areas with a photo documentation report due one year from the implementation of the restoration showing pre-and post-project area photos.

Status of the Species/Environmental Baseline for the Giant Garter Snake

Refer to pages 9-10 of the Programmatic Consultation for the status of the snake.

Status of the species within the action area – The Draft Recovery Plan for the Giant Garter Snake subdivides the range of the species into four recovery units (Service 2003). The action area for the proposed project is within the Southern Sacramento Valley Recovery Unit, within the American Basin population.

Seventy-five CNDDDB (2010) records are known from the American Basin. According to the CNDDDB (2010), the nearest snake record to the proposed project site is within 0.50 mile from the project area. The action area contains habitat components that can be used by the snake for feeding, resting, mating, and other essential behaviors, as well as for movement corridors. In addition, the action area is located along Yankee Slough, which is hydrologically connected to other known snake occurrences including one just 0.50 mile north of the action area, as well as several occurrences in the East Canal. Because of the biology and ecology of the snake, the presence of suitable habitat within the proposed project, and observations of the species, the Service has determined that the snake is reasonably certain to occur within the action area.

Factors affecting species in the action area – The action area is small (0.47 acre) and mostly limited to Yankee Slough and adjacent lands. The past and future use of the access road and railroad bridge which spans over the slough, would be the only known potential factors currently affecting the snake in the action area.

Effects of the Action

The proposed project will affect giant garter snakes inhabiting a total of 0.47 acre of upland habitat. It will result in the temporary loss of 0.47 acre of upland habitat due to the construction activities and the associated temporary loss of this habitat for less than one season.

Construction activities associated with the project occurring in snake upland habitat may harass snakes. The construction will remove vegetation cover and basking sites, fill or crush burrows or crevices, obstruct snake movement, and may result in the direct disturbance, displacement or the injury of snakes.

The proposed project, as described, fits within the parameters of the level of take anticipated in the programmatic and is not likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the snake in the wild.

INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

Amount or Extent of Take

The Service anticipates incidental take of the giant garter snake will be difficult to detect for the following reasons: (1) The cryptic nature of the species and its highly aquatic nature make the finding of an injured or dead specimen unlikely; (2) this species occurs in habitats that makes detection difficult; and (3) losses may be masked by seasonal and annual fluctuations in numbers, chance events, changes in water regime, or additional environmental disturbance. Due to the

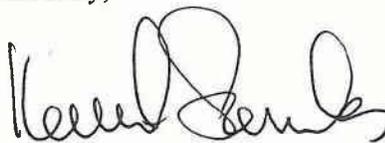
difficulties in quantifying the number of individuals that will be taken as a result of the proposed action, the Service is quantifying take incidental to this project as the number of acres of suitable habitat for the snake that will become unsuitable for this species as a result of the action. The Service estimates that all snakes inhabiting 0.47 acre of upland habitat will be harassed, harm, or injured as a result of the proposed action. The incidental take associated with the proposed action on the snake is hereby exempted from prohibitions of take under section 9 of the Act.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation for the proposed UPRR 165.89 Bridge Replacement Project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this programmatic biological opinion for the UPRR 165.89 Bridge Replacement Project, please contact Jason Hanni, Fish and Wildlife Biologist, or Kellie Berry, Chief, Sacramento Valley Division at (916) 414-6645.

Sincerely,



for Susan K. Moore
Field Supervisor

cc:

Michelle Morely, Olsson Associates, Lincoln, Nebraska

Mark McCune, Union Pacific Railroad Company, Omaha, Nebraska

LITERATURE CITED

- California Natural Diversity Data Base (CNDDDB). 2010. California Natural Heritage Division. California Fish and Game, Sacramento, California.
- U.S. Fish and Wildlife Service (Service). 2003. Revised Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). U.S. Fish and Wildlife Service, Portland, Oregon. ix + 192 pp.
- _____. 1997. Standard Avoidance and Minimization Measures During Construction Activities in Giant Garter Snake Habitat.

Appendix C
Feather River Air Quality Management District
Fugitive Dust Emission Requirements

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

Serving the Counties of Yuba and Sutter

938 14th Street, Marysville, CA 95901

(530) 634-7659 FAX: (530) 634-7660 Burn Information: (530) 741-6299

Email: fraqmd@fracmd.org

Web Site: <http://www.fraqmd.org>

Steven A. Speckert

Air Pollution Control Officer

REQUIREMENTS FOR THE CONTROL OF FUGITIVE DUST EMISSIONS

Introduction

The Feather River Air Quality Management District (FRAQMD) is designated nonattainment for the California PM₁₀ health standard (particulate matter less than 10 microns in size; also referred to in this document as respirable particulate matter and fugitive dust). This means that Yuba and Sutter Counties violate the state PM₁₀ air quality health standard. Construction activities, agricultural operations, unpaved roads, and windblown dust contribute heavily to these emissions. According to the U.S. EPA, exposure to high concentrations of particulate matter, including airborne dust, affects breathing, aggravates existing respiratory and cardiovascular disease, and alters the body's defenses against foreign materials, lung damage, skin cancer and premature death. Further studies have linked respirable particulate matter with health problems like asthma and chronic bronchitis.

This document serves to address the aforementioned health concerns by informing the public of applicable state laws and local rules and regulations governing fugitive dust emissions and the capacity for the air district to issue violations (refer to Attachment A). Also attached to this document are a list of approved mitigation measures (refer to Attachment B) and a fugitive dust control plan to be submitted by the project proponent for FRAQMD approval (refer to Attachment C).

Discussion

Frequent nuisance complaints are received at the air district in regard to construction site fugitive dust emissions. Standard CEQA mitigation recommendations approved for the project are not always implemented by the project proponent. Appropriate emphasis on the need for fugitive dust controls and the potential impacts of air district enforcement actions need to be stressed.

In accordance with California Health and Safety Code (H&S) section 42400 et seq., the FRAQMD can assess civil and criminal penalties for violations of the FRAQMD Rules and Regulations and the H&S. Violations are misdemeanors and can carry potential penalties from \$1,000 to \$1,000,000 per day per violation and/or imprisonment in the county jail.

