

Lewiston–Dark Gulch Rehabilitation Project: Trinity River Mile 105.4–111.7

FONSI—Environmental Assessment/ Final Environmental Impact Report

February 2008



*Project Applicant and Federal
Co-Lead Agency for NEPA*

Trinity River Restoration Program
U.S. Department of the Interior
Bureau of Reclamation



Federal Co-Lead Agency for NEPA

U.S. Department of Agriculture
Forest Service



Federal Cooperating Agency for NEPA

U.S. Department of Interior
Bureau of Land Management



California Lead Agency for CEQA

Trinity County
Resource Conservation District



Applicant's Consultant



LEWISTON–DARK GULCH REHABILITATION PROJECT: TRINITY RIVER MILE 105.4 TO 111.7

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**State Clearinghouse
SCH # 2007042161**

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FEB 05 2008

Subject: Environmental Assessment/Final Environmental Impact Report for the Lewiston-Dark Gulch Rehabilitation Project: Trinity River Mile 105.4-111.7

Dear Interested Parties:

Under guidance of the Trinity River Restoration Program (TRRP), the Bureau of Reclamation has acted as the federal lead agency in preparation of the following Finding of No Significant Impact (FONSI) and Environmental Assessment (EA). The Trinity County Resource Conservation District (TCRCD), in their role as the state lead agency, has prepared the Final Environmental Impact Report (Final EIR). This joint environmental document for the proposed Lewiston-Dark Gulch Rehabilitation Project: Trinity River Mile 105.4-111.7 (FONSI-EA/Final EIR), meets California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements and fulfills evaluation needs stipulated under Executive Orders 11988 (floodplain management), 11990 (protection of wetlands), 13112 (invasive species), and 12898 (environmental justice).

This mechanical channel rehabilitation project is one of those originally identified in the Interior Secretary's December 19, 2000 Record of Decision (ROD) as a necessary step towards restoration of the Trinity River's anadromous fishery. The purpose of the proposed Lewiston-Dark Gulch Rehabilitation Project (Project) is to provide increased juvenile salmonid rearing habitat on the mainstem Trinity River. Construction will create additional fish and wildlife habitat that is expected to increase over time as river processes are restored. Work to be performed includes re-contouring bank and floodplain features, as well as conducting in-river work such as gravel placement and grade control removal. Gravel additions to the river are expected to start in May 2008 and to be performed annually thereafter. Construction in-river and on the channel itself would begin in summer 2008. The TCRCD is working as a partner agency under a grant from the California Department of Fish and Game's Fisheries Restoration Grant Program that provides financial support for Project implementation.

The attached FONSI-EA/Final EIR includes the EA/Draft EIR (incorporated by reference), a list of persons and agencies commenting on the EA/Draft EIR, written comments, Lead Agency responses to comments, revised Draft EIR text, and a Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project. Prior to approving the Project, the TCRCD will certify that the Final EIR is in compliance with CEQA. Then the document will be used to

support necessary permit applications as well as to identify and adopt appropriate monitoring and mitigation plans.

Electronic copies of the EA/Draft EIR, and the FONSI-EA/Final EIR are available on the TRRP's website at: [http://www.trrp.net/RestorationProgram/Lewiston-Dark Gulch.htm](http://www.trrp.net/RestorationProgram/Lewiston-Dark%20Gulch.htm), on the TCRCD's website at: www.tcrd.net, or on Reclamation's Mid-Pacific Region website at: http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2094. The documents may also be reviewed at the TRRP Office at 1313 South Main Street (next to Tops grocery); the Trinity County Resource Conservation District, #1 Horseshoe Lane; or the Trinity County Library, 211 North Main Street; all in Weaverville, California.

If you have any questions concerning this document or the Project, please contact Mr. Alex Cousins of the TCRCD at 530-623-6004 or email acousins@tcrd.net; or Mr. Brandt Gutermuth, TRRP, at 530-623-1806 or bgutermuth@mp.usbr.gov.

Sincerely,



Patrick Frost
District Manager
Trinity County Resource Conservation District
CEQA - Lead Agency



Douglas P. Schleusner
Executive Director
Trinity River Restoration Program
NEPA - Lead Agency

Attachment – FONSI-EA/Final EIR

LEWISTON-DARK GULCH REHABILITATION SITE: TRINITY RIVER MILE 105.4-111.7
FONSI EA/FINAL EIR

FONSI

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

WEAVERVILLE, CALIFORNIA

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969 (NEPA), 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 (TRRP) office of the U.S. Bureau of Reclamation (Reclamation), in conjunction with the Shasta Trinity National Forest (STNF), have found that the Proposed Action, supported by the Lewiston-Dark Gulch Rehabilitation Project Environmental Assessment/Final Environmental Impact Report (EA/Final EIR), will result in no significant impacts on the human environment considering the context and intensity of impacts. Preparation of an Environmental Impact Statement to further analyze possible impacts is not required pursuant to Section 102(2) of the National Environmental Policy Act of 1969 and 40 CFR 1508.27.

Reference: Lewiston-Dark Gulch Rehabilitation Project: Trinity River Mile 105.4 to 111.7 EA

Environmental review by:



F. Brandt Gutermuth

2/26/08

Date

Environmental Specialist, Trinity River Restoration Program

Approved by:



Douglas P. Schleusner

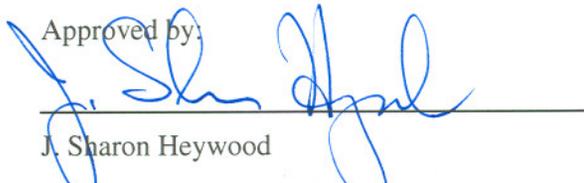
2/26/08

Date

Executive Director, Trinity River Restoration Program

FONSI No. TR-EA0108

Approved by:



J. Sharon Heywood
Forest Supervisor, Shasta-Trinity National Forest

20 Feb 08

Date

FINDING OF NO SIGNIFICANT IMPACT

Lewiston–Dark Gulch Rehabilitation Project: Trinity River Mile 105.4 to 111.7

CO-LEAD AGENCIES

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BACKGROUND AND NEED

Completion of the Trinity and Lewiston Dams in 1964 blocked migratory fish access to habitat upstream of Lewiston Dam, eliminated coarse sediment transport from over 700 square miles of the upper watershed, and restricted anadromous fish populations to the remaining habitat below Lewiston Dam. Trans-basin diversions from Lewiston Reservoir to the Sacramento River altered the hydrologic regime of the Trinity River and resulted in riparian encroachment and fossilization of point bars and some riparian berms¹ from Lewiston downstream to the North Fork Trinity River. Encroachment of riparian vegetation on the active channel promoted the deposition of fine-textured sediments, resulting in the formation of linear berms that further confined and simplified the channel, reduced the diversity of riparian age classes and riparian vegetation species, impaired floodplain access, and adversely affected fish habitat.

In 1994, the U.S. Fish and Wildlife Service (USFWS) as the NEPA lead agency began the NEPA process for the Trinity River Mainstem Fishery Restoration Program. The Final Environmental Impact Statement for the Trinity River Mainstem Fishery Restoration Program (FEIS), published in 2000, functions as project-level guidance for policy decisions associated with managing Trinity River flows and as a programmatic NEPA document providing first-tier support of other related actions.

¹ The condition is not as extensive as early studies (e.g., the Trinity River Flow Evaluation Final Report 1999) indicated.

The 2000 Record of Decision (ROD) for the Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement/Environmental Impact Report (FEIS/EIR) directed Department of the Interior (DOI) agencies to implement the Flow Evaluation Alternative as the preferred alternative identified in the ROD for the FEIS/EIR to restore the Trinity River's anadromous fishery. The ROD directed the U.S. Bureau of Reclamation (Reclamation), through the Trinity River Restoration Program (TRRP), 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 (AEAM) Program. The TRRP provides expert support to the Trinity Management Council (TMC) related to both scientific evaluation of restoration progress and management implementation. The Shasta-Trinity National Forest (STNF) is an active participant in the TMC, due in part to its role as the manager of national forest system lands, including the Trinity Unit of the Whiskeytown-Shasta-Trinity National Recreation Area (NRA).

