

Memorandum

*Making Conservation
a California Way of Life*

To: MAXWELL LAMMERT/CALTRANS DISTRICT 4
Branch Chief, Napa and Solano Counties
Office of Environmental Analysis
Division of Environmental Engineering

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SUBJECT: PUTAH CREEK BRIDGE REHABILITATION PROJECT (04-1Q570) – EVALUATION OF POTENTIAL SECTION 4(F) RESOURCES AND PRELIMINARY DE MINIMIS IMPACT DETERMINATION

1 INTRODUCTION

This Section 4(f) evaluation document has been prepared in tandem with the Putah Creek Bridge Rehabilitation Project (the Project) Initial Study with proposed Negative Declaration (IS/ND) (Caltrans 2022). This technical memorandum provides the documentation to support determinations required to comply with the provisions of 23 United States Code (USC) 138 and 49 USC 303, hereafter referred to as Section 4(f).

This documentation has been prepared in accordance with the legislation established under the United States Department of Transportation Act of 1966 (23 USC 138; 49 USC 303). Additional guidance was obtained from Federal Highway Administration Technical Advisory T6640.8A (FHWA 1987) and the revised FHWA Section 4(f) Policy Paper (FHWA 2012).

1.1 SECTION 4(F) OVERVIEW

Section 4(f), codified in federal law in 49 USC 303, declares that "it is the policy of the United States Government that Special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife refuges, and historic sites." Section 4(f) protected resources include publicly-owned parks; recreational areas of national, state, or local significance; publicly-owned school playgrounds, wildlife, or waterfowl refuges; or lands from a historic site of national, state, or local significance.

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or Project requiring the use of publicly owned park land, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or a land of a historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

there is no prudent and feasible alternative to using that land; and

the program or Project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

1.2 SECTION 4(F) USE DEFINITIONS

When a proposed Project is adjacent to or on a property protected under Section 4(f), the impacts of the proposed Project must be evaluated. Section 4(f) defines the impact level by types of "use." These "uses" occur when any of the conditions discussed in the following subsections are met.

1.3 PERMANENT/DIRECT USE

A permanent use of a Section 4(f) resource occurs when property is permanently incorporated into a transportation facility. Permanent use may occur as a result of partial or full acquisition or a permanent easement that allows permanent access onto the property for maintenance or other transportation purposes.

1.4 CONSTRUCTIVE USE

A constructive use of a Section 4(f) resource occurs when a transportation Project does not permanently incorporate land from the resource, but the Project's proximity results in impacts so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only if the protected activities, features, or attributes of the resource are substantially diminished.

1.5 TEMPORARY OCCUPANCY

A temporary use of a Section 4(f) resource results when Section 4(f) property is required for Project construction-related activities, the property is not

permanently incorporated into a transportation facility, and the activity is not considered adverse by the agency with jurisdiction in terms of the preservation purpose of Section 4(f).

Temporary impacts to a Section 4(f) property may trigger the application of Section 4(f). 23 Code of Federal Regulation (CFR) 774.13(d) defines the following five temporary occupation exception criteria that must be met to determine that a temporary occupancy does not rise to the level of permanent/direct or constructive use for the purposes of Section 4(f):

Duration is temporary (i.e., the occupancy is shorter than the time needed for construction of the Project and there is no change in ownership of the property).

Scope of work is minor (i.e., the nature and magnitude of the changes to the Section 4(f) property are minimal).

There are no anticipated permanent adverse physical impacts or permanent interference with the protected activities, features, or attributes of the property.

The property is restored to the same or better condition that existed prior to the Project.

There is documented agreement from the appropriate federal, state, or local officials having jurisdiction over the property regarding the previously listed conditions.

1.6 DE MINIMIS IMPACT DETERMINATIONS

When impacts to a Section 4(f) property are minor, as agreed to by the agency with jurisdiction over that property, Section 4(f) regulations can be satisfied through a de minimis determination.

De minimis impact is defined in 23 CFR 774.17 as follows:

For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that would not adversely affect the activities, features, or attributes qualifying the property for protection under Section 4(f).

For historical sites, de minimis impact means that Caltrans has determined that in accordance with 36 CFR 800, no historical property is affected by the Project or the Project would have “no adverse effect” on the property in question. The SHPO and Advisory Council on Historic Preservation, if involved, must be notified that Caltrans intends to enter a de minimis finding for properties when the Project results in “no adverse effect.”

The officials with jurisdiction must concur in writing with a de minimis determination. For recreational or refuge properties, concurrence from the officials having jurisdiction over the properties is required. For historical sites, concurrence from the SHPO is required.

2 PROJECT DESCRIPTION

This Project proposes to rehabilitate the existing bridge rails to preserve the service life of the Putah Creek Bridge. The purpose of the Putah Creek Bridge Rehabilitation Project (Project) would prevent errant vehicles from leaving the structure and reduce the severity of potential crashes. The need of the Project is to upgrade the structure barrier rail asset to meet current design and Federal crash test standards and improve the railing to "good" asset condition. In addition to safety enhancements, the Project would improve the ride quality for a minimum of 30 years.

A Structure Maintenance and Investigation (SM&I) has identified the need for bridge rail replacement on Putah Creek Bridge in Solano County. SM&I has identified the current structure barrier rail to be in poor condition. To avoid pavement deterioration, there is a need for bridge deck resurfacing due to the continuous spalling and delamination. The proposed work would prevent further deterioration, costly future repairs, and extend the service life of the bridge.

This Project proposes to upgrade the existing bridge rails, upgrade the approach rails, and resurface the bridge deck by applying a polyester concrete overlay. Upgrading the existing railings with the current Manual for Assessing Safety Hardware (MASH) ST-75 guardrail standard, would involve demolishing the existing overhang along both sides of the bridge, constructing new overhangs, forming and casting the new ST-75 rails and slightly widen the bridge structure to accommodate the new bridge rail and other structural improvements. To support the added weight of the new rails and overhang, additional modifications to the bridge superstructure would be necessary. These include adding concrete struts that extend from the outermost longitudinal girders to the outer edge of the overhang and constructing intermediate diaphragms between the middle and outermost longitudinal girders. Caltrans also proposes to replace the sliding joint plate on two of the bridge piers.

The metal beam guardrail at north end of the bridge would be replaced with a standard Midwest guardrail system (MGS) with transition rail connectors to the new bridge railing. In addition, the roadway fill prisms would be regraded to accommodate the transition rail connectors. The metal beam guardrail at the south end of the bridge was replaced in 2020 as part of the emergency work due to a wildfire in the area.

