

## INTRODUCTION

The proposed bridge replacement project is part of the preferred alternative identified as the Living River Strategy in the *Napa River/Napa Creek Flood Reduction Project Final Supplemental Environmental Impact Statement/Environmental Impact Report* (FSEIS/EIR) dated March 1999. The Record of Decision for the FSEIS/EIR was signed by the U.S. Army Corps of Engineers (USACE) on June 9, 1999. The Living River Strategy will be implemented along approximately 6.9 miles (11.1 km) of the Napa River, from the Butler Bridge (Highway 29) near Horseshoe Bend north to Trancas Street. One of the major flood management components of this alternative includes "channel modifications to create flood terraces, which would create additional capacity along the river and lower water surface elevations, while also providing valuable wetland and upland habitat" (USACE FSEIS/EIR, Pg. 2-2.).

With this goal in mind, the preferred alternative identifies the construction of either a causeway or a new Maxwell Bridge constructed over a widened channel. As the Maxwell Bridge nears the end of its design life and its scour problems persist, the channel-widening feature of the project presents Caltrans with an opportunity to replace the Maxwell Bridge in concert with the U.S. Army Corps of Engineers' flood reduction project. Likewise, the benefits of the "Living River Strategy" would be enhanced by the contiguous floodplain afforded by replacing the bridge over a widened channel. Consequently, this document establishes Caltrans' adoption of the Maxwell Bridge replacement as the preferred option under the Living River Strategy described in the USACE FSEIS/EIR.

The environmental analysis for the Maxwell Bridge Replacement Project is contained in Appendix G of the USACE FSEIS/EIR, and is based upon a 2-lane bridge design. However, the City of Napa, in cooperation with Caltrans, has proposed a project design for a 4-lane structure. This document will draw upon the environmental studies contained in Appendix G of the FSEIS/EIR which are relevant to the proposed project and will also provide the additional environmental analysis not covered in the FSEIS/EIR under the 2-lane proposal.

## PURPOSE AND NEED

The existing Maxwell Bridge is in need of several major improvements: foundation scour correction, shoulder widening, mechanical and electrical component repair or replacement, and painting. The bridge is a scour critical bridge; that is, the bridge's pier footings have been eroded due to water action, undermining the structure's stability. The last Underwater Bridge Inspection in May 1998 discovered that several pier pile caps are exposed, and pier footings under the lift towers have 1.5 m scour holes. Permit loads are prohibited from crossing this bridge. The report also recommends replacement due to structural deficiency. In addition, a cost analysis by the District Project Manager indicates that it is more cost effective to replace the bridge rather than rehabilitate it.

Excepting Maxwell Bridge, State Route 121 on Imola Avenue is a four-lane facility between Soscol and State Route 29. Congestion and delays on Route 121 have significantly increased as a result of lift events, when traffic occasionally queues back to Route 29. Delays have been further aggravated on several occasions when the lift span has malfunctioned and could not be lowered. It is proposed to replace Maxwell Bridge with a 4-lane fixed structure which would provide permanent clearance over the Napa River, streamline this 0.8-km. segment with the approaching segments of Route 121, and reduce traffic-related accidents associated with bridge operations. According to data from the Traffic Accident Surveillance Analysis System for the period from 7/1/95 to 6/30/98, there

were a total of 44 accidents on this stretch of the route. The actual accident rate for this period is 3.53 per million vehicle miles as compared to the average accident rate of 1.90 million vehicle miles for similar statewide facilities. The new structure will be designed to address safety issues.

## ENVIRONMENTAL SETTING

### 1. Existing Land Use and Topography

Maxwell Bridge is a state-owned bridge on Route 121 at K.P. 8.0-8.8 (P.M. 5.0-5.5) approximately 1 mile west of Soscol Avenue and 2 miles east of State Route 29. The current topography of the terrain within the project vicinity is flat, with the river surface about 5 meters below the surrounding plain. Two small areas of open space, the northwest bank at South Coombs Street and the southeast bank next to Napa Valley College, separate residential, commercial, and industrial parcels to create a visual checkerboard pattern of surrounding land uses (Figure 1).

