Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Stanislaus River Salmonid Habitat Restoration Project at Stanley Wakefield Wilderness Area

Lead Agency: City of Oakdale — Contact Person: Bryan Whitemyer

Mailing Address: 280 N. Third Ave — Phone: 209-845-3572

City: Oakdale — Zip: 95361 — County: Stanislaus

Project Location: County: Stanislaus — City/Nearest Community: Oakdale

Cross Streets: N Stearns Rd and Kerr Park Dr — Zip Code: 95361

Longitude/Latitude (degrees, minutes and seconds): 37 ° 47 ′ 20 ″ N / -120 ° 48 ′ 45 ″ W Total Acres: 70

Assessor's Parcel No.: 006-095-004-000 — Section: 2, 6 — Twp.: 2S — Range: 10E, 11E — Base: NAD 83

Within 2 Miles: State Hwy #: 120 — Waterways: Stanislaus River

Airports: Oakdale Municipal Airport — Railways: none — Schools: Cloverland Elementary

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☒ EA ☐ Draft EIS ☐ FONSI

Other: ☒ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Habitat Rehabili

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☒ Other: Habitat Rehabilitation

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☒ Forest Land/Fire Hazard
☒ Geologic/Seismic
☒ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☒ Wetland/Riparian
☐ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

wilderness area

Project Description: *(please use a separate page if necessary)*

See attached document.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

_____	Air Resources Board	_____	Office of Historic Preservation
_____	Boating & Waterways, Department of	_____	Office of Public School Construction
_____	California Emergency Management Agency	_____	Parks & Recreation, Department of
_____	California Highway Patrol	_____	Pesticide Regulation, Department of
_____	Caltrans District # _____	_____	Public Utilities Commission
_____	Caltrans Division of Aeronautics	x	Regional WQCB #5
_____	Caltrans Planning	_____	Resources Agency
x	Central Valley Flood Protection Board	_____	Resources Recycling and Recovery, Department of
_____	Coachella Valley Mtns. Conservancy	_____	S.F. Bay Conservation & Development Comm.
_____	Coastal Commission	_____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____	Colorado River Board	_____	San Joaquin River Conservancy
_____	Conservation, Department of	_____	Santa Monica Mtns. Conservancy
_____	Corrections, Department of	x	State Lands Commission
_____	Delta Protection Commission	_____	SWRCB: Clean Water Grants
_____	Education, Department of	_____	SWRCB: Water Quality
_____	Energy Commission	_____	SWRCB: Water Rights
x	Fish & Game Region #4	_____	Tahoe Regional Planning Agency
_____	Food & Agriculture, Department of	_____	Toxic Substances Control, Department of
_____	Forestry and Fire Protection, Department of	_____	Water Resources, Department of
_____	General Services, Department of		
_____	Health Services, Department of	_____	Other: _____
_____	Housing & Community Development	_____	Other: _____
_____	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date _____ Ending Date _____

Lead Agency (Complete if applicable):

Consulting Firm: Cramer Fish Sciences
Address: 3300 Industrial Blvd., Suite 100
City/State/Zip: West Sacramento, CA 95691
Contact: Kirsten Sellheim
Phone: 209-606-6653

Applicant: City of Oakdale
Address: 280 N. Third Ave
City/State/Zip: Oakdale, CA 95361
Phone: 209-845-3572

Signature of Lead Agency Representative: _____ **Date:** 12/23/22

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

CRAMER FISH SCIENCES®
An Employee Owned Consulting Company

Stanislaus River Salmonid Habitat Restoration Project at Stanley Wakefield Wilderness Area

