

U.S. BUREAU OF RECLAMATION
MID-PACIFIC REGION
NORTHERN CALIFORNIA AREA OFFICE
TRINITY RIVER RESTORATION PROGRAM
WEAVERVILLE, CALIFORNIA

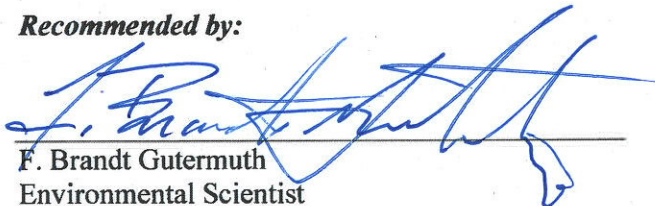
BUREAU OF LAND MANAGEMENT
REDDING FIELD OFFICE
355 HEMSTED DRIVE
REDDING, CA 96002

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, as amended, and with the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), the Trinity River Restoration Program office of the U.S. Bureau of Reclamation and the Bureau of Land Management, Redding Field Office, have found that the Proposed Project, supported by the analysis disclosed in the Final Environmental Assessment/Initial Study for the Trinity River Channel Rehabilitation Site: Bucktail (River Mile 105.45-107.0) will result in no significant impacts on the human environment considering the context and intensity of impacts.

Supporting documentation in the EA portion of the EA/IS was prepared to meet the requirements of NEPA. For the purposes of NEPA, the EA is tiered to the *Trinity River Mainstem Fishery Restoration Program Environmental Impact Statement* and incorporates by reference the *Channel Rehabilitation and Sediment Management Activities for Remaining Phase 1 and Phase 2 Sites, Part 1: Final Master Environmental Impact Report*.


Recommended by:


F. Brandt Gutermuth
Environmental Scientist
Trinity River Restoration Program

Date

5/12/16

Approved by:

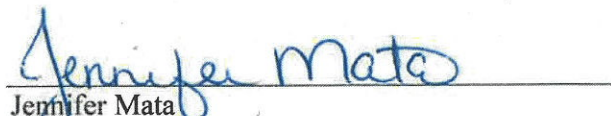

Caryn Hunt DeCarlo
Acting Executive Director,
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Date

FONSI No. TR-EA0215

5/12/16

Approved by:


Jennifer Mata
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Bureau of Land Management (Co-Lead Agency)

Date

FONSI No. DOI-BLM-CA-N060-2015-057-EA

5/12/16

FINDING OF NO SIGNIFICANT IMPACT
Trinity River Channel Rehabilitation Site
Bucktail (River Mile 105.45-107.0)

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BACKGROUND AND NEED

The Bureau of Reclamation (Reclamation) completed the Trinity River Division (TRD) of the Central Valley Project (CVP) in 1964, blocking passage of salmonids and lamprey to habitat upstream of Lewiston Dam and restricting anadromous fish to habitat downstream. The TRD also eliminated coarse sediment transport from over 700 square miles of the upper watershed. Trans-basin diversions from Lewiston Lake diminished annual flows by up to 90 percent and altered the hydrologic regime of the Trinity River for a 40-mile reach downstream. The consequences of diminished flows included encroachment of riparian vegetation, establishment of riparian berms, and changes in alluvial processes at various locations along the river as far downstream as the North Fork Trinity River. These geomorphic changes resulted in a decrease in the diversity of species and age classes of riparian vegetation along the river, impaired floodplain function, and adversely affected fish habitat.

In 1994, the U.S. Fish and Wildlife Service (USFWS) as the federal lead agency and Trinity County as the California Environmental Quality Act (CEQA) lead agency began the National Environmental Policy Act (NEPA) process for developing the Trinity River Mainstem Fishery Restoration Environmental Impact Statement (EIS)/Environmental Impact Report (EIR). The 2000 Record of Decision (ROD) for the Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement/Environmental Impact Report (FEIS/EIR) (December 19, 2000; USDI 2000) directed Reclamation and the USFWS to

implement the Flow Evaluation Alternative, coupled with additional watershed protection efforts (described in the Mechanical Restoration Alternative), as the Preferred Alternative identified in the FEIS/EIR to restore the Trinity River's anadromous fishery. Through the Trinity River Restoration Program (TRRP), the ROD directed Reclamation to restore the Trinity River fishery by implementing a combination of higher releases from Lewiston Dam (up to 11,000 cubic feet per second [cfs]), floodplain infrastructure improvements, channel rehabilitation projects, fine and coarse sediment management, watershed restoration, and an Adaptive Environmental Assessment and Management Program. As a project-level NEPA document, the FEIS/EIR provides guidance for policy decisions associated with managing Trinity River flows, and as a programmatic NEPA document, it provides first-tier support of related mechanical restoration and sediment management actions. The 2009 Master EIR provides more specific analysis of non-flow elements of the TRRP and was incorporated by reference in the NEPA document for the Proposed Project to support NEPA decisions required by Reclamation and the Bureau of Land Management (BLM).

The TRRP, acting under the guidance of the Trinity Management Council (TMC), provides the overall program direction required to implement the 2000 ROD. TMC member agencies include Reclamation, USFWS, National Marine Fisheries Service (NMFS), U.S. Forest Service (USFS), the Hoopa Valley Tribe (HVT), the Yurok Tribe (YT), the California Natural Resources Agency represented by the California Department of Fish and Wildlife (CDFW) and the California Department of Water Resources (DWR), and Trinity County. In addition to providing technical expertise for the design and review of the rehabilitation sites, the TRRP provides technical and administrative support to the TMC related to both scientific evaluation of restoration progress and management implementation.

The TRRP is responsible for the overall implementation of the ROD, and although the Bucktail site was not a discrete location identified in the original list of 43 sites included in the ROD, the TRRP, through adaptive management, identified it as a critical location to restore fluvial processes. The Trinity River Channel Rehabilitation Site: Bucktail (River Mile 105.45–107.0) (Proposed Project) includes reducing riparian encroachment, placement of large woody debris (LWD, physical alteration of alluvial features (e.g., floodplains and side channels), construction of hydraulic structures (wood and log features), and removal/replacement of riparian vegetation at strategic locations. Extensive revegetation of native riparian vegetation areas (woody and wetland species) and management of upland mixed conifer habitats to mimic historic conditions is included in the Proposed Project. These rehabilitation activities would increase habitat suitability and availability for salmonids and other native fish and wildlife species during a wide range of river flow conditions.

