

Laguna de Santa Rosa Bridge Replacement Project



Initial Study (CEQA)

Proposed Negative Declaration

Prepared by the

State of California Department of Transportation

District 04-SON-Route 12

PM 9.63

EA 1A2900

December 2007

General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with proposed Negative Declaration, which examines the potential environmental impacts of the proposed alternative for the Laguna de Santa Rosa Bridge Replacement project located in Sonoma County, California. The document describes why the project is being proposed, the existing environment that would be affected by the project, the potential impacts to the environment, and the proposed avoidance, minimization and/or mitigation measures.

What you should do:

Please read this Initial Study. Additional copies of this document are available for review at the following two public sites in Sebastopol.

Sebastopol Regional Library
7140 Bodega Ave
Sebastopol, CA 95472

Sebastopol City Hall
7120 Bodega Ave
Sebastopol, CA 95472

- This document is also available at www.dot.ca.gov/dist4/envdocs.htm
- We welcome your comments. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline of February 29th 2008.
- Submit comments via postal mail to:

Valerie Heusinkveld, Senior Environmental Planner
Department of Transportation, Office of Environmental Analysis
P.O. Box 23660
Oakland, CA 94623

Submit comments via e-mail to valerie.heusinkveld@dot.ca.gov
Submit comments by the deadline: February 29th 2008.

Please attend the Caltrans open house public meeting on January 29th 2008 at the Sebastopol Community Center, Youth Annex located at 425 Morris Ave. in Sebastopol from 5 pm to 8 pm.

Please fill out any comments on the comment cards available at the meeting.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may (1) give environmental approval to the proposed project, (2) undertake additional environmental studies or (3) abandon the project. If the project is given environmental approval and funding were appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Valerie Heusinkveld, Office of Environmental Analysis, P.O. Box 26330 Mail Station 8B, Oakland, CA 94623: (510) 286-5594 Voice, or use the California Relay Service TTY number, (800) 735-2929.

Insert page signed by Melanie Brent

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the existing Laguna de Santa Rosa Bridge on State Route 12 PM 9.63 with a new two-lane bridge that complies with the current Caltrans roadway standards of 12.0 ft lanes and 8.0 ft shoulders. Caltrans intends to achieve this by constructing the new bridge in three stages over two years.

Determination

This proposed Negative Declaration is included in order to give notice to interested agencies and the public that Caltrans' intent is to adopt a Negative Declaration for this project. This does not mean that the Caltrans' decision regarding the project is final. This Negative Declaration is subject to modification based on comments received by interested agencies to the public.

Caltrans has prepared an Initial Study for this project, and pending public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on land use, farmland, growth, air quality, noise, community impacts or cultural resources. The proposed project would have no significant effect on hydrology and floodplains, water quality and storm water runoff, utilities, traffic and transportation, and hazardous waste.

The proposed project would have no significant adverse effect on biological resources or visual resources. The project includes protective features including;

- Riparian zone restoration to compensate for the loss of critical habitat for threatened and endangered species.

- Revegetation to ensure that the visual character of the highway corridor would remain unchanged and the visual quality would remain high.

James B. Richards
Deputy District Director
Department of Environmental Analysis

Date

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Abbreviations

80SW	Designation for a Caltrans bridge railing type
ADA	Americans with Disabilities Act
APE	Area of Potential Effect
ASR	Archaeological Survey Report
BMP	Best Management Practice
Caltrans	California Department of Transportation
CCC	California Coastal chinook
CCCC	Central California Coastal Coho Salmon
CCCS	Central California Coast Steelhead
CDFG	California Department of Fish and Game
CEQA	California Environment Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Recovery Act
CFR	Code of Federal Regulations
CRLF	California red-legged frog
CTS	California tiger salamander
CWA	Clean Water Act
DPP	Design Pollution Prevention
DTCS	Department of Toxic Substances Control
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
ISA	Initial Site Assessment
NEPA	National Environmental Policy Act
NOAA Fisheries	National Oceanic and Atmospheric National Marine Fisheries services
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWP	Nationwide Permit (U.S. Army Corps of Engineers)
OSHA	Occupational Safety & Health Act
PM	Post mile
ppm	Parts per million
PS&E	Plans, specifications, and estimates

PSR	Project Study Report
RCRA	Resource Conservation and Recovery Act
ROW	Right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SR	State Routes
SWPPP	Storm Water Pollution Prevention Plan
TIP	Transportation Improvement Plan
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to replace the Laguna de Santa Rosa Bridge (No. 20-0035).

The project location is on State Route 12 (PM 9.63) in Sebastopol. The city center of Sebastopol lies just west of the project limits and the city center for Santa Rosa is approximately eight miles to the east on State Route 12.

1.2 Project History

The existing bridge structure is 220.25 feet (ft) long and 33.5 ft wide. It was built in 1921, and has gone through a series of modifications. It was widened to a two-lane highway in 1949. The bridge was refurbished in both 1979 and 1989. The bridge received earthquake retrofit upgrades in 1994 and 1996. Bridge inspections have been performed annually. The September 2002 bridge inspection revealed the structural deficiencies, which necessitated the need for this project.

1.3 Purpose and Need

The purpose of the proposed project is to make the Laguna de Santa Rosa Bridge structurally sound. The need for this project was originally identified in a bridge inspection report dated September 9, 2002. Numerous structural deficiencies were observed at the time, the worst of which is scouring (results of erosive actions caused by water flow) of the bridge foundation at many locations where the structural bridge support meets the ground. Due to the silty conditions and year-round water flow in the Laguna de Santa Rosa, this deteriorating condition will worsen over time, and the foundation will become more unstable than it is today. This is based on annual inspection reports. Therefore, if no action is taken the bridge will become structurally unsound.

1.4 Project Description

Caltrans proposes to replace the existing Laguna de Santa Rosa Bridge with a new two-lane bridge that complies with the current Caltrans roadway standards of 12.0 ft lanes and 8.0 ft shoulders. The bridge replacement process will involve building a new traffic staging bridge on each side of the existing bridge. Caltrans will also widen and align the roadway sections approaching the bridge. In the final bridge configuration, Caltrans will convert the staging bridges to non-motor vehicle use for pedestrians and for bicyclists.

