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**Project Impacts**

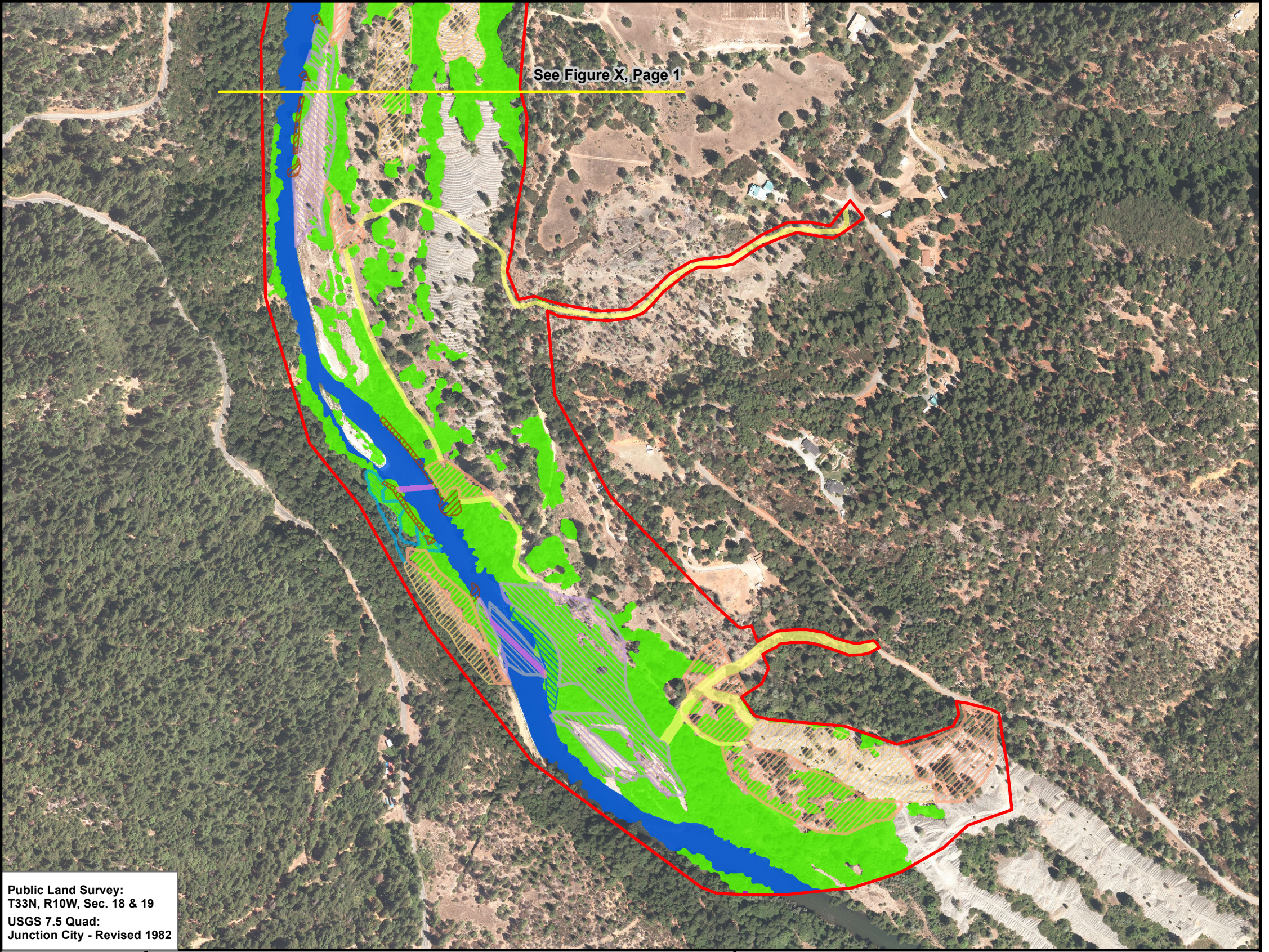
-  Main Channel
-  Side Channel
-  Bars and Islands
-  Banks and Floodplains
-  Constructed Wetland
-  Upland Drainage
-  Wood Placement
-  Upland Fill

**Temporary Impacts**

-  Contractor Use Area
-  River Crossing
-  Access Road

**Riparian Habitat**

-  Montane Riparian
-  Riverine
-  Valley Foothill Riparian



**Impacts on Riparian Habitat**

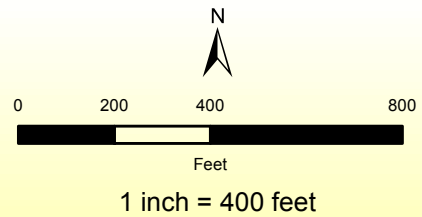
Project Impacts	Impacts in Acres		
	Montain Riparian	Riverine	Total
Banks and Floodplains	3.60	0.05	3.65
Bars and Islands	0.44	1.84	2.28
Constructed Wetland	1.15	--	1.15
Main Channel	1.77	1.16	2.93
Side Channel	0.26	< 0.01	0.26
Upland Fill	1.44	--	1.44
Wood Placement	0.24	0.22	0.46
Wood Structure	0.25	0.12	0.36
Woody Debris	0.20	0.07	0.27
<b>Total Project Impacts</b>	<b>9.35</b>	<b>3.46</b>	<b>12.80</b>
<b>Temporary Impacts</b>			
Access Road (Existing)	0.25	--	0.25
Access Road (Temporary)	1.67	0.01	1.68
Contractor Use Area	4.94	< 0.01	4.95
River Crossing	0.17	0.47	0.64
Temporary River Crossing	0.01	0.14	0.15
<b>Total Temporary Impacts</b>	<b>7.04</b>	<b>0.62</b>	<b>7.67</b>
<b>Total Impacts on Riparian Habitat</b>	<b>16.39</b>	<b>4.08</b>	<b>20.47</b>

Public Land Survey:  
T33N, R10W, Sec. 18 & 19  
USGS 7.5 Quad:  
Junction City - Revised 1982

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**TRINITY RIVER RESTORATION PROGRAM  
Deep Gulch and Sheridan Creek Rehabilitation Sites**

**Figure 3-2b  
Impacts on Riparian Habitat  
January 2017**

The foothill yellow-legged frog and western pond turtle are known to use the Trinity River and adjacent habitats. The frog may use pools and slow-moving areas of the river with adequate substrate for egg laying, and disturbance to these areas during in-water activities could dislodge egg masses or injure frogs. Turtles may nest in upland areas adjacent to the river or be found in the water, and disturbance in these areas could damage nests or injure turtles. Pre-construction surveys for breeding and nesting activity of these species would be conducted in accordance with EC-VW-4 [4.7-5a-d] and EC-VW-5 [4.7-6a-e], and foothill yellow-legged frog egg masses or western pond turtle nests that could be disturbed by the rehabilitation activities would be relocated to nearby suitable habitat outside the activity areas. Precautionary measures would also be taken during the rehabilitation activities in the event a frog or turtle is encountered in an activity area, and the individual(s) would be relocated outside the activity areas in accordance with EC-VW-4 and EC-VW-5. With these environmental commitments, impacts on foothill yellow-legged frog and western pond turtle would be minimized or completely avoided.

Once the rehabilitation activities are complete, the habitats in the project area would shift to include more riparian and wetland habitat with side channels off the mainstem Trinity River providing additional riverine habitat. Revegetation of disturbed areas would return the activity areas to their current or better conditions and would ensure reestablishment of native plants while reducing the extent of non-native and invasive plants. If invasive plants recolonize the restored areas, Reclamation would implement targeted control methods to remove the plants and reestablish native plants in accordance with EC-VW-9 [4.7-13a-g]. Long-term monitoring of the rehabilitation sites and adaptive measures to further enhance or create additional riparian or wetland habitat in accordance with EC-FR-4 [4.7-1b] would ensure no net loss of riparian or wetland habitat occurs, consistent with TRRP's Riparian Revegetation and Monitoring Plan (TRRP Federal Design Group 2016). The rehabilitation activities would benefit wildlife, particularly wetland and riparian species, by enhancing the Trinity River corridor for nesting, breeding, roosting, foraging, and other activities. The corridor would continue to function as a movement corridor for many wildlife species, and the enhanced floodplain and riparian conditions could attract more wildlife to the project area.

