



State of California - Department of Fish and Wildlife  
**2022 ENVIRONMENTAL DOCUMENT FILING FEE**  
**CASH RECEIPT**  
DFW 753.5a (REV. 01/01/22) Previously DFG 753.5a

Print

StartOver

Finalize&Email

RECEIPT NUMBER:

50-11/14/2022-197

STATE CLEARINGHOUSE NUMBER (If applicable)

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY	LEAD AGENCY EMAIL	DATE
STANISLAUS COUNTY PARKS AND RECREATION	tchumley@parksrec.org	11/14/2022
COUNTY/STATE AGENCY OF FILING	DOCUMENT NUMBER	
STANISLAUS COUNTY	50-2022-260	
PROJECT TITLE		

BASSO/LA GRANGE REACH FLOODPLAIN AND SPAWNING HABITAT RESTORATION PROJECT

PROJECT APPLICANT NAME TUOLUMNE RIVER TRUST, TUOLUMNE RIVER CONSERVANCY, TURLOCK IRRIGATION DISTRICT, MODESTO IRRIGATION DISTRICT	PROJECT APPLICANT EMAIL patrick@tuolumne.org	PHONE NUMBER (209) 209-5888
PROJECT APPLICANT ADDRESS 829 THIRTEENTH STREET	CITY MODESTO	STATE CA
	ZIP CODE 95354	

PROJECT APPLICANT (Check appropriate box)

☒ Local Public Agency    ☐ School District    ☐ Other Special District    ☐ State Agency    ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR) \$ 3,539.25 \$ \_\_\_\_\_  
☐ Mitigated/Negative Declaration (MND)(ND) \$ 2,548.00 \$ \_\_\_\_\_  
☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW \$ 1,203.25 \$ \_\_\_\_\_

☒ Exempt from fee  
    ☒ Notice of Exemption (attach)  
    ☐ CDFW No Effect Determination (attach)  
☐ Fee previously paid (attach previously issued cash receipt copy)

☐ Water Right Application or Petition Fee (State Water Resources Control Board only) \$ 850.00 \$ \_\_\_\_\_  
☒ County documentary handling fee \$ 57.00 \$ 57.00  
☐ Other \$ \_\_\_\_\_

PAYMENT METHOD:

☐ Cash    ☐ Credit    ☒ Check    ☐ Other CHECK #1342    TOTAL RECEIVED \$ 57.00

SIGNATURE <b>X</b> <i>Jennifer Mercado</i>	AGENCY OF FILING PRINTED NAME AND TITLE Jennifer Mercado Deputy Clerk
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State of California - Department of Fish and Wildlife

## 2022 ENVIRONMENTAL DOCUMENT FILING FEE

### CASH RECEIPT

DFW 753.5a (REV. 01/01/22) Previously DFG 753.5a

#### NOTICE

Each project applicant shall remit to the county clerk the environmental filing fee before or at the time of filing a Notice of Determination (Pub. Resources Code, § 21152; Fish & G. Code, § 711.4, subdivision (d); Cal. Code Regs., tit. 14, § 753.5). Without the appropriate fee, statutory or categorical exemption, or a valid No Effect Determination issued by the California Department of Fish and Wildlife (CDFW), the Notice of Determination is not operative, vested, or final, and shall not be accepted by the county clerk.

#### COUNTY DOCUMENTARY HANDLING FEE

The county clerk may charge a documentary handling fee of fifty dollars (\$50) per filing in addition to the environmental filing fee (Fish & G. Code, § 711.4, subd. (e); Cal. Code Regs., tit. 14, § 753.5, subd. (g)(1)). A county board of supervisors shall have the authority to increase or decrease the fee or charge, that is otherwise authorized to be levied by another provision of law, in the amount reasonably necessary to recover the cost of providing any product or service or the cost of enforcing any regulation for which the fee or charge is levied (Gov. Code, § 54985, subd. (a)).

#### COLLECTION PROCEDURES FOR COUNTY GOVERNMENTS

##### Filing Notice of Determination (NOD):

- ☐ Collect environmental filing fee or copy of previously issued cash receipt. *(Do not collect fee if project applicant presents a No Effect Determination signed by CDFW. An additional fee is required for each separate environmental document. An addendum is not considered a separate environmental document. Checks should be made payable to the county.)*
- ☐ Issue cash receipt to project applicant.
- ☐ Attach copy of cash receipt and, if applicable, previously issued cash receipt, to NOD.
- ☐ Mail filing fees for **CRP** document to CDFW prior to filing the NOD or equivalent final approval (Cal. Code Regs. Tit. 14, § 753.5 (b)(5)). The CRP should request receipt from CDFW to show proof of payment for filing the NOD or equivalent approval. Please mail payment to address below made attention to the Cash Receipts Unit of the Accounting Services Branch.

If the project applicant presents a **No Effect Determination** signed by CDFW, also:

- ☐ Attach No Effect Determination to NOD *(no environmental filing fee is due)*.

##### Filing Notice of Exemption (NOE) *(Statutorily or categorically exempt project (Cal. Code Regs., tit. 14, §§ 15260-15285, 15300-15333))*

- ☐ Issue cash receipt to project applicant.
- ☐ Attach copy of cash receipt to NOE *(no environmental filing fee is due)*.

