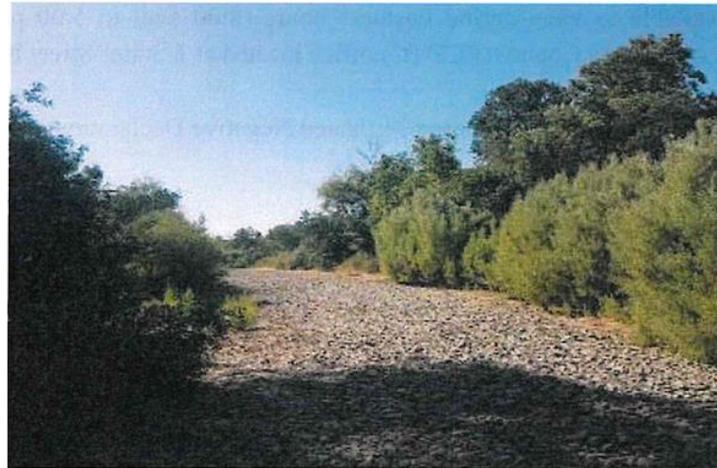
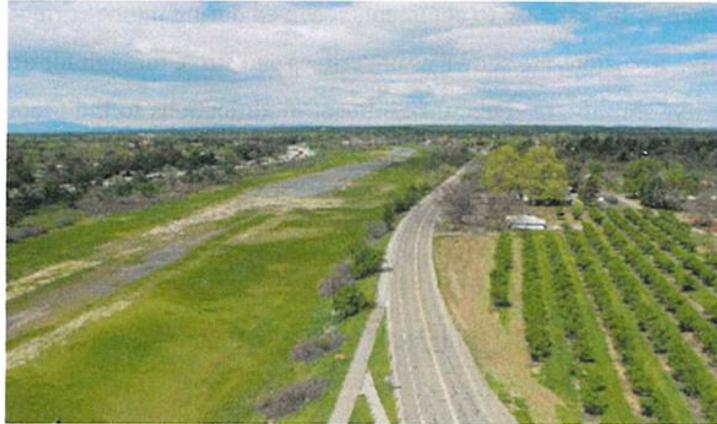


**ADDENDUM TO THE
EAST SAND SLOUGH SIDE CHANNEL PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**



**Prepared by
Resource Conservation District of Tehama County
July 2021**



**Original Funding provided by
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Attachments

Attachment 1 Original East Sand Slough Side Channel Project Initial Study/Mitigated Negative Declaration and Original Mitigation Monitoring and Reporting Plan

I. Introduction

A. Determination

This document constitutes an Addendum to the August 2019 Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the **East Sand Slough Side Channel Project** (hereafter referred to as the Original Project). This Addendum evaluates whether modifications or refinements to the fish passage improvement Project design (hereafter referred to as the Proposed Project) would result in any new or substantially more adverse significant effects or require any new mitigation measures not identified in the 2019 IS/MND.

The Proposed Project work scope differs from the Original Project's work scope described and analyzed for impacts in the 2019 IS/MND prepared for the **East Sand Slough Side Channel Project**. These changes entail:

- Changes to the original Project Area.
- Changes in the volume of material deposited on two spoils sites analyzed in the original 2019 IS/MND and the use of two additional spoils disposal sites that were not identified in the original 2019 IS/MND.
- Significant reduction in the volume of spoils materials hauled off site as compare compared to that analyzed in the original IS/MND.
- Use of additional haul roads.
- Use of an additional staging area.
- Potential cultural resource impacts related to changes in Project work scope and area.
- Potential biological resource impacts related to changes in Project work scope and area.
- Potential impacts to Project Area aesthetics and recreation resources related to changes in Project work scope and area.
- Changes to the original provisions of Mitigation Measures BIO-13: Implement Bat Protection Measures during Construction Activates Under or Within 100 Feet of the Antelope Boulevard /Highway 36 Bridge that will improve species protection.
- Addition of Mitigation Measure BIO-15 related to the vegetation of all spoils piles

As verified in this Addendum, the analyses and conclusions pertaining to the original scope of work described in the 2019 IS/MND remain current and valid. It has also been determined that proposed

changes described in this Addendum document would not cause new or substantially more severe environmental effects that have not already been analyzed in the 2019 IS/MND with the implementation of revised and additional Mitigation Measures. Therefore, no further environmental review is required beyond this Addendum.

This Addendum incorporates the Original Project work scope along with an analysis of impacts related to spoiling additional volumes of excavated material onto the original spoil areas described in the 2019 IS/MND, the use of two new spoiling areas and the significant reduction of spoils volumes hauled off site. In addition, this Addendum includes the original text of **Mitigation Measure BIO-13** as described in the 2019 IS/MND that was developed in order to protect bats found within the Project Area. Also shown are revisions to the original Mitigation Measure's text developed in order to improve protection of this species along with the addition of **Mitigation Measure BIO-15** related to the vegetation of all spoils piles. The RCD of Tehama County has determined that the changes described in this Addendum to the original **East Sand Slough Side Channel Project IS/MND** will result in the Project remaining within the framework of evaluation used to analyze the impacts of the Original Project as documented in the 2019 IS/MND.

B. Background

The Original **East Sand Slough Side Channel Project** was formally evaluated in a 2019 IS/MND prepared by the Resource Conservation District of Tehama County (RCDTC), the project's CEQA Lead Agency and implementing entity. The 2019 IS/MND was prepared pursuant to the California Environmental Quality Act (CEQA) and adopted by the Resource Conservation District of Tehama County Board of Directors. During initial implementation of **East Sand Slough Side Channel Project** work, it was determined by this Project's Technical Advisory Committee that in order to reduce Greenhouse Gas Emissions related to the offsite hauling of spoils, an increased amounts of this excavated material would need to be placed in a number of established spoils areas and that two additional areas would need to be established to accommodate increased total spoils volume. In addition, based upon technical input from resource specialists, a determination was made by the TAC that a number of changes in the provisions of **Mitigation Measure BIO-13: Implement Bat Protection Measures During Construction Activates Under or Within 100 Feet of the Antelope Boulevard /Highway 36 Bridge** were required in order to adequately protect bats and bat nesting sites located under the Antelope Boulevard/Highway 36 Bridge during Project implementation. Related to the spoiling of excavated

material, **Mitigation Measure BIO-15** was established during the development of this Addendum that requires vegetating all spoils.

C. Purpose of this Addendum

The purpose of this Addendum is to evaluate whether the Proposed Project as currently designed would result in any new or substantially greater significant effects if changes in the original work scope and Mitigation Measures developed in this document that were not identified in the 2019 IS/MND were implemented. This Addendum, together with the 2019 IS/MND were used by the Resource Conservation District of Tehama County when considering approval of the Proposed Project as described in this document.

D. CEQA Framework for Addendum

For a proposed modified project, CEQA Guidelines (Sections 15162 and 15164) provide that an Addendum to an adopted MND may be prepared if only minor technical changes or additions are necessary or none of the following conditions calling for the preparation of a subsequent MND have occurred: Substantial changes in the project which require major revisions to the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; Substantial changes with respect to the circumstances under which the project is undertaken which require major revisions to the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of MND adoption, shows any of the following:

- i) the project will have one or more significant effects not discussed in the MND,
- ii) the project will result in impacts substantially more severe than those disclosed in the MND,
- iii) mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measure or alternative, or
- iv) mitigation measures or alternatives that are considerably different from those analyzed in the MND would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measure or alternative.

Based upon the analysis provided below, The Resource Conservation District of Tehama has determined that an Addendum to the 2019 IS/MND is the appropriate CEQA document to analyze the Proposed Project's impacts.

II. Original Project Information

A. Summary of Original Project

Project Location

The Project Area is located in Tehama County adjacent to the City of Red Bluff, California, along the left bank of the Sacramento River at about river mile (RM) 246 (see **Figure 1 Original Project Vicinity Map**). The Project Area lies within the United States Geological Survey 7.5-minute Red Bluff East quadrangle map (T27N R3W, Mount Diablo Meridian) at approximately 40°10'36.62"N Latitude and 122°13'15.11"W Longitude.