Resurfacing the bridge deck would be completed by removing deteriorating sections of deck concrete with construction equipment and hand tools and patching these areas with a polyester concrete mix. Once patching is complete, the bridge deck would be overlaid with a polyester concrete roadway surface. Signage upgrades, including curve warning signs, would be installed on each end of the bridge and roadway striping would be completed within the Project to meet current Caltrans design standards, as appropriate.

Most of the work would be done within state right of way. However, the Project proposes two temporary construction easements (TCEs) and no permanent ROW acquisitions. One TCE is located on the north side of the bridge and is on a private property that is used as a recreational area. The other TCE is located on the southeast side of the bridge and is owned by California Department of Fish and Wildlife (CDFW), and belongs to the Putah Creek State Wildlife Area, a recreational area that is popular for its fishing, birding, and wildlife views. Caltrans would need a TCE of approximately 0.78 acres to stage equipment and access the crane pad area.

3 DESCRIPTION OF SECTION 4(F) RESOURCES

As part of this Section 4(f) evaluation, a 0.5-mile radius was developed around the Project limits to determine if any Section 4(f) resources are located within the Project vicinity and if the proposed Project would “use” these properties. Putah Creek Wildlife Area, UC Davis Stebbins Cold Canyon Natural Reserve, and Lake Berryessa are located within the 0.5-mile radius. No Historic properties or schools or playgrounds are within the 0.5-mile radius. Details of the Project’s impacts on the resources are detailed in the table below.

Table 3-1. Section 4(f) Resources Located within a 0.5-Mile Radius of the Proposed Project and Preliminary Section 4(f) Impact Determination

Section 4(f) Resource and Agency with Jurisdiction	Location	Type of Resource	Nature of Proposed Construction Activities	Dimension of “Use” (acres)	Anticipated Section 4(f) Impact
Putah Creek State Wildlife Area - California Department of Fish and Wildlife	Southeast side of the bridge on both sides of Caltrans ROW continuing towards the creek	Wildlife Refuge	Access the property in order to construct an access road and a staging area.	0.78	<i>De Minimis</i>

Section 4(f) Resource and Agency with Jurisdiction	Location	Type of Resource	Nature of Proposed Construction Activities	Dimension of "Use" (acres)	Anticipated Section 4(f) Impact
Stebbins Cold Canyon Natural Reserve – UC Davis	Approximately 1000 feet southwest of the Project footprint	Wildlife Reserve and Recreational Area	None	Not Applicable	<i>No Impact</i>
Lake Berryessa - Bureau of Reclamation	Lake Berryessa drains into the southeastern tip of Putah Creek which is controlled by the Monticello Dam	Recreational Area	None	Not Applicable	<i>No Impacts</i>

3.1 PUTAH CREEK STATE WILDLIFE AREA

Putah Creek Wildlife Area is a state wildlife area in Solano County, California. The 670-acre reserve lies to the east of Lake Berryessa, east of Monticello Dam and the confluence of Putah Creek and Cold Creek. The wildlife area is used for recreation and is popular for its fishing, birding, and wildlife. The portion of the park that Caltrans would occupy is located on the south side of the bridge on both sides of Caltrans ROW. Occupation would be primarily within the unpaved overflow parking lot on the southeast side of the bridge with an access road for equipment running towards a crane pad by the creek.

3.2 UC DAVIS STEBBINS COLD CANYON NATURAL RESERVE

The UC Davis Stebbins Cold Canyon Reserve is set in a steep inland canyon of the California Coast Range. Extreme topography gives the reserve a mix of habitats, high species diversity, and beautiful views. An intense wildfire burned the entire reserve in summer of 2015; University of California researchers are studying the recovery in the area. The University of California maintains the site as an ecological preserve for teaching and research. Public visitors are invited to use the trail network that crosses the reserve.

3.3 LAKE BERRYESSA

Lake Berryessa is the reservoir for the Solano Project which is owned by the Bureau of Reclamation and operated under a cooperative agreement by the Solano County Water Agency/Solano Irrigation District. The Project provides

flood control protection to the city of Winters and other downstream communities, as well as high-quality water supply for irrigation and the cities of Vacaville, Suisun City, Vallejo, and Fairfield.

Lake Berryessa offers year-round recreation opportunities to experience a variety of wildlife and plant exploration activities. The grassy hills dotted with oak and manzanita provide excellent opportunities to view eagles, hawks, songbirds, wild turkeys, and deer. Hiking, bird watching, photography, and picnicking are all popular activities year-round.

4 IMPACTS ON SECTION 4(F) RESOURCES

4.1 PUTAH CREEK STATE WILDLIFE AREA

IMPACT: The proposed Project would require a temporary construction easement or a permit to enter and construct from CDFW. This would be necessary to construct a staging and access road that would be used by the contractor to reach the crane pad from the proposed staging area in the overflow parking lot. Since the overflow parking area would be used as a staging area for equipment and materials and used for construction activity, the parking lot would have restricted access. This would impact the visitors that may want to park their vehicles to hike or access the creek. On the southeast corner of the bridge there is a small, unmarked pathway that leads down to the embankment that is used for recreational fishing. Since the parking lot would be closed, the public would not have access to the fishing spot and may have to move to other potential fishing spots temporarily.

The parking lot is lined with oak woodland trees on the southeast side starting from the edge of the entry way up to the unmarked pathway. The pathway down to the embankment is covered with riparian trees. Approximately 55 riparian trees and 10 non-riparian trees (Table 1) would need to be removed or trimmed for the crane and the workers to access the crane pad on the embankment. Most of the trees listed for removal are either dead or dying from a fire that occurred in 2020. However, the tree removals would still impact the area because these trees could be used as a habitat by bats, birds, and small to medium sized mammals. Caltrans would work with biologists to make sure impacts and disturbance are minimized. The easement would be a maximum of approximately 0.78 acres (34,088 square feet) and would not impact any recreational amenities of the wildlife area such as formal trails, or visitor centers.