PROPOSED PROJECT

The Proposed Project includes work at the Bucktail site, located in part on lands managed by the BLM Redding Field Office. Construction activities at the site are anticipated to begin in 2016.

The project area is located on the *Lewiston, California* 7.5-minute U.S. Geological Survey (USGS) quadrangle, in Township 33 North, Range 9 West, Sections 23 and 24 Mount Diablo Base and Meridian (MDB&M). The river elevation at the Bucktail site is about 1,750 feet above mean sea level.

The Bucktail site encompasses 110.4 acres. It begins immediately upstream of Trinity County's Bucktail Bridge and extends upstream on both sides of the Trinity River about 1.5 miles. More than 60 percent of the land within the Bucktail site is privately owned, and BLM manages several large parcels of public

land within the project area. Land ownership and the project boundary are shown on Figure 2 of the EA/IS. TRRP staff, with interdisciplinary review from the BLM and TMC technical staff, developed the site boundaries to incorporate the rehabilitation activities described in Chapter 2 of the EA/IS.

The project area for the Bucktail site includes a portion of TRRP's previously constructed Dark Gulch (2008) and Lowden Ranch (2010) rehabilitation sites. Public vehicular access to the Bucktail site is via Browns Mountain Road, north of Old Lewiston Road. This county road also provides access to a paved BLM road leading to the Bucktail Boat Ramp. Pedestrian and equestrian access is available to BLM lands throughout the project area. Access to the portion of the project across the river from and upstream of the boat ramp is across private land and is limited.

The project area encompasses a stretch of the Trinity River that includes several sharp bends, bounded by steep valley walls on the inside of the bends. Evidence of historic dredge activities is visible at several locations throughout the site. Although some mature riparian vegetation occurs on alluvial features, upland vegetation adjacent to the project area is characterized as scattered stands of mixed conifer/hardwood forest with an understory of shrubs and grasses.

Rehabilitation activities directed by the ROD and further described in the EA/IS, in conjunction with annual ROD flow releases, are expected to contribute to the restoration of the Trinity River mainstem fishery. Implementing channel rehabilitation work at the Bucktail site would continue implementation of the ROD and would contribute to the restoration of aquatic habitat in the mainstem Trinity River through the development of properly functioning channel conditions.

The EA/IS for the project considered two alternatives: the No-Project Alternative and the Proposed Project Alternative. After consideration of the environmental commitments and project design features listed in Chapter 2 of the EA/IS, impacts from the Proposed Project would be less than significant pursuant to NEPA. Details concerning these alternatives and other alternatives considered but not carried forward for evaluation are included in Chapter 2 of the EA/IS.

An interdisciplinary team of the TRRP identified discrete activity areas within the boundaries of the Bucktail site. Each activity area was established to meet a suite of specific objectives in conformance with the overall goals and objectives outlined for the TRRP. Activity areas are labeled using an alpha-numeric system based on the type of activity that would occur in a specific place. Riverine activities are labeled with an R followed by the construction site number (e.g., R-1, R-2); upland activities are labeled with a U followed by the construction site number; in-channel work areas are identified with an IC; and construction staging/use areas are identified with a C followed by the construction site number.

The TRRP has developed programmatic objectives for channel rehabilitation projects that are described in Chapter 2 of the EA/IS. Ultimately, the goals of the channel rehabilitation efforts are to provide functional aquatic habitat for all life stages of anadromous salmonids over a range of flow conditions; to provide suitable salmonid rearing habitat, presently believed to be a limiting factor in the system; and to reestablish healthy alluvial river geomorphic processes that will maintain high-quality salmonid habitat at a dynamic equilibrium.

The activities proposed at the Bucktail site are briefly described below; additional details are provided in Chapter 2 of the EA/IS.

IC-1, Point Bar

This area would be a constructed right-bank skeletal bar designed to inundate at 2,500 cfs; it would improve overall channel complexity and direct mainstem flows towards the left bank.

IC-2, Side Channel

This area is a low-flow side channel about 900 feet long that would deliver approximately 5 to 10 percent of the mainstem flow during baseflow conditions. It would provide connectivity between existing floodplain surfaces and a seasonal pond while providing riverine habitat with lower streamflow velocities and shallower depths over a wider range of flows. Constructed riffles within this area would provide adult salmonid spawning areas and productive habitat for benthic macroinvertebrates (BMI) that would increase food resources for fry and juvenile salmonids during critical winter and spring rearing periods.

IC-3, Mainstem Channel Fill

This area would be modified by placement of coarse sediment, large wood, and vegetation to fill in the existing channel such that 70 to 80 percent of flows up to 6,050 cfs are directed into the Area IC-4. The existing channel in this location has a steep gradient with a large cobble substrate. The left bank has several large wood features that were placed as part of the 2008 Dark Gulch Project. Construction of a left bank bar in combination with placement of large wood would result in some flow entering IC-4. As flows increase, surrounding areas would be inundated at flows ranging between 4,500 cfs and 8,000 cfs. IC-3 would increase low-water bank length by incorporating a left bank alcove. Construction of IC-3 would provide slow water refuge within a constructed alcove that would provide fry and juvenile habitat at flows ranging from 300 cfs and 4,500 cfs.

IC-4, Mainstem Channel Relocation

This area would be modified by construction of a split flow channel intended to capture 70 to 80 percent of flows up to 6,050 cfs. The modifications would involve excavation of the constructed 2008 side channel, which would become the new mainstem channel and increase channel length, complexity, and sinuosity, while reducing the slope of the channel. Placement of large wood would direct additional flow into IC-4 when flows are greater than 6,050 cfs. As flows increase, surrounding areas would be inundated at flows ranging between 4,500 cfs and 8,000 cfs. Area IC-4 and surrounding areas would provide shallow depths and slow velocities across a wider range of streamflows than the existing mainstem channel configuration. Increasing the mainstem channel length and reducing the slope would improve adult spawning opportunities. In addition, by increasing channel sinuosity and complexity, this feature would provide fry and juvenile rearing opportunities at a wide range of flows.