Project Description

The 2019 IS/MND evaluated the Original Project which entails the creation of a salmonid rearing habitat restoration project. The Original Project consists of reconnecting East Sand Slough to the Sacramento River by excavating the main channel and entrances to provide rearing habitat for juvenile salmonids at different flow regimes on the Sacramento River. The main channel entrance would be excavated to allow flow into the channel when Sacramento River flows are 5,000 cubic feet per second (cfs). A high-flow entrance would be excavated to allow flow into the main channel when Sacramento River flows are 10,000 cfs and into a secondary channel when flows are 15,000 cfs. Channel excavation would require relocation of existing gas, electric, and telecommunication lines that cross the slough. The Original Project also consists of a sewer line relocation and a recreation component that includes a combination of trail expansion and boat ramp restoration. (See Attachment 1 Original East Sand Slough Side Channel Project Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Plan.)

Construction Sequencing

The Original Project described construction sequencing as occurring in three phases. During Phase I, the underground sewer line, electrical line, gas line, and telecommunications line would be lowered. These

activities were anticipated to begin in September 2019 depending on permit acquisition. If September 2019 is not feasible, these activities were anticipated to begin June 2020.

Project Monitoring

This project will be monitored for adherence to the Mitigation Measures developed in the 2019 IS/MND shown in “**Attachment 1 Original East Sand Slough Side Channel Project Initial Study/Mitigated Negative Declaration and Original Mitigation Monitoring and Reporting Plan**”. The majority of project monitoring will be completed by the RCDTC Project Manager and other District personnel. As appropriate, members of this project’s Technical Advisory Committee and construction contractor personnel having the necessary technical knowledge and skills will complete a portion of required monitoring tasks.

III. Summary of Proposed Project, Comparison of Original and Proposed Projects

The **2019 East Sand Slough Side Channel Project Initial Study/Mitigated Negative Declaration** evaluated the Original Project (See Project Description in section II and as described in detail within Attachment 1 to this amended IS/MND). Proposed Project work entails the original work scope (with some stream flow numbers revised) as amended by the following changes that have been incorporated into the Original Project’s scope of work. The Proposed Project components are shown below in **Figure 3. Proposed Project Overview**.

A. Changes to Construction Sequencing

Timing requirements of Project work that impact specific natural and cultural resources have been incorporated into this project’s Mitigation Monitoring and Reporting Plan as shown in **Attachment 1**.

- AT&T utility began on November 11 and was completed on December 10, 2020
- PG&E utility lowering began on May 4, 2021 and was completed in June 2021.
- Channel excavation and bridge work is anticipated to begin between mid-August 2021 and September 2021 and continue through February 2022.

B. Change in Project Area

The Original Project Area covered 259 acres (see **Figure 1. Original Project Vicinity Map**). The Proposed Project Area covers 382 acres (see **Figure 2. Comparison of Original and Proposed Project Areas and Figure 3. Proposed Project Overview**). The larger area was required to encompass the additional spoil areas and haul roads which are part of the Proposed Project and are discussed below. The additional land within the Proposed Project area is owned by the United States and managed by the U.S. Forest Services as part of the Red Bluff Recreation Area of the Mendocino National Forest.