**Within 30 days after the end of each month in which the environmental filing fees are collected**, each county shall summarize and record the amount collected on the monthly State of California Form No. CA25 (TC31) and remit the amount collected to the State Treasurer. Identify the remittance on Form No. CA25 as "Environmental Document Filing Fees" per Fish and Game Code section 711.4.

##### The county clerk shall mail the following documents to CDFW on a monthly basis:

- ✓ A photocopy of the monthly State of California Form No. CA25 (TC31)
- ✓ CDFW/ASB copies of all cash receipts (including all voided receipts)
- ✓ A copy of all CDFW No Effect Determinations filed in lieu of fee payment
- ✓ A copy of all NODs filed with the county during the preceding month
- ✓ A list of the name, address and telephone number of all project applicants for which an NOD has been filed. If this information is contained on the cash receipt filed with CDFW under California Code of Regulations, title 14, section 753.5, subdivision (e)(6), no additional information is required.

#### DOCUMENT RETENTION

The county shall retain two copies of the cash receipt (for lead agency and county clerk) and a copy of all documents described above for at least 12 months.

#### RECEIPT NUMBER

- # The first two digits automatically populate by making the appropriate selection in the County/State Agency of Filing drop down menu.
- # The next eight digits automatically populate when a date is entered.
- # The last three digits correspond with the sequential order of issuance for each calendar year. For example, the first receipt number issued on January 1 should end in 001. If a county issued 252 receipts for the year ending on December 31, the last receipt number should end in 252. CDFW recommends that counties and state agencies 1) save a local copy of this form, and 2) track receipt numbers on a spreadsheet tabbed by month to ensure accuracy.

**DO NOT COMBINE THE ENVIRONMENTAL FEES WITH THE STATE SHARE OF FISH AND WILDLIFE FEES.**

##### Mail to:

California Department of Fish and Wildlife  
Accounting Services Branch  
P.O. Box 944209  
Sacramento, California 94244-2090





STANISLAUS COUNTY CLERK  
CEQA FILING COVER SHEET

50-2022-260

**FILED**

November 14, 2022

DONNA LINDER

STANISLAUS COUNTY  
CLERK-RECORDER

By: J. Mercado  
Deputy Clerk

Mail to:

Name: Ariel Frink

Address: 15730 Via Corta

City, State, Zip

San Lorenzo, CA 94580

THIS SPACE FOR CLERK'S USE ONLY

Complete and attach this form to each CEQA Notice filed with the County Clerk

TYPE OR PRINT CLEARLY

Project Title

Basso/La Grange Reach Floodplain and Spawning Habitat Restoration Project

Check Document being Filed:

- ☐ Environmental Impact Report (EIR)  
☐ Mitigated Negative Declaration (MND) or Negative Declaration (ND)  
☒ Notice of Exemption (NOE)  
☐ Other (Please fill in type):

FILED IN THE OFFICE OF THE STANISLAUS	
COUNTY CLERK ON <u>11-14-2022</u>	
Posted <u>11-14-2022</u>	Removed <u>12-23-22</u>
Returned to agency on _____	
DEPUTY <u>J. Mercado</u>	

Filing fees are due at the time a Notice of Determination/Exemption is filed with our office. For more information on filing fees and No Effect Determinations, please refer to California Code of Regulations, Title 14, section 753.5.

## CEQA Statutory Exemption for Restoration Projects (SERP) Lead Agency Determination

### 1. LEAD AGENCY

<b>Lead Agency Name</b>	Stanislaus County Parks and Recreation
<b>Contact Person Name</b>	Tera Chumley, Interim Director
<b>Street Address</b>	3800 Cornucopia Way, Suite D
<b>City, State, Zip</b>	Modesto, CA 95354
<b>Contact Person's Telephone</b>	209-525-6750
<b>Contact Person's e-mail</b>	tchumley@parksrec.org

### 2. PROJECT PROPONENT(S)

<b>Business/Agency/Organization</b>	Tuolumne River Trust
<b>Contact Person's Name</b>	Patrick Koepele
<b>Street Address</b>	829 Thirteenth Street
<b>City, State, Zip</b>	Modesto, CA 95354
<b>Contact Person's Telephone</b>	209-588-8636
<b>Contact Person's Email</b>	patrick@tuolumne.org

<b>Business/Agency/Organization</b>	Tuolumne River Conservancy
<b>Contact Person's Name</b>	Allison & Dave Boucher
<b>Street Address</b>	1163 East March Lane, Suite D-708
<b>City, State, Zip</b>	Stockton, CA 95210
<b>Contact Person's Telephone</b>	209-471-0476
<b>Contact Person's Email</b>	Feathersfurflowers@gmail.com

<b>Business/Agency/Organization</b>	Turlock Irrigation District
<b>Contact Person's Name</b>	Michael I. Cooke
<b>Street Address</b>	PO Box 949
<b>City, State, Zip</b>	Turlock, CA 95381
<b>Contact Person's Telephone</b>	209-648-6819
<b>Contact Person's Email</b>	micooke@TID.org