With the inclusion of CEQA mitigation measures EC-VW-9 [4.3-2b], EC-VW-1[4.7-1a], EC-VW-6 [4.7-7 a-d], EC-VW-7 [4.7-8a-d], EC-VW-8 [4.7-9a-c], EC-VW-4 [4.7-5a-d], EC-VW-5 [4.7-6a-e], EC-VW-9 [4.7-13a-g ], and EC-FR-4 [4.7-1b] described in this section, CEQA impacts related to fisheries considered under this resource topic would be less than significant (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15382).

### **No Action Alternative**

Under the no action alternative, no temporary or permanent disturbance to the habitats, plants, wildlife, or wetlands (and other waters) would occur within the project area. Habitat conditions in the project area would be the same as current conditions, and the riparian corridor would be subjected to current Trinity River influences without the enhancements to the riparian and wetland habitats. The invasive yellow star thistle and other invasive plants would continue to dominate annual grasslands in the project area. Special-status wildlife species would continue to use habitats in the project area that are suitable for them.

Under the no action alternative, impacts to vegetation, wildlife and wetlands would remain similar to existing conditions. Therefore, there would be no impacts on these resources as defined in California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15382.

### 3.14 CEQA Significance

As described in section 3.1, this document is an integrated NEPA/CEQA document. Table 3-7 provides a summary of the CEQA mitigation developed for each resource topic discussed in this chapter (see Appendix A2 for details). It also identifies the level of significance as defined in California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15382).

**Table 3-7. Summary of Resource Topics Considered in This EA/IS**

Resource Topic	CEQA Mitigation	CEQA Significance
Aesthetics	EC-WQ-1 [4.5-1a-1e], EC-WQ-2 [4.5-2a – 2c], EC-WQ-3 [4.5-3a-3c], EC-WQ-4 [4.5-1e], and EC-RE-1 [3.8-1a].	Less than Significant
Air Quality	EC AQ-1 [4.11-a-1a], [4.11-2a]	Less than Significant
Cultural Resources	EC-CU-1 [4.10-2a] and EC-CU-2 [4.10-2a]	Less than Significant
Fishery Resources	EC FR-1 [4.6-1a, 1b], EC FR-2 [4.6-4a-4e], EC FR-3 [4.6-4f], EC FR-4 [4.6-5b], and EC FR-5 [4.6a-6d]	Less than Significant
Geomorphology and Soils	EC-GS-1[4.3-2a] and EC-GS-2 [4.3-2b]	Less than Significant
Hydrology and Flooding	Not Applicable	Less than Significant
Land Use	Not Applicable	Less than Significant
Noise	EC-NO-1 [4.14-1a] and EC NO-2 [4.14-1b]	Less than Significant
Recreation and Wild and Scenic Rivers	EC-WQ-1 [4.5-1a-1e], EC-WQ-2 [4.5-2a – 2c], EC-WQ-3 [4.5-3a-3c], EC-WQ-4 [4.5-1e] and EC-RE-1 [4.8-1a]	Less than Significant
Transportation and Traffic	EC-TC-2 [4.16-2a, 4.16-5a] and EC-TC-3 [4.16-4a]	Less than Significant
Vegetation, Wildlife, and Wetlands	EC-VW-9 [4.3-2b], EC-VW-1[4.7-1a], EC-VW-6 [4.7-7 a-d], EC-VW-7 [4.7-8a-d], EC-VW-8 [4.7-9a-c], EC-VW-4 [4.7-5a-d], EC-VW-5 [4.7-6a-e], EC-VW-9 [4.7-13a-g ], and EC-FR-4 [4.7-1b]	Less than Significant
Water Quality	EC WQ-1 [4.5-1a, b], EC WQ-2 [4.5-1c], EC WQ-3 [4.5-1d], EC WQ-4 [4.5-1e, 4.5-2a-2c] and EC WQ-5 [4.5-3a-3c]	Less than Significant

## **Chapter 4. Cumulative Impacts and Other CEQA and NEPA Considerations**

The analysis in this chapter tiers from the “statutory considerations” discussion in Chapter 5 of the Master EIR; the EA incorporates that discussion by reference. That discussion addressed certain topics required under CEQA, such as cumulative impacts, the significant environmental effects of the proposed action, the significant effects that cannot be avoided if the proposed action is implemented, and the growth-inducing effects of the proposed action. Under NEPA, additional discussions are also required, such as the significant irreversible and irretrievable commitments of resources and the relationship between local short-term uses of the environment and the maintenance of long-term productivity. These discussions are incorporated by reference from the Master EIR and are summarized below; see the Master EIR for complete discussions of these topics. This section also provides updated information on cumulative impacts for additional projects that were not identified in the Master EIR.

### **4.1 Cumulative Impacts**

The regulatory framework for the assessment of cumulative impacts under CEQA is discussed in Chapter 5, section 5.2.1, of the Master EIR, and the regulatory framework for NEPA is discussed in Chapter 8, Section 8.2.1 of the Master EIR. Under the CEQA Guidelines (Section 15355), the term “cumulative impacts” refers to two or more individual impacts that, when considered together, are considerable or that otherwise compound or increase other environmental effects. Cumulative environmental impacts arise from the incremental impacts of the proposed action when added to other closely related past, present, and reasonably foreseeable future projects.

The CEQ’s implementing regulations for NEPA (40 CFR 1508.7) state that cumulative impacts result from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) undertakes the other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

#### **4.1.1 Methodology and Analysis**

The methodology for the cumulative impact analysis is described in section 5.2.2 of the Master EIR. As discussed in that section, the methodology involved the assessment of the potential cumulative effects of the proposed action when considered in combination with a list of related projects within a defined geographical area. This assessment of cumulative impacts is considered in the same cumulative context; however, the list of related projects and programs considered in this analysis has been updated to include those closely related past, present, and reasonably foreseeable future projects listed below.

The cumulative impacts section provided in Chapter 5 of the Master EIR identified related projects through the list approach, based on input from the lead and cooperating agencies. The geographic

scope of the area examined in that assessment for cumulative effects was the Trinity River corridor between Lewiston Dam and the confluence of the North Fork Trinity River at Helena, California. The following projects were considered in that section and are still considered timely and relevant:

- Fish Habitat Management
- Trinity River Mainstem Fishery Restoration Project
- California Coastal Salmonid Restoration Program/Five-Counties Salmonid Conservation Program
- Clean Water Act Section 303(d) Total Maximum Daily Load Requirements Program

Since 2009, the TRRP has implemented projects at all of the Phase 1 Channel Rehabilitation Sites and implemented projects at seven of the Phase 2 sites; the Bucktail site completed in 2016 was expanded in 2016 to include additional area coincident to the portion of the site completed in 2010 as part of the Lewiston-Dark Gulch complex. Concurrently, the TRRP has continued to implement coarse-sediment (gravel) augmentation at a number of locations downstream of Lewiston Dam, and fine sediment has been removed from both the Hamilton Ponds and Grass Valley Creek Reservoir. In addition, the TRRP-managed flows have been implemented yearly since the Master EIR was certified in 2009. Ongoing monitoring efforts by the TRRP and its partners continue to document improvements in habitat use and restoration of alluvial processes and riparian vegetation. (Reclamation 2015)

Since 2009, there have been a number of watershed restoration and road sediment reduction projects implemented by various agencies and organizations throughout the Trinity River basin. While some of these were listed and considered in the Master EIR, the Forest Service and the Trinity County Resource Conservation District have completed a wide array of additional projects intended to improve watershed conditions, restore aquatic habitat, improve aquatic connectivity, and reduce road-related sediment delivery to streams and rivers.