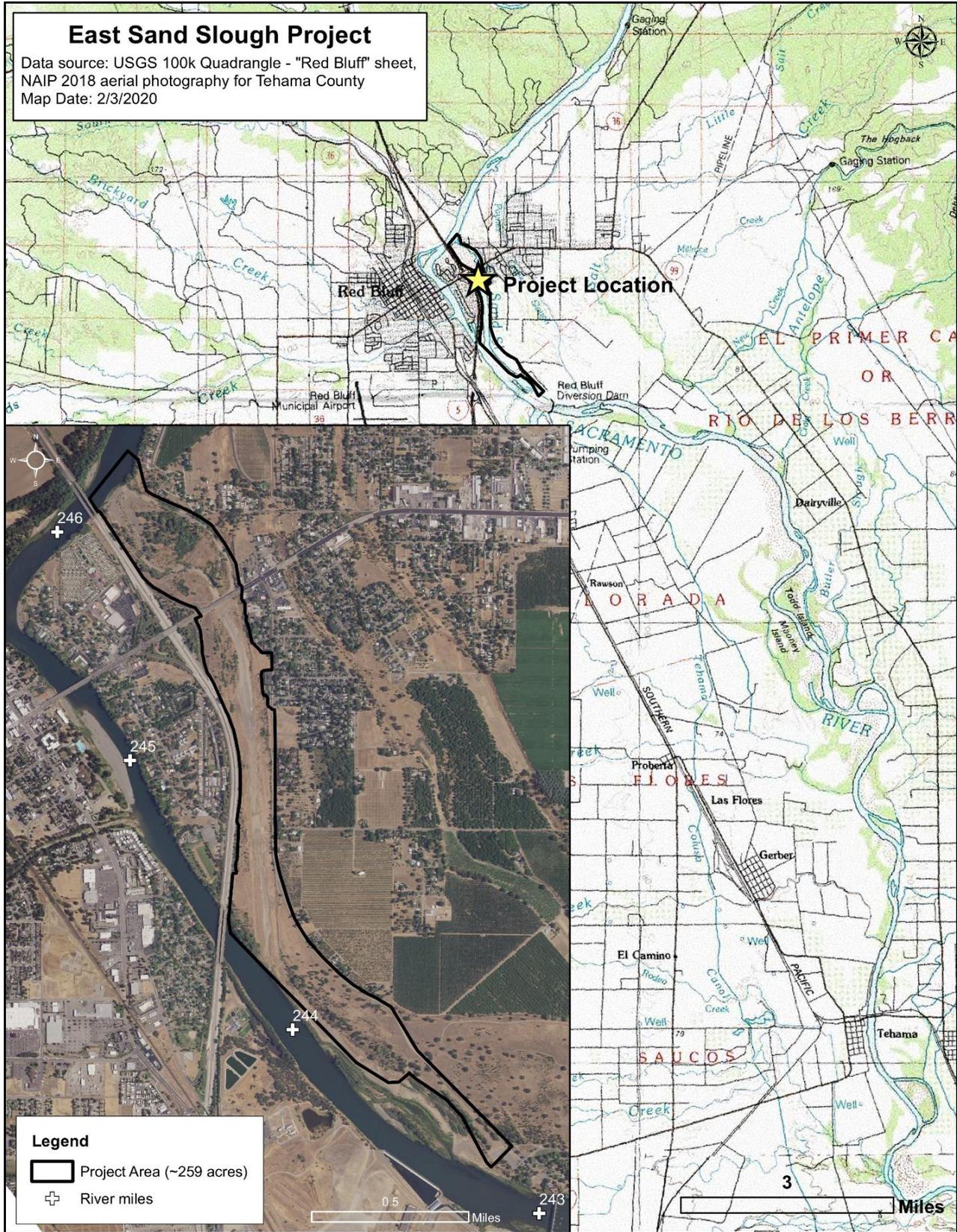


Figure 1. Original Project Vicinity Map



Figure 2. Comparison of Original and Proposed Project Areas

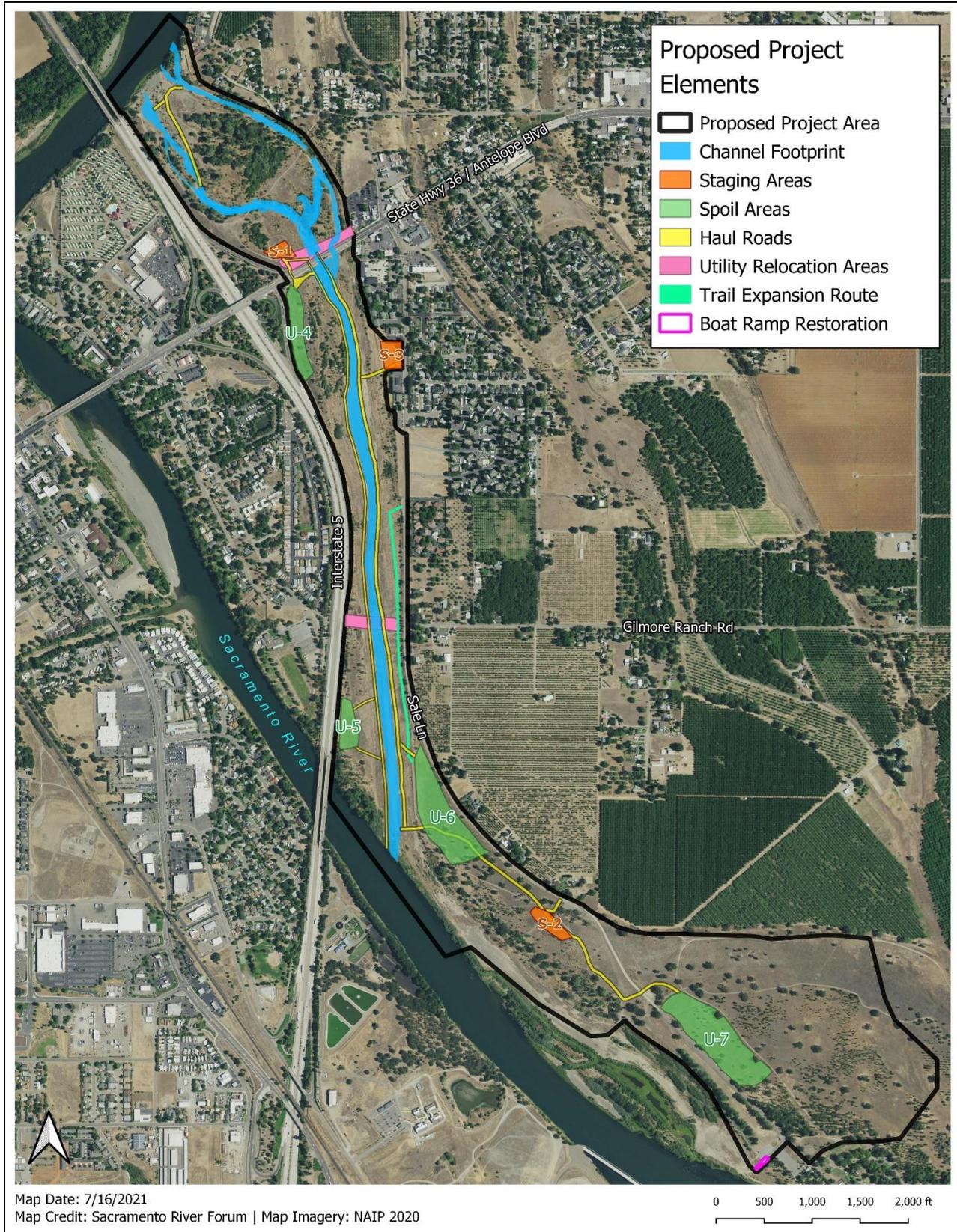


Figure 3. Proposed Project Overview

C. Use of Additional Onsite Spoil Areas and Changes to Material Sorting

The Original Project called for approximately 90,000 cubic yards of the estimated 100,300 cubic yards of excavated material to be processed by a gravel sorter. Approximately 29,500 cubic yards of the sorted material was to be spoiled onsite within two designated spoil areas. Approximately 60,500 cubic yards of sorted material was to be hauled offsite to pre-determined locations within 5 miles of the Project Area. An estimated 5% to 10% of this material would consist of overburden and would be disposed of.

The Proposed Project differs from the Original Project in that 95% to 100% of the estimated 100,300 cubic yards of excavated material (between 95,780 and 100,300 cubic yards) would not be sorted, and would be permanently deposited within four Spoil Areas and within the constructed channel (see **Table 1 Spoil Areas within the Proposed Project Area** and **Figure 3 Proposed Project Overview**). These Spoil Areas' original number identification have been retained. Spoil areas are located in open grassland on upper terraces adjacent to East Sand Slough to avoid impacting the floodway and to minimize impacts to wetlands and woody vegetation. Approximately 30,000 cubic yards of the unsorted excavated material would be deposited over 5.2 acres within the secondary channel and split channel to bring low areas to grade with the surrounding channel design. Test pit data indicate that unsorted material excavated from East Sand Slough will be largely composed of sand, gravel, and cobbles. Upland Areas will be contoured to form a smooth terrace that will range in depth from 2 feet to 4 feet above the existing ground surface. Material will be spread outside the dripline of existing woody vegetation and elderberry plants along with all sites containing other sensitive plant species. Modeling results confirm that spoiling within these areas as shown in Table 1 would not impact the 100-year flood elevation. If unforeseen site specific circumstances require, a small but as yet unknown volume of unsorted excavated material may be hauled off site. A discussion of Green House Gas emissions impacts related to this situation is shown in section IV.D.

Table 1. Spoil Areas Within the Proposed Project Area

Spoil Areas	Acres	Capacity for Spoil Material (cubic yards) *
U-4	3.0	15,800
U-5	1.9	12,500
U-6	8.5	16,900
U-7	9.8	27,600

Channel Grading	5.2	30,000
TOTAL	23.4	102,800
* Maximum spoil capacity of each site without impacting the 100-year flood elevation		

D. Use of Additional Haul Roads

The Original Project included 1.07 miles of temporary access and haul roads as described in Section 2.1.6 of the IS/MND. The Proposed Project differs from the Original Project in that an estimated 2.72 additional miles of temporary haul roads will need to be established in order to complete project work. The original and newly identified haul routes are shown on **Figure 3. Proposed Project Overview** and total 3.79 miles. Haul roads would be 20 to 35 feet in width. The increase in temporary road development is due primarily to the establishment of haul roads totaling 2.35 along each side of East Sand Slough south of Antelope Blvd bridge and a 0.37 mile of such roads connecting Staging Area S2 to Spoils Area U-7. The haul roads would be located within East Sand Slough or on adjacent areas dominated by annual grassland, and would be aligned to avoid shrubs and trees. Following construction, haul roads that were established for the purpose of construction would be graded to match the contours of the surrounding land. Areas where temporary haul roads have disturbed vegetation will be seeded with native grasses or forbs.

E. Use of an Additional Staging Area

An additional area has been designated as a potential staging site and would provide an additional access route to the Project Area. This 1.3 acre area is labeled **S-3** on **Figure 3. Proposed Project Overview** is located along Sale Lane 0.24 miles south of Antelope Boulevard. The parcel is privately owned, and an access agreement for use has been secured from the landowner.

F. Changes to the Mitigation Measures

1. Amended Mitigation Measure BIO-13

Changes to Mitigation Measure **BIO-13: Implement Bat Protection Measures during Construction Activates Under or Within 100 Feet of the Antelope Boulevard /Highway 36 Bridge** were developed by RCD of Tehama County personnel and this Project’s Technical Advisory Committee. Changes to the terms of this protection measure make the requirements of **Mitigation Measure BIO-13**: more specific

and will prevent or substantially lessen any significant adverse impact to bat species attributable to the implementation of the Proposed Project. The original and amended versions of **Mitigation Measure BIO-13**: are shown below:

Original Mitigation Measure Text

Mitigation Measure BIO-13: Implement Bat Protection Measures during Construction Activities Under or Within 100 Feet of the Antelope Boulevard/Highway 36 Bridge

Construction activities associated with relocation of the utility lines, bridge protection, and channel excavation under or within 100 feet of the Antelope Boulevard/Highway 36 Bridge shall not occur from April 15 through August 31 to avoid impacts to roosting bats during the bat maternity season (non-volant period for young) or after October 30 (or earlier than October 30 if evening temperatures fall below 45 degrees Fahrenheit and/or more than a half inch of rainfall occurs within 24 hours) to avoid impacts to hibernating bats.

If construction activities must be conducted within 100 feet of the Antelope Boulevard/Highway 36 Bridge during the maternity season, a qualified biologist shall conduct pre-construction surveys for active maternity roosts within 48 hours prior to the start of proposed construction activities. If there is a lapse in construction activities of two weeks or greater, the area shall be resurveyed within 48 hours prior to recommencement of work. If a bat maternity roost is located, appropriate buffers around the roost sites shall be determined in consultation with CDFW and implemented to avoid abandonment of the roost. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity. No project activity shall commence within the buffer areas until the end of the pupping season (which typically ends August 31) or until a qualified biologist confirms the maternity roost is no longer active.

Modified Mitigation Measure Text

(Changes to Mitigation Measure BIO-13: text is displayed in bold, red and strikethrough text.)