IC-5, Mainstem Channel Splitflow

This area is located along the back side of the original feathered edge site constructed by Reclamation in 1993. As part of the 2008 Dark Gulch Project, coarse sediment was placed on the existing bar as a source of spawning gravel. This area would be re-contoured to expedite mobility and transport downstream of the remaining coarse sediment associated with the 2008 high flow recruitment pile. Re-contouring the existing bar would allow flows of 2,500 cfs to inundate the bar completely, and flows of or in excess of 6,050 cfs would mobilize and redeposit coarse sediment downstream. This feature would increase off-channel fry and juvenile rearing opportunities at a wide range of flows over existing conditions.

IC-6, Side Channel

This area would function as a 300 cfs side channel designed to drain areas R-1, IC-2, and W-1. At the inflow to IC-6, a beaver dam analog (BDA-1) would be designed to provide variable backwater elevations into the seasonal wetland and areas R-1 and IC-2. The constructed side channel would increase low water bank length and provide an outlet to the seasonal wetlands fed by IC-2. As necessary, coarse sediment, between ¼ inch and 5 inches, would be placed in this area to provide a suitable medium for BMI production and salmonid spawning. The constructed channel would have 5 to 10 percent of summer/winter baseflows (15-45 cfs), providing lower streamflow velocities and shallower depths over a wider range of flows. This side channel would increase the inundated area for groundwater recharge, providing more suitable areas for wetland and riparian establishment.

IC-7, Side Channel

This area would be a side channel designed to capture approximately 5 to 10 percent of summer/winter baseflows (15-45 cfs) and provide low-velocity, shallow-water rearing habitat for fry and juvenile salmonids over a wide range of flows. A large wood structure would be placed to maintain entrance conditions and meter flow into the side channel. Overall, this area would increase bank length at baseflows and provide improved surface and groundwater connectivity between constructed floodplains R-3 and R-4.

IC-8, Point Bar

In this area, approximately 1,850 cubic yards of coarse sediment would be added to the left bank, thereby immediately increasing coarse sediment storage by creating a self-sustaining point bar with an alcove at the downstream end. This would increase low water bank length, sinuosity, and expansion and contraction zones. The top of the point bar would be completely inundated at 4,500 cfs, providing shallow depths and slow velocities across a wider range of flows. In addition, an alcove has been incorporated into the design of the bar on the downstream end. The point bar and alcove would provide slow, shallow rearing habitat for flows ranging from 300 cfs to 2,500 cfs. A pool on the outside of the bend along the right bank bedrock would be maintained to preserve adult holding opportunities.

R-1, Floodplain

This area would provide slow, shallow rearing habitat by reducing the floodplain elevation to ensure inundation during flows ranging between 1,500 cfs and 4,500 cfs. A beaver dam structure located at the entrance to IC-6 would back the water up into area R-1 to help portions of R-1 function as a seasonal wetland. Construction of R-1 would result in shallow depths and slow velocities across a wider range of streamflows than those currently provided.

R-2, Upland Planting

This area would be lowered to provide slow, shallow rearing habitat during inundation flows ranging between 1,500 cfs and 4,500 cfs. At flows of 300 cfs, area IC-2 would provide water for area R-2. A beaver dam structure located at the entrance to IC-6 would back the water up into area R-2 to improve planting and natural recruitment success. Construction of area R-2 would result in shallow depths and slow velocities across a wider range of streamflows than those currently provided.

R-3, Floodplain

This area would be lowered to enable a functional floodplain subject to inundation at flows ranging between 1,000 cfs and 4,500 cfs to provide slow, shallow rearing habitat. It would provide areas with shallow depths and slow velocities across a wider range of streamflows than those currently adjacent to the mainstem channel.

R-4, Floodplain

This area would be lowered to enable a functional floodplain subject to inundation at flows ranging between 1,000 cfs and 4,500 cfs, providing bank complexity and surfaces that would initiate floodplain deposition. The proposed constructed surfaces would provide slow, shallow rearing habitat.

R-5, Floodplain

This area would be constructed to enable connectivity of an old settling pond with the main channel at flows of 4,500 cfs. The area would provide slow, shallow rearing habitat at streamflows ranging from 1,500 cfs to the maximum fisheries flow of 11,000 cfs.

R-6, Backwater

This area would be constructed as a backwater at flows ranging between 450 cfs and 2,500 cfs.

Wood Habitat Structures

Wood habitat structures would be distributed throughout constructed side and mainstem channels. Wood would be buried into constructed banks and bars without piles or boulder ballast, making it available for transport downstream. Some angled piles may be used to allow time for vegetation to grow into place and secure habitat structures. Large boulders may be used in combination with wood for additional complexity. These structures would create areas of local scour and deposition and would provide immediate cover, depth, and velocity refugia for all salmonid life stages over flows of 300 cfs.

ELJ-1, Engineered Log Jam

Construction of ELJ-1 would incorporate large wood and coarse sediment into existing vegetation along the left bank to form a large wood jam at the upstream end of IC-3. Wood placement combined with coarse sediment and vegetation would meet the design objective of directing 70 to 80 percent of flows up to 6,050 cfs into the newly constructed channel (IC-4). Some wood posts would be used to pin the structure in place. The structure is designed to withstand forces exerted by the maximum fisheries flow of approximately 11,000 cfs while enhancing channel complexity and providing opportunities for scour pools to develop upstream of this feature. Over time, ELJ-1 would create holding habitat for adult salmonids through the creation of local scour and capture of woody material mobilized by high flows. It would also provide adequate summer rearing habitat for juvenile salmonids, enhanced hydraulic and escape cover along the channel margin, a reduction in the distance to cover from adjacent spawning areas, and increased salmonid habitat for all life stages at a wide range of flows.

ELJ-2, Engineered Log Jam

Construction of ELJ-2 would occur at the head of the split flow medial bar constructed in 2008. It would maintain a split flow channel when streamflow is greater than 6,050 cfs. ELJ-2 would increase the complexity of the stream bank and provide cover and refugia habitat for juvenile salmonids during all flows. Smaller wood would be placed along the wetted perimeter of the larger wood placements to reduce velocities and provide additional cover for fish. The increase in channel complexity would create refugia for juvenile salmonids. The scour pool and cover provided by this structure would create summer rearing, feeding, and holding habitat.