Caltrans will also build temporary access roads onto the banks of Laguna de Santa Rosa to provide access to the creek bed for construction equipment.

Build

This project will be constructed in three stages:

Stage 1: Caltrans will construct two one-lane bridges for traffic detour adjacent to both sides of the existing bridge. Caltrans will also modify the existing roadway and install embankments at both ends of the current bridge approaches to accommodate the detour.

Stage 2: Motorists will use the two detour bridges during construction of the new two-lane bridge. Caltrans will remove the existing bridge and replace it with a new main bridge.

Stage 3: Caltrans will connect the newly built main bridge and the two detour bridges with final closure pours to form one new bridge and build two type 80SW rail barriers. The traffic will be redirected to the original alignment using the standard 12 ft lane and standard 8 ft shoulder widths marked on the new main bridge. The bridge portions previously used for detours will be made available to pedestrians and bicyclists

Construction access to the proposed project site will be provided via the existing roadway, as well as by a 20-ft-wide temporary construction access road on the northwest and southeast sides of the bridge. Staging of all necessary equipment and materials will be in a 22,000-square-foot area north of SR 12.

This project will require the acquisition of right-of-way on both sides of the highway as well as temporary construction easements and utility easements. A total of seven parcels will be partially affected. It is anticipated that approximately 20 or more utility poles will need to be relocated for this project. The gas line, water line, and north storm drain will also need to be relocated.

No Build

This alternative would entail implementing minor modifications to strengthen the existing bridge and its footings without replacing it. This alternative would result in maintenance costs that would increase over time.

1.5 Alternative

Caltrans considered this alternative, but eliminated it from further discussion.

Alternative

Under this alternative, the project would be built in one construction season. The proposed bridge structure for this alternative would be 221 feet in length and 54 feet wide. This alternative would reduce the environmental impacts associated with the implementation of this project by decreasing the size of the project footprint.

However, this alternative would require the existing bridge to be closed to traffic for at least six months. Also, surrounding roadways that would need to be used as a detour, would require upgrading. This would result in traffic impacts to the surrounding community. For these reasons, this alternative was rejected.

1.6 Permits and Approvals Needed

Agency	Permit/Approval
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species (Rare plants, California Tiger Salamander (CTS), Freshwater Shrimp)
United States Army Corps of Engineers (USACE)	Section 404 Permit
California Department of Fish and Game (CDFG)	1602 Agreement
National Oceanic and Atmospheric Administration (NOAA Fisheries)	Section 7 Consultation for Threatened and Endangered Species (Salmonids)
State Water Resources Control Board (SWRCB)	National Pollution Discharge Elimination System (NPDES)
Regional Water Quality Control Board (RWQCB)	401 Permit

The following figures are attached at the end of this chapter: Laguna de Santa Rosa Project Location Map, Laguna de Santa Rosa Bridge Replacement Aerial View, Environmental Impact Map, Typical Cross Section Map and Stage Construction Layout.

Chapter 2 Human Environment

This chapter and the next chapter describe the environmental resources of the project area and how the resources would be impacted by the project. These chapters also discuss the potential environmental impacts of the project and recommended avoidance and minimization measures. These chapters also discuss and address issues of concern pursuant to the California Environmental Quality Act (CEQA) and provide the basis for responses to the CEQA Checklist Form. Please see Appendix A for the CEQA Checklist.

The following technical studies were prepared for this project:

- Natural Environmental Study, Office of Biological Science/Permits
- Visual Impact Assessment, December, 2007
- Site Investigation Report, April 2006
- Asbestos Survey Report, March 2006
- Water Quality Study Report, Office of Water Quality

No significant environmental impacts have been identified for the project as proposed. Caltrans has identified minimization measures that would reduce the potential impacts to a level of insignificance.

As part of the environmental analysis conducted for the project, the following environmental issues were considered, but no adverse impacts to these resources were identified. Consequently, there is no further discussion regarding these issues in this document.

Land Use – the proposed project would not have an impact on the current land use. The project would stay consistent with the City of Sebastopol’s Northeast Area Specific Plan.

Farmlands/Agricultural Lands – While there is farmland in the project area, no farmland will be converted and used for the proposed project. There are no Williamson Act contract lands located within the proposed project area, therefore there would be no need for the cancellation of any Williamson Act contracts.

Growth – The proposed project would not contribute to an increase in traffic capacity and would not contribute to the growth in the surrounding area.

Air Quality – The proposed project will not increase traffic capacity or congestion, and therefore would not impact air quality in the area.

Noise – The proposed project does not increase traffic capacity, and therefore does not fall into Caltrans or the Federal Highway Administrations (FHWA) type 1 category for noise impact analysis.

Community Impacts – The proposed project would not divide the community or would not require any relocations. The proposed project would not adversely impact any minority or low-income populations.

2.1 Utilities/Emergency Services

2.1.1 Utilities

Environmental Setting

Within the project limits, there are approximately 20 overhead wooden poles carrying electric, cable and telephone lines owned by PG&E, Comcast and AT&T . Underground utilities include a PG&E gas line, a City of Sebastopol water line, and a City of Sebastopol sewer line.

Project Impacts

To accommodate the proposed project, it is expected that multiple utility poles as well as the underground utilities will need to be relocated at various points prior to the actual start of construction.

Avoidance, Minimization and/or Mitigation Measures

It is expected that utility relocations would be accommodated within the proposed new right-of-way (ROW). Caltrans would coordinate relocation work with the affected utility companies to ensure minimum disruption of services to customers in the area during project construction.

2.1.2 Emergency Services

Affected Environment

The Sebastopol Police Department provides protection for life and property within the City of Sebastopol. The Sebastopol volunteer Fire Department provides the fire protection services for the city. The California Highway Patrol also provides regular patrols within the project limits.