Cramer Fish Sciences
3300 Industrial Blvd., Ste. 100
West Sacramento, CA 95691

March 2022

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1. Introduction

The City of Oakdale (City) is proposing the Stanislaus River Salmonid Habitat Restoration Project at Stanley Wakefield Wilderness Area (Project) in Stanislaus County, California (Figure 1). Historical land uses in the Stanislaus River watershed have led to major geomorphic alterations to the river, including reduction of channel complexity and isolated floodplains, leading to the loss of important salmonid rearing habitat. Through funding from the California Department of Fish and Wildlife (CDFW) Fisheries Restoration Grant Program (FRGP)(Phase I) and the U.S. Fish and Wildlife Service (USFWS) Central Valley Project Improvement Act (CVPIA)(Phase II), the Project aims to restore and enhance the Stanislaus River off-channel and riparian ecosystem processes critical for juvenile California Central Valley (CCV) steelhead (*Oncorhynchus mykiss*) populations, with anticipated ancillary benefits to California Central Valley (CV) Chinook salmon (*O. tshawytscha*) and other native fish, on the lower Stanislaus River.

1.1 Project Location

The Project is located in the Stanley Wakefield Wilderness Area (Wilderness Area), adjacent to Kerr Park, within the City of Oakdale (Figure 2). The Project encompasses an approximately 1,273-meters (m) (4,177-foot [ft]) segment of the Stanislaus River, a tributary to the San Joaquin River, approximately 68 river kilometers (rkm) upstream of the confluence with the San Joaquin River and approximately 24 rkm downstream of Goodwin Dam, between 37°47'24.22"N, 120°49'11.45"W (downstream limit) and 37°47'15.11"N, 120°48'33.39"W (upstream limit).

Elevations in the Project area range from approximately 90 ft to 150 ft NAVD88 and contain a variety of terrestrial and aquatic habitats. The Project area is characterized as having riparian woodland habitat of willows (*Salix* spp.), cottonwood (*Populus* spp.), and alders (*Alnus* spp.) where the Stanislaus River borders the Project area to the north. Valley oak woodland habitat dominates the rest of the Project area with a canopy of oak (*Quercus* spp.) and cottonwood with an understory of extensive stands of invasive Himalayan blackberry (*Rubus armeniacus*) and native elderberry (*Sambucus* spp.). The Stanislaus River flows west along the northern section of the Project area, connected to riparian wetland along the left bank and emergent wetland located in the center of the Project area.

Land use in the approximately 70-acre Project area is largely park and open space. Surrounding land uses include a mix of single-family residential development and agricultural lands in the unincorporated community of East Oakdale to the north. A private golf course borders the Project area to the south.