ELJ-3, Engineered Log Jam

Construction of ELJ-3 would result in a 95/5 percent flow split between the mainstem channel and the low-flow side channel at IC-7. Incorporating large wood into existing vegetation between IC-7 and IC-8 would result in a stable hard-point along the left bank of the channel. It is intended to meter flows into IC-7 such that at a flow of 300 cfs, 5 to 10 percent (15 cfs to 30 cfs) enters the side channel. Flows in excess of 6,050 cfs are expected to inundate the entire site. Construction of this feature would increase the diversity of aquatic habitats by creating connection to off-channel habitats, side channels, and floodplains. This feature would increase the complexity of the stream bank and increase salmonid habitat for all life stages at a wide range of flows.

W-1

This area would be revegetated with emergent wetland and sedge wetland vegetation from local sources. The vegetation would include mugwort, torrent sedge, common rush, spreading rush, scouring rush, basket sedge, and small-fruited bulrush.

BDA-1, Beaver Dam Analog

Construction of a beaver dam analog at the upstream end of IC-6 would allow an adaptive approach to raising water surface elevations at various flows to backwater area R-1. This feature would consist of buried posts that provide a framework for willow cuttings to be woven between the posts. The beaver dam analog would regulate water depth in the wetland upstream. It would be maintained to allow high winter and spring flows to pass, while reducing the likelihood of sediment deposition behind the feature. During periods of high flow, fine sediment is expected to deposit on the floodplain and seasonal wetland surfaces. During summer and winter baseflows, it would back water up into area R-1 creating seasonal wetland habitat. During backwater periods, it would provide winter and summer rearing habitat for fry and juvenile salmonids. An adaptive approach would be necessary to successfully achieve riparian and wetland plant success as well as encourage fine sediment deposition outside the low flow channel thalweg.

X-1, River Crossings

One temporary crossing would provide access across the river in the upper reaches of the project area. The temporary crossing would be a constructed ford to facilitate access for construction-related traffic. If required, temporary bridges would be used when crossings are needed outside the summer (July 15-September 15) in-channel work window. All temporary crossings would be designed and constructed to

meet the requirements for heavy equipment, such as trucks, excavators, and scrapers. All temporary crossings would be constructed in a manner that does not impede navigability at the site.

U-1, Upland Storage

This area would be located on an elevated terrace in the center of the site. It would serve as the primary contractor use area and provide a location above the 100-year floodplain to stockpile coarse sediment for future local coarse sediment augmentation. Post-project, upland plantings and wood habitat piles would be used to rehabilitate and revegetate portions of the site increase habitat complexity for a variety of avian, reptilian, and mammalian species.

U-2, Plantings

This area would be used as a disposal site. The existing swale would be filled in with alluvial material excavated from other activity areas to confine flows to the mainstem channel between about 7,000 and 11,800 cfs. This added confinement should promote mainstem scour, channel migration, and complexity into the future. In addition, fill placement at this area reduces the risk that the existing Bucktail Boat Ramp road would be damaged during high flow events. Following construction, this area would be planted with upland vegetation, creating more complex upland woodland that over time may be recruited by a migrating channel, increasing the large wood supply to the Trinity River. Successful upland plantings would provide complex upland habitat for a variety of mammalian, reptilian, and avian species.

U-3, Storage

This area would be located on top of an existing tailings pile and 2008 spoils area and provide a location to stockpile coarse sediment above the 100-year floodplain for future TRRP gravel augmentation efforts. Post-project, native grasses would be planted on top of the graded surface to provide grasslands habitat for a variety of mammalian, reptilian, and avian species.

C-1, C-2, C-3, C-4, C-5, C-10, C-11, C-12, and C-13, Contractor Use Areas

These areas would be used for construction access, staging, stockpiling, mobilization, gravel processing, and other necessary construction activities during implementation. No earthwork is proposed for the floodplain associated with C-1. Post-project, this floodplain feature would be planted with willow trenches to increase roughness and improve off-channel refugia for juvenile salmonids when flows are in excess of 2,000 cfs. No earthwork would occur at C-2, an area that is subject to inundation between 6,000 and 8,500 cfs. This area would be planted with upland vegetation, creating more complex upland habitat for a variety of mammalian, reptilian, and avian species that over time may be recruited by a migrating channel, increasing the large wood supply to the Trinity River.

C-6, C-7, C-8, and C-9, Access Roads

One existing, paved access road (C-7) and three temporary access roads would be used for project purposes. Because scrapers would likely be used for excavation of channels and floodplains, these roads would be essential for safety and efficiency. Post-project, the access roads would be returned to pre-construction condition, decommissioned, or left as improved, according to landowner approval.

REVEGETATION

Revegetation activities consist of site layout, preparing planting areas, planting a mixture of upland and riparian plant species, and some degree of irrigation. If irrigation is required, equipment would include pumps, tanks, and lines. Maintenance of revegetated areas may include measures such as weeding, mulching, browse protection, and in-planting.

The grading plan avoids removing patches of existing riparian vegetation within the site that currently provide cover and would provide a readily available seed source immediately after construction. Efforts would be made to minimally impact riparian vegetation along the left bank side channels since high-quality vegetation conditions currently exist in these locations. The banks of constructed side channel would be planted with riparian plant species to provide cover for wildlife and fish, shade the channel, speed riparian vegetation recovery, and increase woody plant and age class diversity. Wetland species would be planted in areas appropriate for an individual species' tolerance to varying lengths of inundation. Planted material may be collected from local stocks or nursery grown native species. Their sizes may vary by plant species.

The TRRP anticipates that most planting areas would not require watering post project. However, given recent drought years, some intermittent watering of planted areas during dry conditions may increase plant survival. If this subsequent irrigation is needed, gasoline pumps and hoses would be brought into the site, probably via river rafts. Equipment would be used to water plants as needed, stored on site for use during dry periods, or brought in as water demands require. Any irrigation measures would be temporary and would assist the plants in establishing their roots and in long-term survival. Revegetation maintenance measures would be undertaken to meet permit and/or land owner/agency requirements; most of the maintenance measures are expected to occur within the first three years post-construction.