Table 4-1. Tree Removal Survey

Species	Number	DBH (inches)	Riparian	Type of Impact
Interior Live Oak	17	5.5, 7.2, 8.1	Yes	Limb, Trim, or Top
Undetermined Species (fire damaged)	18	2.8, 2.9, 4.3, 7.4	Yes	Limb, Trim, or Top
Freemont Cottonwood (fire damaged)	20	20, 21	Yes	Limb, Trim, or Top
Undetermined Species (fire damaged)	22	5.1	Yes	Limb, Trim, or Top
Undetermined Species (fire damaged)	23	5.6	Yes	Limb, Trim, or Top
Freemont Cottonwood (fire damaged)	24	50	Yes	Limb, Trim, or Top
Undetermined Species (fire damaged)	25	4.5	Yes	Limb, Trim, or Top
Freemont Cottonwood (fire damaged)	28	6.4	Yes	Removed
Interior Live Oak (fire damaged)	30	9.4	Yes	Limb, Trim, or Top
Interior Live Oak (fire damaged)	31	4.3	Yes	Limb, Trim, or Top
Freemont Cottonwood (fire damaged)	33	28	Yes	Remove
Interior Live Oak	38	7.1	Yes	Remove
Willow (fire damaged)	44	32	Yes	Limb, Trim, or Top
Black Oak	50	38.4	Yes	Limb, Trim, or Top
Freemont Cottonwood (fire damaged)	52	2.4, 3.1	Yes	Limb, Trim, or Top
Undetermined Species	53	11.2	Yes	Limb, Trim, or Top
Oregon Ash	54	6.5	Yes	Limb, Trim, or Top
White Alder	56	22.6	Yes	Limb, Trim, or Top
White Alder (fire damaged)	58	10	Yes	Limb, Trim, or Top
White Alder	60	17.4	Yes	Limb, Trim, or Top
White Alder	71	11.0	Yes	Limb, Trim, or Top
Mexican Fan Palm	84	17	No	Limb, Trim, or Top
Gray Pine	91	28.3	No	Remove
Western Redbud	95	2.9, 4.5, 6	No	Remove
Western Redbud	95	2.9, 4.5, 6	No	Remove
Gray Pine	98	9.1	No	Remove
Gray Pine	99	15.1	No	Remove

PRELIMINARY USE DETERMINATION: Based on the statement above, the evaluation concludes with a preliminary determination of de minimis impact for the Project. The attributes and features of Putah Creek State Wildlife Area, such as hiking wildlife viewing, and fishing, which qualify Putah Creek State Wildlife Area for protection under Section 4(f), would not be adversely impacted; the Project would not permanently affect accessibility, significantly impact visual resources, cause substantial noise, or impact recreational functions.

4.2 UC DAVIS STEBBINS COLD CANYON NATURAL RESERVE

IMPACT: The proposed Project would not impact any amenities or facilities associated with UC Davis Stebbins Cold Canyon Natural Reserve.

PRELIMINARY USE DETERMINATION: Based on the statement above, the evaluation concludes there would be no use.

4.3 LAKE BERRYESSA

IMPACT: The proposed Project would not impact amenities or facilities associated with Lake Berryessa.

PRELIMINARY USE DETERMINATION: Based on the statement above, the evaluation concludes there would be no use.

5 MEASURES TO MINIMIZE HARM TO SECTION 4(F) RESOURCES

Appropriate measures have been incorporated into the proposed Project to minimize impacts to the Section 4(f) resources discussed above. The rehabilitation of Putah Creek Bridge within the Project limits was designed to avoid any adverse impacts to the recreational facilities, parks, and historic resources located in the Project vicinity to the maximum extent feasible.

The following Project Features and Avoidance and Minimization Measures from the Initial Study have been incorporated into the proposed Project.

5.1 PROJECT FEATURES

Project features are standardized Project components which are employed on most, if not all, of Caltrans Projects and were not developed in response to any specific environmental impact resulting from the proposed Project.

Project Feature AQ-1 Vehicle and Equipment: Regular vehicle and equipment maintenance would be enforced.

Project Feature AQ-2 Idling: Vehicles and equipment would have limited idling time.

Project Feature AQ-3 Recycling: If practicable, recycle nonhazardous waste and excess material. If recycling is not practicable, dispose of material.

Project Feature AQ-4 Solar powered boards: Use solar-powered signal boards, if feasible.

Project Feature AQ-5 Noise: Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00a.m

Project Feature WQ-1 Tracking Control: This practice involves implementing a temporary entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles. This practice helps in preventing and reducing vehicle tracking from entering a storm drain or watercourse.

Project Feature WQ-2 Waste Management and Materials Pollution Control: Properly handle and store materials in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to nearby watercourses. Properly dispose of any vegetation/landscape waste material that minimize or eliminates the discharge of these materials to the storm drain system or to nearby watercourses. Label products implement proper cleaning techniques and recycle materials. All hazardous materials and waste must be labeled (e.g. Diesel, gasoline, fertilizers, solvents). Store all hazardous materials and wastes in approved secondary containers protected from wind and water.

Project Feature Temporary Soil Stabilization Control and Wind Erosion Control: This practice involves the placement of geosynthetics, turf reinforcement mats, plastic covers, or rolled erosion control products (RECPs), including erosion control blankets, to stabilize disturbed soil areas and protect soils from erosion by wind or water. This is one of the temporary soil stabilization alternatives to consider.

Project Feature WQ-4 Temporary Sediment Control: Store, transport, and transfer all disturbed soil (if created), sand, and material in conformity with the technical Caltrans Standard Specification (2018). In addition, avoid storing excavated material where it can easily erode or be transported to streams, roadways, and drain systems. Minimize transport of debris and silt off the construction site. This may include inserting fiber rolls and silt fence. Soil stockpiles must be stabilized/or securely covered at the end of each day. Street sweeping shall be conducted

on an as needed basis to remove sediment from streets and roadways and to prevent the sediment from entering storm drains or receiving waters.

Project Feature WQ-5 Job Site Management: This practice implements effective handling, storage, usage, and disposal practices to control material pollution and manage waste at the job site before they enter storm drain systems and receiving waters. This practice also recommends street sweeping to minimize or eliminate the discharge of waste material to the receiving waters.

Project Feature LA-1 Existing Trees: Preserve existing trees, vegetation, and associated root systems to the maximum extent feasible.

Project Feature LA-2 Protection: Protect trees outside of the clearing and grubbing limits from contractor's operations, equipment, and materials storage.

Project Feature LA-3 Replanting Trees: Where construction work results in the planned removal of existing trees, replant trees within the Project limits with native and climatically appropriate species to the extent feasible.

Project Feature LA-4 Revegetation: Revegetate disturbed soil areas, manufactured slopes, and disturbed portions of the riparian corridors with native and climatically appropriate species.

Project Feature LA-5 Bridge Rails: Utilize see-through bridge rails that allow views to the creek and adjacent vegetation.

Project Feature LA-6 Metal Aesthetic: Metal portions of the bridge will be evaluated for aesthetic treatment during the PS&E phase.

Project Feature LA-7 Glare: Reduce glare from the concrete portions of the bridge and concrete anchor blocks, by roughening surface texture to make the concrete appear to be aged.

Project Feature LA-8 Staging Areas: Screen appearance of construction equipment and staging areas.

Project Feature LA-9 Staging Vegetation: Utilize staging areas that do not damage existing vegetation or require vegetation or tree removal.

Project Feature LA-10 Directional Lighting: If nightwork is included, limit light trespass to adjacent properties with the use of directional lighting, shielding, and other measures as needed.