The Lewiston-Dark Gulch Rehabilitation Project: Trinity River Mile 105.4 to 111.7 (project) is part of the mechanical channel rehabilitation component of the ROD and is designed to increase shallow, low-velocity edge habitat for rearing salmonid fry over a wide range of flows. This project would selectively remove vegetation and recontour the slopes adjacent to the water's edge; re-establish functional floodplains; provide revegetation and conditions for the reestablishment and survival of native riparian vegetation; and recreate alternate point bars and complex fish habitat similar in form to those that existed prior to the construction of Lewiston Dam, although smaller in scale.

The project would be the fourth in a sequence of channel rehabilitation projects (Hocker Flat constructed in 2005, Canyon Creek constructed in 2006, and Indian Creek constructed in 2007) to implement the ROD's mechanical channel rehabilitation component and rework the Trinity River floodplain based on pre-dam channel morphology characteristics. The project would expand the TRRP's rehabilitation activities and enhance the STNF gravel supplementation efforts implemented previously to include activities in the Trinity River starting approximately one-half mile downstream of Lewiston Dam. Collectively, these projects are intended to enhance river processes in order to increase channel complexity and fisheries habitat throughout the mainstem Trinity River downstream of Lewiston Dam. The project would contribute to the restoration of aquatic habitat in the mainstem Trinity River through the development of properly functioning channel conditions. Rehabilitation treatments of the type described in the EA, combined with ROD flow releases, are expected to contribute to the restoration of the Trinity River mainstem fishery. The EA documents the analysis of three alternatives to meet this need.

The EA/Final EIR for the project considered three alternatives: the No-Action Alternative, Proposed Action, and Alternative 1. After inclusion of all mitigation measures, no significant impacts were determined for the Proposed Action pursuant to NEPA or the California Environmental Quality Act (CEQA).

Details concerning these alternatives and other alternatives considered but not carried forward for evaluation are included in the EA/Draft EIR (Volume II, Chapter 2). The Proposed Action maximizes

environmental benefits with less-than-significant environmental impacts and is preferred for implementation.

The Proposed Action is described below.

Programmatically, the TRRP's approach to channel rehabilitation efforts is to selectively remove fossilized riparian berms that developed in some locations as a result of the loss of scouring associated with peak flows after the Trinity River Division of the Central Valley Project was completed. At the Lewiston–Dark Gulch sites, berm removal is not among the project activities because the sites are upstream of most mainstem tributaries that supply the sediment that has been captured in the berms. The Lewiston–Dark Gulch project activities focus on physical alteration of other alluvial features (e.g., floodplains, mid-channel bars and side channels) and removal of riparian vegetation at strategic locations to create fish habitat and promote the alluvial processes necessary for the restoration and maintenance of alternate bar riverine habitats.

As described in the FEIS, the rehabilitation sites exhibit a variety of conditions that require site-specific designs. The FEIS also recognized that, in many instances, the entire site would not require treatment to facilitate rehabilitation. This is because strategically treating certain areas is expected to initiate development of a dynamic alluvial channel that will promote the formation and maintenance of an alternate bar channel in both treated and untreated areas.

The TRRP identified 21 discrete activity areas within the boundary of the Lewiston site and 19 activity areas within the Dark Gulch site. Access to these areas requires existing and new roads and, in addition, low-flow crossings of the Trinity River at the Dark Gulch site. The type, extent, and level of activity in each area may be different, depending on the alternative. These areas were defined by the interdisciplinary design team to include riverine areas, upland areas, and construction support areas. For each site, riverine areas are labeled with an R preceding the site number (e.g., R-1, R-2); upland areas are labeled with a U preceding the site number (e.g., U-1, U-2); in-channel work areas (e.g., coarse sediment placement or grade control removal) are identified with an IC; and staging/use areas are characterized with a C. Low-flow channel crossings are labeled with an X, and roads are identified as existing or new. In the Lewiston area, five original sites were defined as follows: 1) Sven Olbertson (SO), 2) Deadwood Creek (DC), 3) Cable Way (CW), 4) Hoadley Gulch (HG), and 5) California Department of Fish and Game (FG). The locations of, and additional information on, these activity areas are provided in Chapter 2 of the EA/Draft EIR.

As the co-lead agency for the EA, the STNF has the legal responsibility to ensure that activities authorized within the NRA are consistent with the STNF Land and Resource Management Plan (LRMP) and other regulatory requirements. For purposes of this FONSI, the STNF decision is focused on 12 discrete activity areas within the boundary of the NRA. These activity areas are: R-1 SO, R-2 DC, IC-1 SO, IC-2 SO, IC-3 SO, IC-4 DC, U-1 SO, U-2 DC, C-1 SO, C-2 SO, C-3 SO and C-4 DC. Additionally, several road segments (non-system roads) will be required to access the various activity areas.

The activities included in the Proposed Action emphasize modifying existing grade control features; reconnecting the river’s floodplain with the river at intermediate flows (between 450 and 6,000 cfs); and enhancing the bed and banks of the Trinity River to promote well-distributed aquatic habitat over a range of intermediate flows. Removal of material at the IC areas will provide opportunities to enhance the development of alternate point bars and supplement coarse sediment at a number of locations. Collectively, these activities are intended to provide functional aquatic habitat under a range of flow conditions.

The TRRP has developed a number of programmatic objectives for channel rehabilitation projects. These objectives are described in Chapter 2. The programmatic objectives were used to identify a number of specific activities that could be applied at either 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. Ultimately, the goal of these channel rehabilitation efforts is to provide suitable rearing habitat for anadromous salmonids and to reestablish geomorphic processes associated with a healthy alluvial river.

The Proposed Action includes 15 rehabilitation activities. Each rehabilitation activity is identified with an alpha code for reference throughout the EA/Draft EIR. The rehabilitation activities are shown in Table 1-1.

Table 1-1. Lewiston–Dark Gulch Rehabilitation Activities

Label	Activity Type
A	Recontouring and vegetation removal
B	Constructed floodplain (450 cfs)
C	Constructed floodplain (1,000 – 4,500 cfs)
D	Constructed floodplain (6,000 cfs)
E	Low-flow side channel (300 cfs)
F	Medium-flow side channel (1000 cfs)
G	Alcove (450 cfs, 6,000 cfs)
H	Grade control removal
I	Coarse sediment addition
J	Placement of excavated materials
K	Staging/use areas (includes gravel processing)
L	Roads, existing
M	Roads, new
N	Crossings (Trinity River)
O	Revegetation

Activities A–I would all occur within riverine areas included for rehabilitation activities as part of the Proposed Action. However, the type and degree of activity would differ slightly for each area along the Lewiston and Dark Gulch reaches. Activities J and K would be associated with the transfer, placement, and stabilization of material excavated from the riverine areas. The location and extent of material stockpiled, transported, and placed would differ for each area. Activities, including road creation, water crossings, and processing/transportation of alluvial materials, are designed to minimize impacts to the resources described in Chapter 3 of the EA/Draft EIR, as revised in the EA/Final EIR. The inclusion of in-channel activities are intended to enhance the ability of the river to readjust to changes in the flow and sediment regime provided by the ROD. The Riparian Revegetation Management Plan prepared in cooperation with the California Department of Fish and Game (CDFG) will be implemented to ensure that riparian habitat (e.g., riparian vegetation) meets the TRRP objective of restoring the form and function of an alluvial river over time, while also meeting the STNF Standards and Guidelines for Riparian Reserve and the State of California’s requirement of “no net-loss of riparian habitat” as interpreted by CDFG and the Regional Water Quality Control Board—North Coast Region (Regional Water Board). The project includes provisions to ensure 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 rehabilitation site activities is provided in Chapter 2 of the EA/Draft EIR.