This document cites applicable air pollution regulations, defines performance criteria and acceptable control strategies to implement, and specifies emission levels and standards not to exceed in order to prevent a violation (refer to Attachment A). The project proponent should have a thorough understanding of these regulations. If additional information is required please contact the District at the location provided above.

Prevention

Fugitive dust control strategies are composed of a balance of available dust mitigation techniques applied on an as needed basis by construction site supervision to

- prevent dust from exiting the property,
- prevent visible emissions from exceeding opacity regulations, and
- prevent public nuisance.

This implies the use of adequate measures during the appropriate evolution of each construction activity and may include wind breaks and barriers, frequent water applications, application of soil additives, control of vehicle access, vehicle speed restrictions, covering of piles, use of gravel at site exit points to remove caked on dirt from tires and tracks, washing of equipment at the end of each work day and prior to site removal, wet sweeping of public thoroughfares, and work stoppage (refer to Attachment B).

Site-Specific Considerations

Time of year, length of project, and acres per day undergoing vegetative removal, excavation, backfilling, hauling and grading should be the primary focus for implementation of dust control measures. The plan must also consider dust emissions associated with construction activities after completion of grading activities including installation of infrastructure (including water, electric, roads, sidewalks, and sewer), digging of building foundations, site vehicle traffic, and landscaping activities.

Knowledge of soil types may be important to understand the free silt content and the ability to hold moisture. Some soils are hydrophobic – repel water - and may require the addition of surfactants during water applications to facilitate penetration and achieve appropriate moisture adsorption. Surfactants may also be used to reduce the amount of water needed.

Activities occurring near sensitive receptors should receive a higher level of preventative planning. Sensitive receptors include school-aged children (schools, daycare, playgrounds), the elderly (retirement community, nursing homes), the infirm (medical facilities/offices), and those who exercise outdoors regularly (public and private exercise facilities, parks).

Other Regulatory Requirements

The project proponent should evaluate water quality, flora and fauna and other environmental impacts (e.g. wildlife, drinking water, stormwater runoff, and surface water impacts) prior to the use of water/soil additives including binders, tackifiers, surfactants, and other materials and methods. All additives at a minimum must meet Regional Water Quality Control Board (RWQCB) requirements and all applicable federal, state, and local environmental regulations regarding the use of the material.

Fugitive Dust Control Plan Submittal

Complete and sign Attachment C, Fugitive Dust Control Plan, and submit to FRAQMD prior to start of work.

ORIGINAL SIGNED

Larry D. Matlock
Senior Air Quality Planner

Note: This document may be downloaded from our web site at
[http:// www.fraqmd.org/Downloads/FugitiveDustControlPlan.doc](http://www.fraqmd.org/Downloads/FugitiveDustControlPlan.doc) or
[http:// www.fraqmd.org/Downloads/FugitiveDustControlPlan.pdf](http://www.fraqmd.org/Downloads/FugitiveDustControlPlan.pdf)

FugitiveDustControlPlan09_09_03.doc

FRAQMD – Effective 09/09/03

LOCAL AND STATE REGULATIONS APPLICABLE TO FUGITIVE DUST

I. FRAQMD Rules and Regulations

Note: The following District Rules and Regulations are enforced for each project regardless of lead agency or Board approved project CEQA mitigation requirements.

FRAQMD RULE 3.0 - VISIBLE EMISSIONS (Adopted 6/91)

As provided by Section 41701 of the California Health and Safety Code, a person shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:

- a. As dark or darker in shade as that designated as No. 2 on the Ringlemen Chart, as published by the United States Bureau of Mines; or
- b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Subsection 'a' above.

Enforcement: The District has trained staff capable of performing a Visible Emissions Evaluation (VEE). VEE courses are offered to regulators and the regulated community (for a fee) at regular intervals by staff of the California Air Resources Board.

FRAQMD RULE 3.16 - FUGITIVE DUST EMISSIONS (Adopted 4/11/94)

A. PURPOSE

The purpose of this Rule is to reasonably regulate operations which periodically may cause fugitive dust emissions into the atmosphere.

B. DEFINITION

For the purpose of this Rule, the following definitions shall apply:

- B.1 Fugitive Dust: Solid airborne matter emitted from any non-combustion source.
- B.2 Emergency: Any act of God, but only if the owner of the property from which fugitive dust emissions originate establishes for the Feather River Air Quality Management District, by a preponderance of evidence, that he or she took reasonable precautions in light of the relevant facts and circumstances to minimize emissions.
- B.3 Property Line: Adjacent properties which are owned by the same person shall be considered the same property for the purpose of determining the property line.

C. REQUIREMENTS

A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation.

Reasonable precautions shall include, but are not limited to:

C.1 use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, construction of roadways, or the clearing of land;

C.2 application of asphalt, oil, water, or suitable chemical on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;

C.3 other means approved by the Air Pollution Control Officer.

D. EXEMPTIONS

The provisions of this Rule shall not apply to the following:

D.1 Agricultural Operations

D.2 Currently unworked land designated as reclaimed for agriculture

D.3 An Emergency

D.4 Unpaved roads open to public travel (this inclusion shall not apply to industrial or commercial facilities).

II. State Laws

California Health and Safety Code

Section 41700. Except as otherwise provided in Section 41705, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Section 41701. Except as otherwise provided in Section 41704, or Article 2 (commencing with Section 41800) of this chapter other than Section 41812, or Article 2 (commencing with Section 42350) of Chapter 4, no person shall discharge into the atmosphere from any source whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is: (a) As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subdivision (a).

California Vehicle Code

Section 23114 requires: No vehicle shall transport any aggregate material upon a highway unless the material is covered. Exception 23114(e)(4): Vehicles transporting loads of aggregate materials shall not be required to cover their loads if the load, where it contacts the sides, front, and back of the cargo container area, remains six inches from the upper edge of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area. For purposes of this section, "aggregate material" means rock fragments, pebbles, sand, dirt, gravel, cobbles, crushed base, asphalt, and other similar materials.