### 3. PROJECT INFORMATION

<b>A. Project Name</b>	Basso/La Grange Reach Floodplain and Channel Restoration Project
<b>B. Estimated Project Start/End Dates</b>	August 2021-December 2028 Project Construction: Phase 1: June 2023 – October 2023 Phase 2: June 2024 – December 2028 (Seasonal Work Window June – October)

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**C. Provide a brief description of project location, size, and funding sources. Please cite supporting documents and provide as an attachment.**

The Basso-La Grange Project Area is approximately located from river mile (RM) 48.7 to RM 51.8 upstream of the confluence of the Tuolumne River with the San Joaquin River. The project is located near the community of La Grange, within Stanislaus County. The project sites are owned by Stanislaus County, the Tuolumne River Conservancy, the Turlock Irrigation District, the Modesto Irrigation District, and private landowners. The project is located at 37.664534 N latitude, 120.471656 W longitude, and is approximately 303 acres. As a large property owner for the project, Stanislaus County Parks and Recreation is the lead agency.

The Tuolumne River is one of three major tributaries to the San Joaquin River that drain the west slopes of the Sierra Nevada. It has an extensive history of gold and aggregate mining, water supply storage, power generation, agriculture, and recreation. The Tuolumne River has been extensively modified by land use practices (agriculture, ranching, and urbanization) and resource extraction (water for irrigation and municipal use, gold mining, and aggregate mining). Streamflow regulation began with construction of Wheaton Dam (1871) and La Grange Dam (1893), intensified in the 1920s with the construction of several large reservoirs in the basin, and culminated in 1971 with construction of the Don Pedro Dam, which more than tripled the storage capacity of the basin. This has caused alterations in the river's geomorphology, riparian vegetation, and riverine ecology. The Project Area has been impacted by the loss of coarse sediment supply that historically provided essential sediment for the formation of alternate bar features and in-channel and floodplain habitat structure and the loss of wood supply which creates channel complexity and provides cover.

The Basso-La Grange project restoration objectives have an ecological and geomorphic perspective that is focused on restoring river function and sediment supply under contemporary flow and sediment regimes to benefit fall-run Chinook Salmon (*Oncorhynchus tshawytscha*) and Steelhead Trout (*O. mykiss*). The project would create in-channel, riparian, and floodplain habitat, reduce non-native predatory habitat, restore geomorphic function and sediment transport, increase aquatic microhabitats and food sources, and design and plan for future habitat improvements, primarily for salmonid spawning and rearing. The project is currently funded by the Department of Water Resources' SJFPEP grant and by the Turlock Irrigation District, Modesto Irrigation District, and the San Francisco Public Utilities Commission.

The project restoration objectives would be accomplished using a combination of approaches to redistribute coarse sediment from abandoned floodplains and dredger tailings into in-channel storage features (bars and riffles) for the benefit of multiple species.

Please refer to Attachment 1. Basis of Design, pages 1, 52, and Appendix E for more detail.  
Please refer to Attachment 2. Project Boundary for project location and boundaries.

**D. Provide a project summary and expected environmental benefits (i.e., acres or stream-miles restored/enhanced, species benefitted, etc.) Please cite supporting documents and provide as an attachment**

The Basso/La Grange restoration project goals have an ecological and geomorphic perspective focused on restoring river function under contemporary flow and sediment regimes to benefit fall-run Chinook Salmon (*Oncorhynchus tshawytscha*) and *Oncorhynchus mykiss*, whose common name is Rainbow Trout when referring to those that remain in freshwater their entire life or steelhead when referring to the anadromous life history form. There are six primary project goals:

- Create floodplain rearing habitat for juvenile fish;
- Create spawning habitat and stockpile appropriately sized coarse sediment for future spawning habitat maintenance;
- Reduce non-native predatory fish habitat;
- Restore geomorphic function and sediment transport;
- Increase aquatic microhabitats, food sources, and add stability to the channel by planting native riparian vegetation;
- Design and plan for future salmonid habitat improvements.

To achieve these goals, the project includes:

- ☐ 65 acres of floodplain rearing habitat (Objective 1)
- ☐ Restoration of 8-9 spawning riffles downstream of the Old La Grange Bridge and
  - 3-4 spawning riffles upstream of the bridge (Objective 2),
- ☐ Filling in two former dredger pools which host predatory fish species (Objective 3),
- ☐ Restoring geomorphic processes through construction of alternating riffles, bars, and pools,
  - increased sinuosity, and reconnection of adjacent surfaces to contemporary flows (Objective 4),
- ☐ Increasing food sources with riffle construction and riparian vegetation planting (Objective 5), and
- ☐ The project would be implemented over several years / construction funding cycles
  - (Objective 6).

## **Description of Project Elements**

### ***Floodplain Rearing Habitat***

The project will create 65 acres of floodplain rearing habitat for salmonids. The armored surfaces of the floodplains will be excavated down to inundation thresholds that will reconnect to the river during specified flows. The project will also add rearing habitat features to floodplains and side channels in several places to increase cover. These include large and small wood habitat features and boulder clumps.

### ***Spawning Habitat***

The project's in-channel features include adding riffles and using gravels sized appropriately for Chinook Salmon and *O mykiss* spawning. Spawning and riffle gravel will come from excavating and sorting areas of former dredger mine tailings excavated as part of the floodplain habitat creation. The creation of pool-riffle sequences in the mainstem will create spawning habitat. Geomorphic change over time will also allow gravel to move downstream, eventually creating additional spawning habitat.