The Proposed Action meets the requirements of the Trinity River ROD, the Endangered Species Act (ESA), the Clean Water Act, NEPA, the Clean Air Act, the Wild and Scenic Rivers Act (WSRA), the National Historic Preservation Act, the LRMP for the STNF, the Resource Management Plan for the Redding Field Office of the Bureau of Land Management, and the Northwest Forest Plan and Aquatic Conservation Strategy.

FINDINGS

The No-Action Alternative, Proposed Action, and Alternative 1 were evaluated in the EA with respect to their impacts in the following issue areas: land use; geomorphic environment; water resources; water quality; fishery resources; vegetation, wildlife, and wetlands; recreation; socioeconomics; tribal trust; cultural resources; air quality; environmental justice; aesthetics; hazardous waste and materials; noise; public services and utilities/energy; and transportation/traffic circulation. Based on the following summary of the implementation effects of the Proposed Action (as discussed fully in the EA), implementation of the Proposed Action would result in no significant impacts to the quality of the human environment.

Land Use

The project is located within the Lewiston Community Planning Area. Land use impacts resulting from the Proposed Action would be consistent with Trinity County’s development standards for lands within the Lewiston community and lands lying within the Flood Hazard Overlay zoning district. Project construction impacts from access, excavation/earthwork along the river’s edge, placement of materials at

higher elevations, and processing and transport of alluvial materials will have less-than-significant short-term impacts.

Geology, Fluvial Geomorphology, and Soils

Implementation of the Proposed Action is consistent with the 10 Trinity River Flow Evaluation Study healthy river attributes that provide a basis for the TRRP channel rehabilitation program in support of fish and wildlife populations. Construction activities and disturbance would increase the potential for short-term wind and water erosion; however, the exclusion of in-channel excavation activities, combined with the implementation of sediment control measures, will ensure that construction impacts to the river are less than significant.

Water Resources

Implementation of the Proposed Action would not increase the elevation of the Trinity River 100-year flood through the project reach as a result of project activities, including excavation on the floodplain. The project is expected to have minimal, if any, effects on groundwater elevations or groundwater quality. These relatively small scale impacts to water resources within the project area would be less than significant.

Water Quality

Implementation of the Proposed Action, including construction activities in or 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 will be staged to minimize potential water quality effects, and appropriate mitigation measures will be implemented to reduce water quality impacts to less-than-significant levels.

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 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 Trinity River Division effects on SONCC ESU coho salmon. During the NEPA process, the TRRP requested clarification from NMFS with regards to in-channel activities described in the Proposed Action. Subsequently, NMFS provided the TRRP with documentation necessary to ensure that the 2000 Biological Opinion did in fact consider these types of activities. Reclamation will continue to coordinate with NMFS as it implements the Terms and Conditions of the 2000 Biological Opinion.

Any temporary construction impacts on fish-rearing habitat are expected to be offset by permanent beneficial changes to physical rearing habitat associated with implementation of the project. Improved river access to the floodplain during elevated springtime flows is expected to increase the availability of the slow, shallow edge habitat preferred by juvenile salmonids. Collective improvements in fluvial channel dynamics contributed by the Proposed Action in conjunction with future channel rehabilitation projects throughout the upper Trinity River below Lewiston Dam are ultimately expected to improve rearing habitat diversity for all anadromous salmonids. Because of the project's limited construction near the water, inclusion of mitigation measures to protect fishes, and generally localized effects, no significant effects would occur to fisheries resources.

Vegetation, Wildlife, and Wetlands

Construction activities associated with the Proposed Action would result in a temporary loss of riparian vegetation, but the value provided by this vegetation would be offset by restoring floodplain function and riverine values. Revegetation of alluvial features (i.e., floodplains) would increase the structural and species diversity of vegetation and would speed reestablishment of native riparian vegetation. Long-term changes in river inundation periods are expected to increase both seasonal and perennial riparian habitats.

Reclamation conducted informal consultation with the USFWS concerning effects to the ESA-listed northern spotted owl. Based on the consultation, the known lack of suitable habitat and spotted owl nests in the area (nest data provided by the STNF), and Trinity River bird distribution data provided by Redwood Sciences Laboratory, Reclamation determined that a biological assessment was not required because the proposed project would have no effect on the northern spotted owl or its critical habitat.

The Proposed Action is limited to activity areas within the site boundaries. Specific design and contract criteria are included in the project description to ensure that project activities occur in a manner that addresses potential impacts to special-status species, including avian and amphibian species. These activities and prescriptive measures, combined with rapid riparian revegetation rates, ensure that there will be no significant project impacts to vegetation, wildlife, and wetlands.

Recreation

The Trinity River was federally designated as a National Wild and Scenic River in 1981. Construction and implementation of the Proposed Action would not permanently affect the scenic or recreational values of the Trinity River for which it was designated. Implementation of the Proposed Action would result in a long-term benefit to the form and function of the Trinity River, thereby enhancing the Outstandingly Remarkable Values for which it was designated as a Wild and Scenic River, including its anadromous fishery. Because impacts on fishing would be limited and initial project benefits would be localized, the project would result in no significant impacts to recreation.

Socioeconomics, Population, and Housing

The Proposed Action could directly generate short-term income growth through the payment of wages and salaries, but would result in little increased long-term economic activity. A short-term increase in

demand for housing in the general vicinity (i.e., Weaverville) could also occur as construction workers seek lodging during the construction period; however, because of the limited project size and duration, no significant socioeconomic effects would result from implementation.

Tribal Trust

The need to restore and maintain the natural production of anadromous fish in the mainstem Trinity River originates partly from the federal government's trust responsibility to protect fishing rights for ceremonial, subsistence, and commercial purposes of the region's Indian tribes. Construction-related impacts to Tribal Trust Assets resulting from the Proposed Action are expected to be short-term and to be outweighed by long-term increases in numbers of anadromous fishes and rejuvenation of other trust assets, which are an expected beneficial by-product of the improved riverine health that would result from project implementation. However, project improvements to riverine health and trust assets would not be significant because of the localized nature of the project.

Cultural Resources

Cultural resources identified within the Area of Potential Effect (APE) are associated with the dredge tailings at the Dark Gulch site. The Proposed Action was revised during the planning stages to avoid potentially significant features so that these might remain eligible for listing on the National Register of Historic Places (NRPH) by Reclamation. Subsequent to issuance of the EA/Draft EIR, Reclamation archaeologists determined that none of the identified cultural resources are eligible for listing on the NRPH. If cultural materials or human remains are encountered during work for the project, the impacts would be negligible because construction would be halted and the proper agency contacted. Because of these pre-project cultural resource surveys, subsequent design changes to avoid potentially significant resources, and mitigation measures to cover potential finds during construction, project impacts to cultural resources during implementation of the Proposed Action would not be significant.

Air Quality

Construction associated with the Proposed Action requires the use of equipment that would temporarily contribute to air pollution in the Trinity River basin in the form of ozone precursors and particulate matter (PM10). Reclamation will include provisions in construction contract documents to ensure that there are no significant construction-related impacts to air quality from the project.

Environmental Justice

There is no evidence to suggest that the Proposed Action would cause a disproportionately high adverse human health or environmental effect on minority and low-income populations. No significant project effects on environmental justice would occur as a result of project implementation.

Aesthetics

Implementation of the Proposed Action would complement the visual resources of the project area by restoring the function and form typical of an alluvial river. Design of the Proposed Action incorporates the diversity of the landscape and vegetation types in the project vicinity into the character of the rehabilitated riverine and upland areas. Excavated material and disturbed dredger tailings piles would be placed in a manner that blends into the contours of the remaining tailings piles. Retention of existing topographic features would lessen the degree of visual impacts and improve the aesthetic quality of the affected reach of the Trinity River. Because changes to the landscape will not be noticeable in the long term, the project will not result in significant effects to aesthetics.