FRAQMD - FUGITIVE DUST CONTROL MITIGATION MEASURES

Sources: FRAQMD Indirect Source Review Guidelines and Best Available Mitigation Measures compiled by the air districts of the Greater Sacramento Region and approved for implementation by the FRAQMD Board of Directors.

All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.

Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management District and as necessary to prevent fugitive dust violations.

An operational water truck should be onsite at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.

Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.

All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.

Apply approved chemical soil stabilizers according to the manufacturers' specifications, to all inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.

To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.

Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.

Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.

Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.

Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.

Disposal by Burning: Open burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

FRAQMD – Effective 09/09/03

Fugitive Dust Control Plan

This plan, upon signature and submittal to the FRAQMD, will serve as an approved Fugitive Dust Control Plan to be implemented at the designated site. This plan must be submitted by the project proponent and received at the air district prior to start of work.

The approved plan serves as an acknowledgment by the project proponent of their duty to address state and local laws governing fugitive dust emissions and the potential for first offense issuance of a Notice of Violation by the air district where violations are substantiated by District staff.

• Site Location: _____

• Project Type (circle all that apply): Residential Commercial Industrial Transportation

• List of responsible persons:

Office (name, title, address, phone): _____

Field (name, title, phone): _____

• Projected Start and End Dates: _____

Project Proponent: _____

Printed Name

Company/Phone

Signature: _____ Title: _____

By signing this document I acknowledge that I have read the accompanying literature regarding state and local fugitive dust emission laws and understand that it is my responsibility as the project proponent to ensure that appropriate materials and instructions are available to site employees to implement fugitive dust mitigation measures (Attachment B) appropriate for each development phase of this project.

I further acknowledge that it is my responsibility to ensure that site employees are made formally aware of fugitive dust control laws, requirements, and available mitigation techniques, and that appropriate measures are to be implemented at the site as necessary to prevent fugitive dust violations.

_____ FRAQMD – Effective 09/09/03 _____

Please Submit to: FRAQMD, 938 14th Street, Marysville, CA 95901 Attn: Planning
Phone: 530-634-7659 x202 FAX: 530-634-7660 Email: imatlock@fraqmd.org

Appendix D
Construction Emission Calculations

APPENDIX D

Construction Emission Summary

Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision

Emission Source	Emissions (lb/day)						Emissions (metric tons)
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Clearing/Grubbing	4.3	14.90	38.5	0.0005	1.41	1.30	4708.0
Pile Driving	1.6	6.19	12.6	0.0011	0.65	0.60	5587
Construction	3.2	12.79	27.8	0.0011	1.25	1.15	4391
Total Project Emissions	9.1	33.9	78.9	0.0	3.3	3.0	14685
Average Daily Emissions	2.0	7.9	16.6	0.0	0.8	0.7	NA
FRAQMD Thresholds	25	NE	25	NE	80	NE	NE
Threshold Exceeded?	No	NA	No	NA	No	NA	NA

The FRAQMD construction mitigation measures must be implemented for any project exceeding the threshold.

Notes:

CO = carbon monoxide

CO₂ = carbon dioxide

FRAQMD = Feather River Air Quality Management District

lb/day = pounds per day

NA = not applicable

NE = threshold has not been established

NO_x = nitrogen oxide

PM₁₀ = particulate matter less than 10 micrometers in aerodynamic diameter

PM_{2.5} = particulate matter less than 2.5 micrometers in aerodynamic diameter

ROG = reactive organic gas

SO_x = sulfur oxide

Worker Commute Trips				Emissions (lb/day)						Emissions (metric tons)
Construction Phase	Number of Workers/day	Days of Work	Miles Travelled per Round Trip	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Clearing/Grubbing	4	1	20	0.008	0.31	0.028	0.0005	0.0014	0.0014	50
Pile Driving	8	41	20	0.015	0.62	0.056	0.0011	0.0028	0.0028	4133
Construction	8	13	20	0.015	0.62	0.06	0.0011	0.0028	0.0028	1310

Round trip mileage represents the distance from the construction site to the nearest city (in this case, Rocklin, CA).

It is assumed construction crews will operate 5 days per week, 10 hours per day.

APPENDIX D

Road Emission Factors

Initial Study and Mitigated Negative Declaration for Union Pacific Railroad Milepost 165.89 Bridge Replacement, Sacramento Subdivision

Exhaust Emission Factors

Vehicle	Vehicle Type in EMFAC2007	2012 Emission Factors (lb/mile)						
		ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Work Trucks (unpaved roads)	Light-duty Truck, Gasoline	0.0005	0.0093	0.0009	0.00002	0.0001	0.0001	1.5350
Employee Commute Paved Road	Passenger Vehicles, Gasoline	0.0001	0.0038	0.0004	0.00001	0.0000	0.00002	0.6300
Vehicle	Vehicle Type in EMFAC2007	2012 Emission Factors (g/mile)						
		ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Work Trucks (unpaved roads)	Light-duty Truck, Gasoline	0.206	4.209	0.417	0.007	0.1	0.05	696.27
Employee Commute	Passenger Vehicles, Gasoline	0.043	1.744	0.16	0.003	0.008	0.008	285.766

Emission factors from the California Air Resources Board EMFAC 2007 model. It was assumed that vehicles would travel at 10 miles per hour on unpaved roads and 45 miles per hour on paved roads.

Notes:

lb/mile = pounds per mile

g/mile = gallons per mile

Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name:

Project Name: UPRR Bridge - Sutter Co.