### ***Reduction of Predatory Fish Habitat***

The project will reduce predatory fish habitat by filling in two former dredger pools with excavated sediment from the created floodplain habitat, which host predatory fish species and turning the pools into low floodplain habitat.

### ***Enhanced Geomorphic Processes***

The project will use coarse sediment remaining on the surface of adjacent floodplain surfaces from dredger mining in the last century to improve geomorphic processes. Improvements will be made by constructing alternating riffles, bars, and pools, increasing river sinuosity, varying riffle gradients,

adding gravel, increasing areas of local erosion and meander, and reconnecting adjacent surfaces to contemporary flows.

Mainstem channel plugs will also ensure that most flow stays in new meanders up to several thousand cfs. This will allow the river's flow to concentrate, increasing stream power and the potential for geomorphic change over time.

#### ***Wetland Avoidance and Enhancement***

The project will avoid grading into a portion of the property northeast of a remnant haul road—an area that contains wetland-associated plant species (e.g., red willow [*Salix laevigata*] and Mexican rush [*Juncus mexicanus*]).

Additionally, the project will lower the southern portion of the remnant haul road to restore more of the wetland connection to the water source. The portion of the remnant haul road will be removed and revegetated with riparian and transitional plant species.

#### ***Amphibian and Reptile Habitat***

The project will protect amphibian habitat by avoiding impacts to existing turtle habitat in the Buck Flat H pond. The new Buck Flat side channel will be rerouted around the H pond, leaving it as a still pond for amphibians.

#### ***Riparian Vegetation***

The project will avoid impacts to mature native vegetation throughout the project to the extent feasible, such as existing interior live oaks, valley oaks, Fremont cottonwoods, native lupines in the Buck Flat area, and all known elderberry (*Sambucus nigra* ssp. *Caerulea*) locations by designing side channels and floodplain areas to avoid these areas to the greatest extent possible.

#### ***Revegetation***

Proposed revegetation is intended to recreate larger patches of emergent and riparian vegetation similar, albeit smaller in area, to what was historically present at the site. Existing native vegetation within and adjacent to the project has been preserved to the greatest extent feasible and will provide cover and a readily available seed source immediately after construction.

#### ***Boat Access Path***

A non-motorized boat access path (i.e., for kayaks and canoes) will be formalized upstream of Old La Grange Bridge, located on river left, to facilitate and direct recreational access. The path will be designed at-grade with the floodplain such that it will not affect high flow hydraulics.

#### ***Remove Abandoned Haul Road Bridge Remnants***

A remnant haul road crosses the river at Station 30+00. The bridge is no longer there, but remnant haul road debris is still present on the channel and banks. Existing remnant haul road debris would be removed from the channel and banks. Debris includes approximately 12 concrete blocks; 350 linear feet of riprap bank protection; several I-beams in the channel and on the right bank; and sheet pile around the concrete bridge footing and on the left bank.

#### **Access and Staging**

Existing trails will be used to access the project site wherever feasible. For the Buck Flat Property, current access via the canal is not wide enough for large equipment. Access with heavy equipment

during construction would occur either under the New La Grange Bridge, or from the north through an adjacent private property (if access is negotiated).

New temporary access routes will be graded to areas along the project reach. Staging for equipment and construction material will occur in specified staging areas. Staging areas will be prepared by removing and storing topsoil. At the end of the construction period the contractor will remove temporary access materials and restore the access routes through decompaction, replacement of topsoil to restore original grade, native seeding, and mulching. All constructed floodplain surfaces, staging areas, and constructed access roads will be decompacted after final grading.

Please refer to pages 10, 97 and 98 in Attachment 1. Basis of Design for more detail.

**E. CDFW recommends that lead agencies meet and confer with tribes, representatives of affected local agencies, and other stakeholders prior to submitting a SERP request to CDFW. Please provide a summary of project consultation with tribes, agencies, and other stakeholders and submit documentation as an attachment.**

The County of Stanislaus Parks and Recreation physically mailed out letters communicating the project to tribal contacts on April 4, 2022. Emails were also sent out with the project description and request for meetings and further discussion on April 6, 2022. Follow up calls to tribal contacts were made during the week of April 11, 2022. The following meetings/calls were held with tribal members:

One meeting was held with Joanna Portillo-Hsu, Environmental & Planning Manager for Chicken Ranch Rancheria on April 18, 2022. She requested follow-up information related to when public outreach will take place and when construction will begin.

A phone and letter response were received from the Tuolumne Band of Me-wuk on May 13, 2022 who said they had no concerns and requested that inadvertent discovery protocols be followed.

A phone response was received from the California Valley Miwok Tribe, who requested that if any remains are found, that the remains are repatriated and the tribe be notified.

Letters and Correspondence with Tribes are provided as Attachment 8.

#### 4. REQUIRED DETERMINATIONS

**A. The project is exclusively one or both of the following: (1) a project to conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend, or (2) a project to restore or provide habitat for California native fish and wildlife. Please cite supporting documents and provide as an attachment.**

The County of Stanislaus Parks and Recreation has determined that the project is exclusively a project to conserve, restore, protect, enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend.