Hazardous Materials

Implementation of the Proposed Action would potentially release hazardous materials through accidental spills that could pose a public hazard. However, construction specifications will ensure that the contractor follows Best Management Practices to prevent the release of hazardous materials into the environment (e.g., oils, gasoline). These practices will ensure that no significant effects from hazardous material would occur during project implementation.

Noise

Construction activities would be scheduled between 7:00 a.m. and 7:00 p.m. Monday through Saturday and gravel placement would utilize local topography to dampen/deflect/decrease the noise leaving the site. During working hours, the contractor would operate all equipment to minimize noise impacts to nearby sensitive receptors (residences, etc.) so that no significant project impacts from noise would occur.

Public Services and Utilities/Energy

Construction work and temporary road closures would be staged in a manner to allow for access by emergency service providers. Therefore, no significant effects to public services would result from project implementation.

Transportation/Traffic Circulation

Implementation of the Proposed Action would minimize the use of heavy construction equipment to transport material to and from the project work site. Equipment would be staged on site during construction. Since local roads are built to service occasional heavy equipment traffic, no measurable road wear would result from ingress or egress of construction equipment or during hauling of restoration materials (e.g., gravel) to the sites. For safety reasons, the contractor would implement a traffic control plan to protect the public during construction. Implementation of these planning measures will ensure that no significant effects to traffic circulation would result from project implementation.

SUMMARY

Implementation of the Proposed Action, including mitigation measures, would contribute to the long-term environmental quality and sustainability of the Trinity River ecosystem with no significant impacts to the environment.

FINDING OF NO SIGNIFICANT IMPACT IN ACCORDANCE WITH 40 CFR 1508.27

After considering the environmental effects described in the EA, it has been determined that the Proposed Action will not have a significant effect on the quality of the human environment considering the context and intensity of impacts. Furthermore, it is determined that the Proposed Action is not a major federal action, individually or cumulatively, and will not significantly affect the quality of the environment. Therefore, an environmental impact statement is not needed. This determination is based on the EA/Draft EIR and the context and intensity of the following factors (40 CFR 1508.27):

- 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 Lewiston and Dark Gulch rehabilitation sites along a 6.3-mile reach of the Trinity River is expected to provide localized improvements in aquatic and riparian habitats that currently exist at the sites. The sites will incrementally 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 channel rehabilitation project will not result in any significant impacts.
- 2) **Public health and safety are not significantly affected by the Proposed Action.** Due to the limited duration of the project and implementation of public safeguards, public safety will not be at risk. Standard STNF and Reclamation practices for notifying the public of heavy equipment activities during project implementation will be implemented.
- 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.** The entire mainstem Trinity River, from the Lewiston dam to Wetchipee, was designated as a National Wild and Scenic River by the Secretary of the Interior in 1981, primarily because of the river's anadromous fishery. Under the Wild and Scenic Rivers Act, a federal agency may not assist in construction of a water resources project that would have a direct and adverse impact on the free-flowing, scenic, and natural values of a wild or scenic river. The Proposed Action will result in a minor amount of disturbance to river attributes while enhancing the outstandingly remarkable value (anadromous fishery) for which the river was designated in the Wild and Scenic system. Furthermore, this 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 Action, one project within the channel rehabilitation component of 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, project effects on the quality of the human environment are not expected to be highly controversial.** These rehabilitation projects have received general support by Trinity County and its citizenry. Controversy regarding certain activities at certain locations was resolved through the planning process; therefore, these effects are not determined to be highly controversial. Biological, social, and economic issues have been addressed in the EA so that this project should avoid major scientific controversy over environmental effects.
- 5) **There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks.** The effects of this project have been clearly evaluated within the EA. Furthermore, similar actions have been completed in the past with no unpredicted developments.
- 6) **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 Mainstem Fishery Restoration EIS, the ROD, and the Trinity River Flow Evaluation Report all evaluated and recommended channel rehabilitation projects on the Trinity River below Lewiston Dam. The EIS constitutes the basis for tiering in this instance. 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 this project and other recently implemented projects.
- 7) **There are no known significant cumulative effects from this project and other projects implemented or planned on areas separated from the affected area of this project beyond those assessed.** While some short-term adverse direct and indirect effects may result from the project, these effects have been analyzed in the EA, 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. When considered in the context of cumulative watershed effects, the Proposed Action is intended to improve the alluvial processes and function of the mainstem Trinity River, at the same time improving 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 Action, but not to an extent that would cause significant impacts to downstream water quality.
- 8) **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.** Interdisciplinary teams and individual resource experts have visited the sites and provided recommendations to modify the location of one of the upland disposal areas to avoid a potentially significant cultural resource feature associated with the dredge tailings within the Dark Gulch site. Based on these modifications and Reclamation's determination that the sites were not eligible for listing on the NRHP, in conjunction with measures described in the EA, the decision maker has determined that there will be no destruction of scientific, cultural, or historic resources.

- 9) **The Proposed Action 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 (ESA).** A biological opinion addressing foreseeable Trinity River Restoration Program activities (National Marine Fisheries Service 2000) was written in response to a biological assessment that reflected the findings in the Trinity River Mainstem Fishery Restoration EIS. The opinion was written because Trinity River coho salmon are federally listed as threatened. 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, dwarfed by the long-term beneficial outcome from implementing the Proposed Action. The displacement of juvenile coho salmon "...is not expected to result in lethal take of these fish." (NMFS 2000).

The bald eagle has been removed from the Endangered Species list, and consultation is no longer required for this species. However, the Proposed Action may affect but would not likely adversely affect the bald eagle because eagles are not known nor expected to nest within or near the project area. There is a potential to temporarily displace foraging eagles for short periods of time (at discrete activity areas) during a time of relatively low eagle foraging activity in the area. Other reaches of the Trinity River would remain undisturbed and available for foraging eagles. Fish, and thus foraging eagles, are expected to start reusing the area immediately following project implementation.

Informal consultation with the USFWS concerning effects to the ESA-listed northern spotted owl was conducted by Reclamation. Based on this informal consultation, known lack of suitable habitat and spotted owl nests in the area (nest data provided by the USFS), and Trinity River bird distribution data provided by the Redwood Sciences Laboratory, Reclamation 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 Proposed Action.

- 10) **Implementation of the Proposed Action does not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment.** Implementation of the Proposed Action does not threaten violation of any laws. Its implementation meets requirements under the ROD, the Endangered Species Act, the Clean Water Act, the National Forest Management Act (NFMA), the Northwest Forest Plan and Aquatic Conservation Strategy, NEPA, the Clean Air Act, the Wild and Scenic Rivers Act, the National Historic Preservation Act, the STNF LRMP, and BLM's Resource Management Plan for the Redding Field Office.

The Proposed Action described in this finding is fully consistent with the STNF LRMP, NFMA, and the California Environmental Quality Act. The following permits are required to authorize the Proposed Action:

- Section 404, Clean Water Act, Nationwide Permit 27 (San Francisco District, U.S. Army Corps of Engineers),
- Section 401, Clean Water Act Water Quality Certification (North Coast Regional Water Quality Control Board),
- Section 1600 Streambed Alteration Agreement (California Department of Fish and Game).

Findings Required by Other Laws and Regulations

This decision to implement the rehabilitation activities, including those specifically under the jurisdiction of the STNF, is consistent with the intent of the LRMP with respect to fishery resources (LRMP page 4-18, page 4-114). The Proposed Action is also consistent with the direction provided in the STNF's NRA Management Guide, page IV-3.

Implementation Date

The Proposed Action will be implemented on or after March 1, 2008.

Administrative Review or Appeal Opportunities

For activities specific to lands managed by the STNF, this decision is not subject to appeal pursuant to 36 CFR 215.12. "The following decisions and actions are not subject to appeal under this part: (e) Projects or activities for which notice of the proposed action and opportunity to comment is published and (1) No comments expressing concerns or only supportive comments are received during the comment period for a proposed action analyzed and documented in an EA."