The TRRP has identified the need to develop a long-term source of coarse sediment (i.e., spawning gravel) for use in the lower reaches of the Trinity River (downstream of Douglas City). This need could result in harvesting and processing of dredge tailing deposits at various TRRP sites identified in the Master EIR. A project of this kind would have potential impacts on various resource topics, but it is speculative at this point in the planning cycle to be specific with respect to the location and/or type of impacts that may occur.

The issue-specific analysis of cumulative impacts in Chapter 5 of the Master EIR identifies the potential cumulative impacts related to the Remaining Phase 1 and Phase 2 sites for a variety of resource areas. Table 4-1 provides an update to the summary prepared for the Master EIR.

In 2016, the TRRP completed the expanded Bucktail channel rehabilitation project downstream of Lewiston, California. This site is about 23 miles upstream of the project area. While there is the potential for cumulative impacts as a result of sediment delivery and transport from previous TRRP river rehabilitation and sediment management projects, this is actually a beneficial process that contributes to the TRRP's overall objective of a functional alluvial river. The closest TRRP project that has been constructed since the Master EIR was completed is Lorenz Gulch (constructed in 2013) about 7 miles upstream. It is assumed, however, that the impacts from those earlier projects have been mitigated, and the amount of time that has elapsed since they were completed has further

dissipated the effects downstream. The previous issue-specific analysis in Chapter 5 of the Master EIR sufficiently addresses the cumulative impacts of the proposed action, and no substantial differences arise in consideration of the proposed action separately.

**Table 4-1. Summary of Cumulative Impacts Considering Past, Present and Reasonably Foreseeable Actions in the Trinity River Basin**

Land Use	Implementation of the proposed action, in combination with other related projects, would not have a cumulative impact in terms of planning policies, nor would river rehabilitation activities result in cumulative effects in terms of local or federal land use planning policies.
Geomorphology and Soils	No significant cumulative impacts associated with geologic hazards, geomorphic processes, or erosional processes are anticipated to occur as a result of implementation of the proposed action in combination with other related projects. While previous TRRP projects (e.g., Lorenz Gulch) and periodic increases in flow regimes continued to increase channel complexity throughout the 40-mile reach, large fires throughout the Trinity River basin continue to influence flow and sediment regimes within the watershed. Appropriate implementation of environmental commitments, project design features, and CEQA-specific mitigation measures would reduce potential impacts to a less than significant level.
Hydrology and Flooding	Implementation of the proposed action in combination with other river rehabilitation activities would not have cumulatively considerable impacts on beneficial uses of the river or result in changes in the quantities of water available for any of those uses or that would cause flooding.
Water Quality	No significant cumulative impacts to water quality are anticipated to occur as a result of implementation of the proposed action in combination with other related projects. The TRRP implementation schedule acknowledges the need to stagger implementation of channel rehabilitation projects along the 40-mile reach of the river to ensure that project sites have the opportunity to stabilize and revegetate. Individually, these activities would result in short-term, temporary effects on water quality. Appropriate implementation of environmental commitments, project design features, and CEQA-specific mitigation measures would reduce potential impacts to a less than significant level.
Fishery Resources	No significant, adverse cumulative impacts to fisheries resources are anticipated to occur as a result of implementation of the proposed action. The effect of the proposed action, in conjunction with other projects and programs such as the Five Counties Salmonid Restoration effort, is expected to be beneficial in terms of the rehabilitation of habitat and fisheries resources. Implementation of the proposed action as designed, in conjunction with CEQA-specific mitigation measures, would benefit, rather than adversely affect, the fishery resources of the Trinity River in the long term.
Vegetation, Wildlife, and Wetlands	No significant cumulative impacts to vegetation, wildlife, and wetlands are anticipated to occur as a result of implementation of the proposed action in combination with other related projects. The proposed action as designed, in conjunction with CEQA-specific mitigation, would benefit rather than adversely affect vegetation, wildlife, and wetlands in the long term, as would most of the other related projects and programs (e.g., Five Counties Salmonid Restoration). Implementation of the proposed action would contribute to long-term ecological benefits in terms of vegetation, wildlife, and wetlands.
Recreation	No significant cumulative impacts to recreational resources are anticipated to occur as a result of implementation of the proposed action in combination with other related projects. Benefits to recreational values may be achieved through implementation of the TRRP over time.

**Table 4-1. Summary of Cumulative Impacts Considering Past, Present and Reasonably Foreseeable Actions in the Trinity River Basin**

Cultural Resources	No significant cumulative impacts to cultural resources are anticipated to occur as a result of implementation of the proposed action. The environmental commitments, project design features, and implementation of prescribed CEQA-specific mitigation measures (e.g., surveys of potential impact areas by a professional archaeologist prior to construction, protection of potentially significant cultural sites, and coordination with local tribes) consistent with the Programmatic Agreement between the Bureau of Reclamation and the California State Historic Preservation Officer would adequately address potential impacts, including cumulative impacts.
Air Quality	No significant cumulative impacts to air quality are anticipated to occur as a result of implementation of the proposed action. The North Coast Unified Air Quality Management District requirements would be addressed by implementation of environmental commitments, project design features, and prescribed CEQA-specific mitigation measures. The proposed action, in conjunction with the other projects and programs occurring within the Trinity River Basin, would contribute cumulatively to global climate change. Thus, the proposed action would contribute to an adverse cumulative contribution to global climate change. Implementation of the proposed action in conjunction with mitigation measures would reduce the cumulative contribution to global climate change to a less than significant level.
Aesthetics	No significant cumulative impacts to visual resources are anticipated to occur as a result of implementation of the proposed action. Implementation of the proposed action would benefit, rather than adversely affect, visual resources in the long term, as would most of the other related projects described in the cumulative effects analysis in the Master EIR.
Noise	No significant cumulative impacts related to noise are anticipated through implementation of the proposed action in combination with other projects. Reclamation would coordinate the implementation of other restoration projects to ensure that construction noise is minimized through project scheduling.
Transportation/ Traffic Circulation	No significant cumulative impacts related to transportation/traffic circulation are anticipated through the implementation of the proposed action in combination with other related projects. Traffic increases would be localized and temporary.

## 4.2 Irreversible and Irrecoverable Commitments of Resources

NEPA (Section 102) and the CEQ's implementing regulations for NEPA (40 CFR 1502.16) require a discussion of "any irreversible and irretrievable commitments of resources which would be involved in a proposed action should it be implemented."

Section 15126.2(c) of the CEQA Guidelines also requires a discussion of the significant irreversible environmental changes that would result from a Proposed Project should it be implemented. This section of the CEQA Guidelines states:

*Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.*

The No Action alternative would not directly involve the use of resources or cause significant irreversible environmental effects other than those previously described in the Trinity River FEIS/EIR (USFWS et al. 2000a) and incorporated by reference in other sections of this document.

Implementation of the proposed action would not involve the substantial use of nonrenewable resources in such a way that would result in conditions that would be irreversible through removal or nonuse thereafter. Future generations would not be committed to irreversible consequences or uses; the effect on future generations would be beneficial as a result of the enhanced and maintained river system and related fishery resources. No irreversible damage from environmental accidents would be foreseeable in association with the proposed action.

Implementation of the proposed action would result in the use of fossil fuels, a nonrenewable form of energy. A relatively minor amount of nonrenewable resources would be used in the mechanical rehabilitation of the river channel, transport of gravel and other materials, and related construction and management activities in the project area. The material requirements for the proposed action would be relatively minor compared to the overall demand for such materials, and the use of these materials would not have a significant adverse effect on their continued availability.

### **4.3 Relationship between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity**

Section 102 of the CEQ NEPA Implementing Regulations and 40 CFR 1501.16 require that an environmental document include a discussion of “the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity.” This discussion was included in Section 8.4 of the Master EIR and is incorporated by reference.

The proposed action does not involve a trade-off between a “local short-term use” of the environment and the maintenance and enhancement of the environment in the sense contemplated by NEPA. Implementation of the proposed action is intentionally aimed at maintaining and enhancing the long-term biological and environmental productivity of the river system consistent with BLM’s Resource Management Plan and Trinity County’s General Plan. Implementation of the proposed action would not sacrifice the long-term productivity of the project area for short-term uses during construction.