PROPOSED PROJECT SUMMARY

Overall, the activities proposed for the Bucktail site are intended to emphasize reconnecting the river's floodplain with the river, expanding side-channel habitat, and enhancing the bed and banks of the Trinity River to promote well-distributed aquatic habitat (wetted edge habitat) over a range of flows. Collectively, these activities are intended to enhance aquatic habitat for anadromous fish under a range of flow conditions.

The Proposed Project meets the requirements of the 2000 ROD, the Endangered Species Act (ESA), the Clean Water Act, NEPA, the Clean Air Act, the Wild and Scenic Rivers Act, the National Historic Preservation Act, and the BLM Redding Resource Management Plan (RMP), as amended. The Riparian Revegetation Management Plan, prepared in cooperation with the CDFW, U.S. Army Corps of Engineers (Corps), and the Regional Water Quality Control Board – North Coast Region (Regional Water Board), will be followed to ensure that riparian habitat (e.g., riparian vegetation) is restored in a manner (species and size classes) that supports the TRRP objective of restoring the form and function of an alluvial river over time. Implementation of the Riparian Revegetation Management Plan will also ensure that the State of California's requirement of "no net-loss of riparian habitat" is met through a 1:1 replacement of affected riparian habitat over time. Project monitoring requirements will allow critical evaluation in order to adjust future rehabilitation plans to incorporate those practices that perform best in the field. A comprehensive discussion of these monitoring requirements are provided as Appendix B to the EA/IS.

FINDINGS

The No-Project Alternative and Proposed Project Alternative were evaluated in the EA/IS with respect to their impacts in the following issue areas: land use, geomorphic environment, water resources, water quality, fishery resources, vegetation, wildlife, wetlands, recreation, socioeconomics, cultural resources, air quality, visual resources, hazards and hazardous materials, noise, public services and utilities/energy, transportation/traffic circulation, environmental justice, and tribal trust. Based on the following summary of the implementation effects of the Proposed Project (as discussed fully in the EA/IS), there would be no significant impacts to the quality of the human environment.

Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

Land Use

The Proposed Project is located in Trinity County, California and would be consistent with Trinity County's General Plan and Zoning Ordinance, which provides development standards for land in Trinity County, including areas located within the Trinity River floodplain. Short-term land use impacts resulting from the Proposed Project would be minimal because of project design criteria that require maintenance of public and private access to the Trinity River, adjacent residents, and businesses. Additionally, project implementation would not prevent existing land uses from continuing or impede future land uses. Therefore, impacts on land use would be less than significant.

Geology, Fluvial Geomorphology, and Soils

Implementation of the Proposed Project, including the environmental commitments and project design features listed in Chapter 2 of the EA/IS, would be consistent with the 10 healthy river attributes described in the Trinity River Flow Evaluation Study, the basis for the TRRP efforts to restore and enhance native fish and wildlife populations. It is also consistent with the Aquatic Conservation Strategy, as outlined in the BLM RMP. Project construction activities and disturbance would increase the potential for short-term wind and water erosion. However, project implementation would include project design features such as sediment and erosion control measures to reduce and avoid potential short-term construction impacts on soils. Therefore, impacts on these resources would be less than significant.

Water Resources

Based on the Corps' Hydraulic Engineering Center River Analysis System (HEC-RAS) model, implementation of the Proposed Project, including excavation or placement of alluvial materials in the 100-year floodplain and low-flow channel, would not increase the base flood elevation of the Trinity River. Additionally, project implementation would not result in significant risk of injury, death, or loss involving flooding or erosional processes. The proposed activities are expected to have minimal, if any, effects on groundwater elevations or groundwater quality. Therefore, impacts on water resources would be less than significant.

Water Quality

Implementation of the Proposed Project, including construction activities in and adjacent to the low-flow channel, could temporarily increase turbidity and total suspended solids in the water column. It could

also result in a spill of hazardous materials (e.g., grease, solvents) into the Trinity River. Construction activities would be staged and timed to minimize potential water quality effects, and appropriate project design features, such as placing clean rock berms around work areas and isolating them from the river, would be implemented to avoid and reduce water quality impacts. Therefore, impacts on water quality would be less than significant.

Fisheries Resources

To comply with Section 7 of the ESA, Reclamation initiated informal consultation with the National Marine Fisheries Service (NMFS) concerning project effects on the federally and state-listed (threatened) Southern Oregon/Northern California Coast (SONCC) evolutionarily significant unit (ESU) of coho salmon. NMFS affirmed that certain non-flow measures, including the mechanical rehabilitation and sediment management projects identified in the ROD, were considered in its 2000 Biological Opinion issued in response to the FEIS/EIR. In that Biological Opinion, NMFS identified implementation of mechanical rehabilitation projects as reasonable and prudent measures to minimize TRD effects on SONCC ESU coho salmon. Subsequent to the ROD, NMFS provided the TRRP with documentation necessary to ensure that the 2000 Biological Opinion did in fact consider the types of activities associated with the Proposed Project.

Reclamation recently began to engage in informal technical consultation with NMFS in order to update the 2000 Biological Opinion. In support of a formal re-consultation under Section 7 of the ESA and to obtain an updated Biological Opinion, Reclamation is currently preparing a new Biological Assessment that focuses on advances in and changes to actions associated with the TRRP Implementation Program since 2000 (i.e., the rationale for the continuing adaptation of techniques for channel rehabilitation and fine and coarse sediment management since program inception) that will be used by the NMFS as the information basis for writing a new Biological Opinion. While the reinitiated Section 7 consultation is underway, the 2000 Biological Opinion remains in effect for the Proposed Project. Reclamation will continue to coordinate with NMFS as it implements the terms and conditions of the 2000 Biological Opinion.

Temporary construction impacts on fish-rearing habitat will be minimized through implementation of environmental commitments and project design features; in the long term, changes to physical rearing habitat associated with project implementation are expected to be beneficial. Collective improvements in fluvial channel dynamics contributed by the Proposed Project, in conjunction with future channel rehabilitation projects throughout the Trinity River between Lewiston Dam and the North Fork Trinity River, are ultimately expected to improve spawning and rearing habitat for all life stages of anadromous salmonids. Because effects would be generally localized and because the Proposed Project includes commitments and features to avoid and minimize adverse impacts on fish, effects to fisheries resources would be less than significant.