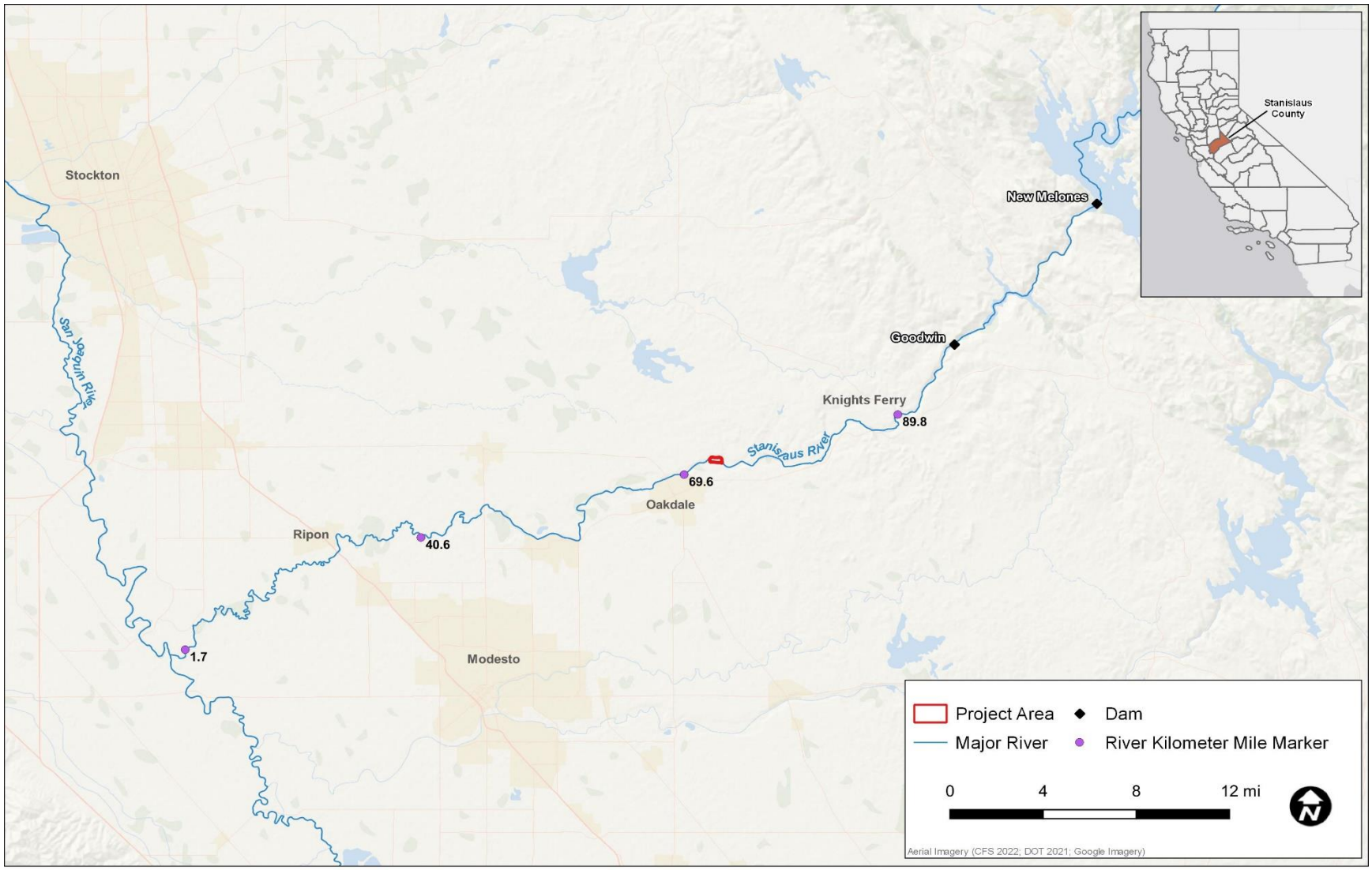

Figure 1. Project Vicinity

Figure 2. Project Area

2. Project Description

2.1 Project Background

The Stanislaus River corridor historically supported a diverse, dynamic riparian ecosystem complex of seasonal wetlands, oxbow lakes, extensive forested floodplains, and meandering side channels (Elias 1924). A diversity of microhabitats existed in these shallow-water areas characterized by dense overhanging vegetation, cool water temperatures, large woody debris, low water velocity, and ample prey production. Since at least the mid 1800's the geomorphology of the Stanislaus River has been impacted from agriculture, gold and gravel mining, and flow and sediment regulation. Agricultural development in the corridor lead to alterations to local drainages and overbank habitats. As early as 1858 one of the first irrigation cooperatives on the Stanislaus River was formed by the Tulloch family, who built a diversion dam to supply water to farms in the area around Knight's Ferry. Levee construction in the lower river followed the Flood Control Act of 1944 and construction initiated in 1956 with various modifications made through the mid-1980's. Gravel, gold, sand and gravel mining occurred in the river from approximately the 1920's to the late 1960's and is thought to have extracted a considerable amount of coarse and fine sediment relative to the natural watershed supply (Kondolf et al. 2001; Schneider et al. 2003). Several large dams were constructed in the upper watershed that have altered the flow regime and supply of sediment. While there are multiple dams that regulate the flow of the Stanislaus River, including the reach representing the upstream limit of anadromy, Goodwin Dam (operational since 1913) and New Melones Dam (operational since 1978) have had the largest impact on peak runoff in the river. New Melones Dam releases no more than 8,000 cubic feet per second (cfs), the designated 100-year flow downstream of the dam (FEMA 2008). Pre-dam, the river saw flows of 10,000 cfs occurring at least every 2 years and peak floods that exceeded 60,000 cfs. The U.S. Army Corps of Engineers (USACE) is also required to maintain an 8,000 cfs floodway from Goodwin Dam to the San Joaquin River. Because the reservoir releases much less than 8,000 cfs most of the time, even during flood season, agricultural encroachment into the floodplain has occurred and constrains the USACE from making large releases most of the time. Brown and Bauer (2009) showed that mean annual flow associated with full natural runoff has essentially been halved from 1979 to 2006, and that flows are generally reduced in the winter and spring and increased in the summer compared to pre-dam conditions.