Impacts

During construction, the roadway will remain open, although there could be temporary short-term one-way traffic control.

Avoidance, Minimization and/or Mitigation Measures

A Transportation Management Plan will be prepared before construction, minimizing any temporary impacts.

2.2 Traffic and Transportation/Pedestrian and Bicycle Facilities

2.2.1 Regulatory Setting

The Federal Highway Administration (FHWA) directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans and the FHWA are committed to carrying out the 1990 Americans with Disabilities Act (ADA) by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

2.2.2 Motor Vehicle Traffic

Affected Environment

State Route (SR) 12 (Sebastopol Avenue) is an east-west highway that provides access to Sebastopol and the West County from Santa Rosa and the U.S. Highway 101 corridor. The Laguna de Santa Rosa Bridge on SR 12 is located approximately 800 feet east of Morris Street. The current bridge has non-standard lanes and no shoulders.

Impact

The project is intended to benefit the long-term operation of the highway. The project is not anticipated to have any impacts to auto traffic outside the immediate vicinity. The proposed standard shoulders will provide a safe recovery zone in emergency situations.

Avoidance, Minimization and/or Mitigation Measures

None proposed.

2.2.3 Construction Impacts

To minimize any temporary construction impacts, there will be two one-lane detour bridges to handle the through traffic during the construction of the new bridge.

2.2.4 Mass Transit

Affected Environment

Sonoma County Transit provides local and regional fixed route bus service in Sebastopol. Route 24 provides local service in Sebastopol and follows a fixed loop around the community and utilizes the following streets in the North-East Specific Plan Study Area: Petaluma Avenue, Sebastopol Avenue, Morris Street, Johnson Street, Laguna Park Way, McKinley Street and North Main Street. Other routes provide intercity service to various destinations and transit facilities throughout the County.

Impact

There will be no negative impacts to the existing mass transit system. The proposed project however, will provide improvements to the roadway, which would benefit bus traffic. The proposed standard shoulders will provide a safe recovery zone in emergency situations.

Avoidance, Minimization and/or Mitigation Measures

None proposed.

2.2.5 Pedestrian Facilities

Affected Environment

There is currently only one narrow three foot sidewalk on the northwest side of the Laguna de Santa Rosa Bridge, and no sidewalk on the southeast side of the bridge. While

sidewalks exist along most streets within the North East Specific Plan Area, the pedestrian environment is impacted by system gaps, inconsistent design elements, traffic volumes associated with the intersection of two major State Routes, and a lack of pedestrian amenities. A network of pedestrian trails, components of the Laguna Wetlands Preserve and the Laguna Youth Park, connect along the eastern border of the North East Specific Plan Area.

Impact

The proposed project will provide a 12 foot and a 17 foot wide pedestrian walkways on the Laguna de Santa Rosa Bridge, thereby keeping consistent with policies for the Sebastopol General Plan and the Street Smart Sebastopol plan and improving upon pedestrian alternatives. These new walkways will be an improvement to pedestrian safety.

Avoidance, Minimization and/or Mitigation Measures

None proposed

2.2.6 Bicycle Facilities

Affected Environment

With its generally level topography and mild climate, bicycles are an increasing component of Sebastopol's transportation system. While no on-street bicycle facilities exist within the North East Specific Plan area, the West County Trail System, a regional multi-use trail network, connects through the North East Specific Plan Area. The Joe Rodota Trail runs between Santa Rosa and Sebastopol and connects to Petaluma Avenue just south of the Specific Plan Study Area. The Railroad Forest Multi-use Trail, which was completed in October 2005, connects the Joe Rodota Trail with Sebastopol Avenue and a planned bike route on Morris Street.

Impact

The proposed project will provide wide walkways and an eight-foot shoulder on each side of the bridge for the use of bicyclists as well as pedestrians.

Avoidance, Minimization and/or Mitigation Measures

None proposed

2.3 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings [42 U.S.C. 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of NEPA [23 U.S.C. 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)]

Affected Environment

The project falls within the Laguna de Santa Rosa watershed with the Laguna de Santa Rosa Park and trail system lying to the west and north of the project site.

The Sebastopol General Plan defines the area as an environmentally sensitive wetlands area, rich in riparian habitat, including riparian corridors traversing the project site. Dense stands of native trees, including oaks and willow trees, are growing in and around the proposed construction site.

The visual landscape to the east of the new bridge is rural in character, consisting of flat expansive farmland, native oak woodland, agricultural and some commercial uses .

On the west side is the transition into downtown Sebastopol. There are commercial, industrial and residential (mobile home) developments as well as camping and recreational land uses. The Joe Rodota Trail, a public walking and biking trail, parallels SR12 0.1 mile to the south. Visibility between the trail and the project doesn't exist due to dense vegetation.

In general, views along Route 12 are marked by flat topography, natural vegetation including grasslands and oak woodlands, views of adjacent vineyards and grassy rolling hills.

Impacts

The proposed project, (bridge replacement and construction staging), would result in various changes to the existing visual environment. Temporary project-related changes will result from the removal of vegetation, including grasses and trees, and the ground disturbance associated with grading operations. The visibility of these changes would decrease each year, but would last for a period of up five years. Permanent visual changes would result from the new bridge with standard shoulders and walkways for pedestrians. The existing bridge structure would be widened from 33.5 feet to 70.5 feet.

Trees, including native oak trees, Oregon ash and willow species, would be removed during the construction phase. A minimum of 74 and a maximum of 385 trees could potentially be removed or pruned within the project footprint. Caltrans will do it's best to keep this number as close to the lower range as possible.

Viewers potentially affected by project-related changes include motorists traveling within the project corridor, tourists visiting the wine-country, commercial users near the project area, and persons visiting the Laguna de Santa Rosa Park.

Avoidance, Minimization and/or Mitigation Measures

To minimize the degree of change and reduce visual impacts of graded slopes, techniques such as contour grading, slope rounding, erosion control seeding and revegetation should be employed. Reestablishment of the vegetative cover will reduce the degree of visual contrast of areas disturbed by the contractor's operations. Over time, vegetative cover patterns of areas disturbed during project construction would essentially match the adjacent, undisturbed areas.