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NO _x	CO	SO ₂	PM ₁₀ Dust	PM ₁₀ Exhaust	PM ₁₀ Total	PM _{2.5} Dust	PM _{2.5} Exhaust	PM _{2.5} Total	CO ₂
Time Slice 5/30/2012-5/30/2012	4.33	38.53	15.30	0.00	0.00	1.42	1.42	0.00	1.30	1.30	4,734.26
Mass Grading 05/30/2012-	4.33	38.53	15.30	0.00	0.00	1.42	1.42	0.00	1.30	1.30	4,734.26
Mass Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Off-road Diesel	4.31	38.49	14.59	0.00	0.00	1.41	1.41	0.00	1.30	1.30	4,657.59
Mass Grading On-road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00	76.67
Time Slice 6/1/2012-7/13/2012	1.56	12.54	6.29	0.00	0.00	0.65	0.65	0.00	0.60	0.60	1,530.59
Asphalt 06/01/2012-07/15/2012	1.56	12.54	6.29	0.00	0.00	0.65	0.65	0.00	0.60	0.60	1,530.59
Paving Off-gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off-road Diesel	1.54	12.50	5.58	0.00	0.00	0.65	0.65	0.00	0.60	0.60	1,453.92
Paving On-road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00	76.67
Time Slice 7/16/2012-8/1/2012	3.21	27.75	12.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	3,080.24
Building 07/16/2012-08/01/2012	3.21	27.75	12.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	3,080.24
Building Off-road Diesel	3.21	27.75	12.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	3,080.24
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase Assumptions

Phase: Mass Grading 5/30/2012 - 5/30/2012 - Land Clearing/Grubbing

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On-road Truck Travel (VMT): 0

Off-road Equipment:

1 Off-highway Trucks (479 hp) operating at a 0.57 load factor for 10 hours per day

1 Scrapers (313 hp) operating at a 0.72 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Paving 6/1/2012 - 7/15/2012 - Pile Driving

Acres to be Paved: 0

Off-road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Building Construction 7/16/2012 - 8/1/2012 - Change-out/Cleanup

Off-road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

1 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Appendix E
Cultural Resources Assessment

Cultural Resources Assessment for Union Pacific Railroad Bridge, Sacramento Subdivision, Milepost 165.89

PREPARED FOR: Debra Schafer/UPRR
Steve Cheney/UPRR

PREPARED BY: Megan Venno/CH2M HILL

COPIES: Deborah Waller/CH2M HILL
Janet Rodriguez/CH2M HILL

DATE: December 19, 2011

1. Introduction

Union Pacific Railroad (UPRR) proposes to remove an existing 24-span, 360-foot-long timber stringer trestle, ballast deck bridge and replace it with a 360-foot-long, 30-span pre-stressed concrete box girder bridge across Yankee Slough within the UPRR right-of-way (ROW) at milepost (MP) 165.89 in the Sacramento Subdivision, Sutter County, California. This technical memorandum describes the planned project and presents the archaeological and architectural evaluation and assessment of impacts from the proposed project.

2. Proposed Project

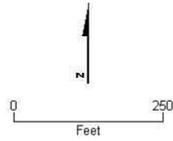
The proposed project involves the removal and replacement of the railroad bridge at MP 165.89 along the UPRR Sacramento Subdivision. The project site boundary, which is also the area of potential effects (APE) (Figure 1), is composed of 0.92 acre and extends approximately 400 feet laterally from the western and eastern edges of the existing bridge structure within the UPRR ROW. The project site will be accessed along the existing UPRR maintenance road from Catlett Road. An on-track crane will be used to remove the existing bridge if possible, as well as to grade, clear or grub sections of the maintenance road as needed. Where the on-track crane cannot be used, off-track equipment (track hoe or excavator) will be used. The new bridge will be installed using an on-track crane whenever possible. Any areas disturbed by construction will be returned to their pre-construction condition and seeded.

The existing bridge structure, backwall, and pilings will be removed. The proposed bridge's east abutment will be placed at least three feet outside the existing east abutment. Up to a total of approximately 75 cubic yards and 5 cubic yards will be excavated at the west and east abutments, respectively. The north and south banks of Yankee Slough will be sloped at

2:1 to support the bridge structure. A total of eleven rows of piles, each row consisting of three piles, will be driven into the channel to support the bridge structure. Piles will be driven in the bed and bank of Yankee Slough. Precast concrete pile caps will be placed above the pile columns. All removed materials will be disposed of offsite. Equipment will include rail cars, on-track locomotive cranes to drive piles and set the new bridge, trackhoes to remove the existing deck, loaders to remove debris, and a compactor trackhoe to compact behind the new abutments.



LEGEND
[Yellow Polygon] AREA OF POTENTIAL EFFECTS



USGS 24K QUAD: NICOLAUS
TOWNSHIP 13 NORTH, RANGE 04 EAST, SECTION 21

VICINITY MAP



FIGURE 1
UPRR BRIDGE 165.89
AREA OF POTENTIAL EFFECTS -
SACRAMENTO SUBDIVISION
SUTTER COUNTY, CA

RDD \AUPRR_356927\MAPFILES\FIG1_BRIDGE165-89_SAC_APE.MXD ECLARKI 12/19/2011 10:10:16 AM

CH2MHILL

Figure 1 Area of Potential Effects Map – Sacramento Subdivision, Milepost 165.89

3. Research Methodology

Megan Venno, a qualified architectural historian with CH2M HILL, checked the federal historic properties database in December 2011. A search in the National Register of Historic Places (NRHP) online database, known as the National Register Information System, showed that the UPRR Sacramento Subdivision and associated features are not listed in the NRHP. Gloriella Cardenas, a qualified archaeologist with CH2M HILL, conducted a literature search through the Northeast Center of the California Historical Resources Information System to identify prior cultural resource studies and previously recorded historic properties within 0.5 mile of the project site. Four previous studies have been conducted of the project area.

Additional research was conducted to prepare a historical context for the bridge. This research included review of published materials and online Web pages dedicated to railroad history. Additional information regarding historic properties was obtained from the *Cultural Resources Baseline Literature Review for the Urban Levee* (Grant, 2008), *Historic Resource Evaluation Report of the Northern Electric (Sacramento Northern) Railroad* (JRP Historical Consulting Services, 1994), *Report on the Archaeological Survey of the Bear River* (Sacramento State College and the California State Indian Museum, 1961), and the *Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project, Segment WP04: Sacramento to Redding* (Far Western Anthropological Research Group, Inc., 2000). No cultural resources were identified within the project site or within 0.5 mile of the site.