Contact

For additional information concerning the overall decision to implement the Proposed Action, contact Brandt Gutermuth, Project Manager, Trinity River Restoration Program, P.O. Box 1300, 1313 Main Street, Weaverville California, 96093. For information specific to the decision to implement activities on lands administered by the STNF, contact Todd Johnson, Shasta-Trinity National Forest, Shasta Lake Administrative Unit, 14225 Holiday Road, Redding, California 96003.

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List of Acronyms and Abbreviations

°C	degrees Celsius
°F	degrees Fahrenheit
5C Program	Five Counties Salmonid Conservation Program
ACHP	Advisory Council on Historic Preservation
ADT	average daily traffic
AEAM	Adaptive Environmental Assessment and Management
af	acre-feet
afa	acre feet annually
a.m.	morning
APE	Area of Potential Effect
BA	Biological Assessment
Basin Plan	Water Quality Control Plan for the North Coast Region, as amended June 28, 2001
BA/EFHA	Biological Assessment/Essential Fish Habitat Assessment
BEA	U.S. Bureau of Economic Analysis
BFE	base flood elevation
BIA	U.S. Bureau of Indian Affairs
BLM	U.S. Bureau of Land Management
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Food and Agriculture
CDFA	California Department of Fish and Game
CEQ	Center for Economic Development
Census	U.S. Bureau of the Census
CEQ	President's Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHP	California Highway Patrol

Acronyms and Abbreviations

CLOMR	conditional letter of map revision
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
Commission	California State Fish and Game Commission
County	Trinity County
CRA	California Resources Agency
CRHR	California Register of Historic Resources
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
CWA	Clean Water Act
d ₅₀	mean diameter of channel bed material
dB	logarithmic decibel
dba	“A-weighted” decibel scale
DEIS	draft environmental statement
DOI	U.S. Department of the Interior
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EA	Environmental Assessment
EA/DEIR	Environmental Assessment/Draft Environmental Impact Report
EDD	California Employment Development Department
EFH	essential fish habitat
EFHA	Essential Fish Habitat Assessment
e.g.	for example
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
et al.	and others
et seq.	the following ones
FDA	Food and Drug Administration
FEIS/EIR	Final Environmental Impact Statement/Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHO	Flood Hazard Overlay
FIRM	Flood Insurance Rate Maps
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
FR	Federal Register
FY	fiscal year

GIS	geographic information system
H ₂ S	hydrogen sulfide
HEC-RAS	Hydraulic Engineering Center River Analysis System
Hg	mercury
HVT	Hoopa Valley Tribe
i.e.	that is
ISMS	Interagency Species Management System
JCVFD	Junction City Volunteer Fire Department
KFMC	Klamath Fishery Management Council
kg	kilogram
KMP	Klamath Mountains Province
KOP	key observation point
L _{dn}	day-night average sound level
L _{eq}	equivalent noise levels
LOMP	letter of map revision
LRMP	Land and Resource Management Plan
LWD	large woody debris
m	meter
MBTA	Migratory Bird Treaty Act
maf	million acre-feet
MCE	maximum credible earthquake
MCL	maximum contaminant level
MDBM	Mount Diablo Base and Meridian
mg	milligram
ml	milliliters
MMRP	Mitigation Monitoring and Reporting Program
MOU	memorandum of understanding
mph	miles per hour
MSA	Magnuson-Stevens Fishery Conservation and Management Act
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NAD	North American Datum
NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCRWQCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
NEPA	National Environmental Policy Act

Acronyms and Abbreviations

NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service (now NOAA Fisheries)
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO _x	nitrogen oxide gases
NO ₂	nitrogen dioxide
NOD	Notice of Determination
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSR	North State Resources, Inc.
NTU	nephelometric turbidity unit
O ₃	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	Office of Historic Preservation
ORVs	Outstandingly Remarkable Values
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
Pb	Lead
PFMC	Pacific Fishery Management Council
pga	peak ground acceleration
p.m.	night
PM _{2.5}	fine particulate matter (particulate matter less than 2.5 microns in aerodynamic diameter)
PM ₁₀	particulate matter less than 10 microns in aerodynamic diameter
ppb	parts per billion
ppm	parts per million
Q	flow rate (typically expressed in cfs)
Q ₅₀	50-year flood flow
Q ₁₀₀	base or 100-year flood flow
Q _{max}	maximum unobstructed flow
Q _{MCR}	maximum controlled-flow release
Q ₁₉₉₇	estimated flow during 1/1/97
ORV	outstandingly remarkable values
PA	Programmatic Agreement
PFMC	Pacific Fishery Management Council
PL	Public Law
RCRA	Resource Conservation and Recovery Act
Reclamation	U.S. Bureau of Reclamation
REIS	Regional Economic Information System
Regional Water Board	North Coast Regional Water Quality Control Board

RM	River Mile
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
RPM	reasonable and prudent measures
RSL	Redwood Science Laboratory
RVD	Recreational Visitor Day
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
Sec	section
SEIS	Supplemental Environmental Impact Statement
SHPO	California State Historic Preservation Officer
SLC	California State Lands Commission
SO ₂	sulfur dioxide
SMARA	Surface Mining and Reclamation Act
SONCC	Southern Oregon/Northern California Coasts
SR	State Route
SRA	shaded riverine aquatic
State Water Board	State Water Resources Control Board
STNF	Shasta-Trinity National Forest
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCLP	Toxicity Characteristic Leaching Procedure
TCRCD	Trinity County Resource Conservation District
TCSD	Trinity County Sheriff's Department
TCWMC	Trinity County Weed Management Cooperative
TMC	Trinity Management Council
TMDL	Total Maximum Daily Load
TRD	Trinity River Diversion
TRFE	Trinity River Flow Evaluation
TRFES	Trinity River Flow Evaluation Study
TRMFR	Trinity River Mainstem Fishery Restoration
TRRP	Trinity River Restoration Program
TRSSH	Trinity River Salmon and Steelhead Hatchery
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VAU	visual assessment unit
VRM	Visual Resource Management

Acronyms and Abbreviations

WCB	California Wildlife Conservation Board
WDRs	Waste Discharge Requirements
WMA	Weed Management Area
WQC	Water Quality Certification
WSE	water-surface elevation
WSRA	Wild and Scenic Rivers Act

CHAPTER 1

Introduction

Introduction

This Environmental Assessment/Final Environmental Impact Report (EA/Final EIR) includes comments and responses to comments on the Environmental Assessment/Draft Environmental Impact Report (EA/Draft EIR) for the Lewiston-Dark Gulch Rehabilitation Site: Trinity River Mile 105.4-111.7 (project). The Final EIR portion of this EA/Final EIR is an informational document that must be considered by the Trinity County Resource Conservation District (TCRCD) as lead agency under the California Environmental Quality Act (CEQA) before it approves or rejects the proposed project. Similarly, the U.S. Bureau of Reclamation (Reclamation) and the Shasta-Trinity National Forest (STNF) as lead agencies under NEPA must consider the Finding of No Significant Impact (FONSI)/EA portion of the joint document before signing the FONSI and making implementation decisions.

According to the CEQA Guidelines (Section 15132), a Final EIR shall consist of the following elements:

- a) the Draft EIR or a revision of that draft;
- b) comments and recommendations received on the draft EIR either verbatim or in summary;
- c) a list of persons, organizations, and public agencies commenting on the Draft EIR;
- d) the responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
- e) any other information added by the Lead Agency.

1.1 Organization of the Document

This EA/Final EIR incorporates by reference the EA/Draft EIR. It includes a list of the persons and agencies that commented on the EA/Draft EIR, their comments, the lead agencies' responses to the comments, revised EA/Draft EIR text, and a Mitigation Monitoring and Reporting Program (MMRP).