The short-term impacts on the environment associated with implementation of the proposed action are considered minimal compared to the long-term benefits and productivity that would result from the proposed action in conjunction with other objectives of the TRRP. Construction-related impacts and land use conflicts would be short-term, occurring only during the construction phase of the proposed action. The proposed action, including the environmental commitments and project design features, would ensure that the maintenance and enhancement of the fisheries resources offset the short-term impacts.

### **4.4 Growth-Inducing Impacts**

Section 5.3 of the Master EIR evaluated the potential for growth that could be induced by implementation of the proposed action and assessed the level of significance of any expected growth



inducement. Under CEQA, growth itself is not assumed to be particularly beneficial, detrimental, or insignificant to the environment. If a project is determined to be growth inducing, an evaluation is made to determine whether significant impacts on the physical environment would result from that growth.

Implementation of channel rehabilitation activities in the project area would not remove any constraints to development, create new or improved infrastructure, or otherwise create conditions that would induce growth. The proposed action would improve habitat for anadromous fish and, thus, improve conditions for fishing and recreation; however, the improved fishery resources resulting from implementation of the proposed action are not likely to directly or indirectly result in substantial development or population growth. Therefore, implementation of the proposed action would not result in a significant growth-inducing impact.

#### **4.5 Environmental Commitments and CEQA Mitigation Measures**

Reclamation's NEPA implementation guidance recommends that a list of environmental commitments for the preferred alternative be included in an EA. Chapter 2 of this EA/IS includes a list of environmental commitments and project design features that are part of the proposed action. Where these are cited in the document, they are also cross referenced with the relevant mitigation measure described in the mitigation, monitoring, and reporting plan (MMRP) presented in Appendix B. Because this document is a joint NEPA/CEQA document, mitigation measures have been identified for potentially significant CEQA impacts in compliance with CEQA requirements. Under CEQA, lead agencies are required to adopt a program for monitoring or reporting on the revisions that they required be made part of the project and other measures required to mitigate or avoid significant environmental effects. The MMRP provides the comprehensive list of CEQA mitigation measures and identifies requirements for timing, responsible parties, and compliance verification.

#### **4.6 Significant Impacts under CEQA**

CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible (CEQA Guidelines Section 15021), and determinations of significance play a critical role in the CEQA process (CEQA Guidelines 15064). Section 5.4 of the Master EIR addresses several types of potentially significant effects.

Potentially significant effects have been identified in the areas of geology, geomorphology, soils, and minerals; water quality; fishery resources; vegetation, wildlife, and wetlands; recreation; cultural resources; air quality; visual resources; noise; public services and utilities; and traffic and transportation. These potential effects are discussed in each resource section in Chapter 3, and Appendix A1 (Environmental Checklist) provides specific CEQA documentation. As part of the environmental impact assessment for each resource area, mitigation measures/design features have been identified that reduce these impacts to less-than-significant levels. The environmental analysis conducted for the proposed action did not identify any effects that, after implementation of the mitigation/design features, remained significant and therefore unavoidable; no significant irreversible effects were identified associated with the proposed action.

## 4.7 Connected Actions

The CEQ regulations for implementing NEPA (40 CFR 1508.25) state that some actions (other than unconnected single actions) may be interdependent parts of a larger action and depend on the larger action for their justification. These connected actions are closely related and should be addressed when discussing the larger action.

Connected actions that would occur related to implementation of the proposed action include activities that are required for construction of the proposed action, such as TRRP realty actions, transportation of logs, salvaged large woody debris, boulders, and alluvial materials from locations outside the project boundary, and the related vehicle trips, increases in traffic circulation, and wear and tear on local roadways. These activities were analyzed in the Master EIR, and supplemental analysis of these actions is provided in Chapter 3 of this EA/IS. The environmental analysis did not identify any effects that, after incorporation of environmental commitments, project design features, and CEQA mitigation measures, remained significant.

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# Appendix A1

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## Environmental Screening Checklist

This Environmental Screening Checklist was prepared to satisfy in part the requirements of California Environmental Quality Act (CEQA) Guidelines using the format provided in Appendix G of the guidelines and includes the following 16 environmental topics:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality/Greenhouse Gas
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The checklist was used to identify issues that should be carried forward for further evaluation in the environmental assessment/initial study (EA/IS) and to eliminate topics or resources for which no impacts are anticipated. For each checklist question, the proposed rehabilitation activities were assessed to determine if impacts are anticipated or if the project would clearly not result in any impacts. Previous analyses in the *Trinity River Mainstem Fishery Restoration Environmental Impact Statement/Report* (Trinity River EIS/EIR, U.S. Fish and Wildlife Service et al. 2000) and *Channel Rehabilitation and Sediment Management Activities for Remaining Phase 1 and Phase 2 Sites, Part 1: Final Master Environmental Impact Report and Part 2: Environmental Assessment/Final Environmental Impact Report* (Master EIR and EA/EIR, Regional Water Board and Reclamation 2009) were considered in this assessment. If new information available since the previous analyses reveals the potential for an impact that was not previously evaluated or was dismissed, that issue will be carried forward in the EA/IS. For each checklist question, one of the following determinations was made:

- **Further Evaluation Needed:** The proposed rehabilitation activities could result in an impact on the environmental topic or create an issue associated with the topic, and the topic will be further evaluated in the EA/IS. The topic may also require further evaluation due to new information becoming available since the previous analyses. Mitigation measures from the Master EIR (Appendix B) will be considered in the analysis to mitigate impacts, and if necessary additional mitigation measures would be proposed to reduce the significance of the impact under CEQA.
- **No Further Evaluation Needed:** The proposed rehabilitation activities would not result in an impact on the resource topic, or the issue is not a concern at the rehabilitation site or for the rehabilitation activities. Further evaluation of the environmental topic or issue is not necessary. The rationale behind this conclusion is that either the environmental topic is not present in or near the rehabilitation site or the nature of the project would clearly not result in an impact. Also, if the previous analyses thoroughly evaluated the issue and dismissed it, no further evaluation is needed.

<b>I. AESTHETICS</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<hr/>		
a) The Trinity River, as it flows through the Deep Gulch and Sheridan Creek Rehabilitation Sites, is a wild and scenic river. Further evaluation is needed to assess impacts on the wild and scenic river corridor and visual changes associated with the rehabilitation activities, particularly for recreationists using the river corridor.		
b) The rehabilitation sites are not near a state scenic highway. The rehabilitation activities would not affect scenic resources along a scenic highway.		
c) The rehabilitation activities would take place along a wild and scenic river corridor; therefore, further evaluation is necessary to assess impacts on the visual character of the rehabilitation sites.		
d) The rehabilitation activities would not involve new sources of light or glare. They would be restricted to daylight hours, and no construction lighting would be required.		
<hr/>		
<b>II. AGRICULTURE AND FOREST RESOURCES</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code Section 51104(g)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>



- a, b) The rehabilitation sites are along the Trinity River and are not used for agricultural purposes. The rehabilitation activities would not convert farmland or conflict with agricultural zoning.
- c) The rehabilitation sites are not zoned for timber production.
- d) Upland areas on the left side of the Sheridan Creek site contain mixed conifer forests on land managed by the Bureau of Land Management. Mature conifers and hardwoods would be removed at two upland activity areas to provide a stable location for disposal of excavated material. All wood removed from these areas would be used on-site for channel rehabilitation improvements. No forest resources would be sold or removed from the site.
- e) The rehabilitation activities would occur on upland, floodplain and riverine features in a manner that would enhance the diversity and complexity of vegetation.

**III. AIR QUALITY/GREENHOUSE GAS** — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a, g) The rehabilitation activities would result in temporary construction emissions and fugitive dust and would not conflict with or obstruct implementation of California’s air quality or greenhouse gas plans or policies.
- b) Impacts associated with temporary construction emissions and fugitive dust will be further evaluated.
- c) The proposed rehabilitation activities in combination with other rehabilitation activities or projects in the vicinity of the rehabilitation sites could result in cumulative air quality impacts, depending on their implementation schedules. Cumulative impacts on air quality will be further evaluated.