4. Historical Context

The UPRR Sacramento Subdivision is a former Western Pacific Railway line that runs from Oroville Yard (MP 203.7) south to Stockton (MP 92.7) (Cooley, 2011; McRee, 2010). The Western Pacific route went through the Sierra Nevada Mountains, connecting Oakland, California, on the west with Salt Lake City, Utah, on the east. The Western Pacific Railway Company was organized on March 3, 1903. It was financed and built by the Denver and Rio Grande Western Railroad, under the direction of George Jay Gould, to provide a standard gauge track connection to the Pacific Coast. Rail laying began with the driving of the first spike at 3rd and Union streets in Oakland, CA on January 2, 1906, and concluded on November 1, 1909, on the steel bridge across Spanish Creek near Keddie, CA (Kneiss, 1953). Freight service on the line started on December 1, 1909, and passenger service commenced the following August. When the Western Pacific was completed, it was 924 miles long and essentially provided a second transcontinental railway, circumventing the transcontinental monopoly formerly held by the Southern Pacific. Once established, the Western Pacific railway facilitated logging in the Sierra Nevada, which then became the primary industry of the area. The railroad also allowed the development of a tourist economy by enabling travelers from San Francisco to access the Sierra Nevada area in a single day of travel. The Western Pacific line was noted for its engineering accomplishments as well as the stunning physical beauty of its terrain.

By 1915, the Western Pacific Railway was in bankruptcy and was sold a year later. It reorganized as the Western Pacific Railroad. Over the next 70 years, the railroad underwent a series of expansions and mergers. The Western Pacific was acquired by the Union Pacific Corporation in 1983 (Bridges 1983), and the entire line from Stockton to Keddie was called

the Canyon Subdivision. After 2000, UPRR renamed the portion from Stockton to Oroville as the Sacramento Subdivision.

The town of Oroville, home to Oroville Yard, was originally a junction where three railroads maintained posts. Western Pacific (later Union Pacific), Sacramento Northern, and Southern Pacific all ran through the small town. Southern Pacific stopped running rail service through the town in the 1970s, and Sacramento Northern pulled out in 1980, leaving Union Pacific as the only rail company in town. Oroville Yard still exists, but in a much diminished capacity (Rattenne, 2011).

5. Results

5.1 Archaeological

A cultural resources literature review was conducted for the bridge site. The file search focused on the site location and included a 0.5-mile buffer to add further context for the types of archaeological sites that might be found.

The railroad bridge at MP 165.89, Sacramento Subdivision, is located on the Nicolaus 7.5-minute and Knights Landing 15-minute U.S. Geological Survey (USGS) topographic quadrangles in Sutter County, California. Available literature indicates no known cultural resources at the project site or within 0.5 mile of it. Four linear surveys have been conducted along the UPRR corridor in this area. None of these surveys recorded any archaeological sites within 0.5 mile of the bridge.

5.2 Architectural

A literature review determined that the railroad bridge at MP 165.89, Sacramento Subdivision, is not listed in the NRHP and has not been determined eligible for listing in the NRHP, and there are no NRHP-listed or eligible historic properties located within 0.5 mile of the project.

To be eligible for inclusion in the NRHP, a property must meet the requirements of at least one of the following four primary NRHP criteria (National Park Service, 1997):

- The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and:
- a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
 - b) That are associated with the lives of persons significant in our past; or
 - c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high

- artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) That have yielded or may be likely to yield, information important in prehistory or history.

In addition, properties must retain enough integrity to demonstrate their significance under the criteria. The NRHP recognizes seven aspects of integrity: setting, feeling, association, location, materials, design, and workmanship. Even if a property meets the criteria, it must retain sufficient integrity to convey that significance in order to be eligible for listing in the NRHP.

The bridge at Sacramento Subdivision MP 165.89 is a 24-span, 360-foot-long timber stringer trestle, ballast deck bridge over the Yankee Slough. It was constructed in 1957, and has been continuously maintained and repaired as needed over its lifetime. Several of the timber piles, pile caps, timber stringers, track, and ballast retainers have been replaced, and deck boards have been repaired to stop ballast leaks.