The EA/Final EIR is organized into the following chapters:

- **Chapter 1 – Introduction:** This chapter provides a summary of the project and a discussion of the environmental review process.
- **Chapter 2 – Comments and Responses to Comments on the EA/Draft EIR:** This chapter provides a list of commenters, copies of their comments (alpha-numerically coded for reference), and the lead agencies' responses to the comments.
- **Chapter 3 – Changes to the EA/Draft EIR:** This chapter includes all corrections and additions to the text of the EA/Draft EIR made as a result of public review of the EA/Draft EIR. It also includes minor editorial changes made by the lead agencies. Except for minor changes to mitigation measures, all changes to the text are indicated by revision marks. The mitigation measures presented in Appendix A, "Draft MMRP" of the EA/Draft EIR should be used as the basis for comparing the mitigation measures in the EA/Final EIR with those in the EA/Draft EIR. Tables and figures that have been changed are identified as "Revised."

- **Chapter 4** – Final Mitigation Monitoring and Reporting Program: This chapter discusses the final MMRP, as required by the CEQA Guidelines (Section 15097). Appendix 1 contains the MMRP and is intended to provide a stand-alone document that will be used to fulfill the requirements of the MMRP over the course of the project.

1.2 Project Overview

1.2.1 PROJECT HISTORY

The Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement/Environmental Impact Report (FEIS/EIR) identified mechanical channel rehabilitation activities along the Trinity River, including the proposed rehabilitation activities at the site described in the EA/Draft EIR. Programmatically, the intent of these activities is to selectively remove fossilized berms (berms that have been anchored by extensive woody vegetation root systems and consolidated sand deposits); revegetate and provide conditions for regrowth and sustenance of native riparian vegetation; and recreate alternate point bars and complex fish habitat similar in form to those that existed prior to the construction of the Trinity River Diversion, although on a reduced scale. The project is required for the restoration of Trinity River mainstem fisheries and is specifically designed for the benefit of anadromous fish and their habitat through development of a properly functioning and diverse floodplain and main river channel habitat.

The EA/Draft EIR addresses the environmental issues, alternatives, and impacts associated with modification of the bed and bank of the Trinity River in the general vicinity of Lewiston, California. Reclamation, the STNF, and the TCRCD prepared the EA/Draft EIR in cooperation with the U.S. Bureau of Land Management (BLM). This EA/Final EIR satisfies their legal and regulatory requirements pursuant to NEPA and CEQA. Reclamation, under guidance of the Trinity River Restoration Program (TRRP), will be responsible for the construction of the project and is functioning as the federal lead agency under NEPA. The STNF will act as a federal co-lead agency for activities occurring on lands it manages. All work there will be subject to authorization by the STNF as required by the STNF's Land and Resource Management Plan (LRMP). The TCRCD is serving as the lead agency under CEQA. The primary cooperating (NEPA) and responsible and trustee (CEQA) agencies are:

- National Marine Fisheries Service (NMFS);
- U.S. Army Corps of Engineers (Corps);
- U.S. Fish and Wildlife Service (USFWS);
- California Department of Fish and Game (CDFG);
- California Regional Water Quality Control Board, North Coast Region (Regional Water Board);
- California State Lands Commission (SLC);
- California Department of Transportation (Caltrans);
- Trinity County; and
- Hoopa Valley Tribe (HVT).

1.2.2 PURPOSE AND NEED FOR THE PROJECT

The purpose and need for the Proposed Action is to implement a suite of channel and riparian rehabilitation measures to provide increased rearing habitat for juvenile salmonids along a 6.3-mile reach of the mainstem Trinity River.

The need for the Proposed Action results from:

- requirements in the Record of Decision (ROD) for the FEIS (U.S. Department of the Interior 2000) to restore the Trinity River fishery through 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 (AEAM) Program; and
- the expectation that the AEAM Program will continue to incorporate the experience provided through the planning, design, and implementation of the project into future restoration and rehabilitation efforts proposed by the TRRP.

1.2.3 GOALS AND OBJECTIVES OF THE PROPOSED ACTION

The goals of the TRRP outlined in the Trinity River Restoration Program Strategic Plan (2003–2008) provide the framework for the specific goals and objectives used to develop the action alternatives analyzed in the EA/Draft EIR. The following goals and objectives apply to the project’s lead/responsible agencies for CEQA purposes, support the Proposed Action, and provided the structure for developing the alternatives:

- protect and/or enhance the outstandingly remarkable values (ORVs) associated with the designation of a Wild and Scenic River (federal and California);
- induce changes in channel geometry in response to constructing channel and floodplain features designed for the river’s current and future hydrologic regime;
- evaluate the evolution of channel planform features in response to designing and implementing the Proposed Action at a river segment (1-mile) scale;
- evaluate the biological response (aquatic, riparian, upland) to changes in the physical environment and incorporate this information into the AEAM Program;
- provide safe and reasonable access to the sites for project planning, implementation, and monitoring;
- develop partnerships with willing participants and encourage positive landowner interest and involvement;
- design the project to function with the river’s current hydrology (post-ROD) estimated at the sites;
- integrate known fluvial and ecological theories and relationships with the sites’ measured physical and biological attributes and evaluate the response over a definitive time frame;
- conduct in-channel activities in a manner that reduces construction-related impacts, maximizes the river’s ability to rehabilitate itself during high flows, and reduces the cost and complexity of implementation;
- attempt to preserve unique and valuable geomorphic and biological features wherever practicable (e.g., hydraulic controls, high-quality spawning or adult holding habitat, cottonwood galleries); and
- facilitate recovery of native fish and wildlife resources that are in decline or listed as threatened and endangered.

The following objectives apply to the responsible and trustee agencies for the Proposed Action, including the Regional Water Board, SLC, CDFG, and HVT:

- compliance with the California Water Code and Basin Plan to ensure the highest reasonable quality of waters of the state and allocation of those waters to achieve the optimum balance of beneficial uses;

- protection of the public trust assets of the Trinity River watershed;
- conservation, restoration, and management of fish, wildlife, native plant, and jurisdictional wetland resources; and
- compliance with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation and to protect the beneficial uses of water.

1.2.4 DESCRIPTION OF THE PROPOSED ACTION AND PROJECT ALTERNATIVES

The Proposed Action and the alternatives that were developed to implement activities along the Trinity River within the boundaries of the Lewiston–Dark Gulch sites are discussed in the EA/Draft EIR, along with the No-Action Alternative, which represents the baseline for NEPA purposes. The No-Action conditions and “existing conditions” (a CEQA concept) are essentially the same. The two alternatives discussed below are considered feasible, and contain measures that would avoid or substantially lessen potentially significant environmental effects of the project. Table 1.1 summarizes the impacts of the two action alternatives. Because of its length, this table is located at the end of this chapter.

Reclamation identified 21 discrete activity areas within the boundary of the Lewiston site and 19 activity areas within the Dark Gulch site. Access to these areas requires existing and new roads and, in addition, constructed crossings at the Dark Gulch site. The type, extent, and level of activity in each area may be different, depending on the alternative. These areas were defined by an interdisciplinary design team to include riverine areas, upland areas, and construction support areas. For each site, riverine areas are labeled with an R preceding the site number (e.g., R-1, R-2); upland areas are labeled with a U preceding the site number (e.g., U-1, U-2); in-channel work areas (e.g., gravel placement or grade control removal) are identified with an IC; and staging/use areas are identified with a C. Channel crossings are labeled with an X, and roads are identified as existing or new. The locations of, and additional information on, these activity areas are provided in Chapter 2 of the EA/Draft EIR (Volume II).