To reduce glare, graffiti and visual impacts, it is recommended that structures such as rail and any other bridge structural elements be treated with a pattern, texture and color that are context-sensitive to the local community.

Construction Impacts

Base material and paving for the temporary construction and staging roads shall be removed after construction is complete and the area will be returned to as close to its preexisting grade and condition as possible.

Impacts from construction operations, such as earthwork and pile driving, would be temporary. Over time, the re-establishment of the naturally occurring vegetation would return and these temporary impacts would no longer be evident.

2.4 Cultural Resources

Regulatory Setting

“Cultural resources” as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) among the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans.

Affected Environment

The methodology used included information Center records search, a survey of architectural history resources, a Native American consultation, an archaeological field survey, and an Extended Phase 1 Survey. The Area of Potential Effects (APE) included the footprint of the project as well as ancillary areas including staging, laydown, access roads and biological mitigation areas.

There were no cultural resources identified within the project’s APE. There is a prehistoric archaeological site located to the south of the project’s APE.

Impacts

No impacts to cultural resources were identified.

Avoidance, Minimization and/or Mitigation Measures

If cultural materials are discovered during construction, all earth-moving activity with and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Caltrans Project Archaeologist Stephen Bryne, Caltrans District 4 Office of Cultural Resources Studies, so that he may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Chapter 3 Physical Environment

3.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650 Subpart A.

In order to comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

The Laguna de Santa Rosa Bridge lies within the 100-year floodplain of the Russian River. During an earlier hydrological investigation of Warm Springs Dam on Dry Creek, a major tributary of the Russian River upstream of Laguna de Santa Rosa, it was determined that Laguna de Santa Rosa will pond in the vicinity of Sebastopol due to flooding of the Russian River during a 100-year event. Because the backwater elevation of the Russian River is higher than the base flood elevation of Laguna de Santa Rosa in this area, the Russian River backwater is the controlling flooding source. The applicable FEMA Flood Insurance Rate Maps (FIRM's) references for this assessment are: 060382 0001C, 060375 0690B and 060375 0695B.

Impacts

The risks associated with the construction of the proposed project on the 100-year base floodplain are insignificant. This project does not constitute a longitudinal encroachment of the 100-year base floodplain. Nothing can be done to protect this area from flooding. If the bridge profile were raised, it would serve no purpose since the adjacent roadways would be inundated. The proposed structure and a portion of State Route 12 will be submerged during large flows, similar to what has occurred in the past.

Avoidance, Minimization and/or Mitigation Measures

Construction measures will be taken to minimize impacts both upstream and downstream of the Laguna de Santa Rosa Creek crossing of SR 12. Permanent grade control structures and temporary measures will be designed to preserve natural and beneficial floodplain values associated with the creek. The project does not constitute a significant floodplain encroachment as defined in 23 CFR, Section 650-105 (q).

3.2 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the CWA requires a water quality certification from the State Water Resources Control Board (SWRCB) or from a Regional Water Quality Control Board (RWQCB) when the project requires a CWA Section 404 permit. Section 404 of the CWA requires a permit from the U.S. Army Corps of Engineers (Corps) to discharge dredged or fill material into waters of the United States.

Along with CWA Section 401, CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The SWRCB has developed and issued a statewide NPDES permit to regulate storm water discharges from all Department activities on its highways and facilities. Department construction projects are regulated under the Statewide permit, and projects performed by other entities on Department right-of-way (encroachments) are regulated by the SWRCB's Statewide General Construction Permit. All construction projects over one acre require a Storm Water Pollution Prevention Plan (SWPPP) to be prepared and

implemented during construction. Department activities less than one acre require a Water Pollution Control Program.

Affected Environment

Storm Water Data Report

This project is within the North Coast Regional Water Quality Control Board (RWQCB) jurisdiction (Region 1), which is responsible for implementation of State and Federal water quality protection laws and regulations in the vicinity of the project site.

Storm Water

The project site is within the Laguna, Middle Russian River watershed. Storm water from the project area drains into the Laguna de Santa Rosa, a tributary to the Russian River that drains the Santa Rosa Plain.

Laguna de Santa Rosa is on the Environmental Protection Agency's (EPA) 303(d) List of Water Quality Limited Segments for pollutants/impairments which include the following; nitrogen, phosphorus, low-level oxygen, sedimentation, and temperature. The Region 1 RWQCB Basin Plan has also established beneficial uses for the Laguna watershed. These uses include agricultural supply, industrial service supply, groundwater recharge, freshwater replenishment, navigation, water recreation, wildlife habitat, rare, threatened and endangered species, migration of aquatic organisms, and spawning.

Groundwater

The existing beneficial uses of this groundwater resource according to the Basin Plan include municipal and domestic water supply, and agricultural water supply.

Impacts

Storm Water

Factors affecting the water quality of the Laguna de Santa Rosa include stormwater runoff from urban areas and runoff and other discharges from agricultural operations such as dairy farms. The primary pollutant of concern on this project is sediment.

The area of soil disturbance is approximately 3.7 acres. An additional 0.3 acres of impervious area will be added due to the traffic staging lanes converted to bike and pedestrian use.

Groundwater

Groundwater is likely to be encountered due to the project spanning the Laguna de Santa Rosa. There will be no impact to the groundwater from the proposed project.

Avoidance, Minimization and/or Mitigation Measures

1) Section 401 of the Clean Water Act

A 401 Water Quality Certification from Region 1, RWQCB is anticipated because of the construction work in the vicinity of the Laguna de Santa Rosa.

2) Section 402 of the Clean Water Act

According to Caltrans NPDES permit and the Construction General Permit, Best Management Practices (BMPs) will be incorporated to reduce the discharge of pollutants during construction as well as permanently to the Maximum Extent Practicable (MEP). These BMPs fall into three categories, Temporary Construction Site BMPs, Design Pollution Prevention BMPs, and Permanent Treatment BMPs.