Estimates of sediment supply reduction due to flow regulation are given by Kondolf et al. (2001). For the period from 1949 to 1999 an estimated 6,324,300 cubic yards (yd^3) of sand and gravel were extracted from mining pits between Goodwin Dam and Oakdale with 84,700 yd^3 of inputs from tributaries below Goodwin Dam (Kondolf et al., 2001). Sediment produced in the watershed above New Melones Dam was estimated to be 949,200 yd^3, highlighting the magnitude of sediment extraction. Due to these impacts the number of salmonid spawning riffles, as well as overbank flooding, in the river has decreased over time. In addition to the impacts caused by the lack of spawning substrate supplied to the river, it has been hypothesized that moderate flows have been flushing fine sediments from mining pits that eventually infiltrate spawning riffles, causing further degradation. To offset the reduction to spawning habitat lost, there has been at least 34,000 $yd^3$of gravel augmentation in the Stanislaus River since about 1994, primarily in the Goodwin Canyon reach.

The above alterations have reduced the amount of overbank habitat and degraded the quantity and quality of juvenile salmonid rearing habitat. Levees limit the lateral extent of flood releases from upstream dams, and flow regulation limits the magnitude of flood flows and sediment supply. As a

result, the river has incised over time. For example, Kondolf et al. (2001) found incision on the river to be approximately 1.5 feet from 1980 to 1993 at the Highway 120 Bridge. The culmination of historical changes in the river limits overbank habitats needed for salmonids to rear and grow before emigrating to the delta and Pacific Ocean. The lack of suitable rearing habitat and migratory conditions are thought to be significant stressors to juvenile salmonids (Anchor QEA 2019). Other general stressors to salmonids in include temperature, predation, hatchery influences, entrainment in diversions, habitat limitations, and poor water quality.

The U.S. Fish & Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) have determined that improved Stanislaus River watershed management to restore and protect instream and riparian habitat, including restoring and replenishing spawning gravel, is a high priority (USFWS 2001; NMFS 2014). The CDFW has determined that the stretch of river between Goodwin Dam and the confluence with the San Joaquin River is of considerable importance for maintenance and restoration of Chinook salmon and CV steelhead (CDFG 1990).

2.2 Project Purpose and Objectives

The purpose of this Project is to design, implement, and monitor an off-channel habitat restoration that will improve rearing habitat for listed CCV steelhead, with anticipated ancillary benefits to Chinook salmon and other native fish, on the lower Stanislaus River. The term restoration, an accepted colloquial term, is used hereafter to refer to naturalization, enhancement and rehabilitation of rivers and streams. Within an approximately 28-acre footprint, this Project will generate a restoration design that will re-grade and rehabilitate a perched floodplain and emergent wetland. The Project aims to create a variety of terrestrial and aquatic habitats, including oak grassland, floodplain, and side channels that function under a variety of flow conditions present on the lower Stanislaus River.

The primary objective of the Project is to augment, rehabilitate, and enhance productive Stanislaus River juvenile salmonid rearing habitat by providing juveniles access to the historic floodplain.

Additionally, the Project may:

- Address goals of existing recovery plans and work synergistically with existing restoration efforts on the Stanislaus River, and
- Improve community opportunities to participate in, learn about, and support salmonid habitat restoration and the value of functional riverine ecosystems.