Vegetation, Wildlife, and Wetlands

Construction activities associated with the Proposed Project would result in a temporary loss of riparian vegetation and waters of the U.S. However, in the long term, floodplain function and riverine processes would be restored by revegetation of alluvial features, particularly floodplains. Upland features (i.e., terraces) would also be restored, primarily by converting old dredge tailing deposits into productive wildlife habitat. Overall, the Proposed Project would increase structural and species diversity, and would

speed reestablishment of native riparian and upland vegetation. Long-term changes in river inundation periods are expected to increase both seasonal and perennial riparian habitats as well as offset impacts to wetlands and other waters. Construction activities associated with the Proposed Project would result in the loss of waters of the U.S., including wetlands. The project is designed to enhance the functions and services of the aquatic system, including wetlands and other waters.

The Proposed Project was planned to directly benefit riparian and upland habitat and function and has the potential to affect wildlife, including special-status wildlife species (designated BLM or USFS sensitive species or federally listed threatened and endangered species). Specific environmental commitments and project design features are included in the Proposed Project to ensure that activities occur in a manner that addresses potential impacts to special-status species, including avian and amphibian species. Habitat for the northern spotted owl (*Strix occidentalis caurina*) is present in the project area. During development of the Master EIR/EA/IS, Reclamation conducted informal consultation with the USFWS concerning effects to the ESA-listed northern spotted owl. Based on the consultation, known lack of suitable habitat and nests in the area, and Trinity River bird distribution data, Reclamation determined that there would be no effect on the northern spotted owl. The Bucktail project area was specifically evaluated for northern spotted owl habitat and was considered unsuitable. The project area does not encompass or occur within designated critical habitat for the northern spotted owl; therefore, there would be no effect to northern spotted owl or its designated critical habitat.

Suitable den habitat for the Pacific fisher is not present in the project area, but the Trinity River riparian corridor and adjoining upland habitat do provide dispersal and foraging habitat for the Pacific fisher. While the Proposed Project has the potential to temporarily reduce habitat suitability for fisher, the Project would ultimately result in an increase in habitat and an increase in habitat quality for this species.

The Proposed Project, including the environmental commitments and project design features listed in Chapter 2 of the EA/IS, combined with riparian revegetation measures, would ensure that the Proposed Project will not result in significant impacts to vegetation, wildlife, and wetlands.

Recreation

Congress designated the Trinity River as a National Wild and Scenic River in 1981. Implementation of the Proposed Project would result in a long-term benefit to the form and function of the Trinity River relative to the values existed on the date of designation, thereby enhancing the Outstandingly Remarkable Values for which it was designated as a Wild and Scenic River, including its anadromous fishery. Implementation of the Proposed Project would alter the riverine environment; however, construction activities would not permanently affect the scenic or recreational values of the Trinity River for which it was designated.

Although the Proposed Project could result in limited temporary interruptions of public access and use, river access would continue to be available on a limited scale throughout the construction period. The Rush Creek Day Use Area and Boat Ramp, as well as several other public and private access points in the vicinity, will be available for use. Potential disruptions to recreational activities within the project area would be temporary and minimal. Construction of the Proposed Project could affect the safety of recreational users, so signage will be employed to notify river users to be cautious of heavy equipment in the river corridor. Construction activities associated with the Proposed Project could lower the Trinity River's aesthetic values for recreationists by increasing its turbidity; however, increases in turbidity are expected to be localized and of short duration.

Socioeconomics, Population, and Housing

The Proposed Project could directly generate short-term income growth through the payment of wages and salaries, but would result in little long-term increased economic activity. Because of the limited size and duration of the project, impacts on socioeconomic conditions, population, or housing would be negligible.

Cultural Resources

Implementing the Proposed Project has been found to have no adverse effect on historic properties pursuant to Section 106 of the National Historic Preservation Act (NHPA), as implemented through the TRRP Programmatic Agreement [PA; Section 106 alternative program pursuant to 36 CFR § 800.14(b)]: *Programmatic Agreement Among the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Bureau of Land Management, Hoopa Valley Tribe, California State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Implementation of the Trinity River Mainstem Fishery Restoration*, executed on August 31, 2000, and in effect until August 31, 2020. All known cultural resources have been recorded and documented, as described in Chapter 3 of the EA/IS. Reclamation, with concurrence from BLM, has made the determination that none of these cultural resources are eligible for inclusion in the NRHP.

The lack of cultural resources within the APE resulted in a finding of no adverse effect to historic properties from the Proposed Project. Implementation of the Proposed Project would have no significant effect to cultural resources.

Air Quality

Construction activities would generate short-term and localized fugitive dust, gas and diesel emissions, and smoke that could affect air quality. Reclamation would implement project design features, including requiring provisions in construction contract documents, that minimize construction-related impacts on air quality in order to minimize impacts to air quality.

Visual Resources

Potential impacts of project activities on visual resources would include changes brought about by the removal of vegetation, construction of inundated surfaces, creation of access roads, and the presence of equipment in the project area. These activities could result in temporary degradation and/or obstruction of a scenic view from key observation areas. Over the long-term, implementation of the Proposed Project is expected to complement the visual resources and aesthetic values of the project area by restoring the function and form typical of an alluvial river. The design of the Proposed Project incorporates the diversity of the landscape and vegetation types in the project vicinity into the character of the rehabilitated riverine and upland areas. Retention of existing topographic features as well as natural revegetation and manual planting would lessen the degree of visual impacts and improve the aesthetic quality of the affected reach of the Trinity River.

Hazardous Materials

Activities associated with the Proposed Project would use potentially hazardous materials (e.g., oil and fuels) associated with the operation of vehicles and construction equipment during implementation.

Implementation of best management practices would minimize the potential for any project-related hazardous materials to become a public hazard. These practices would ensure that impacts with respect to hazardous materials would be less than significant.

Noise

During the construction phase of the Proposed Project, noise from construction activities would temporarily dominate the noise environment in the project area. Construction noise would be temporary and is expected to occur primarily between the months of July and December. To minimize potential noise impacts, construction activities would be scheduled between 7:00 a.m. and 7:00 p.m. Monday through Saturday. During working hours, Reclamation would ensure that the contractor operates all equipment to minimize noise impacts to nearby sensitive receptors (recreationists along the river, etc.). Noise impacts resulting from implementation of the Proposed Project would be temporary and minimal.