The Animal Control Shelter, NSD Mosquito Abatement Department, and the Napa Sanitation District facilities are located along the northeast bank of the river. Presently, the ingress and egress for the Mosquito Abatement facility and the Animal Control Shelter occur on the westbound side of Imola Avenue after the 2- to 1-lane merge point and before the bridge deck begins.

A parcel of about 20 hectares on the southeast bank extends to the Napa Valley College athletic field boundary, about 0.8 km from the proposed project site.

The Newport North Condominiums, a medium-density residential development, is located along the southwest bank of the Napa River approximately 46 meters (150 ft.) from the proposed bridge. Newport North Condominiums has private dock access onto the Napa River.

A self-storage facility is located along the southwest approach, adjacent to Newport North Condominiums.

The Napa River at this location is about 100 meters wide. The Maxwell Bridge is the only river crossing in Napa designed to provide clearance for tall boats. This clearance is beneficial to private and commercial vessels docking at the City-maintained landing facility at Fourth Street; the Sea Scouts building; and the private yacht club upstream of the bridge.

### 2. Biological Conditions

The Napa River corridor is characterized by scattered oak woodlands and cleared agricultural land and grasslands. The density and quality of the riparian vegetation within the corridor differs greatly from north to south. In the Maxwell Bridge vicinity, the quality of the vegetation has been degraded from channelization and the encroachment of urbanization on either side of the river. A grove of mature eucalyptus trees occurs along the easterly banks of the river, just north of the bridge and adjacent to the Napa Sanitation District (NSD).

Napa River falls within the U.S. Army Corps of Engineer's jurisdiction under Section 404(b) of the Clean Water Act and is characterized by three vegetative zones: low marsh, middle marsh and high marsh.



The brackish, riparian habitat within the proposed Maxwell Bridge project limits consists of non-native ruderal plants mixed with riparian natives such as Common Tule (*Scirpus acutus*), California Blackberry (*Rubus ursinus*), Santa Barbara Sedge (*Carex barbarae*), California Wild Rose (*Rosa californica*), and Snowberry (*Symphoricarpos albus laevigatus*). On the south side of the Maxwell Bridge is the California Tule Pea (*Lathyrus jepsonii* var. *Californicus*). No federal or state protective status exists for these species.

An occurrence of Delta Tule Pea (*Lathyrus jepsonii* var. *jepsonii*) has been found on the east bank of the Napa River beginning at the north outside edge of the existing Maxwell Bridge and extending along the river bank northward another 70 feet, in an area equal to 675 square feet. The Delta Tule Pea is not listed by the State of California but is indicated as a Species of Concern by the U.S. Fish and Wildlife Service. Species of Concern are plants that are currently not listed but which may become listed in the future.

Two wetlands have been identified within the project limits. One is located just outside of the proposed bridge alignment on the northeast bank of Napa River; however it will be protected as an Environmentally Sensitive Area, and will not be impacted by the proposed project. The other area, which will be filled, constitutes less than 0.25 hectares of wetland. A 404 Nationwide Permit will be sought from the U.S. Army Corps of Engineers for this project.

Specific habitat types and amounts have not been quantified solely for the Maxwell Bridge Replacement Project; however, Figure 2 shows the general habitat types surrounding the project limits. The following table summarizes the estimated area and habitat types that will be impacted from the Napa River Flood Reduction Project in the vicinity of the proposed Maxwell Bridge Replacement Project. These estimates are based upon an analysis by the USFWS of 2 reaches between Third Street, approximately 2 km. north of the Maxwell Bridge, and Kennedy Park, approximately 2.5 km. south of the Maxwell Bridge. The habitat decreases are considered less than significant, since there would be an overall habitat improvement of 12.7 hectares in the surrounding area associated with the bridge replacement and flood reduction project (refer to Biological Considerations section, pg. 15).