(a) Construction Site BMPs

Construction Site BMPs are implemented during construction activities to reduce pollutants in storm water discharges throughout construction. Grading of existing slopes would be required. Temporary silt fences, concrete washout, stockpile covers, stabilized construction entrance/exit and temporary soil stabilizers are some of the temporary erosion and water pollution control measures that may be utilized in combination to prevent and minimize soil erosion and sediment discharges during construction. Given that the anticipated soil disturbance is greater than 1 acre, a Storm Water Pollution prevention Plan (SWPPP) will be developed during construction. This document addresses the deployment of various erosion and water pollution control measures that are required for changing construction activities.

(b) Permanent Design Pollution Prevention BMPs

Design Pollution Prevention BMPs are permanent measures to improve storm water quality by reducing erosion, stabilize disturbed soil areas, and maximize vegetated surfaces. Erosion control measures would be provided on all disturbed areas to the extent feasible. These measures can utilize a combination of source and sediment control measures to prevent and minimize erosion from soil disturbed areas. Source controls can utilize erosion control netting in combination with hydroseeding. The biodegradable netting is effective in providing good initial mechanical protection while seed applied during the hydroseeding operation germinates and establishes itself. Other forms of source control such as tacked straw may also be used when applicable. Sediment controls such as biodegradable fiber rolls can be used to retain sediments and to help control

runoff from disturbed slope areas. These measures would be investigated during the design phase.

Outlet protection and velocity dissipation devices placed at the downstream end of culverts and channels are also Design Pollution Prevention BMPs that reduce runoff velocity and control erosion and scour. The need of these devices for this project would also be further investigated during the design phase.

(c) Permanent Treatment BMPs

Treatment BMPs are permanent devices and facilities treating storm water runoff.

Since this project is within an MS4 area and disturbing over 3.0 acre of soil, it will need to consider Treatment BMPs. During the design phase, Treatment BMPs that would be explored include biofiltration strips and swales (vegetated ditches), infiltration and detention basins, (ground pools which absorb water) and media filters (box with sand that filters). Physical site constraints such as environmentally sensitive areas, lack of right-of-way, topography, and soil type would minimize the type of Treatment BMPs that can be implemented for this project.

3.3 Geology/Soils/Seismic/Topography

Affected Environment

The Laguna de Santa Rosa Bridge site is located in a wide northwest-southeast trending alluvial plain. The active Rodgers Creek fault lies approximately 9.3 miles from the bridge and the San Andreas fault lies approximately 20.5 miles from the bridge. Sebastopol, which lies west of the project site, lies on the Pliocene Wilson Grove Formation. The Wilson Grove Formation was deposited on top of Franciscan bedrock, and consists of sandstone and mudstone from reworked Franciscan formation rocks, deposited in a shallow marine environment.

The soil at the bridge is an alluvial material. The ground water level at the bridge site will typically fluctuate with the seasons and will correlate with the local geology and topography.

Potential geologic hazards to this bridge are: earthquakes and liquefaction.

Impacts

The project area will be susceptible to erosion caused by scour, due to the unconsolidated soil. The bridge is located near two earthquake faults, which are a potential hazard. The

liquefaction hazard is a result of the presence of potentially liquefiable soils and the proximity to active faults.

Avoidance, Minimization and/or Mitigation Measures

For the construction of the new bridge, pile foundations will be used to minimize the potential impacts from both earthquakes and liquefaction. The tip of the piles will be located below the liquefiable soil layers and below the maximum scour depth.

3.4 Hazardous Waste / Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

Caltrans conducted a regulatory public records search within the project site area. They also conducted numerous soil tests all along the project footprint for known typical hazardous materials as well as testing the bridge for asbestos.

Caltrans testing found that shallow soil lead contamination exists all along the current roadway from past aerial deposited lead. The concentration of lead is not atypical of roadways of this scale. No asbestos was found on any part of the bridge.

Impacts

The lead contamination which will be encountered within the project footprint is below the levels considered to be harmful to human health in an industrial or free-use setting. Some excavated site soils may, however, be classified as State hazardous waste if sent to a landfill. Soil which contains lead at greater than 1,000 mg/kg, or a soluble concentration greater than or equal to 5 mg/l, as determined by the Waste Extraction Test, is classified as a California hazardous waste because of its threat to the environment if it is not contained within an appropriately licensed, clay-lined or comparable hazardous waste landfill.

Avoidance, Minimization and/or Mitigation

Because of the impacts from hazardous materials to the project area, there will be standard procedures and effective regulations that will be followed to deal with the handling, disposal and reuse of the soil encountered during construction.

Shallow soil waste that has soluble lead concentrations greater than 5 mg/L as assessed by the Waste Extraction Test would be considered a State hazardous waste and would be disposed of at a Class 1 landfill. The cost of disposal at a Class 1 landfill is estimated to be \$230 per cubic yard.

Department of Toxic Substances Control (DTCS) variance allows reuse of lead contaminated hazardous waste with particular engineering controls. Regional Water Control Board is notified of any necessary actions.

Standard construction health safety practices will be followed by the contractor. The cost of this lead compliance plan is estimated to be approximately \$5,000.

3.5 Biological Environment

3.5.1 Natural Communities

“This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in section 3.9. Wetlands and other waters are also discussed above in section 3.6.

Affected Environment

The environment surrounding the project area consists mainly of urban areas, vineyards, and grazing pastures. The project site is located within an area of mixed agricultural and urban usage. Most of the habitats that were historically present in the project area no longer exist due to extensive agricultural development. The current conditions have greatly diminished the natural state of the area. Plant cover in areas not used for agriculture consists of annual and perennial grasses, forbs, and a few areas of sedges and wild berry vines. The adjacent riparian zone is the area adjacent to a stream that provides the following functions: shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter.