Project Feature CULT 1 Unidentified Resource: If previously unidentified cultural resources are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the discovery.

Project Feature TMP-1: Traffic Management: All emergency services within the area would be alerted to any closures and would be accommodated through the work area when necessary. Caltrans would coordinate with local officials to ensure that SR 128 remains open to emergency traffic.

Project Feature BIO-1 Water Quality Best Management Practices (BMP): The Project will comply with the Construction General Permit issued by the State Water Resources Control Board and with Provisions of the Caltrans Statewide National Pollutant Discharge Elimination System permit. The contractor will prepare and submit a Storm Water Pollution Prevention Plan, and Spill Prevention Plan for approval prior to the start of construction. Personnel will adhere to the instructions, protocols, and specifications, outlined in the most current Caltrans Construction Site Best Management Practices Manual and Caltrans Standard Specifications. At a minimum, protective measures will include:

- Preventing pollutants generated by vehicle and equipment maintenance or cleaning from entering storm drains or aquatic resources
- Servicing or storing vehicles and equipment no less than 50 feet from storm drains or aquatic resources unless the features are protected by impermeable barriers
- Maintaining vehicles and equipment to prevent fluid leaks
- Storing hazardous materials such as fuels, oils, solvents, etc., in sealed containers at a designated location no less than 50 feet from storm drains or aquatic resources
- Collecting and disposing of concrete waste and contaminated water from curing in appropriate washouts located no less than 50 feet from storm drains and aquatic resources
- Using water trucks to control dust
- Capturing or controlling sediment with erosion control devices such as silt fence, fiber rolls, and appropriate erosion control netting, and covering temporary stockpiles

Project Feature BIO-2 Bird Protection: To avoid take of migratory birds during the nesting season (February 1 to September 30): To the extent feasible, vegetation

and tree removal will only occur between October 1 and January 31. Vegetation and tree removal will not occur outside of the Footprint. Biologists will conduct preconstruction nesting bird surveys no more than 72 hours prior to the start of construction. If an active nest is discovered, the Biologist will establish an appropriate exclusion buffer around the nest no less than 50 feet for passerines or no less than 300 feet for raptors. The buffer will depend on species, an individual's response to disturbance, or the line-of-site from the construction area to the nest. Equipment and personnel will not enter the buffer until the nest is inactive or juvenile birds are no longer dependent on adults. If a nesting special-status bird species is discovered, the Biologist will coordinate with regulatory agencies for technical assistance. To prevent occupation or reoccupation, the Biologist will remove partially constructed or inactive nests.

Project Feature BIO-3 Species Discovery: If a special-status animal species is discovered, construction personnel will immediately halt work within 100 feet of the discovery and notify the Resident engineer and Biologist. The Biologist will coordinate with USFWS and/or CDFW for technical assistance as necessary. Work will not continue until authorized.

Project Feature BIO-4 Restoration and Weed Control: After construction is complete, disturbed topographical contours will be restored to preconstruction conditions. If noxious weeds are disturbed or removed during construction, the contractor will contain and remove the plant material appropriately. The contractor will obtain all permits, licenses, and environmental clearances for properly disposing the plant material. The contractor will replant areas subject to noxious weed removal with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the contractor will cover temporarily disturbed areas with black plastic solarization material. The contractor will maintain the material throughout the duration of construction and removed the material at the end of construction.

Project Feature BIO-5 Trash Removal: The contractor will secure food and food-related trash items in sealed containers and removed the containers from the site at the end of each day.

Project Feature BIO-6 Pet Restriction: Personnel will not bring pets into the job site.

Project Feature BIO-7 Monofilament Fiber Restriction: Monofilament fiber will not be use in erosion control devices or animal exclusion devices.

Project Feature BIO-8 Firearms Restriction: Firearms will be prohibited from the job site except for those carried by authorized security personal or law enforcement.

5.2 AVOIDANCE AND MINIMIZATION MEASURES

Avoidance and Minimization Measures are Project specific measures that are deployed to avoid or minimize environmental impacts.

Avoidance and Minimization Measure LA-1 Existing Trees: Preserve existing trees, vegetation, and associated root systems to the maximum extent feasible.

Avoidance and Minimization Measure LA-2 Protection: Protect trees outside of the clearing and grubbing limits from contractor's operations, equipment, and materials storage.

Avoidance and Minimization Measure LA-3 Replanting Trees: Where construction work results in the planned removal of existing trees, replant trees within the Project limits with native and climatically appropriate species to the extent feasible.

Avoidance and Minimization Measure LA-4 Revegetation: Revegetate disturbed soil areas, manufactured slopes, and disturbed portions of the riparian corridors with native and climatically appropriate species.

Avoidance and Minimization Measure LA-5 Bridge Rails: Utilize see-through bridge rails that allow views to the creek and adjacent vegetation.

Avoidance and Minimization Measure LA-6 Metal Aesthetic: Metal portions of the bridge will be evaluated for aesthetic treatment during future phases.

Avoidance and Minimization Measure LA-7 Glare: Reduce glare from the concrete portions of the bridge and concrete anchor blocks, by roughening surface texture to make the concrete appear to be aged.

Avoidance and Minimization Measure LA-8 Staging Areas: Screen appearance of construction equipment and staging areas.

Avoidance and Minimization Measure LA-9 Staging Vegetation: Utilize staging areas that do not damage existing vegetation or require vegetation or tree removal.

Avoidance and Minimization Measure LA-10 Directional Lighting: If nightwork is included, limit light trespass to adjacent properties with the use of directional lighting, shielding, and other measures as needed.

Avoidance and Minimization Measures BIO-1 Worker Environmental Awareness Training (WEAT): (a) The Resident Engineer (RE) will contact the project biologist (hereafter referred to as Biologist before the initial preconstruction meeting to

request environmental training. (b) All personnel will attend a mandatory environmental education program facilitated by the Biologist before construction begins. New personnel will attend a training session before they are allowed into the job site. (c) All personnel will sign a form stating they completed training and understand all applicable agency regulations and consequences of noncompliance. (d) Caltrans will provide training in foreign languages as needed. (e) Caltrans will keep the forms on file and make them available to regulatory agencies upon request. Training will include a minimum of:

- A description of special-status species that could occur onsite
- A discussion of applicable agency regulations and consequences of noncompliance.
- A review of applicable conservation measures and how to avoid impacts by implementing them

Avoidance and Minimization Measures BIO-2 Environmentally Sensitive Area (ESA)- Fencing: ESAs will be delineated using high visibility fencing or alternative delineator in the presence of the Biologist before construction begins. The fencing will be regularly maintained and remain in place until construction is completed. Construction personal or equipment will not access ESAs unless authorized by the Biologist. Wildlife exclusion fence will be installed where necessary.