Mitigation Measure BIO-13-amended: Implement Bat Protection Measures during Construction Activities Under or Within 100 Feet of the Antelope Boulevard/Highway 36 Bridge

Construction activities associated with relocation of the utility lines, bridge protection, and channel excavation under or within 100 feet of the Antelope Boulevard/Highway 36 Bridge has the potential to impact roosting bats during the maternity season (April 15 through August 31)

and has the potential to impact hibernating bats after October 30 (or earlier than October 30 if evening temperatures fall below 45 degrees Fahrenheit and/or more than a half inch of rainfall occurs within 24 hours). If construction activities must be conducted within 100 feet of the Antelope Boulevard /Highway 36 Bridge during bat maternity season or hibernating season, the following measures shall be implemented:

- *The RCD will install at least two artificial bat roosts near the bridge in an area that is close to suitable foraging habitat. The bat roosts will be installed at least 10 feet off above the ground and oriented to the south or southwest to provide sufficient sunlight (at least 6 hours daily) and internal temperatures suitable for crevice-roosting bat species. The artificial roosts will be installed prior to start of the maternity season (April 15).*
- *When equipment is not actively working under or adjacent to the bridge, it shall be stored in the staging area or another location at least an equivalent distance away from the bridge.*
- *A qualified biologist shall conduct pre-construction surveys for active maternity roosts within 48 hours prior to the start of proposed construction activities. If there is a lapse in construction activities of two weeks or greater, the area shall be resurveyed within 48 hours prior to recommencement of work. If a bat maternity roost is located, appropriate buffers around the roost sites shall be determined in consultation with CDFW and implemented to avoid abandonment of the roost. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity.*

2. Newly Developed Mitigation Measure

In addition to changes in Mitigation Measure text, an additional protective measure was developed related to a requirement for the vegetation of all spoils material.

Mitigation Measure BIO-15: Vegetating All Spoils Materials

All spoils material shall be seeded with a seed mix containing species suitable for the material being deposited and at a seeding rate that will assure rapid revegetation of such material.

Responsible Entity

Construction Contractor

Implementation/Monitoring Method

RCDTC to verify implementation through monitoring

Verification of Compliance

Initials, Date

IV. Analysis of Potential Environmental Effects

This section describes the anticipated environmental consequences associated with implementation of the Proposed Project resulting from changes to Project components discussed in section II and Section III. Changed Project components with a potential to impact the environment include the increased Project Area, increased onsite spoil areas, condition of spoils material, additional staging area, additional access roads, increased internal haul routes, and areas used during construction adjacent to excavation areas. These changes have the potential to impact aesthetics, biological, cultural and recreational resources as well as greenhouse gas emissions. It is anticipated that changes to the original Proposed Project will reduce impacts to these resources to a “less than significant” level.

A. Aesthetics

1. Environmental Setting/Affected Environment

The Proposed Project includes an additional 15 acres of land designated for the placement of spoils within the USFS managed land (Mendocino National Forest) discussed in **Section C. Use of Additional Onsite Spoil areas and Changes to Material Sorting**. Spoil areas and haul routes will be visible to pedestrians and vehicles on Sale Lane, and recreationists at the Red Bluff Recreation Area and the Sacramento River Discovery Center. Motorists on Sale Lane will be able to view construction activities near spoil area U-7 as shown on **Figure 7. View of Upland Area U-7 from Sale Lane**. The Proposed Project includes an additional 0.36 mile haul road from Staging Area 2 to provide temporary construction access to spoil area U-7. The road will cross Sale Lane near a public parking area (see **Figure 5. View of Sale Lane near proposed haul road crossing**). The haul road will also cross a pedestrian path (see **Figure 6. View of proposed haul road crossing of paved walking trail**).

Upland Area U-4 will be visible to pedestrians and motor vehicles from the Antelope Boulevard/Highway 36 Bridge as shown on **Figure 4. View of spoil area U-4 from near Antelope Blvd bridge and I-5 off-ramp.**



Figure 4. View of Upland Area U-4 From Near Antelope Blvd Bridge and I-5 off-ramp



Figure 5. View of Sale Lane Near Proposed Haul Road Crossing



Figure 6. View of Proposed Haul Road Crossing of Paved Walking Trail



Figure 7. View of Upland Area U-7 From Sale Lane

2. Environmental Consequences

a) Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant. All temporary access and haul roads would be restored to existing grade and disturbed areas would be seeded once construction is completed. Little to no earthwork would be required to establish the lower access roads. Spoil areas will be contoured to form a smooth terrace that will range in depth from 2 feet to 4 feet above the existing ground surface. Material will be spread outside of the dripline of existing woody vegetation and all sensitive species. Annual grassland vegetation will be temporarily impacted from construction activities and spoiling of material. After construction, spoil areas will be seeded with native grasses and forbs appropriate to the soils in these areas (see **Mitigation Measure BI0-15: Vegetating All Spoils Materials**). It is anticipated that any impacts to aesthetic conditions within the additional lands in the Proposed Project Area will be temporary in nature given the rapidity with which grassland vegetation would regrow after being reseeded.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. No portion of the East Sand Slough Project Area is within the viewshed of a State Highway segment formally classified as a State Scenic Highway, and no scenic resources would be permanently damaged along any State Highway infrastructure due to the nature of Project work and the implementation of various related Mitigation Measures described in this project's **Mitigation Monitoring and Reporting Plan** including the newly developed **Mitigation Measure BIO-15** described above. Therefore, there would be no impact.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant. Proposed Project implementation would not substantially degrade the existing visual character of the Project Area in the long term given the rapidity with which Project Area vegetation will redevelop once all impactful activities have been completed. Sensitive vegetation within the Project Area would be protected through avoidance and disturbed areas would be restored through planting, reseeded, or natural recruitment. Implementation of requirements to revegetate spoils material described in **Mitigation Measure BIO-15**: will also assure that no long term impacts to visual aesthetics will occur. During Project implementation however, the visual character of the Project Area would be temporarily changed at various locations. It is anticipated that any long term impacts to aesthetic conditions within the Project Area would be limited to the East Sand Slough channel bottom where channel excavation occurred. If required, channel maintenance may result in the removal of newly established vegetation, but the existing visual character of the area would be maintained. Consequently, overall impacts to the existing visual character of the revised Project Area would be temporary and less than significant.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The proposed Project does not include the installation of lighting. There would be no impact to day or nighttime views in the area due to new sources of light or glare.

B. Biological Resources

1. Environmental Setting/Affected Environment

Wildlife Habitats and Vegetation Communities

The Proposed Project Area includes approximately 122 acres of additional lands bordering the Original Project Area (see **Figure 8. Additional Lands and Habitat Types in the Proposed Project Area**).

These additional lands were within the Environmental Study Limit of the Biological Assessment/Biological Evaluation Report (IS/MND Appendix C), Botanical Reconnaissance Survey Report (IS/MND Appendix D), Avian Monitoring Report (IS/MND Appendix E) and Waters of the US Delineation Report (IS/MND Appendix F). **Table 2. Habitat Types in the Additional Lands of the Proposed Project Area** provides the acreage of each habitat type along with its corresponding CWHR habitat classification scheme (California Department of Fish and Wildlife 2021). The characteristics of each habitat type and the associated wildlife species is discussed within the IS/MND.

Table 2. Habitat Types in the Additional Lands of the Proposed Project Area

Habitat Type	CWHR Classification	Acres
Annual Grassland	Annual Grassland	45.71
Valley Oak Savanna	Annual Grassland	35.73
Valley Oak Woodland	Valley Oak Woodland	26.15
Riverine	Riverine	8.04
Developed	Barren	3.04
Slough Floodplain	Annual Grassland	1.68
Slough Channel	Barren	1
Riparian Scrub	Valley Foothill Riparian	0.94
Total		122.29