The project will help restore, protect, and enhance salmonids and their habitat by:

- ☐ Creating floodplain rearing habitat for juvenile fish. The armored surfaces of the abandoned Tuolumne River floodplain will be excavated down to elevations corresponding to



contemporary rearing inundation thresholds based on post-dam flow regimes and refined to be resilient to future changes in flow regimes. Floodplain habitat features include side channels, low floodplain, and high floodplain. The floodplain features will be revegetated with native riparian vegetation. Floodplains designed to provide winter rearing habitat for juvenile steelhead will be planted with a combination of woody and herbaceous plants. Aquatic and emergent margin zones will be planted with herbaceous species to aid in immediate cover and inhibit non-native invasive species from growing on these surfaces. The result will be a net increase in both the amount and quality of suitable floodplain rearing habitat.

- ☐ Creating spawning habitat and channel complexity. The coarse sediment harvested from floodplain lowering will be used to create features in the main channel, such as point bars, medial bars, and riffles more frequently and at a shallower slope. The result will be a net increase in both the amount and quality of spawning habitat.
- ☐ Preserve existing spawning habitat. The project has been designed to preserve existing mainstem spawning habitat adjacent to the most upstream proposed channel meander.

The project will help protect salmonids by reducing non-native predatory fish habitat. This will be done by:

- ☐ Dredger Pond Filling. The two existing dredger ponds near Station 50+00 and 65+00 would be filled in, creating new low floodplain zones in areas that currently provide habitat for non-native predatory fish.
- ☐ Avoiding the creation of backwaters and alcoves

The project will help enhance the integrity of aquatic and riparian systems that support California native fish in the project area by implementing long-term vegetation. The long-term revegetation goal is to create, maintain, enhance, or restore the structural and functional integrity of aquatic, riparian, and associated upland systems needed to perpetually support populations of native fish and wildlife at both Project Area and landscape levels. Revegetation objectives include:

- ☐ Using plantings to compensate (to the extent possible) for potential riparian habitat losses due to project implementation;
- ☐ Using the relationship of vegetation zones to flood frequency and estimated depth to groundwater concepts to guide the revegetation designs;
- ☐ Increasing wetland, emergent, and riparian vegetation abundance in the tree, shrub, and herb layer within the construction footprint;
- ☐ Arranging plant species in a pattern that can form the primary components of wildlife and fish habitat and the basis of allochthonous (imported) organic material that could be utilized by benthic macroinvertebrates and biofilms;
- ☐ Maintaining continuous corridors of riparian vegetation with a more variable ecotone (transitional area between two biological communities) between the riparian and upland zones; and
- ☐ Reducing the area and species richness of non-native plant species within the project area.

For additional information regarding vegetation goals, please refer to page 99 in Attachment 1. Basis of Design.

Please refer to pages 80, 88, 93, and 99 in Attachment 1. Basis of Design for more detail on how the project will achieve these goals.

Please refer to page 5 in Attachment 1. Basis of Design, Section 1.2 Site History for more detail about impacts to the habitat at the project site.

Supporting documents included to support this project are included in Attachment 3, and include: McBain & Trush 2000. Habitat Restoration Plan for the Lower Tuolumne River Corridor. Prepared for the Tuolumne River Technical Advisory Committee. March, 2000.

McBain & Trush 2004. Lower Tuolumne River Coarse Sediment Management Plan. Prepared for Tuolumne River Technical Advisory Committee. July 20, 2004.

**B. An eligible project may have incidental public benefits, such as public access and recreation. Please cite supporting documents and provide as an attachment.**

The County of Stanislaus Parks and Recreation has determined that the project has incidental public benefits.

The Tuolumne River is a popular destination for recreational kayaking, floating, and fishing. This project includes installation of a non-motorized boat access path (i.e., for kayaks and canoes) upstream of Old La Grange Bridge, located on river left, to facilitate and direct recreational access. The path will be designed at-grade with the floodplain such that it will not affect high flow hydraulics. While the non-motorized boat access path is a recreational feature, it is intended to provide ecological benefits by encouraging access at a single controlled location, which serves to minimize dispersed disturbance to riparian habitat, spawning salmonids, and rearing salmonids.

There are several areas that are currently informally used for boat access, which cause erosion and destruction of riparian habitat. By creating up to two non-motorized boat access paths, riparian habitat will be restored and protected.

Please refer to Attachment 1. Basis of Design for more description, and to Attachment 4. Design Set to see the plans for the non-motorized boat launch.

**C. The project does both of the following: (1) results in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery; and (2) Includes procedures and ongoing management for the protection of the environment. Please cite supporting documents and provide as an attachment.**

**Long Term Net Benefits to Climate Resiliency:**

The project would contribute to long-term net benefits to climate resiliency by creating more complex and connected in-stream and floodplain habitats and more diverse revegetated areas. These project goals will support the creation of more diverse life histories for salmonids in the Tuolumne River, which is critical to climate resiliency for salmonids.

Habitat complexity and connectivity allow for species to find more favorable conditions in the landscape, an important capability given changes in conditions from climate change. By creating different floodplain habitats that provide more complexity in terms of water temperature, turbidity, vegetation cover, and velocities, the project would expand the types and complexity of habitat available to juvenile salmonids.