<b>Habitat Types</b>	<b>Hectares Impacted</b>
Riparian forest	1.08
Riparian scrub-shrub	0.50
High Value Woodlands	0.40
Low Value Woodlands	4.10

Adapted from USACE FSEIS/EIR, Appendix A: USFWS Fish and Wildlife Coordination Act Report.

As migratory birds are known to nest on the existing bridge, special provisions will be included with the PS&E to address migratory bird protection (refer to Protective Features Section).



### **3. Historic Property Survey Report**

The Area of Potential Effect extends from 30.5 meters (100 feet) west of the intersection of South Coombs Street across the Napa River to 146 meters (480 feet) east of the Napa Valley Wine Train railroad tracks located west of Gasser Street. The Maxwell Bridge has been evaluated as not being eligible for the National Register of Historic Places (NRHP) and as not locally significant by the State Office of Historic Preservation in accordance with Section 106 of the National Historic Preservation Act of 1966 as amended.

## **PROJECT DESCRIPTION**

### **1. Proposed Bridge Design**

The proposed project would construct a four-lane, fixed skyway bridge immediately upstream of the existing Maxwell Bridge. While the bridge design is not final, conceptual plans are available now. The conceptual design of the proposed project is shown in Figure 3.

The proposed design would achieve an 18-meter clearance over the river, the same as the existing bridge in the open position. The bridge structure would have a grade of approximately 6.5%. The bridge would have newly aligned approaches with raised roadbeds. The eastern approach of the bridge would begin at Gasser Street intersection; while the western approach would begin at the intersection of South Coombs Street and Cabot Way. The bridge and its approaches would be approximately 508 meters long and 23 meters wide. A 0.6-meter (2 ft.) painted median would divide westbound and eastbound traffic. For both the westbound and eastbound sides of the bridge, there would be two 3.6-meter (12 ft.) lanes, a 2.4-meter (8 ft.) shoulder for emergency stops and bicycle use, and a 1.5-meter (5 ft.) sidewalk. All practicable efforts will be taken to design the sidewalk to accommodate the disabled in compliance with the 1990 Americans with Disabilities Act.

The proposed bridge deck would be approximately 10 meters higher than the existing deck height; however, the overall structure of the bridge would be about 10 meters lower than the 30-meter vertical height of the existing bridge. Therefore, it would be less visible than the existing bridge from certain viewpoints (Figure 4).

### **2. Construction of the Proposed Bridge**

The construction methods for a bridge of this type would likely use prefabricated segments, or cast-in-place methods. Any concrete casting would be done using tightly sealed forms to prevent any releases to the water. Structural elements would be placed either by barge or by crane. If cranes are used, the crane mats would be placed on the north side of the existing bridge, as close as feasible to the new alignment. Construction of the span would likely involve falsework supported by the permanent footings, then removed once the structure is complete. A USACE Section 404 Nationwide Permit 15 "US Coast Guard Approved Bridges" would be sought for this project.

Caltrans will revise its current lease with the State Lands Commission for the use of lands associated with Maxwell Bridge under their jurisdiction. Since the Maxwell Bridge would continue to be used for private and commercial navigation, a permit would also be sought from the U.S. Coast Guard under Section 9 of the Rivers & Harbors Act.





### **3. Removal of the Existing Bridge**

The existing bridge would be demolished, probably by dismantling the steel segments of the bridge, for instance using saws or cutting torches. The segments would then be removed by crane or by lowering them onto barges. Bridge dismantling activities would minimize impact to the bottom of the river channel from barges and anchors. Materials would be shipped to salvage or disposal facilities via barges, trucks or flatbed rail cars. Existing pier footings may be left in place and columns may be cut away from the footings just below the riverbed or just above or below the water line. Testing for lead would be conducted on soils surrounding existing pier footings because of Caltrans' prior use of lead-based paint coatings on the existing bridge. If lead is found in amounts requiring remediation, soils will be removed and hauled to an appropriate waste disposal facility. Asbestos testing would be conducted for Air Quality analysis during bridge demolition. Additional preventive measures that would be implemented during bridge demolition are provided in the Protective Features Section.