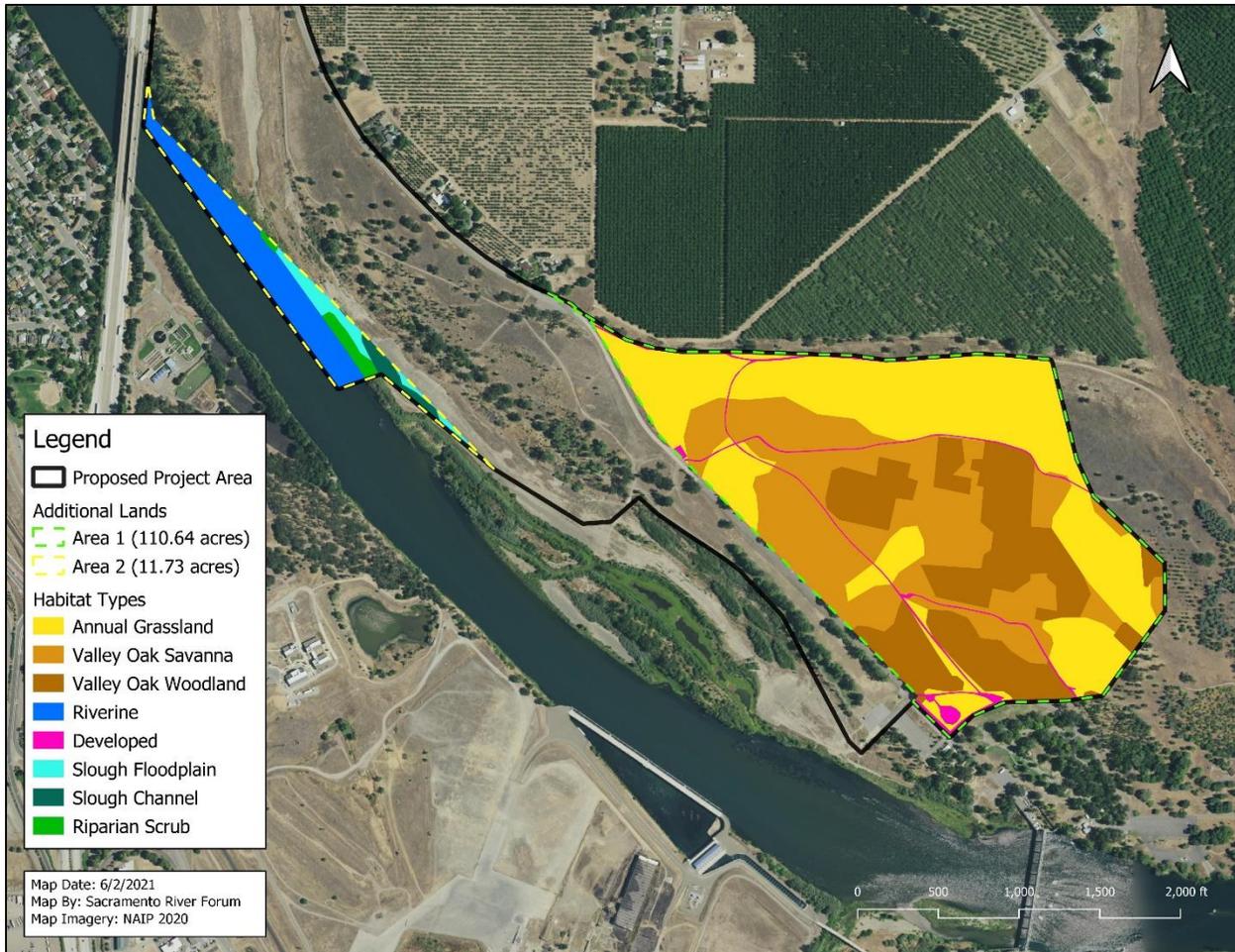


Figure 8. Additional Lands and Habitat Types in the Proposed Project area

2. Environmental Consequences

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated: The special-status species with the highest probability of occurring within the Project Area inhabit riparian habitat and wet environments within the East Sand Slough channel bottom and adjacent banks. These species could be directly affected by construction noise and ground-disturbing activities, and indirectly affected by habitat modification or loss.

Temporary impacts to habitat would occur within annual grassland (27.34 acres), cottonwood riparian woodland (0.24 acres), developed (1.06 acres), elderberry savanna (3.46 acres), live oak woodland (0.01 acres), mixed riparian forest (0.26 acres), riparian scrub (1.8 acres), riverine (0.13 acres), slough channel (14.52 acres), slough floodplain (18.6 acres), valley oak savanna (8.2 acres) habitats during Project implementation. These short-term impacts would occur in the dry, would not affect the functionality of the habitat, and would be less than significant.

Permanent impacts to habitat throughout the entire project area (versus those within just the additional Lands of the Proposed Project shown in **Table 2.**) would occur within annual grassland (0.08 acres), cottonwood riparian woodland (0.16 acres), developed (0.22 acres), elderberry savanna (0.69 acres), mixed riparian forest (0.25 acres), pond (0.32 acres), riparian scrub (1.95 acres), riverine (0.21 acres), slough channel (21.98 acres), and slough floodplain (2.31 acres) habitats as a result of side channel construction. Permanent impacts to habitat types are discussed below as they relate to associated special-status species.

Total acres of temporary and permanent impacts may vary slightly based on the final design of Project work at a specific location attributable to site specific conditions found during Project implementation. The level of significance of those impacts as discussed below however, would not change.

Special-Status Fish Species

Fish species within the Sacramento River adjacent to the Project Area would not be directly affected by excavation in slough channel and slough floodplain habitats, as construction activities will occur during dry conditions when Sacramento River flows typically do not enter East Sand Slough. There is a potential that work along the channel inlet and outlet could impact listed fish species. Implementation of the avoidance, minimization, and protection measures included in **Mitigation Measures BIO-1** through **BIO-3**, as well as the water quality protection measures included in **Mitigation Measures WQ-1, WQ-2, HAZ-1, and HAZ-2**, would reduce these potential impacts to less than significant. Following completion of construction, the proposed Project would have a beneficial impact on special-status fish species by reducing scour holes that cause fish stranding and by providing an increase in available salmonid rearing habitat.

Special-Status Amphibian Species

The only special-status amphibian species likely to occur within the Proposed Project Area is the western spadefoot. This species is only active aboveground in grassland areas during its migration and breeding

season (November 1 to May 31). The Proposed Project includes an increased area of temporary disturbance totaling approximately 27.34 acres of annual grassland. Project work would have the potential to result in the direct harm or disturbance of this species if implemented during the breeding season when rain events create temporary pools. Temporary pools were not found within the Proposed Project Area, construction activities will not occur during this species breeding season, and implementation of the protection measures included in **Mitigation Measure BIO-1** will further reduce potential impacts to less than significant. Maintenance activities, if required, would have no impact on this species.

Special-Status Reptile Species

The western pond turtle is the only special-status reptile species likely to occur within the Proposed Project Area. Although none were observed during biological surveys, western pond turtles could be present in the ponds located within the East Sand Slough channel during channel excavation and along the Sacramento River near the areas proposed for channel entrance excavation at the time of Project implementation and, if required, maintenance of channel entrances. Channel excavation has the potential to result in disturbance of up to 0.32 acre of the ponds and up to 0.21 acre of riverine habitat at the channel entrances. Direct harm, noise disturbance, or impacts to water quality could occur during excavation. Any of these impacts would be potentially significant to the western pond turtle. Implementation of the protection measures included in **Mitigation Measures BIO-1** and **BIO-4**, as well as the water quality protection measures included in **Mitigation Measures WQ-1, WQ-2, HAZ-1, and HAZ-2**, would reduce these potential impacts to less than significant.

Special-Status Bird Species

Special-status bird species likely to occur within the Project Area include the Swainson's hawk, burrowing owl, white-tailed kited, bald eagle, yellow-breasted chat, bank swallow, and yellow warbler. Numerous raptors protected by the California Fish and Game Code and bird species protected by the Migratory Bird Treaty Act also have the potential to occur within or adjacent to the Project Area. In general, construction/maintenance noise and equipment operation within or adjacent to the habitat of these bird species could disturb resting, nesting, or foraging activities, and ground-disturbing activities could result in direct harm or the loss or alteration of habitat. Construction/maintenance activities could also result in the accidental release of fuels, oil, or other contaminants within the habitat of these species. Specifically, construction activities under and adjacent to the Antelope Boulevard/Highway 36 Bridge could disrupt the cliff swallow colony if construction occurs during the nesting season. The temporary impacts of up to 27.34 acres of annual grassland from construction could disrupt burrowing owl habitat

and temporarily degrade foraging habitat within the disturbed grassland. Although construction activities would be short-term in nature, these impacts would be potentially significant. Implementation of the general protection measures included in **Mitigation Measures BIO-1, BIO-8, HAZ-1, and HAZ-2**, as well as the species-specific protection measures included in **Mitigation Measures BIO-5 through BIO-10**, would reduce potential impacts to less than significant.

Special-Status Invertebrate Species

The valley elderberry longhorn beetle is likely to occur within the Project Area. Channel excavation would not directly affect this species' host plant, the blue elderberry shrub, but construction and materials spoiling activities would occur within the vicinity of elderberry shrubs (see **Figure 9. Elderberry Shrubs Mapped within and adjacent to the Proposed Project Area**). If necessary, channel maintenance may also occur within the vicinity of elderberry shrubs. In addition, construction activities would occur within up to 3.2 acres of elderberry savanna. If elderberry shrub trimming is required, trimming may remove or destroy valley elderberry longhorn beetle eggs and/or larvae and may reduce the health and vigor of elderberry shrubs. Soil compaction near the roots of these shrubs or dust on their leaves could occur during Project implementation. Damage to roots may occur during channel excavation, which could reduce health of shrubs. Overspray during the application of herbicides could also occur. These activities could result in a potentially significant impact. However, implementation of the protection measures included in **Mitigation Measures BIO-1 and BIO-11** and adherence to the herbicide use plan included in **Mitigation Measure HAZ-2** would reduce these potential impacts to less than significant.