Impacts

The project will cause permanent and temporary impacts to the biological habitat. Permanent impacts will result from the increased size of the bridge infringing onto the environment. The replacement of the bridge will also result in the loss of trees and shrubs forming the riparian corridor along the Laguna de Santa Rosa. Caltrans biologists estimate the removal approximately 200 trees and 25 shrubs to accommodate the bridge replacement. The tree and shrub replacement will take place in riparian corridor along the east branch and the main branch of Laguna de Santa Rosa downstream of the roadway. The majority of the trees removed in the area will be native valley oak, coast live oak, and Oregon Ash. The majority of the shrubs removed in the area will be red willow, arroyo willow and blackberry.

Avoidance, Mitigation and/or Minimization Measures

Revegetation of the riparian plants on-site will restore most of the area to its original condition. Alterations to project footprint and modifications to the project design were implemented to avoid impacts to biological resources. To avoid aquatic habitat in the creek, the use of temporary construction trestles is being considered. Also, a temporary access road will be constructed and the area will be revegetated at the end of construction. Erosion control BMPs will be implemented to avoid sediment deposition into the Laguna as well as to protect water quality.

3.6 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists

that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

The Laguna de Santa Rosa drains into the Russian River, and also serves as an overflow reservoir for the Russian River during flood conditions. The project area consists of a riparian corridor formed by Laguna de Santa Rosa. This riparian zone is the area adjacent to a stream that provides the following functions; shade, sediment, nutrient or chemical regulation, streambed stability, and input of large woody debris or organic matter. The land adjacent to the roadway to the east and west of the riparian corridor is non-native, ruderal vegetation commonly seen in disturbed upland areas. Just beyond the upland area, the land slopes down and becomes a floodplain. Ponding occurs in this area

during the wet season, forming in depressions in the meadows, borrow pits, and roadside ditches. These areas are dominated by wetland vegetation.

Impacts

Caltrans biologists made a preliminary estimate approximately 6,350 sq ft (0.15 acre) of temporary impacts to jurisdictional wetlands associated with this project. The permanent impacts to wetlands associated with this project will be approximately 8,100 sq ft (0.19 acre). Caltrans also estimates approximately 16,000 sq ft (0.37 acre) of permanent impacts and 33,000 sq ft (0.76 acre) of temporary impacts to Laguna de Santa Rosa, defined as waters of the U.S. by the USACE. Within the project area there are seven seasonal wetlands (A, B, C, D, E, F, and G) that were delineated and are attached in Appendix E, and summarized in the table below.

Table 3-1 Impacts to Wetlands

Location	Area	Impact
Wetland A	2,765 sq ft	Temporary – 0 / Permanent - 0
Wetland B	170 sq ft	Temporary - 0 / Permanent - 0
Wetland C	250 sq ft	Temporary –100 sq ft / Permanent - 0
Wetland D	16,665 sq ft	Temporary – 550 sq ft / Permanent – 4500 sq ft
Wetland E	7.062 sq ft	Temporary -1500 sq ft / Permanent – 1200 sq ft
Wetland F	17,000 sq ft	Temporary – 3000 sq ft / Permanent – 500 sq ft
Wetland G	3,830 sq ft	Temporary – 1200 sq ft / Permanent – 1900 sq ft

Avoidance, Mitigation and/or Minimization Measures

The Santa Rosa Plain Conservation Strategy (SRPCS), the U.S. Army Corps of Engineers, and Executive Order 11990 require a 1:1 ratio for compensatory mitigation associated with impacts to wetlands. These agencies use the word “mitigation” for any compensation or replacement action. The temporary impacts to wetlands associated with this project will be approximately 6,350 sq ft (0.15 acre). The permanent impacts to wetlands associated with this project will be approximately 8,100 sq ft (0.19 acre). Caltrans proposes to purchase 0.33 acres (14,375 sq ft) of wetland credits and 0.4 acres (17,425 sq ft) of Sebastopol meadowfoam credits from a USACE approved mitigation bank for impacts associated with this project. Rare plant credits are sold in 1/10 of acre parcels, so, Caltrans will purchase four rare plant credits, as well as the 0.33 acre wetland credits for this project.

3.7 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section 3.9 in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFG fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et. seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et. seq. Department projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

The four federally listed plants on the Santa Rosa Plain are; Sonoma sunshine, Burke’s goldfields, Sebastopol meadowfoam and many flowered navarretia.

Several locations for Sonoma sunshine are known to be around the vicinity of the project area. The closest are approximately 0.75 mi and 1.2 mi southeast of the project area. There are no documented records of Sonoma sunshine from within the project area or land immediately adjacent to the project area.

Several locations of the Sebastopol meadowfoam are known within 1.5 mi of the project area, the nearest location for this species to the project area is within 0.5 mi of the project area.

Historical locations for Burke's goldfields are known from several locations in the vicinity of the project area. The closest are within 2 mi. There are no documented records of Burke's goldfields from within the project area or adjacent land.

The Sonoma County location of many-flowered navarretia is at the north end of the Santa Rosa Plain, south of the town of Windsor, approximately 8.0 mi north of this project site. There are no documented records of many-flowered navarretia from within the project area or land adjacent.

Impacts

Caltrans biologists and consultants did not identify the presence of any sensitive plants within the project area. However, no suitable habitat was present on site that could provide for growth of sensitive species that may have been historically present in the area. No federally-listed species were identified during surveys, and the likelihood of federally-listed species occurrence of the habitat is very low. Therefore, impacts for suitable habitat to listed plant species are anticipated.

Avoidance, Mitigation and/or Minimization Measures

Even though there are no impacts to listed plant species, suitable or restorable rare plant habitat was identified, and based on the SRPCS Guidelines mitigation for impacts to these areas will entail purchasing rare plant credits from a USACE approved mitigation bank.