Avoidance and Minimization Measures BIO-3 Speed Limit: Project related Vehicles or motorized equipment will not exceed 15 miles per hour while in the construction site.

Avoidance and Minimization Measures BIO-4 Weather Restriction: Work will not occur during or within 24 hours following a rain event exceeding 0.10-inch as measured at Vacaville Nut Tree Airport.

Avoidance and Minimization Measures BIO-5 Rare Plant Surveys: Biologists will conduct focused rare plant surveys within the Footprint and from up to 50 feet from the outside edge of the Footprint for two consecutive blooming seasons prior to the start of construction. Biologist will repeat

Avoidance and Minimization Measures BIO-6 Elderberry Shrub Survey: Biologist will perform a focused elderberry shrub survey prior to the start of construction. If elderberry shrubs or trees are found in the footprint, Caltrans will contact USFWS for technical assistance.

AMM BIO-7 Preconstruction Amphibian and Reptile Surveys: The Biologist will conduct preconstruction surveys no more than 10 days prior to initial ground disturbance, vegetation clearance, or tree removal, and immediately prior to those activities. Surveys will consist of walking and visually inspecting the Footprint and adjacent areas up to 50 feet out from the edge of the Footprint. The Biologist will investigate potential cover sites. This includes thoroughly investigating mammal burrows, rocky outcrops, appropriately sized soil cracks, dense vegetation, staged equipment and material, and debris. The Biologists will investigate areas of cleared vegetation and disturbed soil within 30 minutes following initial disturbance for signs of CRLF and other special status species. The Biologist will document vertebrates found within the Footprint and relocate native vertebrates to appropriate habitat outside of the Footprint.

AMM BIO-8 Biomonitoring: A USFWS approved Biologist will be onsite during all work that could result in take of CRLF. Through communication with the RE, the Biologist will have authority to stop work that may result in take of CRLF. The Biologist will notify USFWS by telephone and electronic mail within one working day if the Biologist exercises this authority. Caltrans will implement this measure for FYLF and WPT.

AMM BIO-9 Inadvertent Entrapment: To prevent entrapment of CRLF and other animals during construction, all excavated, steep-walled holes or trenches more than six inches deep will be covered at the close of each working day with plywood or similar materials. Before holes or trenches are filled, they will be thoroughly inspected for trapped animals. To prevent entanglement, plastic monofilament netting, or similar material would not be used.

AMM BIO-10 Burrowing Owl Assessments: No less than 30 days before construction begins, a CDFW-approved Biologist with experience in burrowing owl biology and behavior will perform an occupancy assessment throughout accessible areas of the BSA using methodology in CDFS's *Staff Report on Burrowing Owl Mitigation* (2012). If burrowing owls or evidence of burrowing owls are observed, the Biologist will develop an avoidance plan and coordinate with CDFW for technical assistance.

AMM BIO-11 Focused Raptor Surveys: The season before construction begins, a CDFW approved Biologist with experience in raptor biology and behavior will perform raptor nesting surveys. The Biologist will conduct a follow up survey 30 days before construction begins. If an active nest or evidence of nesting is detected, the Biologist will develop an avoidance plan and coordinate with CDFW for technical assistance.

AMM BIO-12 Preconstruction Bat Surveys: Prior to the start construction, a CDFW approved bat biologist (bat Biologist) will conduct preconstruction roosting bat surveys from spring to winter to document potential roosting sites, roost types, species present, and seasonal use. Surveys will include inspections of the Putah Creek Bridge, trees within the footprint, and trees up to 100 feet out from the edge of the footprint. Trees or snags providing roosting habitat would not be removed unless it was absolutely necessary to remove them to complete the project.

AMM BIO-13 Roosting Bat Exclusion: Prior to the start of construction, Caltrans will prepare a roosting bat exclusion plan for CDFW's approval.

AMM BIO-14 Roosting Bat Window: To limit disturbance to roosting bats, when feasible, construction will occur outside the maternity season (April 15 to August 15) and outside of the winter torpor season (October 15 to February 28).

AMM BIO-15 Roosting Bat Tree Removal: A bat Biologist will be on site during tree or snag removal for trees or snags that could provide habitat for bats. Unless cleared by the bat Biologist, tree removal will be avoided between March 15 and April 30, or after evening temperatures rise above 45°F and no more than 0.5-inch of rainfall occurs within 24 hours. If possible, snags will not be removed or trees that may provide habitat will only be removed above cavities or crevices. For trees that require complete removal, removal will be conducted using a two-step process, over two consecutive days.

- Day 1 — Small branches and small limbs without cavities, crevices or exfoliating bark will be removed only with chainsaws. Disturbance caused by chainsaw noise and vibration, coupled with physical alteration of the tree, will cause bats to abandon the tree after emergence for foraging.
- Day 2 — The remaining trunk, branches, and limbs will be removed to prevent reoccupation.

Avoidance and Minimization Measures WF-1: Implement Fire Prevention Practices During Construction: Caltrans would implement the following fire prevention practices into the Project construction specifications: Internal combustion engines, stationary and mobile, would be equipped with spark arrestors. Spark arrestors would be in good working order. Contractor would keep all construction sites and staging areas free of grass, brush, and other flammable materials. Personnel would be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel would be trained and equipped to extinguish small fires. Work crews would have fire-extinguishing equipment on hand, as well as emergency numbers and cell

phone or other means of contacting the fire department. Smoking would be prohibited while operating equipment and would be limited to paved or graveled areas or areas cleared of all vegetation. Smoking would be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking would be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the Project area.

6 COORDINATION

Caltrans would continue to coordinate with the California Department of Fish and Wildlife regarding the preliminary *de minimis* finding made in this document and the Project's design with respect to the affected Wildlife Area. Prior to finalizing the *de minimis* impact finding made in this document, Caltrans would prepare a public notice and provide the public an opportunity to review and comment during a 30-day public review period. Caltrans will circulate the Initial Study with Proposed Negative Declaration which will incorporate the preliminary *de minimis* impact finding as an appendix. Possible methods of public involvement include, but are not limited to, newspaper advertisements and Project websites.

7 TECHNICAL STUDIES AND REFERENCES

California Department of Transportation (Caltrans). 2022. *Putah Creek Bridge Project Initial Study with Proposed Negative Declaration*. April.

Federal Highway Administration (FHWA). 1987. *FHWA Technical Advisory T6640.8A*. October 30.

FHWA. 2012. *Revised Section 4(f) Policy Paper*. July 20.