- d) Recreationists and other sensitive receptors could be affected by temporary air quality impacts, such as from diesel emissions and exhaust, and these impacts will be further evaluated.
- e) The use of construction equipment would generate odors from exhaust fumes during rehabilitation activities, but the odors would dissipate quickly and would not have the potential to affect a substantial number of people.
- f) The rehabilitation activities would result in temporary emissions that would not contribute to regional greenhouse gas emissions or global climate change, as discussed in the Master EIR.

<b>IV. BIOLOGICAL RESOURCES</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The rehabilitation activities could affect federally and state-listed species, other special-status plants or wildlife, or their habitat. A detailed evaluation of impacts is needed.
- b) The rehabilitation activities would involve activities in riparian habitat, including the removal of riparian habitat along the Trinity River and modifications to the floodplain. A detailed evaluation of impacts is needed.
- c) The rehabilitation activities would involve activities in wetlands and the Trinity River, a water of the United States. A detailed evaluation of impacts is needed.

- d) In-channel rehabilitation activities could impede movement of fish and other aquatic organisms through the rehabilitation sites. A detailed evaluation of impacts is needed. No wildlife corridors or nursery sites are present; these topics are not further evaluated.
- e) The rehabilitation activities would not conflict with Trinity County policies for protecting biological resources.
- f) No habitat conservation plans or other similar types of plans apply to the rehabilitation activities or sites.

<b>V. CULTURAL RESOURCES</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a, b) The rehabilitation activities could affect cultural resources associated with historic mining activities or other prior uses of the rehabilitation sites. A detailed evaluation of impacts is needed.
- c) The rehabilitation sites are not known to support unique paleontological or geologic resources.
- d) Although not expected, human remains may be encountered during rehabilitation activities. Further evaluation of this impact is necessary.
- e) Previous uses of the rehabilitation sites may have included tribal uses, and further evaluation of impacts on Tribal Cultural Resources is needed.

<b>VI. GEOLOGY AND SOILS</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>VI. GEOLOGY AND SOILS</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
b) Result in substantial soil erosion or the loss of topsoil?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The rehabilitation activities would not cause or contribute to seismic-related hazards or landslides.
- b) The rehabilitation activities would require soil excavation along the floodplain and could increase erosion. A detailed evaluation of impacts is needed.
- c) Activities along the floodplain could influence geomorphic changes along the river, affecting soil conditions. Further evaluation of soil impacts is needed.
- d) The rehabilitation activities would not create risks to life or property due to expansive soils.
- e) The rehabilitation activities do not include the use of septic tanks or wastewater systems.

<b>VII. HAZARDS AND HAZARDOUS MATERIALS</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VII. HAZARDS AND HAZARDOUS MATERIALS** — Would the project:

		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a, b) Some hazardous materials would be transported to the rehabilitation sites and used during construction. Further evaluation of impacts associated with these activities is necessary.
- c-f) The rehabilitation sites are not near schools, known hazardous sites, or airports. A private airstrip is located on an adjacent private property and is occasionally used, but use of the airstrip would not pose a hazard to activities in the project area.
- g) The rehabilitation activities would not require lane or road closures or other activities that could interfere with emergency responses or evacuations in the area.
- h) The rehabilitation activities would not increase the potential for wildland fires or create a risk to people or properties from wildfires based on their location along the Trinity River.

**VIII. HYDROLOGY AND WATER QUALITY** — Would the project:

		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a)	Violate any water quality standards or waste discharge requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**VIII. HYDROLOGY AND WATER QUALITY** — Would the project:

	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The rehabilitation activities would take place along and in the Trinity River and could affect water quality. A detailed evaluation of impacts is needed.
- b) The rehabilitation activities could affect the groundwater table. A detailed evaluation of impacts is needed.
- c, d, h) The rehabilitation activities would involve changes to the Trinity River that could result in increased erosion downstream or modified drainage patterns along the floodplain. A detailed evaluation of impacts is needed.
- e) The rehabilitation activities would not affect stormwater runoff in a manner that would exceed storm drainage facilities.
- f) The rehabilitation activities would involve grading that could increase erosion and potential discharge of storm water runoff. A detailed evaluation of impacts is needed.
- g, i, j) The rehabilitation activities do not include housing and would not increase the risk of flooding. The rehabilitation sites are not prone to seiche, tsunami, or mudflow.

**IX. LAND USE AND PLANNING** – Would the project:

	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Physically divide an established community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The rehabilitation sites are not in an established community. They are in the planning boundary of the 1987 Junction City Community Plan, and private parcels in and adjacent to the project area are subject to this plan.

- b) Some of the rehabilitation activities would take place on lands managed by the Bureau of Land Management and would need to comply with the Redding Resource Management Plan, as amended. Further evaluation of the consistency of the activities with the plan is needed.
- c) No habitat conservation plans or other similar types of plans apply to the rehabilitation activities or sites.

<b>X. MINERAL RESOURCES</b> — Would the project:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a, b) The southern portion of the Deep Gulch Rehabilitation Site overlaps with an active mining claim on land managed by the Bureau of Land Management. Further evaluation of impacts on the claim is needed.

<b>XI. NOISE</b> — Would the project result in:	<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a, b, d) The rehabilitation activities would result in temporary noise that could affect nearby recreationists or other sensitive receptors. A detailed evaluation of this impact is needed.
- c) The rehabilitation activities would not result in a permanent increase in noise levels.
- e, f) The rehabilitation sites are not near an airport, and use of the nearby private airstrip would not expose people to excessive noise levels based on its infrequent use.

<b>XII. POPULATION AND HOUSING</b> — Would the project:		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a-c) The rehabilitation activities would not affect population or housing in Trinity County.

<b>XIII. PUBLIC SERVICES</b> — Would the project:		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:		
	Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other public facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The rehabilitation activities would not affect public services in Trinity County.

<b>XIV. RECREATION</b> — Would the project:		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Degrade the quality of recreation activities or impede the use of recreation areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a, b) The rehabilitation sites do not contain recreation facilities, and the rehabilitation activities would not affect recreation facilities or parks in the county.

c) The Trinity River is used for various recreational purposes, and the rehabilitation activities could affect recreational access or use of the river. A detailed evaluation of this impact is needed.



<b>XV. TRANSPORTATION/TRAFFIC</b> — Would the project:		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Result in inadequate parking capacity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) Increased truck and equipment traffic for the rehabilitation activities could affect nearby roads and highways. A detailed evaluation of this impact is necessary.
- b) Traffic associated with the rehabilitation activities would be temporary and periodic during the work day and would not change the level of service of nearby roads or highways.
- c) The rehabilitation activities would not affect air traffic.
- d) The rehabilitation activities would not create traffic hazards.
- e) The rehabilitation activities would include temporary access roads that would improve emergency access to the river while not affecting emergency access outside the rehabilitation sites.
- f) All parking associated with the rehabilitation activities would be on-site and would not affect parking on federal or private lands.
- g) The rehabilitation activities would not affect alternative forms of transportation.

<b>XVI. UTILITIES AND SERVICE SYSTEMS</b> — Would the project:		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>XVI. UTILITIES AND SERVICE SYSTEMS — Would the project:</b>		<i>Further Evaluation Needed</i>	<i>No Further Evaluation Needed</i>
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a–e) The rehabilitation activities would not affect utilities or service systems in Trinity County.
- f) All excavated material and waste disposal associated with the rehabilitation activities would be on-site in designated spoils areas or at an approved landfill. The disposal of materials off-site will be further evaluated to ensure the disposal site can receive the material.
- g) All disposal of solid waste would comply with applicable statutes and regulations.