The existing bridge would remain in operation until the new bridge is completed. After the skyway structure is constructed, the existing bridge and approaches would be removed in accordance with permits obtained from all governing agencies, including the US Coast Guard.

### **4. Start of Construction and Duration**

Although the exact start and duration of actual construction of the Maxwell Bridge Replacement Project has not yet been determined, it would commence after implementation of the Flood Reduction Project has begun.

## AFFECTED ENVIRONMENT

### 1. The Existing Bridge

Painted deep green, the Maxwell Bridge (No. 21-75) is a two-lane, steel-through truss span structure built in 1949. The decks on the approaching spans are 7.8-meter wide concrete slabs carried on four steel I-beams. The lift span is a 39.6 meter open grate deck, also carried on steel I-beams, and flanked by two 27-meter towers. The bridge is 124.2 meters in length and 8 meters above the waterway in the closed position, allowing most river traffic to pass under the bridge. The bridge deck is mechanically raised by means of a pulley and counterweight system, providing 18 meters of clearance above the waterway when needed. The existing structure was seismically retrofitted in 1996 (Figure 5).

### 2. Land Use and Topography

After construction of the proposed bridge, the Napa County Animal Control Shelter and Mosquito Abatement facilities will have a permanent access road parallel to Imola Avenue off of Gasser Street.

The proposed bridge replacement includes construction of raised eastern and western approaches that would extend about half a kilometer on State Route 121. The newly-aligned western approach to the bridge along SR 121 will be raised 1.5 meters (5 feet) starting at the South Coombs Street and Cabot Way intersection.

Presently, the Napa Valley Wine Train railroad tracks are adjacent to the eastern approach of the bridge, 400 meters east of the Napa River. In accordance with the goals of the flood reduction project, the NCFCWCD will raise the tracks by more than a meter and relocate them 20 meters eastward from their present location. The NCFCWCD will construct a temporary detour road along the eastern approach to the Maxwell Bridge along Route 121 (Imola Avenue) as part of the railroad track realignment. Caltrans would later use this detour to divert traffic from Route 121 onto the existing Maxwell Bridge while the proposed bridge is under construction. After the new Maxwell Bridge is completed, the detour road would be removed in accordance with permits obtained from all governing agencies, including the US Coast Guard.

The following four properties would be acquired for construction of the project (Figure 6): Initial Site Assessments indicate that none of these properties contain leaking underground storage tanks or other hazardous substance contamination.

- Parcel No. 005-171-10, a long thin strip of vacant land adjacent to Imola Avenue;
- Parcel No. 005-171-13 Napa Sanitation District Property;
- Parcel No. 005-171-17, unused hotel and some vacant land; and
- Parcel No. 005-180-07, Napa Sanitation District Property on east side of Napa River north of Imola Avenue.





### 3. Biological Considerations

Some permanent decreases in riparian scrub-shrub habitat and low value woodlands would occur as a result of the bridge replacement. A grove of mature eucalyptus trees occurring along the easterly banks of the river, just north of the bridge and adjacent to the Napa Sanitation District (NSD), would be removed as part of the new bridge alignment.

Conversely, Figure 7 shows the habitat types that will be created along the Napa River/floodplain in the area surrounding the Maxwell Bridge Replacement project limits. The table below summarizes the habitat types and estimated area from Third Street, approximately 2 km. north of the Maxwell Bridge, to Kennedy Park, approximately 2.5 km. south of the Maxwell Bridge. Although it is important to note that these are overestimates of the habitat gains within the Maxwell Bridge project limits, replacement of the new bridge over a widened channel would make possible the contiguity of habitats created throughout the river/floodplain and contribute to the overall habitat improvement. It is also important to note that habitat types that do not presently exist in the vicinity will be added to the existing array of habitat types in the project area (refer to Biological Conditions section, page 5).