The crotch bumblebee (*Bombus crotchii*) was recently listed as a Candidate Endangered species under California Endangered Species Act. This species was not evaluated in the IS/MND as it was not yet listed. The crotch bumblebee inhabits open grassland and scrub habitats. Nests are underground. Food plants include *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Hatfield et al 2015). A single 1956 occurrence was recorded from Red Bluff (California Department of Fish and Wildlife 2021). Potential foraging and nesting habitat is available within the Proposed Project Area. This species is considered likely to occur within the Proposed Project Area. Potential impacts to this species include disturbance to soils and grassland vegetation within haul routes, staging areas, and spoil areas. These activities could result in a potentially significant impact. Implementation of the protection measures included in **Mitigation Measures BIO-1 and BIO-11** and adherence to the herbicide use plan included in **Mitigation Measure HAZ-2** would reduce these potential impacts to less than significant.

Special-Status Mammal Species

Special-status mammal species that are likely to occur within the Project Area are the western red bat, pallid bat, and Townsend's big-eared bat. Construction noise has the potential to disrupt the foraging patterns of all three species if construction activities were to continue into the evening. In order to prevent impacts, construction activities will be scheduled between 7:00 am and 7:00 pm and would thus not be expected to affect nighttime foraging. If construction were to continue later into the evening under limited special circumstances, significant negative effects on these species are not anticipated as there is suitable foraging habitat adjacent to the Project Area that could be used during the temporary nighttime construction period.

If the removal or damage of trees that provide suitable bat roosting habitat were to occur during construction or, if required, during channel maintenance, it could result in direct harm to roosting western red bats or pallid bats. Although the removal of only one tree is proposed, excavation of the main channel entrance may require the removal or trimming of additional trees. If trees with roosting western red bats or pallid bats were affected, the impacts would be potentially significant. Where tree removal/trimming is required, implementation of the protection measures included in **Mitigation Measure BIO-12** would reduce potential impacts to the western red bat and pallid bat to a less than significant level.

Bat guano was observed under the Antelope Boulevard/Highway 36 Bridge in May 2018. The guano was not indicative of pallid bats, and the carcass of a Brazilian free-tailed bat (*Tadarida brasiliensis*) was found in one of the bridge bents. The location of bat guano found under the Antelope Boulevard/Highway 36 Bridge and the associated structural features of the bridge indicate that some of the bridge bents are used by bats as a day roost. Although bats roosting under the bridge are accustomed to the noise of heavy traffic on Antelope Boulevard, proposed construction activities under and adjacent to the bridge have the potential to result in the short-term loss of day roost use due to disturbance from noise and activity directly under the bridge. Roosts would not be modified and would be available for use post-construction. This temporary disruption would be considered a less than significant impact. If the bridge is used as a maternity roost, roost abandonment in response to construction activities could result in the death of young, which would be a significant impact. Similarly, although hibernation roosts are not well known in bridge structures, if the bridge is used as hibernacula, disturbance resulting in the arousal of hibernating bats would be a significant impact. Implementation of the protection measures included in **Mitigation Measure BIO-1** and **Mitigation Measure BIO-13** as amended would reduce these potential impacts to less than significant.

Special-Status Plant Species

Although no special-status plants were observed during biological surveys, twelve special-status plant species have the potential to occur within the Project Area due to the presence of suitable habitat.

Construction activities within grassland and woodland habitats have the potential to adversely affect habitat for the depauperate milk-vetch and Brazilian watermeal. Construction activities, and if required, channel maintenance, within the sandy and cobbly portions of East Sand Slough's channel bed have the potential to adversely affect the habitat of the silky Cryptantha, shield-bracted monkeyflower, and Stony Creek spurge. Activities within areas of the channel that pool have the potential to adversely affect the habitat of the remaining special status plant species. Adverse effects could result from ground-disturbing activities; the accidental release of fuels, oil, or contaminants; or the accidental introduction of invasive plant species within these habitats. If any of these impacts were to occur, they would be potentially significant. Implementation of the water quality protection measures included in **Mitigation Measures WQ-1, HAZ-1, and HAZ-2**, as well as the preventative measures included in **Mitigation Measure BIO-14**, would reduce these potential impacts to less than significant.

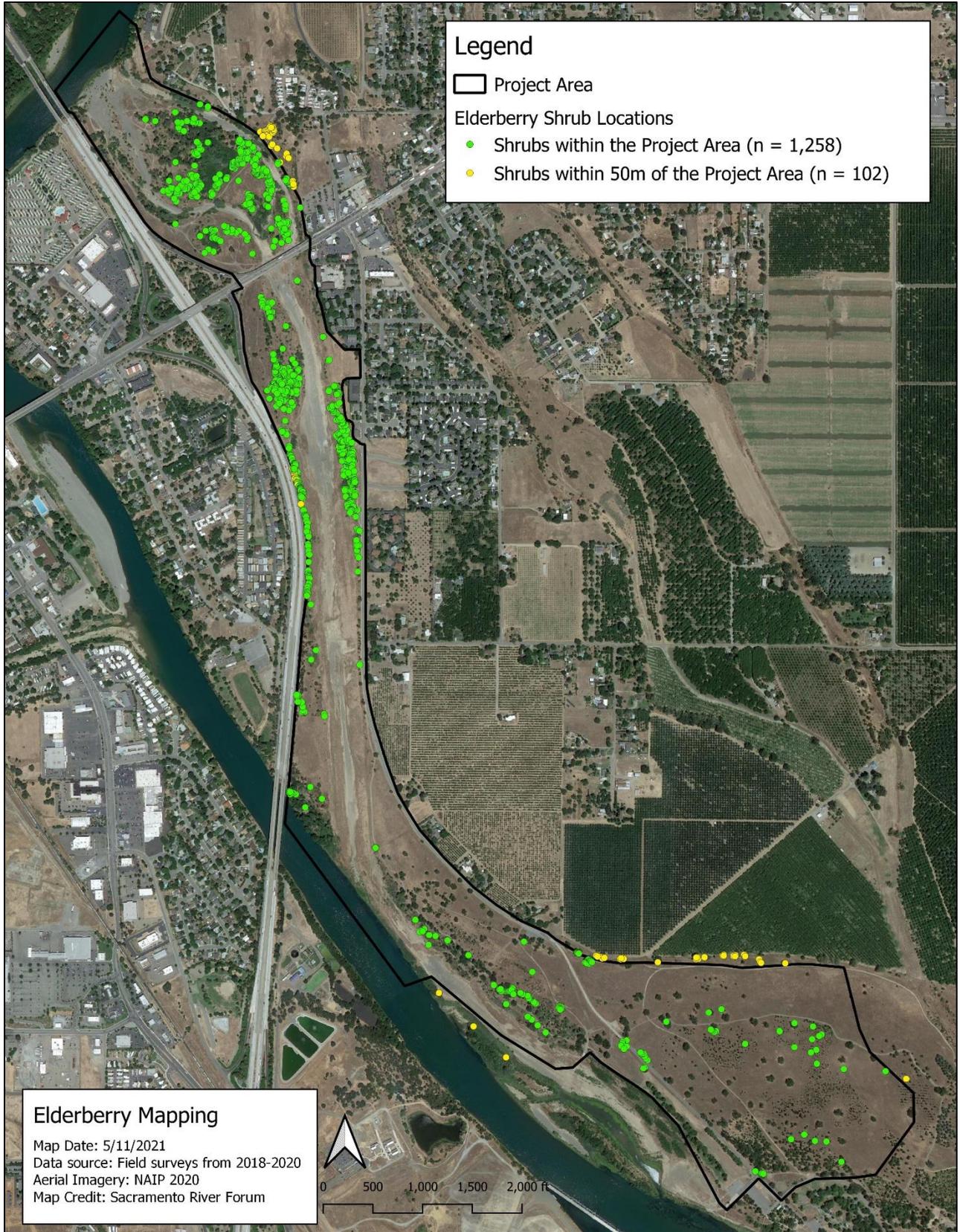


Figure 9. Elderberry Shrubs Mapped Within and Adjacent to the Proposed Project Area

C. Cultural Resources

1. Environmental Setting/Affected Environment

In January 2021, the area of potential effects (APE) was expanded to encompass the Proposed Project Area which required further review for compliance with Section 106 of the NHPA (see **Figure 10. Modified Area of Potential Effects**). Pursuant to the regulations at 36 CFR § 800.3(f)(2), USBR continued consultation via a letter (dated February 22, 2021) sent to the Enterprise Rancheria of Maidu Indians, the Greenville Rancheria of Maidu Indians, the Redding Rancheria, and the Paskenta Band of Nomlaki Indians. The intent of the letter was to notify these tribal entities of proposed modifications to Project activities and the APE as well as to invite their participation in the Section 106 process pursuant to 36 CFR § 800.4(a)(4). USBR also continued consultation with the Tasman Koyom Indian Foundation to invite their assistance in identifying historic properties which may be affected by the proposed undertaking pursuant to 36 CFR § 800.4(a)(3). To date, no historic properties have been identified through consultation with these Indian tribes and Native American organizations.