# Appendix A2

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## Environmental Checklist Form

1. **Project Title:** Trinity River Channel Rehabilitation Sites: Deep Gulch and Sheridan Creek (River Mile 81.6-82.9)
2. **Lead Agency Name and Address:** North Coast Regional Water Quality Control Board  
550 Skylane Blvd., Suite A, Santa Rosa, CA 95403
3. **Contact Person and Phone Number:** Gil Falcone, (707) 576-2830
4. **Project Location:** Junction City, Trinity County, California
5. **Project Sponsor's Names:** Bureau of Reclamation  
Trinity River Restoration Program
6. **General Plan Designation:**  
  
Trinity County General Plan – Open Space, Specific Unit Development, Scenic Conservation  
BLM 1993 Redding Resource Management Plan — Other (Matrix)
7. **Zoning:** Open Space
8. **Description of Project:**  
  
See Chapter 2 of the Environmental Assessment/Initial Study for the Trinity River Channel Rehabilitation Sites: Deep Gulch and Sheridan Creek (River Mile 81.6-82.9) Project (EA/IS)
9. **Surrounding Land Uses and Setting:** See Section 3.2.1 of the EA/IS
10. **Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.)**
  - Bureau of Land Management, Redding Field Office (special use permit)
  - Trinity County Department of Transportation (Floodplain development permit, FEMA compliance)
  - U.S. Army Corp of Engineers (Clean Water Act, Section 404 compliance)

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                           |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology/Soils                         |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology/Water Quality               |
| <input type="checkbox"/> Land Use/Planning        | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                                 |
| <input type="checkbox"/> Population/Housing       | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                            |
| <input type="checkbox"/> Transportation/Traffic   | <input type="checkbox"/> Utilities/Service Systems          | <input type="checkbox"/> Mandatory Findings<br>of Significance |

### DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY)

#### On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Under California Code of Regulations, title 14, section 15177, after a Master EIR<sup>1</sup> has been prepared and certified, subsequent projects which the lead agency determines as being within the scope of the Master EIR will be subject to only limited environmental review. Mitigation measures from the Master EIR will be implemented.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For the Lead Agency

<sup>1</sup> North Coast Regional Water Quality Control Board and U.S. Bureau of Reclamation. 2009. Channel rehabilitation and sediment management for remaining Phase 1 and Phase 2 sites. Master environmental impact report, environmental assessment/ environmental impact report. Trinity River Restoration Program. August 2009. SCH#2008032110

## EVALUATION OF ENVIRONMENTAL IMPACTS

Each of these environmental factors listed above was fully evaluated and one of the following four determinations was made:

- **No Impact:** No impact to the environment would occur as a result of implementing the proposed project.
- **Less than Significant Impact:** Implementation of the proposed project would not result in a substantial and adverse change to the environment and no mitigation is required.
- **Potentially Significant Impact:** Implementation of the proposed project could result in an impact that has a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382).
- **Less than Significant Impact With Mitigation Incorporated:** A “potentially significant impact”, as described above, that can be reduced to a less-than-significant level with the incorporation of project-specific mitigation measures.

**ENVIRONMENTAL IMPACT CHECKLIST**

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>I. AESTHETICS -- Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- (a) Refer to section 3.4.2 of the EA/IS
- (b) Refer to section 3.4.2 of the EA/IS
- (c) Refer to section 3.4.2 of the EA/IS
- (d) Not Applicable

**Mitigation Measures**

See CEQA mitigation measures described in Appendix B of the EA/IS: [4.5-1a-1e], [4.5-2a – 2c], [4.5-3a-3c], 4.5-1e] and [4.8-1a]

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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**II. AGRICULTURAL LAND FOREST**

**RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion of Impacts**

- (a) Not applicable
- (b) Not applicable
- (c) Not applicable
- (d) Not Applicable
- (e) Not Applicable

**Mitigation Measures**

Not Applicable



	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>III. AIR QUALITY</b> -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. <b>Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- (a) Refer to Section 3.7.2 of EA/IS
- (b) Refer to Section 3.7.2 of EA/IS
- (c) Refer to Section 3.7.2 of EA/IS
- (d) Refer to Section 3.7.2 of EA/IS
- (e) Not applicable

**Mitigation Measures**

See CEQA mitigation measures described in Appendix B of the EA/IS: [4.11-a-1a], [4.11-2a]

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>IV. BIOLOGICAL RESOURCES -- Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- (a) Refer to sections 3.12.2 and 3.13.2 of the EA/IS
- (b) Refer to sections 3.12.2 and 3.13.2 of the EA/IS
- (c) Refer to sections 3.12.2 and 3.13.2 of the EA/IS
- (d) Refer to sections 3.12.2 and 3.13.2 of the EA/IS
- (e) Not applicable

(f) Not applicable

**Mitigation Measures**

See CEQA mitigation measures for fisheries described in Appendix B of the EA/IS: [4.6-1a, 1b], [4.6-4a-4e], [4.6-4f], [4.6-5b], and EC FR-5 [4.6a-6d].

See CEQA mitigation measures for vegetation, wildlife and wetlands described in Appendix B of the EA/IS: [4.3-2b], [4.7-1a], [4.7-7 a-d], [4.7-8a-d], [4.7-9a-c], [4.7-5a-d], [4.7-6a-e], [4.7-13a-g ], and [4.7-1b].

<b>V. CULTURAL RESOURCES -- Would the project:</b>	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion of Impacts**

- (a) Not applicable
- (b) Not applicable
- (c) Not applicable
- (d) Refer to Section 3.5.2 of the EA/IS

**Mitigation Measures**

See CEQA mitigation measures for cultural resources in Appendix B of the EA/IS: [4.10-2a] and [4.10-2a].

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>VI. GEOLOGY AND SOILS -- Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- (ai) Not applicable
- (aii) Not applicable
- (aiii) Not applicable
- (aiv) Not applicable

- (b) Refer to Section 3.9.2 of the EA/IS
- (c) Not applicable
- (d) Not applicable
- (e) Not applicable

**Mitigation Measures**

See CEQA mitigation measures for geomorphology and soil resources in Appendix B of the EA/IS: [4.3-2a] and [4.3-2b].

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>VII. GREENHOUSE GAS EMISSIONS -- Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion of Impacts**

- (a) Refer to Section 3.7.2 of the EA/IS
- (b) Refer to Section 3.7.2 of the EA/IS

**Mitigation Measures**

See CEQA mitigation measures for air quality in Appendix B of the EA/IS: [4.11-a-1a] and [4.11-2a].

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS</b>				
<b>-- Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



**Discussion of Impacts**

(a-h) Hazards to the public were addressed in the 2009 Master EIR, and no issues were identified. Indirect public health or safety concerns are addressed under air quality, noise, recreation, and transportation and traffic.

**Mitigation Measures**

Not applicable

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>IX. HYDROLOGY AND WATER QUALITY --</b>				
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- (a) Refer to Section 3.11.2 of EA/IS
- (b) Not Applicable
- (c) Refer to Section 3.11.2 of EA/IS
- (d) Refer to Section 3.11.2 of EA/IS
- (e) Refer to Section 3.11.2 of EA/IS
- (f) Refer to Section 3.11.2 of EA/IS
- (g) Refer to Section 3.10.2 of EA/IS
- (h) Refer to Section 3.10.2 of EA/IS
- (i) Refer to Section 3.10.2 of EA/IS
- (j) Not applicable

**Mitigation Measures**

See CEQA mitigation measures for water quality in Appendix B of the EA/IS: [4.5-1a, b], [4.5-1c], [4.5-1d], [4.5-1e, 4.5-2a-2c], [4.5-3a-3c] [4.11-a-1a] and [4.11-2a].

No mitigation required for Hydrology and Flooding.

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>X. LAND USE AND PLANNING -- Would the project:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a-c) Refer to Section 3.2.2 of the EA/IS

**Mitigation Measures**

Not applicable

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>XI. MINERAL RESOURCES -- Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a, b) Refer to Section 3.9 of the EA/IS

**Mitigation Measures**

Not Applicable

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>XII. NOISE -- Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

- (a) Refer to Section 3.8.2 of the EA/IS
- (b) Refer to Section 3.8.2 of the EA/IS
- (c) Not applicable
- (d) Refer to Section 3.8.2 of the EA/IS
- (e) Not applicable
- (f) Not applicable

### Mitigation Measures

See CEQA mitigation measures for noise in Appendix B of the EA/IS: [4.14-1a] and [4.14-1b].