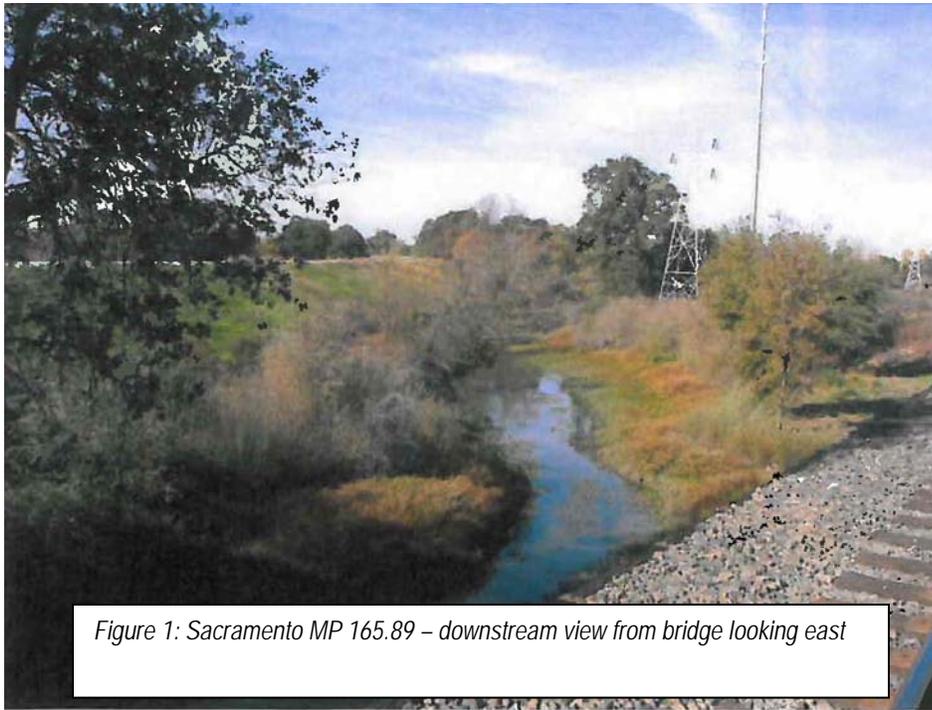


Figure 1: Sacramento MP 165.89 – downstream view from bridge looking east

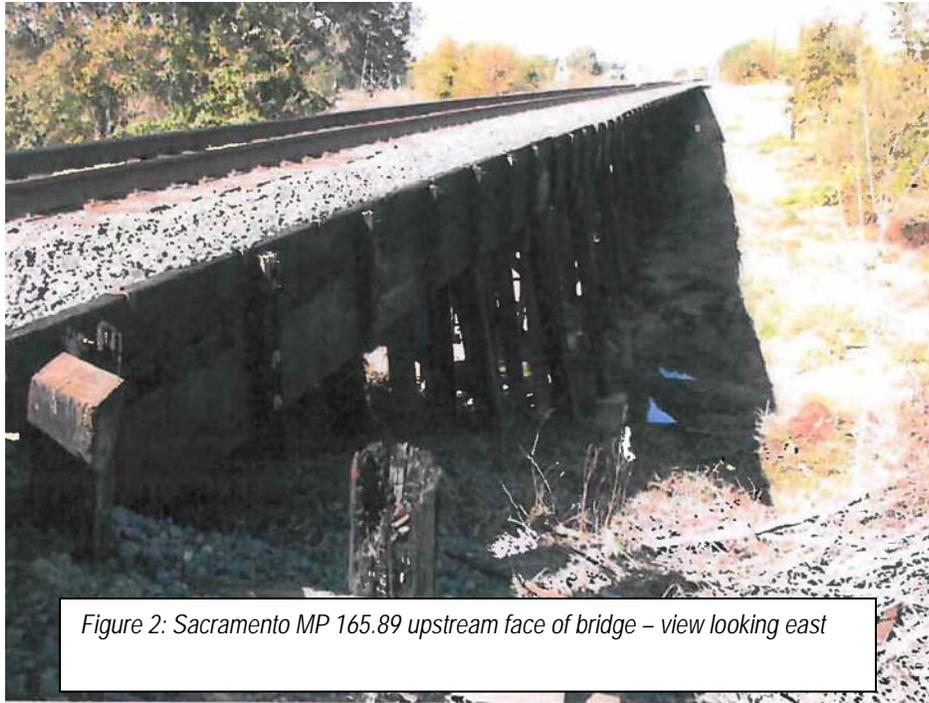


Figure 2: Sacramento MP 165.89 upstream face of bridge – view looking east



Figure 3: Sacramento MP 165.89 upstream face of bridge – view looking west

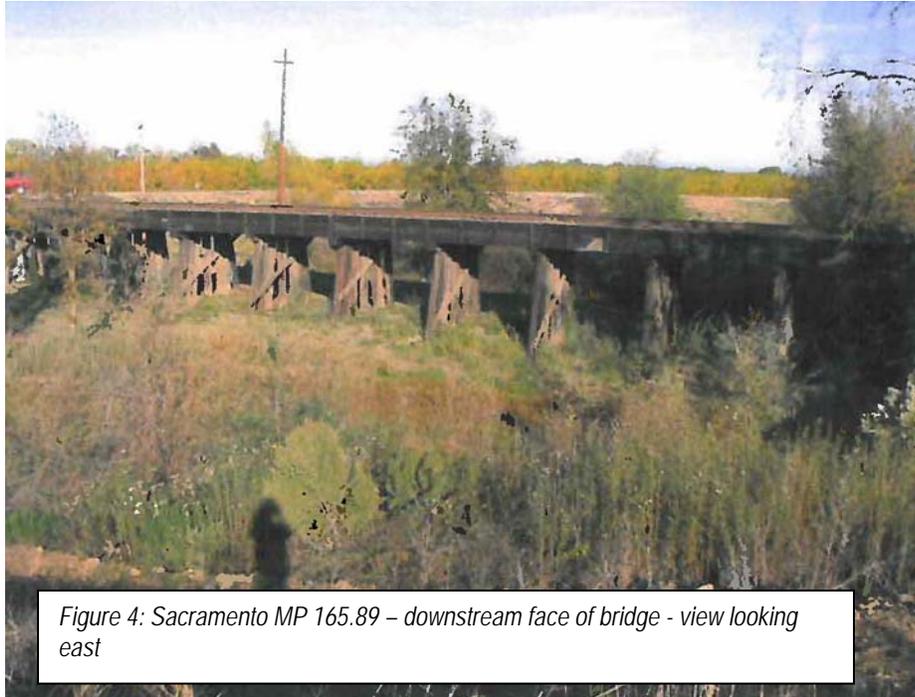


Figure 4: Sacramento MP 165.89 – downstream face of bridge - view looking east



Figure 5: Sacramento MP 165.89 – west abutment

Within the historical context of the UPRR Sacramento Subdivision, no specific events mark an important moment in American history associated with this bridge. Although the bridge is part of a railroad and railroads have been acknowledged as making significant contributions to the history or development of a community, state, or even the nation, this bridge is not considered important within the context of railroads, the Sacramento Subdivision, the Western Pacific Line, or the UPRR. Therefore, it is not eligible for the NRHP under Criterion A, which applies to properties that are associated with events that have made a significant contribution to the broad patterns of history.

To be eligible for the NRHP under Criterion B, a property must be directly associated with a person considered significant within a historic context, whose specific contributions to history have been both identified and documented. No such person who meets that definition is linked to this bridge. Nothing is known about the designers or builders of the bridge, because it is a typical, common design used on railroads all over the country. Therefore, the bridge is not individually eligible for the NRHP under Criterion B.