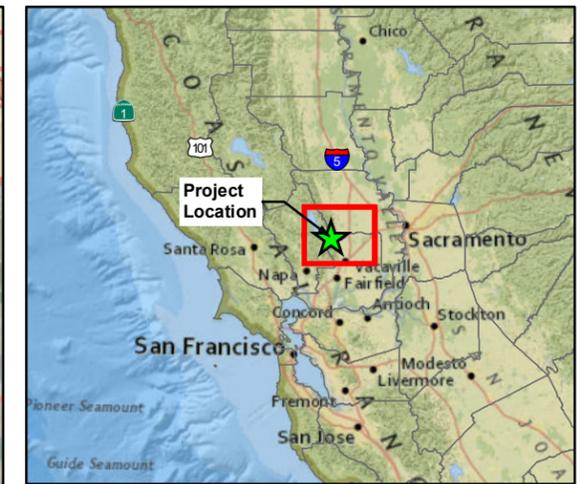
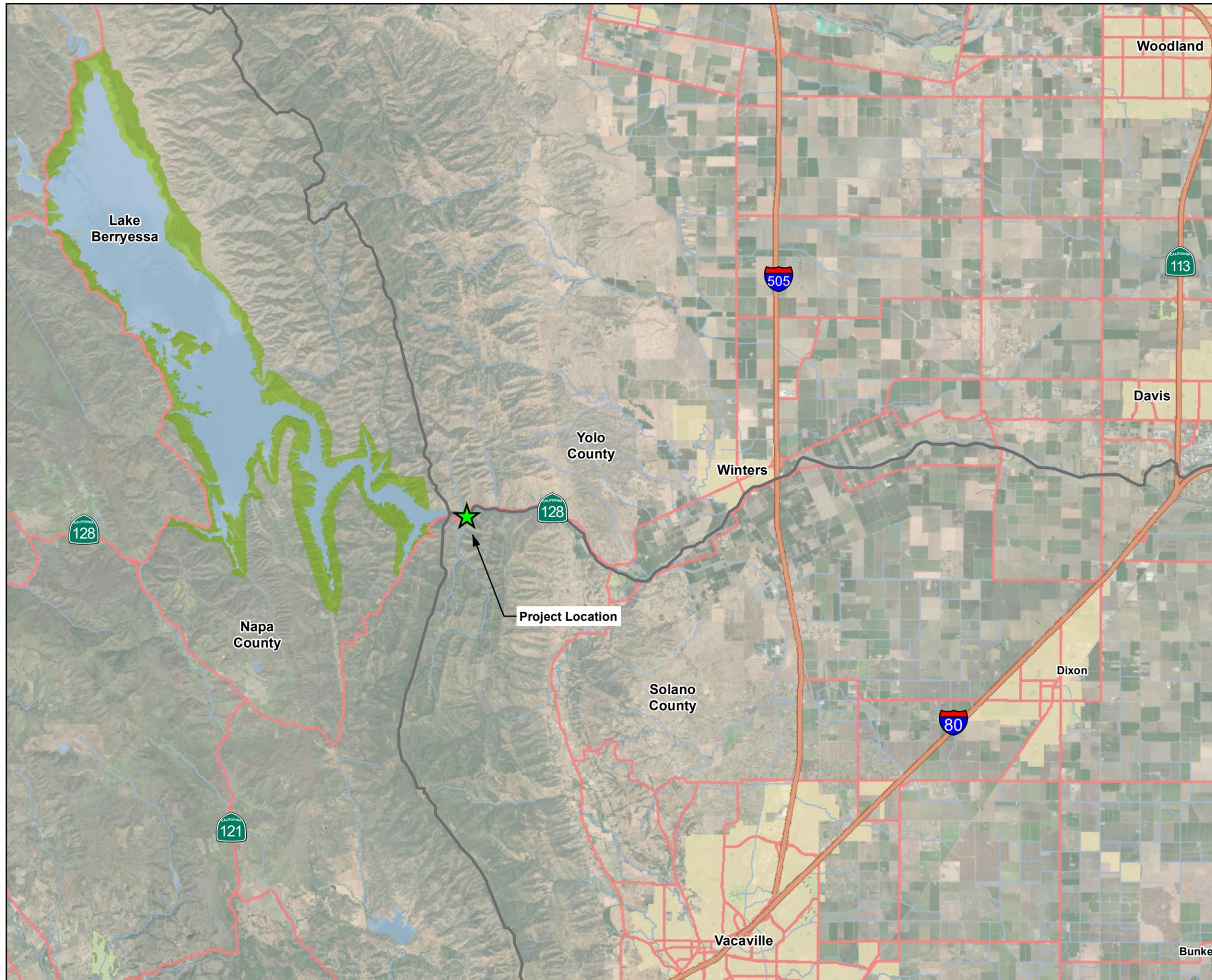
Krishma Dutta
Environmental Planner
Office of Environmental Analysis
Division of Environmental Engineering

Date

APPROVED Signatures vary by subject and delegation.

Maxwell Lammert
Branch Chief, Napa and Solano Counties
Office of Environmental Analysis
Division of Environmental Engineering