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>XIII. POPULATION AND HOUSING -- Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a-c) No populations would be affected, nor would replacement housing be required.

**Mitigation Measures**

Not applicable

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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**XIV. PUBLIC SERVICES -- Would the project:**

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impact**

(a) Public services were addressed in the Master EIR, and no issues associated with the increased demand or disruption of public services was identified. Access-related issues are addressed under transportation and traffic.

**Mitigation Measures**

Not applicable



	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>XV. RECREATION --</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a, b) Refer to Section 3.3.2 of the EA/IS

**Mitigation Measures**

Not applicable to listed impacts, however the EA/IS does include CEQA mitigation measures to address water quality related to recreational use of the Wild and Scenic River: [4.5-1a-1e], [4.5-2a – 2c], [4.5-3a-3c], and [4.5-1e].

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>XV. TRANSPORTATION / TRAFFIC -- Would the project:</b>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- (a) Not applicable
- (b) Not applicable
- (c) Refer to Section 3.6.2 of the EA/IS
- (d) Not applicable
- (e) Refer to Section 3.6.2 of the EA/IS
- (f) Not applicable

### **Mitigation Measures**

See CEQA mitigation measures for traffic and transportation in Appendix B of the EA/IS: [4.16-2a] and [4.16-5a].

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
<b>XVII. UTILITIES AND SERVICE SYSTEMS --</b>				
<b>Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion of Impacts**

- (a) Not applicable
- (b) Not applicable
- (c) Not applicable
- (d) Refer to Section 2.1.15 and Appendix B (Project Design Elements) of the EA/IS
- (e) Not applicable
- (f) Not Applicable

(g) Refer to Appendix B (Project Design Elements) of the EA/IS

**Mitigation Measures**

Not applicable

	<i>Potentially Significant Impact</i>	<i>Less than Significant With Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

**(To be filled out by Lead Agency if required)**

- |  |                          |                                     |                                     |                          |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Discussion**

- (a) Refer to Sections 3.12.2, 3.13.2 and 3.5.2 of the EA/IS
- (b) Refer to Chapter 4 of the EA/IS
- (c) Refer to Chapters 3 and 4 of the EA/IS

## **APPENDIX B**

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### **Deep Gulch and Sheridan Creek Rehabilitation Project Mitigation Monitoring and Reporting Program and Project Design Features**

#### **Project Proponent and Federal Lead Agency for NEPA**

U.S. Department of the Interior  
Bureau of Reclamation– Trinity River Restoration Program  
PO Box 1300  
1313 Main Street  
Weaverville, CA 96093

#### **California Lead Agency for CEQA**

North Coast Regional Water Quality Control Board  
5550 Skylane Blvd, Suite A  
Santa Rosa, CA 95403

#### **Federal Co-Lead Agency for NEPA**

U.S. Department of Interior – Bureau of Land Management  
Redding Field Office

#### **Applicant's Consultant**

North State Resources, Inc.  
5000 Bechelli Lane, Suite 203  
Redding, CA 96002

## **APPENDIX B**

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### **Deep Gulch and Sheridan Creek Rehabilitation Project Mitigation Monitoring and Reporting Program and Project Design Features**

#### **Introduction**

The first part of this document comprises the MMRP for the Trinity River Channel Rehabilitation Site: Deep Gulch and Sheridan Creek (RM 81.6-82.9) Project (the Proposed Project). The purpose of providing the MMRP as an appendix is to facilitate its use as a stand-alone document, which clearly expresses to the reader the mitigation responsibilities of the Bureau of Reclamation (Reclamation), and Regional Water Quality Control Board – North Coast Region (Regional Water Board) in implementing the project. The mitigation measures listed herein, which are an updated version of those included within the Master EIR/Programmatic EA (North Coast Regional Water Board and Reclamation 2009), are required by law or regulation and will be adopted by the Regional Water Board when it issues its Notice of Applicability for the project. The second part of this document is comprised of project design elements that shall be implemented as part of the Proposed Project. In general, Chapter 3 mitigation measures identified in the EA/IS correspond to Chapter 4 mitigation measures in the Master EIR. The Appendix B mitigation measures in this EA/IS are meant to mitigate the same impacts as those identified in the Master EIR. Consequently, these mitigation measures are only different to the extent necessary to tailor the mitigation measures to the site specific conditions.

Mitigation is defined by the CEQA – Section 15370 as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action;
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; and
- Compensates for the impacts by replacing or providing substitute resources or environments.

The mitigation program identified in the MMRP to reduce potential project impacts consists of mitigation measures, project design elements, and construction criteria and methods. Mitigation measures provided in this MMRP have been identified in Chapter 3, Affected Environment and Environmental Consequences of the Proposed Project EA/IS, as feasible and effective in mitigating project-related environmental impacts. This MMRP includes discussion of the following: legal requirements, intent of the MMRP, development and approval process for the MMRP, the authorities and responsibilities associated with the implementation of the MMRP, a description of the mitigation summary table, project design elements, construction criteria and methods, and resolution of noncompliance complaints.



## **Legal Requirements**

The legal basis for the development and implementation of the MMRP lies within CEQA (including the California PRC). Sections 21002 and 21002.1 of the California PRC state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.
- Section 21081.6 of the California PRC further requires that: the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.
- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

## **Intent of the Mitigation Monitoring and Reporting Program**

The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It is anticipated to be used by Reclamation and Regional Water Board staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project.

The primary objective of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as needed, on-site identification and resolution of environmental problems, and proper reporting to lead agency staff.

## **Development and Approval Process**

The timing elements for implementing mitigation measures and the definition of the approval process have been provided in detail through this MMRP to assist staff from Reclamation and the Regional Water Board by providing the most usable monitoring document possible.

## **Authorities and Responsibilities**

As the Project proponent, Reclamation, functioning as the TRRP, will have the primary responsibility for the execution and proper implementation of the MRRP. The Regional Water Board may provide Reclamation with guidance, as warranted. Reclamation will be responsible for the following activities:

- Coordination of monitoring activities,
- Management of the preparation and filing of monitoring compliance reports, and

- Maintenance of records concerning the status of all approved mitigation measures.

### Summary of Monitoring Requirements

Table A-1, which follows, summarizes the mitigation measures and associated monitoring requirements for the Proposed Project. The mitigation measures are organized by environmental issue area (i.e., Soils, Water Quality, etc.). Table A-1 is composed of the following four columns:

- **Mitigation Measure:** Lists the mitigation measures identified for each significant impact discussed in the Draft EA/IS for the project. The mitigation numbering system used in the Draft MEIR/Draft EIR is carried forward in this MMRP.
- **Timing/Implementation:** Indicates at what point in time or project phase the mitigation measure will need to be implemented.
- **Responsible Parties (tasks):** Documents which agency or entity is responsible for implementing a mitigation measures and what, if any, coordination is required (e.g., approval from Caltrans). If more than one party has responsibility under a given mitigation measure, the tasks of each individual party is identified parenthetically (e.g., “implementation” or “monitoring”).
- **Verification:** Provides spaces to be initialed and dated by the individual responsible for verifying compliance with each specific mitigation measure.

### Resolution of Noncompliance Complaints

Any person or agency may file a complaint that states noncompliance with the mitigation measures that were adopted as part of the approval process for the project. The complaint shall be directed to Reclamation at the TRRP office (P.O. Box 1300, 1313 South Main Street, Weaverville, CA 96093) and to the Regional Water Board at 5550 Skylane Boulevard, Suite A, Santa Rosa, California, 95403, in written form, providing detailed information on the purported violation. Reclamation and the Regional Water Board shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, Reclamation shall take the necessary action(s) to remedy the violation. The complainant shall receive written confirmation indicating the results of the investigation or the final corrective action that was implemented in response to the specific noncompliance issue.