2.3 Project Design

The Project would meet the primary objective by expanding the existing emergent wetland and enhancing the connection to the Stanislaus River, and creating a side channel along both the eastern portion of the Project area and on the riverside terrace (Figure 3). The design will incorporate the use of large wood structures (i.e., trees with root wads) obtained from on-site excavations for floodplain and side channel habitat complexity. Excavation of the floodplain would extend approximately 1,900 linear ft (LF) from the upstream portion of the proposed eastern side channel north towards the enhanced wetland connection within the Project area. Three alcoves would be created to provide high quality rearing habitat for juvenile salmonids. The existing disconnected wetland within the center of the

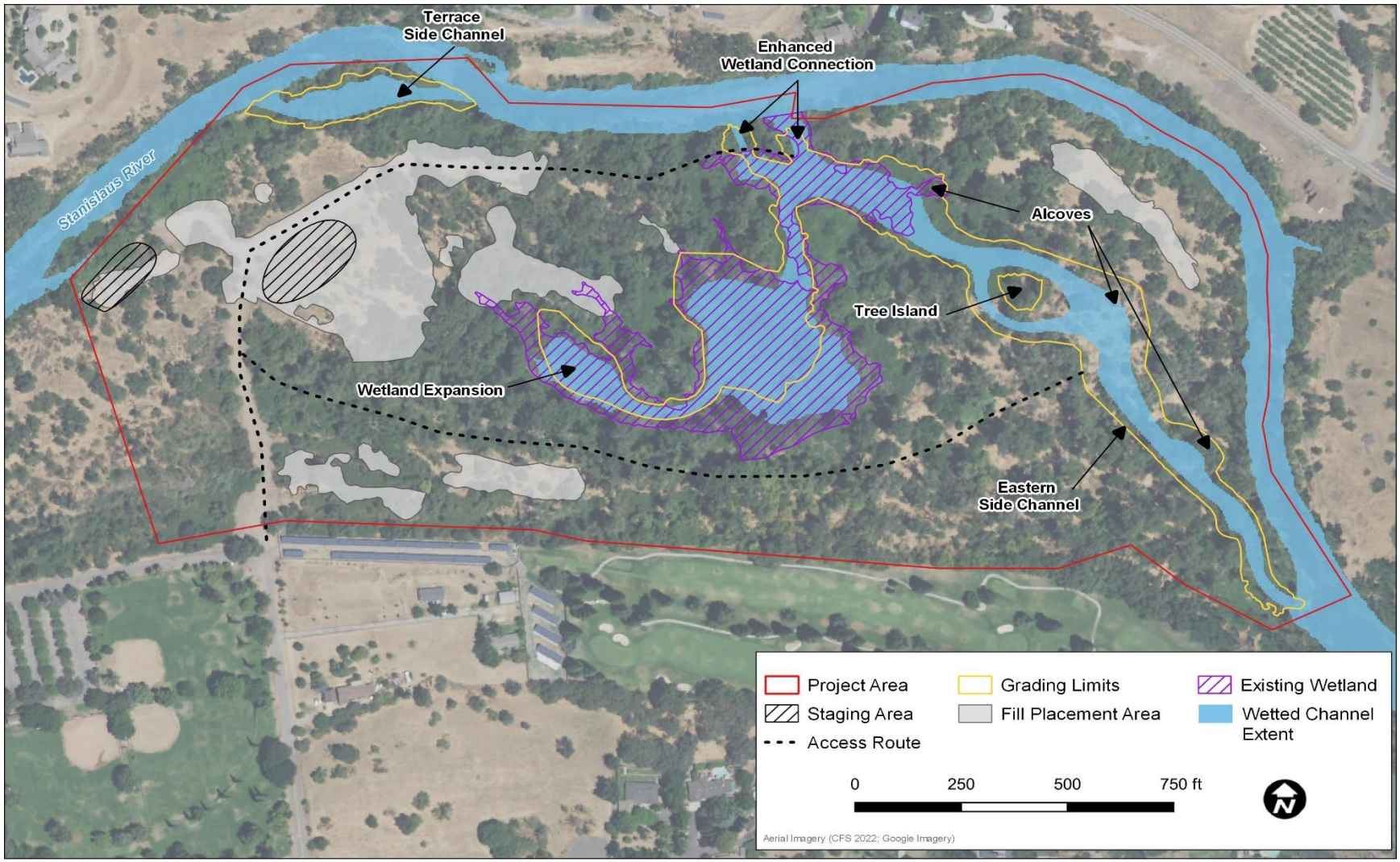

Figure 3. Map of the 100% design features.