A cultural resources investigation in 2019 by the CSU Chico Archaeological Research Program included the expanded portions of the Proposed Project Area, except for that extending into the river channel around the side channel exit. No cultural resources were identified within the expanded Proposed Project Area. One cultural resource, bridge piers associated with a segment of Belle Mill Road (Site ARP17-1), was identified in the northern portion of the APE and determined not eligible for inclusion on the National Register of Historic Places (National Register) through consensus with the SHPO in January 2019. Reclamation determined that the original finding of no historic properties affected for this undertaking pursuant to 36 CFR § 800.4(d)(1) has not changed.

2. Environmental Consequences

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? -and-

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant with Mitigation Incorporated. No historical or archaeological resources as defined in Section 15064.5 were identified within the Proposed Project Area. If proposed Project

implementation were to result in damage to previously unidentified archaeological or historic resources the impact would be potentially significant. Implementation of the protection measures included in **Mitigation Measure CUL-1** would reduce potential impacts to a less than significant level.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. Although unlikely, construction-related ground-disturbing activities have the potential to result in the discovery of, or inadvertent damage to, human remains, which would result in a potentially significant impact. Implementation of the treatment procedures included in **Mitigation Measure CUL-2** would reduce impacts to a less than significant level.

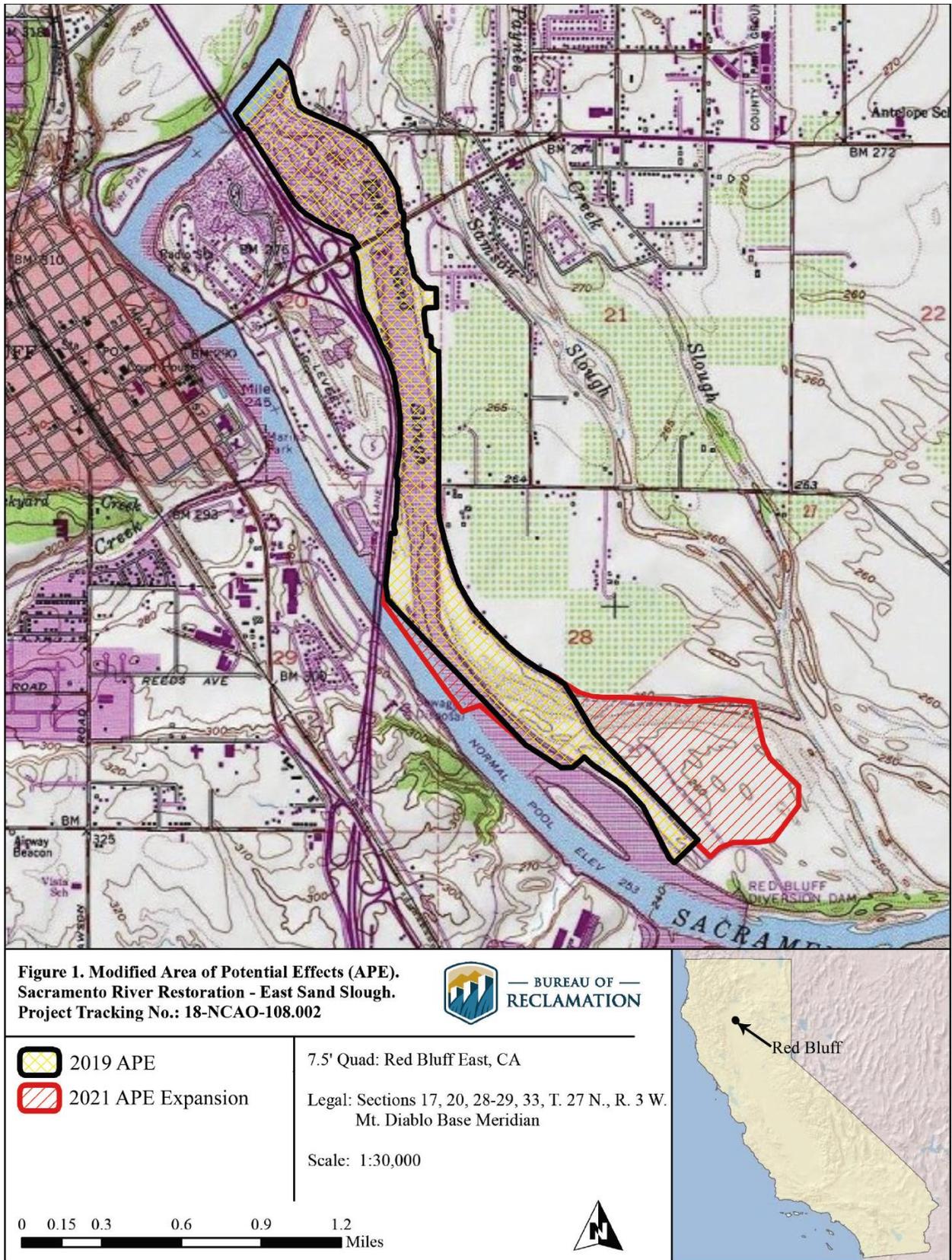


Figure 10. Modified Area of Potential Effects

D. Greenhouse Gas Emissions

1. Environmental Consequences

(The Environmental Setting/Affected Environment discussion related to Greenhouse Gas Emissions can be found in the attached original July 2019 Initial Study/Mitigated Negative Declaration document)

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant. The Original Project was estimated to release 5,532 metric tons of CO₂e during Project implementation and maintenance activities to be completed over a minimum 10-year life span for the overall Project. Changes to the Proposed Project work scope discussed in **Section C. Use of Additional Onsite Spoil areas and Changes to Material Sorting** will likely reduce CO₂e emissions to below 5,532 metric tons. This reduction is due to removing the need for 540 operation hours of a Chieftain 1400 gravel sorter, reducing CO₂e emissions by 21 metric tons. A further reduction in emissions is due to spoiling excavated material onsite rather than to offsite locations within 5 miles of the Project. Offsite trucking of excavated material accounted for 83% (4,425.6) of the 5,532 metric tons in CO₂e produced during Project implementation. Spoiling material onsite will reduce the travel distance, hours of operation, and number of on-highway dump trucks required to complete Project work. This reduction in emissions has not been calculated, but it is reasonable to assume that emissions will decrease due to changes to the Proposed Project work scope. Due to unknown conditions or events, a minimal amount of slough material may require off-site spoiling to a maximum of 4,520 cubic yards (226 truckloads). Since the need or ultimate volume of material required to be spoiled off-site is unknown, the amount of additional GHG's generated in connection with trucking would be between 0 and 400 metric tons. This calculation is based on the GHG emissions analysis in Section 3.8.3 of the Original IS/MND which found highway trucking to offset spoils locations would emit 1 metric ton of CO₂ for every 18.93 cubic yards of excavated material. Given the probability of only a relatively small volume (if any) required to be spoiled off-site, impacts related to greenhouse gas generation is anticipated to be less than significant.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant. Refer to discussion a) above. The Proposed Project would generate short-term GHG emissions during construction and, if required, off-site spoiling and channel maintenance. These emissions would be below established thresholds and therefore would not obstruct efforts to reduce GHG emissions. Impacts would be less than significant.

E. Recreation

1. Environmental Setting/Affected Environment

Approximately 111 acres of additional land in the Proposed Project Area is within Red Bluff Recreation Area, part of the Mendocino National Forest and managed by the USFS. The Red Bluff Recreation Area includes the Sycamore Grove Campground, a boat ramp, accessible trails, restrooms, parking, picnic tables, and the Sacramento River Discovery Center.