Habitat Type	Hectares Impacted	Hectares Created	Change in Hectares
Riparian forest	1.08	1.21	+0.13
Riparian scrub-shrub	0.50	0.50	0
Brackish Emergent Marsh*	2.89	25.90	+23.01
Seasonal wetlands*	3.72	11.00	+7.28
Shaded Riverine Aquatic Cover*	0	0.24	+0.24
High Value Woodlands	0.40	2.00	+1.60
Low Value Woodlands	4.10	0	-4.10

Adapted from USACE FSEIS/EIR, Appendix A: USFWS Fish and Wildlife Coordination Act Report.

\*Habitat types that will be created within the Maxwell Bridge project limits as a result of the USACE Flood Reduction Project.

As stated in the Biological Conditions section, the Delta Tule Pea (*Lathyrus jepsonii* var. *jepsonii*) has been found within the proposed Maxwell Bridge Replacement project limits. An addendum to the FSEIS/EIR has been prepared to document the occurrence of Delta Tule Pea within the project limits (Exhibit I). This occurrence would be impacted during construction of the proposed project. The Delta Tule Pea is identified as a Species of Concern by the U.S. Fish and Wildlife Service. It is Caltrans' policy to mitigate for Species of Concern plants that are taken as a result of project work. It is anticipated that the Delta Tule Pea would be replaced at an approximately 10:1 ratio at a location within the project limits. A mitigation plan would be implemented in accordance with the U.S. Fish and Wildlife Service requirements.



As stated in the Biological Conditions section, there are two wetlands that have been identified within the project limits. One is located just outside of the proposed bridge alignment; however, it will be protected as an Environmentally Sensitive Area, and would not be impacted by the proposed project. The other area, which would be filled, constitutes less than 0.25 hectares of wetland. As stated earlier, a 404 Nationwide Permit would be sought from the US Army Corps of Engineers for this project.

As the proposed project is situated in the middle of the Napa River Flood Reduction Project limits, construction of the Maxwell Bridge Replacement is expected to start after the Napa River Flood Reduction Project has begun. As the lead agency, USACE will be implementing a Salt Marsh Harvest Mouse Habitat Restoration Plan. While no Salt Marsh Harvest Mouse habitat has been identified within in the Maxwell Bridge Replacement Project area, the project would adhere to the conditions of the Habitat Restoration Plan approved by the USFWS.

The USACE will be implementing a monitoring plan for the Sacramento Splittail and Delta Smelt prior to any construction. Caltrans would comply with the conditions specified by USFWS for construction time periods and performance of in-water work. The U.S. Fish and Wildlife Service (USFWS) Biological Opinion for the Napa River/Napa Creek Flood Reduction Project is provided in Exhibit A.

The National Marine Fisheries Service (NMFS) biological opinion states that the Napa River/Napa Creek Flood Reduction Project will not jeopardize the existence of the California Steelhead. The NMFS biological opinion is provided in Exhibit B.

The Maxwell Bridge Replacement Project is included in the Section 401 Water Quality Certification obtained from the Regional Water Quality Control Board for the entire flood reduction project, and would comply with all of the conditions set forth. An excerpt of these conditions is provided in Exhibit G.

A 1601 Streambed Alteration Agreement would be sought from the California Department of Fish and Game.

Migratory birds that nest on the Maxwell Bridge are protected under the Migratory Bird Treaty Act. Caltrans would implement measures to prevent nesting by migratory birds. These measures are described in the Protective Features section of this document.

## **PERMITTING OR PARTICIPATING AGENCIES**

U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish and Wildlife, National Marine Fisheries Service, State Lands Commission, California Department of Fish and Game, San Francisco Regional Water Quality Control Board, State Office of Historic Preservation, Advisory Council on Historic Preservation, Federal Highway Administration, City of Napa, Napa County Flood Control and Water Conservation District.

## **ENVIRONMENTAL SIGNIFICANCE CHECKLIST**

According to the California Environmental Quality Act (CEQA) Guidelines, Section 15063(d)(3), an identification of environmental effects can be made through the use of a checklist, provided entries are supported with some evidence. Caltrans has utilized the CEQA Checklist (hereafter referred to as the "CEQA Environmental Checklist") from the CEQA Guidelines to identify the environmental effects of the Maxwell Bridge Replacement Project and to support its finding in this Negative Declaration.