Date



LEGEND

-  Project Location
-  County Boundary

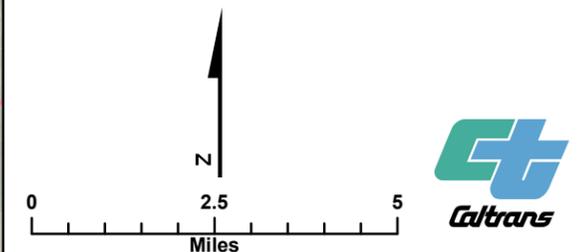
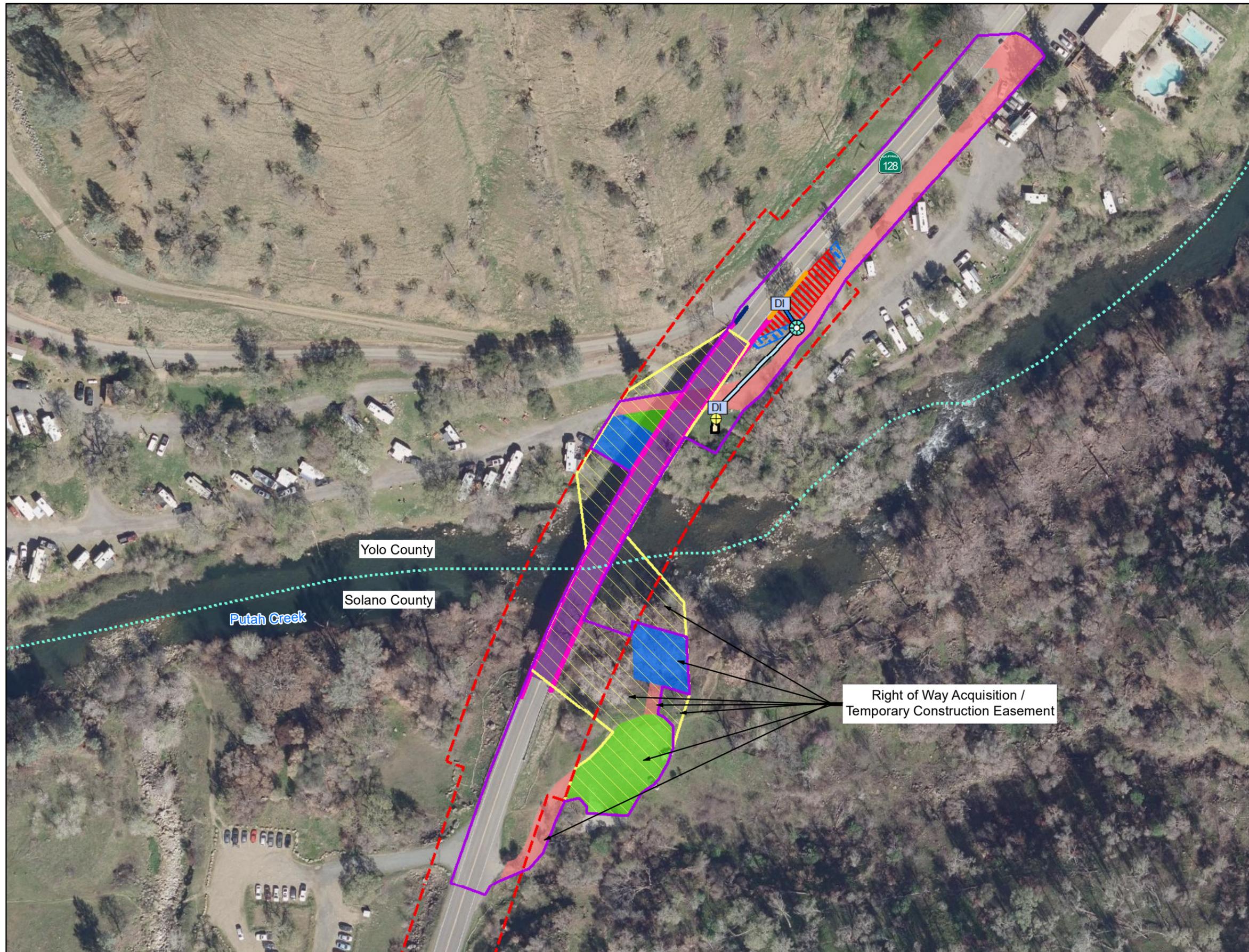


Figure 1
Regional Location
 State Route 128
 Putah Creek Bridge Rehabilitation Project
 EA 04-1Q570, SOL-128-0.72/0.73
 Solano County, California



- Legend**
- - - - - County Boundary
 - - - - - Caltrans Right of Way
 - Project Footprint
 - Remove MBGR / Install MGS and Transition Railing
 - Remove / Replace Bridge Railing
 - Resurface Bridge Deck
 - Install Crash Cushion
 - Permanent Regrade Fill Prism
 - Temporary Regrade Fill Prism
 - Install Downdrain
 - Install Perforated Plastic Pipe
 - DI Install Drainage Inlet
 - Install Access Vault
 - Install Flared End Section
 - Install Rock Slope Protection
 - Boom Swing Area
 - Temporary Access Road
 - Temporary Crane Pad
 - Temporary Staging Area

Imagery Source:
ESRI, Solano County 2021

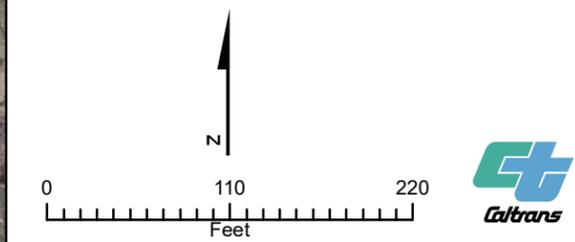
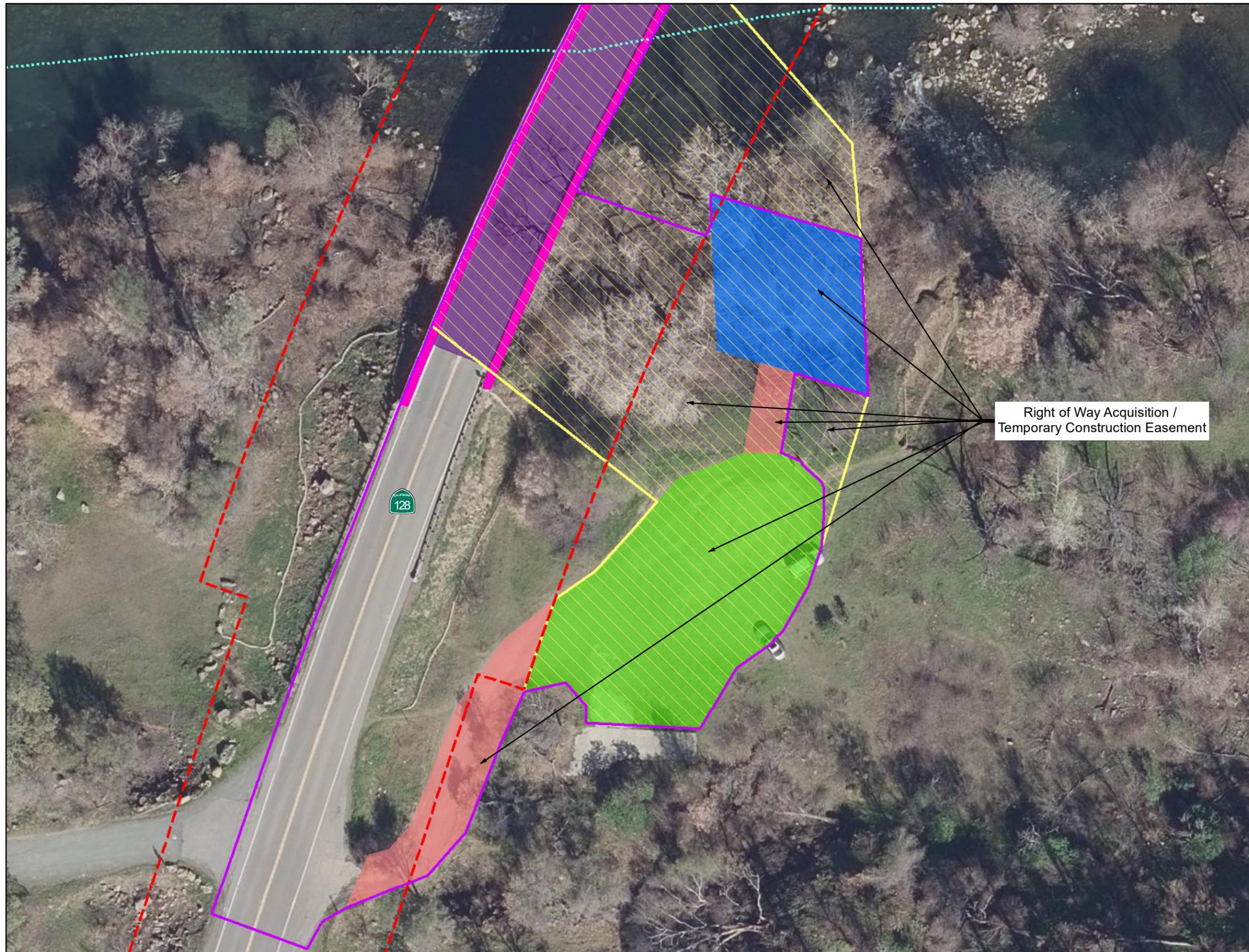