The bridge is similar in design to bridges found elsewhere along the UPRR that display the same designs, materials, and construction techniques used at various times since the railroad began operation. It also follows or resembles standard plans for railroad bridges. The bridge does not embody the distinctive characteristics of a type, period, or method of construction; nor does it possess high artistic value. It does not represent the work of a master. Therefore, it is not eligible for the NRHP under Criterion C.

The bridge is also not eligible under Criterion D for information potential. As noted above, it represents a standard type of railroad bridge construction, and the material and construction method do not convey important information contributing to understanding history or prehistory.

In addition, the bridge has lost some integrity of materials, design, and workmanship. The timber piles, pile caps, timber stringers, track, and ballast retainers have been replaced, and deck boards have been repaired to stop ballast leaks.

In summary, the bridge at Sacramento Subdivision MP 165.89 is a common design and does not represent a design or engineering achievement; it is therefore **not eligible for the NRHP under Criterion C**. The bridge is not associated with events that have made significant contributions to the broad patterns of local, regional, or national history; and is not associated with any persons considered important in local, state, or national history. It is therefore **not eligible for the NRHP under Criteria A or B**. The bridge is not likely to yield information important in prehistory or history; it is therefore **not eligible for the NRHP under Criterion D**. **Therefore, no historic properties are present in the project area.**

6. Effects

No archaeological resources have been identified in the APE, and none are expected to be disturbed by the proposed project. The bridge is not listed in or eligible for the NRHP, and no other historic properties are present in the APE. Therefore, the proposed UPRR bridge replacement will have no effect on identified historic properties.

7. Conclusion

No known cultural resources are within the APE or within 0.5 mile of the project site. No NRHP-listed or eligible properties were identified in the APE, including the bridge at Sacramento Subdivision MP 165.89. Therefore, no identified historic properties are within the APE, and the proposed project would have no effect on historic properties.

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Appendix F
Guidelines for Restoration and/or Replacement of
Giant Garter Snake Habitat

Programmatic Consultation with the U.S. Army Corps of Engineers
404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake
within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano,
Stanislaus, Sutter and Yolo Counties, California

Appendix A
Guidelines for Restoration and/or
Replacement of Giant Garter Snake Habitat

Replacement and Restoration Guidelines are provided together, as the two conservation measures may not be mutually exclusive. Replacement of habitat may also require restoration of some areas. Preserved habitat may additionally be improved for giant garter snake by using some of the restoration guidelines.

Reference sites

A nearby reference site should be chosen both for restoration of giant garter snake habitat and for creation of replacement habitat. The reference site will be used to determine the success of conservation efforts. For restoration of habitat, the pre-project condition may be used as a reference site if adequate documentation exists. For creation of replacement habitat or for restoration where pre-project conditions are not documented, the reference site should be nearby or adjacent and should represent high quality giant garter snake habitat.

Restoration of giant garter snake habitat

Restoration may include incorporating some of the Replacement guidelines to enhance habitat value for giant garter snake. Restoration should follow the guidelines outlined below:

1. Restoring giant garter snake habitat includes minimizing impacts of project activities to the existing habitat, including using silt fencing, designating environmentally sensitive areas, using protective mats, preventing runoff, and providing worker awareness training. Measures to minimize impacts include:
 - a. Avoid construction activities within 200 feet from the banks of giant garter snake aquatic habitat. Confine movement of heavy equipment to existing roadways to minimize habitat disturbance.
 - b. Construction activity within habitat should be conducted between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is lessened, because snakes are expected to actively move and avoid danger. Between October 2 and April 30 contact the Service's Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.
 - c. Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project area as Environmentally Sensitive Areas. This area should be avoided by all construction personnel.
 - d. Construction personnel should receive Service-approved worker environmental awareness training. This training instructs workers to recognize giant garter snakes and its habitat(s).

- e. 24-hours prior to construction activities, the project area should be surveyed for giant garter snakes. Survey of the project area should be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. Report any sightings and any incidental take to the Service immediately by telephone at (916) 414-6600.
 - f. Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.
2. Remove all construction debris and stockpiled materials.
 3. Regrade area to preexisting contour, or a contour that would improve restoration potential of the site.
 4. Replant and hydroseed the restoration area. Recommended plantings consist of a) wetland emergents, b) low-growing cover on or adjacent to banks, and c) upland plantings/hydroseeding mix to encourage use by other wildlife. Riparian plantings are not appropriate because shading may result in lack of basking sites. Native plantings are encouraged except where non-natives will provide additional values to wildlife habitat and will not become invasive in native communities. The applicant should obtain cuttings, plantings, plugs, or seeds, from local sources wherever possible. The applicant should attempt to restore conditions similar to that of adjacent or nearby habitats.
 - a. Emergent wetland plants recommended for giant garter snake habitat are California bulrush (*Scirpus californicus*), cattail (*Typha* spp.), and water primrose (*Ludwigia peploides*). Additional wetland plantings may include common tule (*Scirpus acutus*), Baltic rush (*Juncus balticus*), or duckweed (*Lemna* spp.).
 - b. Cover species on or adjacent to the bank may include California blackberry (*Rubus vitifolius*) or wild grape (*Vitis californica*), along with the hydroseeding mix recommended below.
 - c. Upland plantings/hydroseeding mix: Disturbed soil surfaces such as levee slopes should be hydroseeded to prevent erosion. The Service recommends a mix of at least 20-40 percent native grass seeds [such as annual fescue (*Vulpia* spp.), California brome (*Bromus carinatus*), blue wildrye (*Elymus glaucus*), and needle grass (*Nassella* spp.)], 2-10 percent native forb seeds, five percent rose clover (*Trifolium hirtum*), and five percent alfalfa (*Medicago sativa*). Approximately 40-68 percent of the mixture may be non-aggressive European annual grasses [such as wild oats (*Avena sativa*), wheat (*Triticum* spp.), and barley (*Hordeum vulgare*)]. The Corps will not include aggressive non-native grasses, such as perennial ryegrass (*Lolium perenne*), cheatgrass (*Bromus tectorum*), fescue (*Festuca* spp.), giant reed (*Arundo donax*), medusa-head (*Taeniatherum caput-medusae*), or Pampas grass (*Cortaderia selloana*) in the hydroseed mix. The Corps will not include endophyte-infected grasses in the mix. Mixes of one-hundred percent native grasses and forbs may also be used, and are encouraged.