To encourage habitat complexity and habitat diversity, the Tuolumne River will be shifted to a new channel in three locations. The three locations of shifted Tuolumne River habitat include riffle-pool sequences and are narrower than the current channel to account for the current flow regime as well as anticipated future flow regime. A narrower channel will allow for deeper and cooler waters, and provide more opportunity for shade from riparian vegetation to provide a temperature buffer for the channel.

Project-created side channels with connectivity to the mainstem river as well as low and high floodplain habitat will increase connectivity between all of these complex habitats. A revegetation goal is to maintain continuous corridors of riparian vegetation with a more variable ecotone (transitional area between two biological communities) between the riparian and upland zones. A more variable ecotone allows species to move between these two habitat types more easily, and also provides opportunities for climate adaptation due to this variable ecotone, rather than an abrupt shift between riparian and upland zones.

The project's greater diversity of vegetation will be more resilient to climate change and also provide climate buffers for species that rely on the vegetation. New vegetation types will be guided by the floodplain habitat complexity and flood frequency, along with estimated depth to groundwater. Variability in vegetation will improve the chances that some habitat areas will be resilient to climate change, creating thriving microhabitats that provide the vegetation benefits that buffer the impacts of climate change for other species – cooler temperatures from shade, transpired moisture, and food for herbivorous wildlife.

Additionally, climate change has been considered in the design of the project, with the expectation that drought conditions will be exacerbated and winter and spring rain precipitation will be shifted later in the year. The project has been designed to provide salmonid habitat benefits at a range of flows spanning from 80 cfs (summer baseflow conditions) to 6,000 cfs (above normal to wet water year peak flow conditions, or the upper limit of low magnitude pulse flows for fall and spring [McBain & Trush 2000]).

Please refer to Attachment 1. Basis of Design, Section 8.1 and 8.2 on pages 79 and 94 for more information on the project's commitment to long-term net benefits for the protection of the environment.

Supporting documents:

Moore, J. W., Yeakel, J. D., Peard, D., Lough, J., & Beere, M. (2014). Life-history diversity and its importance to population stability and persistence of a migratory fish: Steelhead in two large North American watersheds. *Journal of Animal Ecology*, 83(5), 1035–1046. <https://doi.org/10.1111/1365-2656.12212>

#### **Long Term Net Benefits to Biodiversity:**

The project would benefit biodiversity, both by itself and as part of regional restoration efforts, by creating and improving floodplain rearing habitat and spawning habitat, restoring geomorphic function and sediment transport, and increasing riparian and upland microhabitats. The project would replace simple and disconnected juvenile rearing habitat with complex, connected, and diverse rearing habitats. Suitable spawning habitat would be available at a greater range of flows than under current conditions, allowing for more diversity of when and where salmon spawn.

### **Existing conditions**

The existing habitat in and along the Tuolumne River is heavily degraded from a long legacy of modification by land use practices (agriculture, ranching, and urbanization) and resource extraction (water for irrigation and municipal use, gold mining, and aggregate mining), which began intensifying at the start of the Gold Rush in 1848. Streamflow regulation began with construction of Wheaton Dam in 1871, and continues today with the operation of Don Pedro Dam. These storage facilities have altered the natural flow regime of the Basso-La Grange Project Area, causing decreased and less variable seasonal baseflows and diminished flood magnitude and frequency. This has caused alterations in the river's geomorphology, riparian vegetation, and riverine ecology, which has in turn reduced biodiversity at the site and in the region (M&T 2000).

### **Improved floodplain rearing and spawning habitat**

Creating more complex floodplain rearing habitat and spawning habitats would support a greater diversity of habitats, which in turn would support a greater number of species. The armored surfaces of the floodplains will be excavated down to inundation thresholds that will reconnect to the river during specified flows (scaled to the post-dam flow regime and refined to be resilient to potentially different future flow regimes). The coarse sediment harvested from floodplain lowering will be used to reconstruct features in the main channel, such as point bars, medial bars, pools, and riffles more frequently and at a shallower slope. These constructed riffles and bars will provide spawning habitat for adult salmon as well as increase invertebrate production for rearing salmonids.

The addition of side channels and wetland marsh areas will provide off-channel rearing habitat for salmonid fry and juveniles, as well as benefit other species, such as Western Pond Turtle (*Actinemys [Emys] marmorata*). The project includes improving connections to existing wetlands, increasing groundwater distribution throughout the site, and providing additional areas of velocity refugia and cover. Remnant dredger channels and/or instream coarse sediment pits will be filled to convert them into suitable habitat for the species of interest while reducing predatory species habitat. All of these actions will lead to more habitat diversity in-stream and on the floodplain, creating conditions for more and varied species to use the site, thereby increasing biodiversity.