Public Services and Utilities/Energy

The Proposed Project would not disrupt electrical or telephone service within or adjacent to the project area. Implementation of the Proposed Project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities. Traffic control associated with project activities would be implemented, and is not expected to cause more than minimal disruptions to public services, if any. Access for mobilization and demobilization of heavy equipment, however, may require a higher level of traffic control for local roadways and may disrupt traffic flow and circulation before, during, and after construction. Disruptions resulting from mobilization and demobilization of heavy equipment are expected to be minimal and of short duration.

Transportation/Traffic Circulation

Construction activities associated with the Proposed Project would increase truck and worker vehicle trips leading to and from the project area. Throughout construction, the amount of daily construction equipment traffic would be limited by staging the construction equipment and vehicles in the project area boundary for the duration of work. Impacts related to short-term increases in vehicle trips would be minimal. Use of area roads by project-related trucks and heavy equipment would increase wear and tear on the local roadways. Traffic safety hazards could arise for motorists, bicyclists, pedestrians, and equestrians in the vicinity of the construction access routes as a result of the movement of project-related trucks and heavy construction equipment. The contractor would be required to implement a traffic control plan during construction to maximize public safety and maintain traffic flow. Impacts to transportation and traffic circulation would be minimal to moderate, but temporary and insignificant.

Tribal Trust

TRRP's overarching goals of restoring, enhancing, and conserving the natural production of anadromous fisheries, native plant communities, associated wildlife resources, and overall health of the Trinity River basin are consistent with federal Tribal Trust responsibilities. The primary TRRP goals originate partly from the federal government's trust responsibility to protect fishing rights for ceremonial, subsistence, and commercial purposes of the region's Indian tribes. Under the Proposed Project, the Trinity River would continue to support tribal trust assets. Several short-term impacts would occur that would affect Tribal Trust assets, including geology, fluvial geomorphology, and soils; water quality; fishery resources;

and vegetation, wildlife, and wetlands. These impacts are generally associated with construction activities that would temporarily affect resources in the project area. Potential impacts on Tribal Trust assets would be minimized by project design criteria implemented to protect Tribal Trust assets. The impacts that would occur to Tribal Trust assets would be less than significant.

Environmental Justice

There is no evidence to suggest that the Proposed Project would cause a disproportionately high adverse human health or environmental effect on minority and low-income populations compared to other area residents. No disproportionate or specific health risks or other impacts to low-income or minority groups would be associated with the Proposed Project.

SUMMARY

Implementation of the Proposed Project is expected to contribute to the long-term environmental quality and sustainability of the Trinity River ecosystem with no significant adverse impacts to the environment.

FINDING OF NO SIGNIFICANT IMPACT IN ACCORDANCE WITH 40 CFR 1508.27

After considering the environmental effects described for the Proposed Project in the Trinity River Channel Rehabilitation Sites: Bucktail (River Mile 105.45-107.00) EA/IS, it has been determined that implementation of the Proposed Project will not have significant environmental impacts beyond those already addressed in the EA, is in conformance with the Resource Management Plan, and will not have a significant effect on the quality of the human environment considering the context and intensity of impacts. Therefore, an EIS is not needed and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR '1508.27), both with regard to the context and to the intensity of the impacts described in the EA or as articulated in the letters of comment.

I have considered the potential intensity/severity of the impacts anticipated from the project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

- 1) There will be no significant effects, beneficial or adverse, resulting from implementation of this project. The finding is not biased by the beneficial effects of the action. The construction of the Proposed Project at the Bucktail site is expected to provide localized improvements in aquatic and riparian habitats currently present at the site. The Proposed Project will assist in meeting long-term needs to enhance fish habitat and provide properly functioning river conditions. Viewed within the context of a healthy Trinity River, and against implementing the larger river restoration program required under the ROD, this project will not result in any significant impacts.
- 2) Public health and safety are not significantly affected by the project. Due to the limited duration of the Project and implementation of public safeguards, public safety will not be at risk. Standard Reclamation practices for notifying the public of heavy equipment activities will be implemented during construction activities.

- 3) There will be no significant adverse effects on prime farmlands, park lands, floodplains, wetlands, historic or cultural resources, scenic rivers, ecologically critical areas, civil rights, women, or minority groups. Although there will be no significant adverse effects in these areas, the Proposed Project will result in a minor amount of disturbance to river attributes while enhancing the outstandingly remarkable value—the anadromous fishery—for which the river was designated in the Wild and Scenic River system. The Proposed Project is programmatically tiered to the Trinity River Mainstem Fishery Restoration Program EIS, which recommended implementation of the six components of the ROD. The Proposed Project, which involves implementation of a subset of channel rehabilitation actions from the ROD, has no significant impacts within the context of the entire array of ROD restoration components.
- 4) Based on public participation and the involvement of resource specialists, effects of the Proposed Action on the quality of the human environment are not expected to be highly controversial.
- 5) The Draft EA/IS was made available for a 30-day public review period when the document was submitted to the California State Clearinghouse on November 18, 2015. The document was circulated to local, state, and federal agencies and to interested organizations and individuals for review and comment on the analysis. The official public review period ran through January 4, 2016. Concurrent with this review period, public notice was provided to solicit additional comments from the public and interested parties. Public notice includes posting on the TRRP website; advertisements in the Trinity Journal and Redding Searchlight newspapers; letters mailed to local landowners; email notices to interest groups; and signage posted at the project site informing the public of the availability of the EA/IS for review.
- 6) A public open house meeting was held on December 2, 2015, concurrent with the public comment period, to inform residents and stakeholders of proposed activities and to seek comments on the Draft EA/IS. Four comment letters were received on the Draft EA/IS during the public comment period. The federal and state lead agencies have responded to the comments received. The comment letters and responses from the lead agencies are included as Appendix A of the EA/IS. In addition to updating the EA/IS based on public involvement activities that have occurred since the Draft EA/IS was released for public comment and adding the public comments and responses in Appendix A, minor edits and updates were made to the EA/IS. Clarifying language regarding use of the 2009 Master EIR with respect to use by a NEPA lead agency was incorporated as applicable throughout the EA/IS. No other changes were determined to be necessary based on public input.
- 7) Although the Bucktail site is adjacent to a residential area and popular with recreational users, extensive communication and coordination with the resident and user groups has been ongoing since the first TRRP project was implemented in 2004 (Bucktail Bridge). In 2008 and 2010, respectively, the Dark Gulch and Lowden Ranch projects were implemented and residents and users groups were very involved in both of these TRRP planning processes. With this history in mind, the temporary implementation activities associated with the Proposed Project are expected to have minimal effects on area residents. The public comments were addressed with input from

technical staff from the lead, cooperating, and responsible agencies (see Appendix A of the EA/IS). No highly controversial environmental effects were identified.