Replacement of giant garter snake habitat

Location

Replacement location should be within the same population cluster boundaries (population clusters are defined in 58 FR 54053) as the habitat lost. For example: The boundaries of the Sacramento Basin population cluster are approximately, Highway 16 to the north, Sacramento River to the west, Twin Cities Road to the south, and the Folsom Aqueduct to the east. Habitat lost within this area must also be replaced within this area.

Habitat components

Giant Garter Snake Habitat. The giant garter snake inhabits marshes, sloughs, ponds, small lakes, low gradient streams, other waterways and agricultural wetlands such as irrigation and drainage canals and rice fields, and the adjacent uplands. Essential habitat components consist of (1) adequate water during the snake's active period, (early spring through mid-fall) to provide a prey base and cover; (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat; (3) upland habitat for basking, cover, and retreat sites; and (4) higher elevation uplands for cover and refuge from flood waters. For the purposes of this programmatic opinion, a basic giant garter snake habitat unit will incorporate 2.00 acres (0.81 hectares) of surrounding upland for every 1.00 acre (0.40 hectare) of aquatic habitat. The 2.00 acres (0.81 hectares) of upland also may be defined as 218 linear feet (66 meters) of bankside habitat which incorporates adjacent uplands to a width of 200 feet (61 meters) from the edge of the bank.

Replacement habitat must provide the above mentioned essential habitat components and include the following:

1. All replacement habitat must include both upland and aquatic habitat components. Upland and aquatic habitat components must be included in the replacement habitat at a ratio of 2:1 upland acres to aquatic acres
2. A semi-permanent or permanent aquatic habitat which provides water during the active period for giant garter snakes (April through October) with suitable vegetative cover present. Linear or meandering channels with slow flowing water over mud or silt substrate are preferred.
3. Upland basking and retreat sites with low growing vegetation cover adjacent to aquatic habitat, and upland retreats and flood refugia with partially buried broken concrete or animal burrows.
4. Small fish and amphibian larvae for foraging, but predatory "gamefish" (bass, *Micropterus* spp.; sunfish, *Lepomis* spp.; catfish, *Ictalurus* spp. and *Ameiurus* spp.) absent or controlled.
5. An adequate buffer (at least 200 feet) from roadways to reduce vehicular mortality.
6. Follow planting recommendation provided above under restoration guidelines.

Monitoring

Habitat restoration

Restoration of habitat should be monitored for one year following implementation. Monitoring reports documenting the restoration effort should be submitted to the Service: (1) upon completion of the restoration implementation; and (2) one year from restoration implementation.

Monitoring reports should include photodocumentation, when restoration was completed, what materials were used, plantings (if specified) and justification of any substitutions to the Service recommended guidelines. Monitoring reports should also include recommendations for remedial actions and approval from the Service, if necessary, and justification from release of any further monitoring, if requested.

Creation of replacement habitat

Replacement habitat should be monitored for 5 years following implementation. Hydrology should be monitored for the first two years after creation of wetlands. The monitoring effort should continue for three additional years to ensure success criteria are met. Monitoring reports documenting implementation of conservation measures should be submitted to the Service: (1) upon completion of wetland creation; (2) yearly for the first two years of monitoring; and (3) 5 years from implementation. Monitoring reports should include photodocumentation, when restoration was completed, what materials were used, plantings (if specified) and justification of any substitutions to the Service recommended guidelines. Monitoring reports should also include recommendations for remedial actions and approval from the Service, if necessary, and justification from release of any further monitoring, if requested.

Success criteria for replacement habitat:

1. At completion of monitoring, the cover measured on the habitat area should be 90 percent of cover measured on the reference site.
2. At completion of monitoring, the species composition measured on the habitat area should be 90 percent of that measured on the reference site.
3. At completion of monitoring, wetlands created on the site should meet Corps jurisdictional criteria.

Maintenance and management of replacement giant garter snake habitat

1. A final management plan of replacement habitat must be approved by the Service.
2. All maintenance activities should follow Standard Avoidance and Minimization Measures During Construction Activities in Giant Garter Snake Habitat.
3. Additional guidance includes:
 - a. Canal Maintenance - Hand clearing of canals is preferred for removal of excessive vegetation or debris. Any equipment should be operated from the bank top. Excavate from only one side of the canal during a given year. Avoid excavating the banks above the high water level. Preferably, one side of the canal should be left undisturbed indefinitely (the preferred side would be the west or north side) so that emergent vegetation and bank side cover is left in place.
 - b. Place the spoils from canal clearing in a designated location, rather than along bank tops. This will prevent burying or crushing snakes basking on the banks, or trapping snakes taking cover in burrows or bank-top soil crevices.
 - c. Vegetation control - Uplands should not be disced. Leave vegetation on levees and canal sides wherever possible. Mowing to control vegetation should take place July through September and mower blades should be raised at least six inches to avoid injuring snakes and to leave some grassy cover.

- d. Traffic - Control vehicle access to avoid vehicular mortality of giant garter snakes.

- 4. Use a water maintenance regime that will maintain some open water to provide vegetated edge for giant garter snake to forage along.

- 5. Eradicate/control non-natives and invasive exotics.

Compatible uses of giant garter snake replacement habitat:

Rice farming is a compatible land use for adjacent properties.

Uses of giant garter snake replacement habitat that are incompatible with the habitat of giant garter snake, or represent threats to giant garter snakes include row cropping on uplands, orchards on uplands, OHV (off-highway vehicle) use, and combining with riparian habitat creation which requires dense cover or SRA (shaded riverine aquatic) habitat.

[Endangered Species Div., Sacramento Fish & Wildlife Office, U.S. Fish & Wildlife Service](#)