The proposed revegetation would benefit biodiversity through plantings and support for native recolonization of the newly created complex and dynamic floodplain areas. The approach is intended to recreate larger patches of vertically heterogeneous riparian vegetation while leaving some ground surfaces exposed for natural plant recruitment from seed, thereby creating a complex, diverse, and self-sustaining dynamic riparian system that is directly linked to the functional integrity of channel and floodplain dynamics. Lowering the floodplains will provide opportunities for natural recruitment and/or plantings of riparian species by improving access to groundwater and allowing seedlings to successfully colonize the now barren, disconnected surfaces. Revegetation objectives related to biodiversity include:

- Using the relationship of vegetation zones to flood frequency and estimated depth to groundwater concepts to guide the revegetation designs;
- Increasing wetland, emergent, and riparian vegetation abundance in the tree, shrub, and herb layer within the construction footprint;
- Maintaining continuous corridors of riparian vegetation with a more variable ecotone (transitional area between two biological communities) between the riparian and upland zones;

Restoration of the Basso-La Grange project area also contributes to biodiversity goals of over 30 years of restoration in the Tuolumne River watershed. This project encompasses two high priority coarse

gravel augmentation sites from the Tuolumne River Coarse Sediment Management Plan (M&T 2004; Figure 8). Restoration efforts have been completed and supported by a diverse set of stakeholders, including the project proponents, Tuolumne River Trust, Tuolumne River Conservancy, Turlock Irrigation District, Modesto Irrigation District, and City and County of San Francisco.

Supporting documents: Attachment 1. Basis of Design  
McBain & Trush 2004. Lower Tuolumne River Coarse Sediment Management Plan. Prepared for Tuolumne River Technical Advisory Committee. July 20, 2004.

### **Long Term Net Benefits to Sensitive Species Recovery**

Project implementation would provide a net benefit for multiple special-status species to aid in species recovery.

The focal sensitive species of this project, Chinook Salmon (*Oncorhynchus tshawytscha*), and resident rainbow trout (*Oncorhynchus mykiss*), have been negatively impacted by past land uses. Populations of both species have declined significantly since the 1960's. Current conditions in the lower Tuolumne River provide less salmonid habitat than historical conditions. Dredge mining converted the channel morphology from a natural pool–riffle sequence to a “lake–cascade” morphology, which is characterized by a series of deeper/longer pools and steep riffles. This converted the numerous low-gradient riffles highly conducive to Chinook Salmon (*Oncorhynchus tshawytscha*) spawning and rearing habitat to a smaller number of high-gradient riffles that were separated by long backwater pools.

The project will focus on creating floodplain rearing habitat and spawning habitat for Chinook salmon and Central Valley steelhead, and remove non-native predatory fish habitat, with plans for future salmonid habitat improvements. However, the following species will also benefit from the project:

#### **Western Pond Turtle (*Actinemys marmorata*, State Species of Special Concern)**

The project's creation of additional side channels and enhancement of off-channel aquatic habitats are expected to increase diversity and connectivity of aquatic habitats favored by the Northwestern Pond Turtle.

#### **Western Spadefoot Toad (*Spea hammondi*, State Species of Special Concern)**

CNDDDB reports observations of Western Spadefoot Toad from the La Grange quadrangle map. The project's creation of side channels have the potential to promote reproductive success for the Western Spadefoot Toad via warmer water temperatures and protection from scouring flows.

#### **Special-Status Birds**

Bald Eagle (*Haliaeetus leucocephalus*), Swainson's hawk (*Buteo swainsoni*), and Tricolored blackbird (*Agelaius tricolor*) all have the potential to occur at the site. The improved floodplain habitat and riparian revegetation are expected to provide improved habitat conditions for these avian species.

Please refer to Attachment 1. Basis of Design, Attachment 5. Draft Wildlife Resources Analysis for more detail.

Supporting documents:



McBain & Trush 2000. Habitat Restoration Plan for the Lower Tuolumne River Corridor. Prepared for the Tuolumne River Technical Advisory Committee. March, 2000.

## **Procedures and Ongoing Management**

### **Procedures**

Protection measures and procedures will be implemented before, during, and after construction to avoid and minimize impacts to sensitive resources and to protect the environment. Specific protection measures are included for sensitive species that may occur on the site, including western pond turtles, California Red-legged frog, nesting birds, and other sensitive species. For example, work will be scheduled during the dry season (typically June 1 through October 31), pre-construction surveys will be conducted to identify any sensitive species or nesting birds, a worker environmental awareness training will be required attendance for contractors, and protection will be put in place to avoid ground disturbance around elderberry shrubs. These protection measures are described in more detail in Attachment 6, Mitigation, Monitoring and Reporting Program.

### **Monitoring**

A 5-year project monitoring plan is being refined for the project. The plan will include collection of data before, during, and after project construction. The objectives of the monitoring plan are to ensure that the project meets performance standards and the following project goals:

1. Create floodplain rearing habitat for juvenile fish, with a focus on salmonids,
2. Create spawning habitat and gravel stockpiles for future maintenance activity needs with suitable excess material,
3. Reduce non-native predatory fish habitat,
4. Restore geomorphic function and sediment transport,
5. Increase aquatic microhabitats, food sources, and add stability to the channel by planting native riparian vegetation,
6. Design and plan for future salmonid habitat improvements.