Proposed Action

The Proposed Action would include activities within the project boundaries on both sides of the Trinity River. These activities are expected to eventually result in the development of point bars and floodplain habitat that do not presently exist. The response time will be dynamic and subject to external forces once the activities have been completed. Creation of these features would be accomplished through the rescaling of the river channel and floodplain within the riverine rehabilitation areas, although there is an expectation that natural alluvial processes may immediately affect a larger area. Modification to the weir below the Trinity River Salmon and Steelhead Hatchery (TRSSH) combined with in-channel treatments (grade control removal and sediment supplementation) will assist in reestablishing the alluvial processes and interactions at these sites. This rehabilitation of river function could result in the rapid development of a larger and more complex expanse of river and floodplain habitats. The result of habitat expansion would be increased habitat suitability and availability for salmonids and other native fish and wildlife species. Figures 2-2a , 2-2b and 2-2c in the EA/Draft EIR (Volume II) illustrate the activities that would be implemented under the Proposed Action.

The Proposed Action includes a number of in-channel activities at both the Lewiston and Dark Gulch sites as well as several river crossings within the boundary of the Dark Gulch site. The in-channel activities would include the placement of up to 52,430 cubic yards of coarse sediment into the Trinity River: 37,130 cubic

yards at the Lewiston site and 15,300 cubic yards at the Dark Gulch site. The riverine activities would result in the excavation of approximately 87,000 cubic yards of alluvial material: 38,100 cubic yards at the Lewiston site and 48,900 cubic yards at the Dark Gulch site. About 84,600 cubic yards of excavated material would be placed at various upland locations within the project sites. Riverine activities on both sides of the Trinity River would use adjacent upland and staging areas to dispose of and/or stockpile excavated or processed materials within the boundaries of the two sites. These sites include public and private lands within a narrow corridor parallel to the river.

In-channel and riverine activities incorporated into the Proposed Action are intended to increase the potential for the river to meander (migrate) out of the channel in which it has been confined by historic dredging activities and, more recently, by riparian berms. In addition to the immediate changes to the channel (e.g., grade control removal, berm removal, floodplain excavation), the Proposed Action would increase the likelihood that the Trinity River would reflect more of the “healthy river” attributes of an alluvial river. A full discussion of the healthy river attributes is provided in Section 3.3 of the EA/Draft EIR (Volume II).

Alternative 1

Alternative 1 is similar in many respects to the Proposed Action, although the type and degree of activities are different for the two sites. Figures 2-3a-c in Volume II of the EA/Draft EIR illustrate the activities included in Alternative 1. In essence, Alternative 1 is intended to increase the level of mechanical channel rehabilitation at select locations. The modification of a larger part of the weir at the Lewiston site and the large-scale floodplain/side channel excavation at R-3 DG, with its associated gravel processing, are examples where impacts would be substantially different from those of the Proposed Action.

Under Alternative 1, in-channel activities would include the placement of up to 53,200 cubic yards of coarse sediment into the Trinity River: 37,900 cubic yards at the Lewiston site and 15,300 cubic yards at the Dark Gulch site. The riverine activities would result in the excavation of approximately 190,600 cubic yards of alluvial material: 45,000 cubic yards at the Lewiston site and 145,600 cubic yards at the Dark Gulch site. About 110,600 cubic yards of excavated material would be placed at various upland locations within the project sites. Riverine activities on both sides of the Trinity River would use adjacent upland and staging areas to dispose of and/or stockpile excavated or processed materials within the boundaries of the two sites. These sites include public and private lands within a narrow corridor parallel to the river.

Overall, Alternative 1 would result in activities over a larger area, and there would be a proportional increase in the volume of excavated material. This increase is expected to enhance site-specific riverine processes and eventually result in the development of point bars and floodplain habitat that do not presently exist. The increase in volume of excavated material would also preclude the need to develop off-site sources of coarse sediment but could result in additional disturbance to areas adjacent to the Trinity River. Similar to the Proposed Action, the temporal and spatial changes to the form and function of the Trinity River are subject to variability in the flow regime over several years.

1.3 Summary of Project Impacts and Mitigation Measures

The affected environment and the environmental consequences (impacts) of implementing each of the project alternatives are described in Chapter 3 of the EA/Draft EIR, which is incorporated by reference. A summary

of significant impacts and associated mitigation measures for the selected alternative is provided in Appendix 1 to this document.

1.4 Environmental Review Process

The TCRCD initiated the public scoping process by forwarding a Notice of Preparation (NOP) of an EIR to the California State Clearinghouse on May 1, 2007. The NOP and agency comments are on file at the TRRP office in Weaverville, California.

The NOP was circulated to the public; to local, state, and federal agencies; and to other interested parties in order to solicit comments on the Proposed Action. The public scoping period was May 1, 2007, through May 31, 2007, and scoping comments were received through August 14, 2007. Reclamation and the TCRCD held a joint NEPA/CEQA scoping meeting on May 15, 2007, in Lewiston, California. During this meeting, members of the public were asked what issues they felt should be addressed in the EA/Draft EIR. As the public comment period continued, the lead agencies received letters that helped identify areas of concern. These areas of concern and other oral comments received at the scoping meeting were considered during the preparation of the EA/Draft EIR. The scoping and public involvement process is also described in Chapter 1 of the EA/Draft EIR.

The following substantive issues associated with the Proposed Action were identified during the public scoping process:

- project description
- land use
- geology and soils
- scoping
- hydrology, water quality, and floodplains
- biological resources
- socioeconomics, displacements, and environmental justice
- cultural resources
- air quality
- visual resources
- hazards
- noise
- public services and utilities
- transportation and circulation
- other issues (construction impacts)

The EA/Draft EIR was circulated for a 45-day public comment period from November 13, 2007, to January 8, 2008. Fifteen copies of the EA/Draft EIR were submitted to the State Clearinghouse for distribution to state agencies having jurisdiction over resources affected by the project. The lead agencies also distributed copies to an extensive mailing list, including federal, state, and local agencies with similar jurisdiction or a stated interest in the project.

A Notice of Availability of the EA/Draft EIR was published in the *Trinity Journal* on November 14 and 28, 2007, and the EA/Draft EIR was posted on both the TRRP's website (<http://www.trrp.net/implementation/IndianCreek.htm>) and the Bureau of Reclamation, Mid-Pacific Region's website for Northern California Area Office environmental documents (http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2094). The notice was also mailed to all interested members of the public who participated in the project scoping process, to adjacent landowners within 300 feet of the project boundaries, and to representatives of adjacent counties. The notice announced

the availability of the EA/Draft EIR and stated where the EA/Draft EIR and supporting documents could be obtained or reviewed, the dates of the comment period, and the deadline for receiving written comments.

1.5 Other Necessary Decisions

The filing of a Notice of Determination (NOD) will complete the CEQA environmental review process. For this project, in accordance with standard procedures, the TCRCD, if it chooses to proceed with the portions of the project under its control, will certify the Final EIR portion of the EA/Final EIR and will file the NOD. The TCRCD will then forward these documents to Reclamation and the STNF (NEPA co-lead agencies) along with a recommendation regarding what the TCRCD believes should be the preferred alternative. The NEPA process will be complete with the signing of a FONSI by Reclamation and the STNF and Reclamation's subsequent hiring of a contractor to complete the work.

As required under the federal Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), implementation of the preferred alternative requires consultation with NMFS and the USFWS. Consultation for this project has recently been completed. Additionally, implementation of the project will require a number of permit and agency approvals under local, state, and federal laws. Agencies with potential permit and approval requirements include the Corps, CDFG, the Regional Water Board, and Trinity County.