- 8) There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks. The effects of the Proposed Project have been clearly evaluated in the EA/IS. Similar activities have been completed at past channel rehabilitation sites, including portions of the current Bucktail site, and collected data and analyses have determined that no unique or unknown impacts to the human environment have resulted.
- 9) These actions do not set a precedent for other projects that may be implemented to meet the goals and objectives of the Trinity River Restoration Program. The Trinity River Flow Evaluation Report and, subsequently, the Trinity River Mainstem Fishery Restoration EIS and 2000 ROD collectively evaluated and recommended channel rehabilitation projects on the Trinity River below Lewiston Dam. The environmental effects of future projects will be analyzed based on need dictated by the ROD, but the need will be balanced by any new information collected during implementation of the Proposed Project and other recently implemented projects.
- 10) There are no known significant cumulative effects from this Proposed Project and other projects implemented or planned on areas separated from the affected area of this Project beyond those assessed. Cumulative impacts are analyzed in Chapter 4 of the EA/IS. While some short-term adverse direct and indirect effects may result from the project, these effects have been analyzed in the EA/IS, and will not lead to significant cumulative effects. Potentially significant long-term project effects from implementation of the ROD were evaluated in the Trinity River Mainstem Fishery Restoration EIS, later supplemented by the 2009 Master EIR and updated in the EA/IS for the Bucktail site. When considered in the context of cumulative watershed effects, the Proposed Project is intended to improve the alluvial processes and function of the mainstem Trinity River and at the same time improve the ability of the Trinity River to mobilize and transport sediment. Cumulative short-term impacts such as soil disturbance and turbidity would occur in response to the Proposed Project, but not to an extent that would cause significant impacts to downstream water quality.
- 11) **Based on surveys accomplished prior to this decision, this action will not adversely affect sites or structures eligible for the National Register of Historic Places, or cause loss or destruction of significant scientific, cultural, or historic resources.** Reclamation and the BLM work closely with the Hoopa Valley Tribe and the Yurok Tribe as both sit on the TMC, which oversees the TRRP, and both tribes participated in the design of these projects. The Hoopa Valley Tribe is also a signatory to the TRRP PA. Pursuant to the TRRP PA (Stipulation IV), Reclamation has consulted with Indian tribes, Native American organizations, and individuals regarding implementation of the PA and its stipulations to protect tribal interests. Based on environmental commitments and project design features listed in Chapter 2 of the EA/IS, the decision maker has determined that the Proposed Project will not result in the destruction of scientific, cultural, tribal, or historic resources.

- 12) The Project would not adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. A biological opinion for the Trinity River Mainstem Fishery Restoration EIS and its effects on Southern Oregon/Northern California Coast coho salmon, Sacramento River winter-run chinook salmon, central valley spring-run chinook salmon, and central valley steelhead addressing foreseeable TRRP activities was written in response to a biological assessment that reflected the findings in the Trinity River Mainstem Fishery FEIS/EIR. The opinion was written because Trinity River coho salmon are federally listed as threatened and because the action may affect, and is likely to adversely affect, coho salmon. The opinion describes adverse effects that could result from the channel rehabilitation measures that are included in the preferred alternative described in the EIS. Such adverse effects were determined to be minor and short-lived and less than significant.

During development of the Master EIR, Reclamation, in coordination with BLM, conducted informal consultation with the USFWS concerning effects to the ESA-listed northern spotted owl. Based on the consultation, known lack of suitable habitat and spotted owl nests in the area, and Trinity River bird distribution data, Reclamation determined that there would be no effect on the northern spotted owl. The Bucktail project area was specifically evaluated for northern spotted owl habitat and was considered unsuitable. The project area does not encompass or occur within designated critical habitat for the northern spotted owl; therefore, there would be no effect to northern spotted owl or its designated critical habitat. Reclamation and the BLM determined that a biological assessment was not required since the Proposed Project would have no effect on the northern spotted owl or its critical habitat.

No federally or state-listed threatened or endangered plant species occur within or adjacent to the site boundaries defined for the Project.

- 13) Implementation of the project does not threaten a violation of federal, state, or local law or requirements imposed for the protection of the environment. Implementation of the Proposed Project does not threaten violation of any laws. Its implementation meets requirements under the ROD, the ESA, the Clean Water Act, the Federal Land Protection and Management Act (FLPMA), NEPA, the Clean Air Act, the Wild and Scenic Rivers Act, the National Historic Preservation Act, and BLM's RMP for the Redding Field Office.

The project described in this finding is fully consistent with BLM's RMP, the FLPMA, and CEQA. The following permits are required to authorize the project:

- Section 404, Clean Water Act, Nationwide Permit 27 (San Francisco District, Corps);
- Section 401, Clean Water Act Water Quality Certification (Regional Water Quality Control Board, North Coast Region);
- Section 10, Endangered Species Act, Incidental Take Permit (NMFS);
- Encroachment Permits (Trinity County or California Department of Transportation); and
- Floodplain Development Permit (Trinity County).

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

The Proposed Project to implement the rehabilitation activities, including those specifically under the jurisdiction of BLM, is consistent with the intent of the RMP with respect to resource management conditions. The Proposed Project is also consistent with the direction provided in the BLM's Trinity River Recreation Area Management Plan.

IMPLEMENTATION DATE

The Proposed Project is expected to be constructed beginning in summer 2016, pending environmental clearances. Heavy civil construction will end in-river in September and will be completed by December. Revegetation will take place during construction as possible and in fall and winter months following construction.

CONTACT

For additional information concerning the Proposed Project, contact Brandt Gutermuth, Project Manager, Trinity River Restoration Program, P.O. Box 1300, and 1313 Main Street, Weaverville California, 96093. Phone: (530) 623-1800.