Annual monitoring reports will be published for 5 years after project construction has been completed. The monitoring report will include information on the following items:

- ☐ Amount of floodplain rearing and spawning habitat
- ☐ Suitable excess material evaluation for future maintenance activities
- ☐ Reduction of non-native predatory fish habitat
- ☐ Geomorphic function and sediment transport comparison
- ☐ Plant survival and coverage

Bathymetric and active channel topographic surveys will be repeated post construction to identify the amount of floodplain rearing and spawning habitat, to compare geomorphic function and sediment transport, and to quantify the reduction in non-native predatory fish habitat. Sediment grain size distributions will be used to evaluate the suitability of in-stream habitat for spawning. Photo stations and plot-based analysis of vegetation will be used to track the success of native riparian revegetation. In addition to this, remaining coarse sediment will be tracked and quantified in order to estimate the quantity of appropriately-sized sediment for future salmonid habitat improvements.

In addition to the summary of these findings, the monitoring report will also identify and discuss problems with achieving performance standards, standards that are not met, proposed corrective measures approved by the Regional Water Board, and monitoring data to support the findings. These

will inform adaptive management actions for the project. Please refer to Attachment 7, The Basso/La Grange Floodplain Restoration Monitoring and Maintenance Plan for additional details.

### **Ongoing Management**

The project is designed to be self-sustaining in regards to management as much as possible. For example, the new meanders include riffle-pool sequences and are narrower than the current channel to account for the current flow regime as well as anticipated future flow regime. Suitable excess material would be stored on site and used for future gravel augmentation as necessary.

Supporting documents:

McBain & Trush 2004. Lower Tuolumne River Coarse Sediment Management Plan. Prepared for Tuolumne River Technical Advisory Committee. July 20, 2004.

### **D. The project does not include any construction activities, except for construction activities solely related to habitat restoration. Please cite supporting documents and provide as an attachment.**

As lead agency, the County of Stanislaus Parks and Recreation has determined that the Project does not include any construction activities, except for construction activities related to habitat restoration.

### **Construction Activities**

Proposed construction activities are intended to enhance and restore habitat in the Tuolumne River. The following construction activities are proposed:

- ☐ Mobilization/Demobilization. The contractor will coordinate construction access, schedule, timing, and safety protocols. Project start-up meetings and general construction materials procurement will occur. Equipment will be hauled to the site, while materials will come from the site to the extent feasible. At the end of the Project all remaining materials and the equipment will be hauled out.
- ☐ Access and Staging. The contractor will prepare the access and staging areas for construction by prepping staging areas (remove and store topsoil), improving access routes sufficient to handle construction traffic, installing temporary boundary fencing, and installing composite mats for driving across wetland areas. At the end of the construction period, the contractor will remove temporary access materials and restore the access routes and staging areas through decompaction, seeding, and mulching.
- ☐ Clearing and Grubbing. The contractor will coordinate protocols for safety, environmentally sensitive areas, areas to be cleared and grubbed, and disposal.
- ☐ Removal of abandoned haul road bridge remnants. Existing remnant haul road debris will be removed from the channel and banks. The remnant haul road will be removed and revegetated with riparian and transitional plant species.
- ☐ Excavate realigned channel, floodplain, and side channels. The armored surfaces of the floodplains will be excavated down to inundation thresholds that will reconnect to the river during specified flows. Existing scraped dredger tailing areas in the side channel would be excavated, with their gravel resources used in the river for new proposed riffles and bars.
- ☐ Sort excavated sediment for spawning gravel. Former dredger mine tailings will be excavated and sorted to provide gravel resources for in-channel riffles.
- ☐ Build new spawning habitat. This will include riffles and bars.
- ☐ Fill in-channel gravel pits. Approximately 2 acres of in-channel gravel pits will be filled.

- ☐ Revegetation. Proposed revegetation is intended to recreate larger patches of emergent and riparian vegetation similar, albeit smaller in area, to what was historically present at the site.
- ☐ Install large woody debris. Large woody debris will be used to create habitat features in the floodplains and side channels to increase cover.


### **Recreational Feature**

The Tuolumne River is a popular destination for recreational kayaking, floating, and fishing. Recreational boaters currently access the site via multiple routes. This has resulted in erosion and the destruction of native vegetation. This project includes installation of a non-motorized boat access path upstream of Old La Grange Bridge, on river right to facilitate and direct recreational access. The path will be designed at-grade with the floodplain such that it will not affect high flow hydraulics. While the non-motorized boat access path is a recreational feature, it is intended to provide ecological benefits by encouraging access at a single controlled location, which serves to minimize dispersed disturbance to riparian habitat, spawning salmonids, and rearing salmonids.

Please refer to Attachment 1. Basis of Design, Section 8 for more detail.

Lead Agency Certification

I certify that this Project meets all the requirements described in Public Resources Code section 21080.56, and that I have submitted all the determinations required therein necessary to obtain the concurrence of the Director of Fish and Wildlife.

 , August 24, 2022

Tera Chumley, Interim Director  
Stanislaus County Parks and Recreation

**Attachments:**

Attachment 1: Basis of Design

Attachment 2: Project Boundary

Attachment 3: Supporting References

Attachment 4: Design Sets

Attachment 5: Wildlife Resources Analysis (DRAFT)

Attachment 6: Mitigation, Monitoring, and Reporting Program

Attachment 7: Monitoring and Maintenance Plan (DRAFT)

Attachment 8: Tribal Outreach