This project will impact approximately 1,000 sq ft (0.02 acre) of surveyed, restorable or suitable rare plant habitat and impact approximately 2,600 sq ft (0.06 acre) of unsurveyed, restorable or suitable rare plant habitat. Based on the guidelines in the SRPCS, impacts to surveyed, restorable or suitable rare plant habitat where no listed plants were observed will be compensated at a 1:1 ratio. Impacts to unsurveyed, restorable or suitable rare plant habitat will be compensated at a 2:1 ratio. Table 3-1 summarizes the impacts to rare plants and the associated proposed restoration.

Table 3-2 Impacts to Rare Plants and Proposed Restoration

	Impact (sq ft)	Impact (acres)	Preservation	Restoration	Construction
Surveyed	1000	0.02	0.02	0.03	0.02
Unsurveyed	2600	0.06	0.12	0.09	0.06
Total	3600	0.08	0.14	0.12	0.08

The following measures will be implemented during construction to minimize the adverse effects to the currently suitable and restorable habitat for endangered plants:

To the extent possible, all sensitive habitat areas will be fenced off and clearly marked prior to the beginning of construction to prevent inadvertent encroachment of personnel or equipment beyond the designated work area.

Construction access, staging, storage, and parking areas will be located on ruderal or developed lands to the extent possible and will not occur on suitable or restorable habitat.

Silt fencing will be constructed along the perimeter of the proposed Right-of-Way to prevent stormwater runoff or other construction debris from entering suitable or restorable habitat. Silt fencing will be constructed in any Project location that occurs within 250 ft up-slope of suitable restorable habitat.

A speed limit of 15 mph in unpaved areas within the project area will be enforced.

At the close of construction, re-vegetation with a native plant mix will occur in areas of suitable habitat that have been damaged, filled or excavated.

Erosion control and buffers will also be implemented during establishment of these re-vegetated areas. Caltrans is proposing a three-year re-establishment period in which these erosion control and buffer zones will be used.

3.8 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the California Department of Fish and Game (CDFG) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the section below. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act

- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

There were several bird species observed in the project area by Caltrans biologists during field surveys. In addition Caltrans biologists identified nests of the barn swallow (*Hirundo rustica*), cliff swallow, and black phoebe (*Sayornis nigricans*) under the Laguna de Santa Rosa Bridge.

Caltrans biologists identified several animal tracks in the creek bed including deer (*Odocoileus* sp.) and raccoon (*Procyon lotor*) tracks under the Laguna de Santa Rosa Bridge. A dead opossum (*Didelphis virginiana*) was also found under the bridge. A black-tailed jackrabbit (*Lepus californicus*) was observed near the project area during the March 17, 2004 survey.

Impacts

There will be a less than significant impact to animals not protected under Federal or State laws in the project area.

Avoidance, Mitigation and/or Minimization Measures

Caltrans will not remove trees in the project area between February 15 and September 15 to minimize impacts to nesting birds. If trees and shrubs must be removed during this period, the contractor will hire a qualified biologist to inspect the area for active nests before removal. Caltrans will not remove any tree containing an active nest.

3.9 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC), Section 1531, et seq.

See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game (CDFG) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

The adjacent riparian zone is the area adjacent to a stream that provides the following functions: shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter.

Based on the USFWS species list and an evaluation of the project site with the resource agencies, Caltrans conducted assessments of the federally endangered and state endangered California Fresh Water Shrimp (CFWS), the federally endangered and state listed species of special concern California Tiger Salamander (CTS), the federally threatened and state listed species of special concern California Red Legged Frog (CRLF), the federally threatened Central California Coast Steelhead (CCCS), the

federally endangered Central California Coastal Coho Salmon(CCCC), and the federally threatened California Coastal chinook (CCC).

The California Nature Diversity Database (CNDDDB) (July 2005) contains a 1990 occurrence of CFWS in Blucher Creek approximately 4 miles upstream from the action area. However, Larry Serpa, a Nature Conservancy expert on CFWS in the region was consulted on April 24, 2007. Mr. Serpa was confident that CFWS are not likely to be present in the Laguna de Santa Rosa.

An initial site assessment was conducted for the CTS on April 27, 2005 and it was determined that CTS habitat was not present with the project vicinity. A letter of concurrence from the USFWS is attached in Appendix D.

John Cleckler of the USFWS was consulted on April 22, 2007 regarding the potential for CRLF to be present within the project limits. Mr. Cleckler stated that the Laguna de Santa Rosa is not considered CRLF territory based on past history of USFWS consultations.

Caltrans conducted a literature review, contacted the resource agencies, and searched the CNDDDB and USFWS species lists to develop a table of species of concern (Appendix F). From this research it was determined that the Central California Coastal Coho Salmon (CCCC), a federally threatened and state endangered species, Central California Coastal Steelhead (CCCS), a federally threatened species, and California Coastal chinook Salmon, a federally threatened species, have the potential to exist within the project area. Dan Logan of NOAA Fisheries was consulted on August 22, 2006 for the three salmonoid species.

The main stem of the Russian River is designated critical habitat for Chinook. Tributaries including the Laguna de Santa Rosa have been excluded. The Laguna de Santa Rosa and its tributaries are designated critical habitat for Coho Salmon. Steelhead, and occasionally Chinook are present in the Laguna de Santa Rosa and its tributaries; however, the watershed has been excluded from designation as critical habitat for steelhead or Chinook.

Impacts

There will be no impacts to CRLF and CTS because it is out of their known range. Based on avoidance and minimization measures and seasonal restrictions, there will be a less than significant impacts to CFWS and to the three species of salmonids.

National Marine Fisheries Service (NMFS) has designated the Laguna de Santa Rosa as critical habitat for federally threatened CCC Coho salmon. A Biological Assessment for potential impacts from the implementation of this project to this species and their associated habitats will be submitted to NMFS.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will implement construction windows to avoid working in the Laguna de Santa Rosa when the movement of aquatic species will be affected. During the summer months (between June 15 and October 15), the water in Laguna de Santa Rosa is at low enough levels to limit flow under the bridge, reducing potential impacts to listed species of fish potentially found near the project area.

3.10 Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

Affected Environment

The table located in Appendix G lists those species that were noted during the biological surveys in the study area that are designated as exotic pest plants of ecological concern by the California Exotic Pest Plants Council.