Figure 2
Map 1 of 3
Project Components
 State Route 128
 Putah Creek Bridge Rehabilitation Project
 EA 04-1Q570, SOL-128-0.72/0.73
 Solano County, California



- Legend**
- ⋯ County Boundary
 - - - Caltrans Right of Way
 - Project Footprint
 - Remove / Replace Bridge Railing
 - Resurface Bridge Deck
 - Boom Swing Area
 - Temporary Access Road
 - Temporary Crane Pad
 - Temporary Staging Area

Right of Way Acquisition /
Temporary Construction Easement

Imagery Source:
ESRI, Solano County 2021

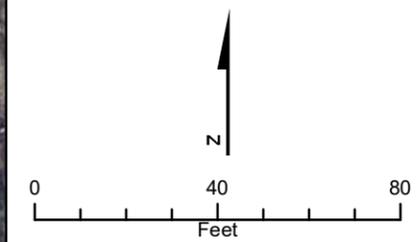
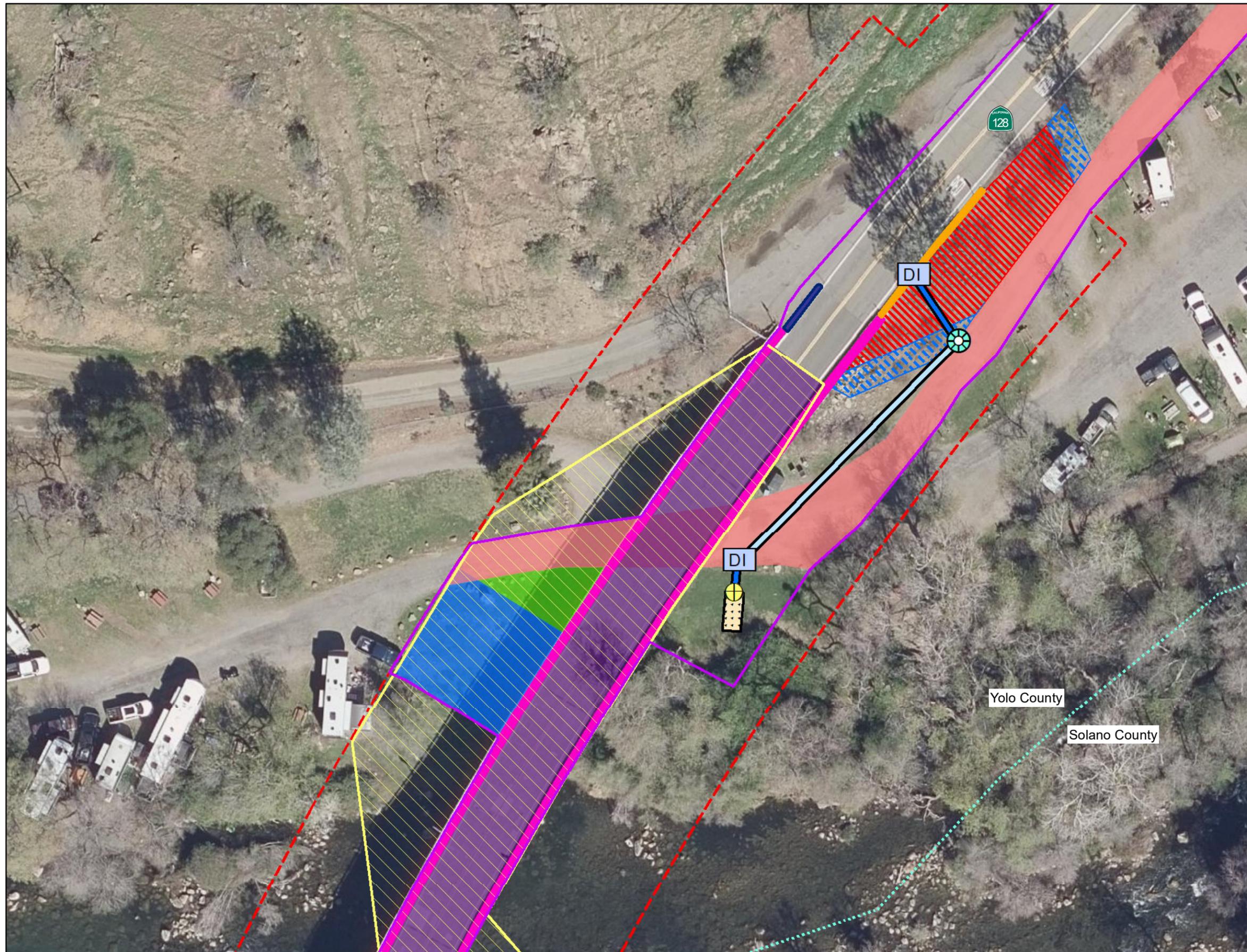


Figure 2
Map 2 of 3
Project Components
State Route 128
Putah Creek Bridge Rehabilitation Project
EA 04-1Q570, SOL-128-0.72/0.73
Solano County, California



- Legend**
- - - County Boundary
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Imagery Source:
ESRI, Solano County 2021

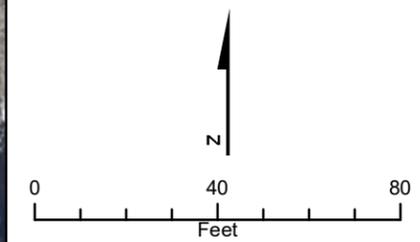


Figure 2
Map 3 of 3
Project Components
 State Route 128
 Putah Creek Bridge Rehabilitation Project
 EA 04-1Q570, SOL-128-0.72/0.73
 Solano County, California