Project area would be expanded, enhancing the connection between the wetland and the Stanislaus River for drainage and providing a salmonid rearing habitat complex. Excavation would also occur at the northwest portion of the Project area and extend approximately 505 LF to create a side channel on the riverside terrace (Figure 3). Approximately 54,800 yd^3 of material would be excavated from the perched Stanislaus River floodplain and remnant side channels within the Project area. The constructed features will function under a variety of flow conditions present on the lower Stanislaus River and will support a variety of ecological services, including salmonid rearing habitats and improve water quality, including temperature and dissolved oxygen under low flow conditions.

Additional Project design features include the incorporation of large wood structures that would provide habitat complexity within both the wetland and side channels.

2.3.1 Project Construction

The Project will require the operation of construction equipment (e.g., rubber-tired front-end loaders, excavators, articulated haulers, dozers, etc.) within the Project area. Construction equipment shall be clean and use biodegradable, vegetable-based lubricants and hydraulic fluids. To minimize any potential negative effects on salmonids, any in-water work will occur from 15 June to 15 November when flows are typically and comparatively low (approximately 200 cfs or less) and active salmonid spawning is not occurring. However, there is no expectation or need for construction activities to occur within the Stanislaus River either directly or indirectly aside from the upstream and downstream channel connections Off-channel construction may occur throughout the year; mitigation measures to avoid impacts to special status species will be implemented.

2.3.1.1 Access and Staging

Staging areas will be restricted to existing roads and trails within and adjacent to the Project area that would avoid any significant impacts to sensitive natural resources, as required by Best Management Practices (BMPs) (see Section 2.3.2 below). Construction access to the Project area would likely be from the entrance to the Wilderness Area at the intersection of North Kerr Park Drive and North Stearns Road (Figure 2). During construction, the contractor would install signs and limit access to the Wilderness Area for safety purposes.

Implementation of the Project design will require frequent coordination with the City of Oakdale to ensure proper staging of the site as well as daily access due to the proximity to both Kerr Park to the west and the Stanislaus River to the north. Each of these locations experience active public recreation, particularly during the summer months.

Construction activities will be sequenced such that connections between the side channel entrance and exit and the main channel will occur near the end of the earthwork activities to limit water flowing through the site until construction is near completion. Apart from connection of the side channel, there is no expected need for construction activities to occur within the Stanislaus River.

2.3.1.2 Project Implementation Time Frame

Out of channel construction may occur year-round. Construction is anticipated to occur in 2023 and require only one year to complete. Site stabilization would occur immediately once construction activities are complete, and revegetation planting would commence at the beginning of the rainy season, which would presumably begin in late-November and continue through February. Construction activities would take place during normal working hours, 7:00 am to 5:00 pm, Monday through Friday.

2.3.1.3 Revegetation

A preliminary revegetation plan has been developed for areas impacted during excavation and grading to create the new features and fill placement areas. Mitigation tree planting will occur in areas suitable for upland and riparian species in locations outside the grading areas. The native grass seeding areas include hydroseeding using a combination of an erosion control seed mix and a pollinator seed mix as show on the design drawings. Tree species for the upland tree planting and riparian tree planting zones are based on direct replacement of native trees impacted by construction. The Project will undergo a Section 7 consultation with the USFWS to assess impacts to Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). It is anticipated that a Biological Opinion will be issued to address mitigation requirements for transplant and take of elderberry shrubs. A final revegetation plan will be developed after regulatory permitting coordination.

2.3.2 Best Management Practices

Project construction activities are expected to result in potential effects to sensitive natural resources. The Project would implement appropriate measures to minimize adverse effects (i.e., Best Management Practices). Preliminary BMPs have been included into the 100% Design Plans and final measures will be developed after regulatory permitting coordination. These measures will be incorporated in construction documents prepared for the Proposed Action and will be contractually required of all construction contractors.