Impacts

Construction activities associated with the proposed project have the potential to introduce noxious weeds from the project area into uninfested areas. Uninfested areas that are potentially at risk include neighboring wildland areas and other areas where machinery used on the project may be used subsequently. Through the successful implementation of avoidance and minimization efforts, as described below, the project will have no adverse impact of noxious weeds on the sensitive communities.

Avoidance, Minimization and Mitigation Measures

Measures such as worker training, avoidance of sensitive communities, and cleaning construction machinery before use on subsequent projects in sensitive communities would reduce the likelihood that noxious weeds would be spread by the proposed project. In addition, it is recommended that disturbed areas be restored and revegetated after construction is complete to prevent noxious weeds from colonizing new areas.

None of the species on the California list of noxious weeds is currently being used by Caltrans for erosion control or landscaping. In compliance with the Executive Order on Invasive Species, E.O. 13112, and the subsequent guidance for the Federal Highway Administration, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

3.11 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative

impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines.

Affected Environment

The Laguna de Santa Rosa is primarily a marsh, but it also has characteristics of a stream, creek, seasonal wetland and vernal pools. The resources which have the potential to be affected due to various local projects is the Laguna itself, meaning wetlands, creek, riparian vegetation, upland woodlands, as well as the various aquatic, animal and plant species that live there.

Past agricultural and urban development have adversely affected the Laguna. Riparian forests and oak woodlands have been cleared, past flood control practices have negatively affected the Laguna, and waste disposal practices have affected water quality. Even though a significant portion of the Laguna habitats have been lost or degraded, much remains. The remnant habitat must be protected against further loss, and restoration must occur to damaged habitat.

According to the March 1997 Russian River Action Plan published by the Sonoma County Water Agency, there is a need for "...preservation, restoration, and enhancement of riparian, oak/vernal pool/grassland, and historic wetland habitat in the Laguna de Santa Rosa area." These efforts will "...improve water quality, improve integrated flood plain management, maintain and enhance native habitat values, assist recovery of plant and animal species, enhance scenic values and coordinate resource management." (Russian River Action Plan, page 18).

The City of Sebastopol's Laguna Wetland Preserve is the only publicly designated natural park in the Laguna. While there are scattered restoration efforts and projects by other entities such as the CDFG, the City of Santa Rosa, and the Laguna de Santa Rosa Foundation. The City of Sebastopol's Wetland Preserve is the only area specifically designed for public access and passive recreation and educational uses.

Impacts

The wetlands, rare plants and the visual quality of the Laguna de Santa Rosa were looked at for potential cumulative impacts. Current and future projects within the vicinity of this project were assessed at to determine which projects, if any, had the potential to cumulatively impact biological resources in the Laguna de Santa Rosa. The Laguna Force Main Replacement project and the Caltrans Roadway Rehabilitation project on SR 116 were identified as projects which had this potential.

The Laguna Force Main Replacement project, which is scheduled to go to construction in the summer of 2008 is very close to the bridge replacement project limits. This project has a less than significant impact on wetlands, and on the visual quality of the Laguna de Santa Rosa.

The Caltrans Roadway Rehabilitation project on SR 116 in Sonoma will have a less than significant impact on visual quality of the surrounding roadway due to the increased size of the roadway and shoulder. This project will have an impact on endangered plants but no effect will take place outside of this projects' area.

Due to the limited range and population of the federally listed plants, namely the Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam and many flowered navarretia and the persistent development pressure within the Santa Rosa Plain, projects with even minor effects may cumulatively contribute to adverse effects to listed species in the Santa Rosa Plain.

There are effective regulatory requirements in place, which will minimize potential impacts. These regulations along with conservation plans such as the Santa Rosa Habitat Conservation Plan work to prevent impacts and continually improve the health of the Laguna's resources.

Avoidance, Minimization and/or Mitigation Measures

None proposed

Chapter 4 Comments and Coordination

During the preparation of this document, the following were consulted:

- City of Sebastopol
- Sonoma County Transportation Authority
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Fish and Game
- National Oceanic Atmospheric Administration Fisheries

Chapter 5 List of Preparers

Shawn Hallum
Environmental Planner
Office of Environmental Analysis

Valerie Huesinkveld
District Branch Chief
Office of Environmental Analysis

Melanie Brent
Office Chief
Office of Environmental Analysis

John Yeakel
District Branch Chief
Office of Biological Science/Permits

Theresa Engle
Biologist
Office of Biological Science/Permits

Stephen Bryne
Archeologist
Office of Cultural Resources

Rowena Hollins
Transportation Engineer
Office of Environmental Engineering

Jonathan Wellen
Transportation Engineer
Office of Environmental Engineering

Chris Wilson
District Branch Chief
Office of Environmental Engineering

Trang Hoang
Transportation Engineer
Office of Water Quality

Menghsi Hung
Transportation Engineer
Office of Geotechnical

Evalyn Seidman
Landscape Architect
Office of Landscape Architecture

Susan Burke
District Branch Chief
Office of Landscape Architecture

Charlotte Cashin
Senior Engineering Hydrologist
Office of Engineering Services I
(Hydraulics)

Bach-Yen Nguyen
Project Engineer
Office of Design SHOPP

Sarah Picker
Senior Transportation Engineer
Office of Design SHOPP

Stewart Lee
Senior Transportation Engineer
Office of Design SHOPP

Patrick Pang
Office Chief
Office of Design SHOPP

Rubin Woo
Office Chief
Office of Design SHOPP

Jack Loo
Graphic Designer
Audio Visual Graphic Services

Alicia Sequeria
Public Information Officer
External Affairs

Kathleen Ray
Digital Operator II
Reprographics Department

Appendix A CEQA Checklist

Appendix B Title VI Policy Statement

Appendix C Layout Plans

Appendix D Correspondence with USFWS

Appendix E Wetland Impact Map

Appendix F Species of Concern

Appendix G Exotic Pest Plants