Table 1.1. Comparison of Potentially Significant Impacts by Alternative

PROPOSED ACTION	ALTERNATIVE 1
3.3 Geology, Fluvial Geomorphology, and Soils	
Impact 3.3-2 Construction activities associated with the project could potentially result in increased erosion and short-term sedimentation of the Trinity River.	
224,030 cubic yards of soil disturbed (61.10 acres)	354,400 cubic yards of soil disturbed (64.42 acres)
3.5 Water Quality	
Impact 3.5-1 Construction of the project could result in short-term, temporary increases in turbidity and total suspended solids levels during construction.	
Temporary increase in turbidity during construction	Impacts similar to but slightly greater than those for the Proposed Action due to increase in volume/area affected by excavation activities, particularly at R-1 SO and R-3 DG
Impact 3.5-2 Construction of the project could result in short-term temporary increases in turbidity and total suspended solids levels following construction.	
Temporary increase in turbidity following construction	Impacts similar to but greater than those for the Proposed Action due to expansion of activities, particularly at R-1 SO and R-3 DG
Impact 3.5-3 Construction of the project could potentially cause contamination of the Trinity River from hazardous materials spills.	
Potential impact from spill of hazardous materials into the Trinity River	Potential impact similar to that under the Proposed Action
Impact 3.5-5 Construction and maintenance of the project could result in the degradation of Trinity River beneficial uses identified in the Basin Plan.	
Potential impacts to water quality objectives	Impacts similar to but greater than those for the Proposed Action due to expansion of activities, particularly at R-1 SO and R-3 DG
3.6 Fishery Resources	
Impact 3.6-1 Implementation of the project could result in effects on potential spawning and rearing habitat for anadromous fishes, including the federally and state-listed coho salmon.	
Impacts on potential spawning and rearing habitat for anadromous fish	Impacts similar to but greater than those for the Proposed Action due to the removal of the grade control structure at IC-2 SO
Impact 3.6-2 Implementation of the project could result in increased erosion and sedimentation that could adversely affect fishes, including the federally and state-listed coho salmon.	
Impacts from increased erosion and sedimentation	Impacts similar to but greater than those for the Proposed Action due to the removal of the grade control structure at IC-2 SO

Table 1.1. Comparison of Potentially Significant Impacts by Alternative

PROPOSED ACTION	ALTERNATIVE 1
<p>Impact 3.6-3 Construction activities associated with the project could potentially result in the accidental spill of hazardous materials that could adversely affect fishes, including the federally and state-listed coho salmon.</p> <p>Potential impact from spill of hazardous materials into the Trinity River</p>	<p>Potential impact similar to that under the Proposed Action</p>
<p>Impact 3.6-4 Construction activities associated with the project could result in the mortality of rearing fishes, including the federally and state-listed coho salmon.</p> <p>Impacts due to construction</p>	<p>Impacts similar to but greater than those for the Proposed Action due to the removal of the grade control structure at IC-2 SO</p>
<p>Impact 3.6-5 Implementation of the project would result in the permanent and temporary loss of shaded riverine aquatic habitat for anadromous salmonids.</p> <p>Impacts to 8.65 acres of riparian habitat</p>	<p>Impacts to 12.88 acres of riparian habitat</p>
<p>Impact 3.6-6 Implementation of the project would result in fish passage being temporarily impaired during the in-stream construction phase.</p> <p>Impacts due to low flow channel crossings</p>	<p>Potential impacts similar to those under the Proposed Action</p>
<p>3.7 Vegetation, Wildlife, and Wetlands</p>	
<p>Impact 3.7-1 Construction activities associated with the project could result in the loss of jurisdictional waters, including wetlands.</p> <p>28.55 acres</p>	<p>35.90 acres</p>
<p>Impact 3.7-2 Implementation of the project would result in the loss of upland plant communities.</p> <p>35.00 acres temporary impact</p>	<p>55.73 acres temporary impact</p>
<p>Impact 3.7-3 Construction of the project could result in the loss of individuals of a special-status plant species.</p> <p>Potential impacts to California Species of Special Concern due to construction</p>	<p>Potential impacts similar to those under the Proposed Action</p>
<p>Impact 3.7-4 Construction activities associated with the project could result in impacts to the state-listed little willow flycatcher.</p> <p>Potential impacts to active nests during construction</p>	<p>Potential impacts similar to but greater than those under the Proposed Action due to the increased disturbance to montane riparian habitat</p>
<p>Impact 3.7-5 Construction activities associated with the project could result in impacts to the foothill yellow-legged frog.</p> <p>Potential temporary impacts due to construction activity (potential impacts to individuals and habitat)</p>	<p>Potential impacts similar to those under the Proposed Action</p>

Table 1.1. Comparison of Potentially Significant Impacts by Alternative

PROPOSED ACTION	ALTERNATIVE 1
<p>Impact 3.7-6 Construction activities associated with the project could result in impacts to the northwestern pond turtle.</p> <p>Potential temporary impacts due to construction activity (potential impacts to individuals and habitat)</p>	<p>Potential impacts similar to those under the Proposed Action</p>
<p>Impact 3.7-7 Construction activities associated with the project could result in impacts to nesting Vaux's swifts, ruffed grouse, yellow warblers, and yellow-breasted chats.</p> <p>Temporary reduction in nesting, foraging, and/or roosting habitat</p>	<p>Potential impacts similar to but greater than those under the Proposed Action due to the greater area of disturbance</p>
<p>Impact 3.7-8 Construction activities associated with the project could disrupt active special-status raptor nests.</p> <p>Potential impacts as a result of construction disturbance</p>	<p>Potential impacts similar to but greater than those under the Proposed Action due to the greater area of disturbance</p>
<p>Impact 3.7-9 Construction activities associated with the project could result in impacts to special-status bats and the ring-tailed cat.</p> <p>Potential impacts as a result of construction disturbance</p>	<p>Potential impacts similar to but greater than those under the Proposed Action due to the greater area of disturbance</p>
<p>Impact 3.7-13 Implementation of the project could result in the spread of non-native and invasive plant species.</p> <p>Potentially significant impact from spread of non-native and invasive species</p>	<p>Potential impacts similar to those under the Proposed Action</p>
3.8 Recreation	
<p>Impact 3.8-1 Construction associated with the project could disrupt recreation activities in the Trinity River.</p> <p>Potential short-term interruptions to public access in construction areas</p>	<p>Potential impacts similar to those under the Proposed Action</p>
<p>Impact 3.8-2 Construction of the project could result in an increased safety risk to recreational users or resource damage to lands within the project boundaries.</p> <p>Increased safety risk to recreational users as a result of construction</p>	<p>Potential impacts similar to those under the Proposed Action</p>
<p>Impact 3.8-3 Construction associated with the project could lower the river's aesthetic value for recreationists by increasing turbidity levels in the Trinity River.</p> <p>Potential increase in river turbidity due to construction activity</p>	<p>Potential impacts similar to but slightly greater than those under the Proposed Action due to slightly more in-channel work</p>

Table 1.1. Comparison of Potentially Significant Impacts by Alternative

PROPOSED ACTION	ALTERNATIVE 1
3.12 Air Quality	
Impact 3.12-1 Construction activities associated with the project could result in an increase in fugitive dust and associated particulate matter (PM ₁₀ and PM _{2.5}) levels.	
Generation of dust from and particulate matter during construction	Potential impact similar to but slightly greater than that under the Proposed Action primarily due to the increase of activities at R-3 DG, floodplain removal, and gravel processing
Impact 3.12-2 Construction activities associated with the project could result in an increase in construction vehicle exhaust emissions.	
Generation of air pollution due to exhaust emissions during construction	Potential impact similar to but slightly greater than that under the Proposed Action due to the increase (~ 17 acres) in the overall activity area
Impact 3.12-3 Construction activities associated with the project and removal of vegetation could result in vegetative materials that managers will decide to burn.	
Potential burning of vegetative materials resulting in smoke	Potential impact similar to but slightly greater than that under the Proposed Action due to the construction of a northern access road
3.14 Aesthetics	
Impact 3.14-1 Implementation of the project could result in the degradation and/or obstruction of a scenic view from key observation areas.	
Impact from obstruction of scenic view	Impact from obstruction of scenic view
3.16 Noise	
Impact 3.16-1 Construction activities associated with the project would result in noise impacts to nearby sensitive receptors.	
Noise impacts resulting from construction activity	Potential impacts similar to those under the Proposed Action