Proposed Project components within the Red Bluff Recreation Area include spoil areas and haul roads as shown in **Figure 11. Proposed Project Elements within the Red Bluff Recreation Area**. The haul roads cross paved walking trails at locations U-6 and U-7, and S-2. These areas will be closed to the public for approximately 4 months during construction operations.

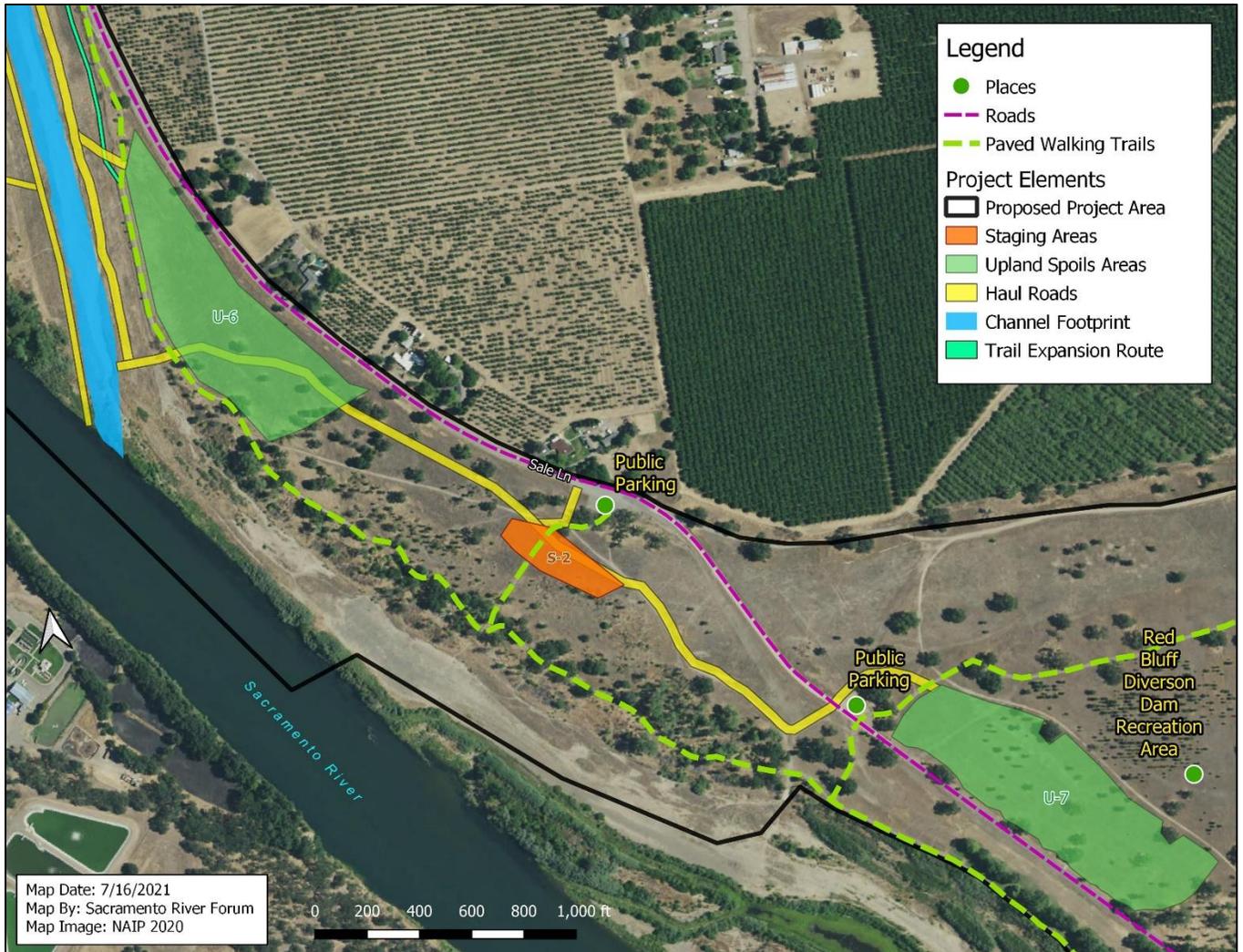


Figure 11. Proposed Project Elements Within the Red Bluff Recreation Area

2. Environmental Consequences

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant. During Project implementation, portions of the Proposed Project Area would be inaccessible to recreationists due to safety concerns or would be less desirable for use by the public due to nearby construction activities. For these reasons, some recreationists may choose to avoid the Project Area and use other local recreation areas during the construction period. Channel maintenance, if required, would have similar effects on recreationists. The potential in-lieu use of other recreation areas

would be temporary, would not be expected to occur at a level that would result in the substantial deterioration of other facilities, and would have a less than significant impact on existing recreation facilities.

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less Than Significant with Mitigation Incorporated.

(See original text for this section in **Attachment 1 Original East Sand Slough Side Channel Project Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Plan.**

V. Revised Mandatory Findings of Significance Related to the Proposed Project

The 2019 Initial Study/Mitigated Negative Declaration prepared for the East Sand Slough Side Channel Project addressed mandatory findings of significance associated with the Original Project. An array of Mitigation Measures was developed in order to reduce impacts identified through that analysis to a less than significant level. This project is being developed in a portion of Tehama County that is within a flood zone or other sites that have been impacted by historic flood flows. The impactive activities to be completed under the Original Project work scope were designed in a manner that improve habitat for migrating salmonids. Based upon hydrologic analysis conducted by the California Department of Water Resources, proposed changes to spoil areas and permitted volumes of spoils material along with the creation of temporary haul roads and staging sites will not impact the passage of flood flows through the City of Red Bluff and adjacent uninhabited farm and wildlands. It has been determined by the RCD of Tehama County that proposed changes to the original scope of work will have no significant impacts on other Project Area resources with the implementation of the original, revised and recently developed Mitigation Measures

The Proposed Project entails the creation of two additional spoil areas as shown in Table 1 and Figure 3 that increase spoil areas by 14.98 acres from what was proposed in the Original Project. Based upon field review and analysis as described in the 2019 IS/MND, these sites are located on parcels that are not inundated by flood flows and whose resources will not be impacted by the placement of excavated sand and gravel. In addition, 2.72 miles of additional haul roads will need to be develop during project implementation. The RCD of Tehama County has also determined that **Mitigation Measure BIO-13-**

ammended will improve protection to bat species located within the Project Area and that the addition of **Mitigation Measure BIO-15** related to required vegetating of spoils material placed within current and newly developed spoils sites will not detract from the environmental improvements that result from implementation of Project work.

VI. Findings

1. The Resource Conservation District of Tehama County has determined that an addendum is warranted, finding that none of the conditions described in Section D. (CEQA Framework for Addendum) of this document are in evidence and that there is no substantial evidence, in light of the whole record before the District, that the amendment proposal will have a significant effect on the environment.
2. The Addendum to the East Sand Slough Side Channel Project Mitigated Negative Declaration, with its supporting documentation, reflects the independent judgment and analysis of the Resource Conservation District of Tehama County

VII. Public Review Distribution

Pursuant to Section 15164 of CEQA, an addendum does not require circulation for public review.

Copies of the Addendum, along with the original Initial Study/Mitigated Negative Declaration for the East Sand Slough Side Channel Project may be obtained at:

Resource Conservation District of Tehama County
2 Sutter Street, Suite D
Red Bluff, CA 96080

These documents are also available online at:

<http://www.tehamacountyrcd.org/notices>

The contact for these CEQA documents is:

Tom McCubbins
CEQA Project Manger
Resource Conservation District of Tehama County
Cell 530-200-1231

Email Address of Tom McCubbins:

tom@tehamacountyrcd.org

VIII. References Cited

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California Department of Fish and Wildlife. 2021. California Natural Diversity Database. Rarefind (online edition), Sacramento, CA. Accessible online at: <https://lmap.dfg.ca.gov/rarefind>.

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Irwin, Rob, email correspondence with Tom McCubbins, March 2021

Resource Conservation District of Tehama County, August 2019 Initial Study/Mitigated Negative Declaration, East Sand Slough Side Channel Project

Snodgrass, Nancy email correspondence with Tom McCubbins, March 2021

Jon Barrett

District Manager

RCD of Tehama County

Michael Vasey

President

Board of Directors

RCD of Tehama County

Attachments

Attachment 1

**Original East Sand Slough Side Channel Project Initial
Study/Mitigated Negative Declaration and Mitigation Monitoring
and Reporting Plan**