2.3.3 Project Operation and Maintenance

Following construction, post-project monitoring activities will take place to ensure the Project was built to design standards and specifications. After construction and revegetation are complete (see Section 2.3.1.3 above), the planted trees will require management during the initial establishment period following planting. There is no municipal water for irrigation at the site; therefore, watering will need to be undertaken using a hands-on methodology. Monthly watering will be required and could be accomplished using a watering truck and hoses, or temporary slow-release water tubes that slowly release water but require refilling every few weeks. The Project team and the City of Oakdale will coordinate to determine the most efficient approach for plant establishment and watering.

2.4 Required Permitting

Permits required for implementation are shown in **Table 1**. Permitting requirements may affect aspects of the design, especially impacts to trees and the required mitigation.

Table 1. Anticipated permits needed for implementation.

Permitting Agency	Type of Requirement
Federal Agencies:	
U.S. Army Corps of Engineers (USACE)	Clean Water Act Section 404 and Section 408 Permits
U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)	Biological Opinion (Section 7 Endangered Species Act)
State Office of Historic Preservation	Cultural Resources Assessment (National Historic Preservation Act, Section 106) – required by USACE
State Agencies:	
California Department of Fish and Wildlife	Streambed Alteration Agreement (Section 1600)
California Department of Fish and Wildlife[1]	Incidental Take Permit (ITP), or consistency determination (CA Endangered Species Act)
California Department of Transportation (Caltrans)	Encroachment Permit
Regional Water Quality Control Board (RWQCB)	401 Water Quality Certification or Waste Discharge Requirement
State Water Resources Control Board	Construction Activities Storm Water General Permit
Central Valley Flood Protection Board	Permission to Encroach on Waterways within Designated Floodways
State Lands Commission[2]	Permit required if using State owned property
Local and Regional Planning Agencies:	
City/County	Grading Permit
City/County	Environmental Health Department
City/County	Road use permits
Local Resource Conservation District	Consultation
Flood Control Districts	Floodway & Hydrological Analysis
California Native American Heritage Commission	Tribal consultation

[1]CFS assumes that the Project will not require an ITP.

[2]CFS assumes the Project is exempt. A letter of determination will be requested from the State Lands Commission.

3. References

[Anchor] Anchor QEA. 2019. Conservation Planning Foundation for Restoring Chinook Salmon (Oncorhynchus tshawytscha) and O. mykiss in the Stanislaus River.

Brown, L.R. and Bauer, M.L. 2009. Effects of hydrologic infrastructure on flow regimes of California's Central Valley rivers: implications for fish populations. River Research and Applications, 26(6), pp.751-765.

[CDFG] California Department of Fish and Game. 1990. Central Valley Salmon and Steelhead Restoration and Enhancement Plan. State of California, The Resources Agency, Department Of Fish And Game.

Elias, S.P., 1924. Stories of Stanislaus: A Collection of Stories on the History and Achievements of Stanislaus County. The Author.

[FEMA] Federal Emergency Management Agency. 2008. Flood Insurance Study. Stanislaus County, California and Incorporated Areas. Flood Insurance Study Number 06099CV000A.

Kondolf, G. M., A. Falzone, and K. S. Schneider. 2001. Reconnaissance-level assessment of channel change and spawning habitat on the Stanislaus River below Goodwin Dam. Report to the US Fish and Wildlife Service, Sacramento, California.

[NMFS] National Marine Fisheries Service. 2014. Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of California Central Valley Steelhead. California Central Valley Area Office. July 2014.

Schneider, K., Kondolf, M. and A. Falzone. 2003. Channel-Floodplain Disconnection on the Stanislaus River: A Hydrologic and Geomorphic Perspective. University of California, Berkeley.

[USFWS] United States Fish and Wildlife Service. 2001. Final restoration plan for the Anadromous Fish Restoration Program. A Plan to increase Natural Production of Anadromous Fish in the Central Valley of California. Report of the Anadromous Fish Restoration Program Core Group, Central Valley Project Improvement Act to the Secretary of the Interior. Stockton, California.