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<b>3.3 Geology, Fluvial Geomorphology, and Soils</b>			
<b>Impact 3.3-2:</b> Construction activities associated with the Proposed Project could result in increased erosion and short-term sedimentation of the Trinity River.			
<p><b>4.3-2a</b> Reclamation will implement the following measures during construction activities:</p> <ul style="list-style-type: none"> <li>• Areas where ground disturbance will occur will be identified in advance of construction and limited to only those areas that have been approved by Reclamation.</li> <li>• All vehicular construction traffic will be confined to the designated access routes and staging areas.</li> <li>• Disturbance will be limited to the minimum necessary to complete all rehabilitation activities.</li> <li>• All supervisory construction personnel will be informed of environmental concerns, permit conditions, and final project specifications.</li> </ul>		Reclamation (implementation) Regional Water Board (Storm Water Pollution Prevention Plan [SWPPP] review and approval) BLM (SWPPP review)	
<p><b>4.3-2b</b> Reclamation will prepare an erosion and sedimentation control plan (SWPPP). Measures for erosion control will be prioritized based on proximity to the river. Reclamation will provide the SWPPP for review by associated agencies (e.g., BLM, the Regional Water Board, NMFS, and CDFW) upon request. Reclamation’s project manager will ensure the preparation and implementation of an erosion and sediment control plan prior to the start of construction.</p> <p>The following measures will be used as a guide to develop this plan:</p> <ul style="list-style-type: none"> <li>• Restore disturbed areas to pre-construction contours to the fullest extent feasible.</li> <li>• Salvage, store, and use the highest quality soil for revegetation.</li> <li>• Discourage noxious weed competition and control noxious weeds.</li> <li>• Clear or remove roots from steep slopes immediately prior to scheduled construction.</li> <li>• Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff.</li> <li>• To the fullest extent possible, cease excavation activities during significantly wet or windy weather.</li> <li>• Use bales, wattles, and/or silt fencing as appropriate.</li> <li>• Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic.</li> <li>• Rip feathered edges (and floodplain surfaces where appropriate) to approximately 18 inches deep. The furrowing of the river’s edge will remove plant roots to allow mobilization of the bed, but will also intercept sediment before it reaches the waterway.</li> <li>• Spoil sites will be located such that they do not drain directly into a surface water feature, if possible. If a spoil site will drain into a surface water feature, catch basins will be constructed to intercept sediment before it reaches the feature. Spoil sites will be graded and vegetated to</li> </ul>		Reclamation (implementation) Regional Water Board (SWPPP review and approval) BLM (SWPPP review)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p>reduce the potential for erosion.</p> <ul style="list-style-type: none"> <li>• Sediment control measures will be in place prior to the onset of the rainy season to ensure that surface water runoff does not occur. Project areas will be monitored and maintained in good working condition until disturbed areas have been seeded and mulched or revegetated in another fashion. If work activities take place during the rainy season, erosion control structures will be in place and operational at the end of each construction day.</li> </ul>			
<b>4.5 Water Quality</b>			
<b>Impact 3.5-1:</b> Construction of the proposed project could result in short-term, temporary increases in turbidity and total suspended solids levels during construction.			
<p><b>4.5-1a</b> The water quality objective for turbidity levels in the Trinity River, as listed in the Basin Plan for the North Coast Region (North Coast Regional Water Quality Control Board 2011), is summarized below.</p> <ul style="list-style-type: none"> <li>• Turbidity levels will not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.</li> <li>• Due to the nature of the proposed restoration activities and the clarity of the Trinity River during low flow conditions, the Regional Water Board has determined that an allowable zone of turbidity dilution is appropriate and necessary in order for Trinity River restoration activities to be accomplished in a meaningful, timely, and cost-effective manner that fully protects beneficial uses without resulting in a violation of the water quality objective for turbidity.</li> <li>• Project activities that occur in areas outside of the active river channel will not increase turbidity levels by more than 20 percent above naturally occurring background levels. During in-river construction activities and until the first extended period of post-construction high flow (i.e., flows of at least 6,000 cfs inundate the project areas and floodplain for a minimum of 7 days) a zone of turbidity dilution within which higher percentages will be tolerated will be defined in discharge permits as the full width of the river channel within 500 linear feet downstream of any project activity that increases naturally occurring background levels, provided that all other required controls and appropriate BMPs for sediment and turbidity control are in place and downstream beneficial uses are also fully protected. When naturally occurring background levels are less than or equal to 20 NTUs, turbidity levels immediately downstream of the zone of turbidity dilution shall not exceed 20 NTUs. If naturally occurring background levels are greater than 20 NTUs, turbidity levels immediately downstream of the 500 linear foot zone of dilution shall not be increased by more than 20 percent above the naturally occurring background level.</li> </ul>		<p>Reclamation (implementation) Regional Water Board (review of monitoring data)</p>	
<p><b>4.5-1b</b> To ensure that turbidity levels do not exceed the thresholds described above (4.4-1a) during in-river project construction activities, Reclamation shall monitor turbidity levels upstream within 50 feet of</p>		<p>Reclamation</p>	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p>project activities (i.e., natural background) and 500 feet downstream of the in-river construction activities that could increase turbidity. At a minimum, field turbidity measurements shall be collected whenever a visible increase in turbidity is observed. Monitoring frequency shall be a minimum of every two hours during in-river work periods and when activities commence that are likely to increase turbidity levels above any previously monitored levels.</p> <ul style="list-style-type: none"> <li>If grab sample results indicate that turbidity levels exceed 20 NTU at 500 feet downstream from construction activities, remedial actions will be implemented to reduce and maintain turbidity at or below 20 NTU immediately downstream of the 500 linear foot zone of dilution. Potential remedial actions include halting or slowing construction activities and implementation of additional BMPs until turbidity levels are at or below 20 NTU.</li> </ul>		(implementation) Regional Water Board (review of monitoring data)	
<p><b>4.5-1c</b> Fill gravels used on the streambeds, stream banks, and river crossings will be composed of washed, spawning-sized gravels from a local Trinity River Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminants such as petroleum products. Washed gravel will pass Caltrans cleanliness test #227 with a value of 85 or greater.</p>		Reclamation (implementation)	
<p><b>4.5-1d</b> Reclamation will prepare and implement a SWPPP that describes BMPs for the project, including silt fences, sediment filters, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls will be adequate to minimize sediment inputs into the Trinity River until vegetation regrowth occurs. All required controls and BMPs, including sediment and erosion control devices, will be inspected daily during the construction period to ensure that the devices are properly functioning. Excavated and stored materials will be kept in upland activity areas with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland activity areas. All applicable erosion control standards will be required during stockpiling of materials.</p>		Reclamation (implementation) Regional Water Board (SWPPP review and approval) BLM (SWPPP review)	
<p><b>4.5-1e</b> To minimize the potential for increases in turbidity and suspended sediments entering the Trinity River as a result of access routes (e.g., roads), Reclamation will implement the following protocols:</p> <ul style="list-style-type: none"> <li>Keep bare soil to the minimum required by designs. Erosion control devices/measures will be applied to areas where vegetation has been removed as needed to reduce short-term erosion prior to the start of the rainy season.</li> <li>Keep runoff from bare soil areas well dispersed. Dispersing runoff keeps sediment on-site and prevents sediment delivery to streams. Direct any concentrated runoff from bare soil areas into natural buffers of vegetation or areas with more gentle slopes where sediment can settle out.</li> <li>Disconnect and disperse flow paths, including roadside ditches, that might otherwise deliver fine sediment to stream channels or other water bodies.</li> <li>Decompact or rip floodplain areas so that surfaces are permeable and no surface water runoff</li> </ul>		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
occurs.			
<b>Impact 3.5-2:</b> Construction of the proposed project could result in short-term, temporary increases in turbidity and total suspended solids levels following construction.			
<b>4.5-2a</b> Turbidity increases associated with project activities will not exceed the water quality objectives for turbidity in the Trinity River Basin (North Coast Regional Water Quality Control Board 2011).		Reclamation (implementation)	
<p><b>4.5-2b</b> To ensure that turbidity levels do not exceed the threshold following construction, Reclamation will monitor turbidity and total suspended solids during and after representative rainfall events to determine the effect of the project on Trinity River water quality. At a minimum, field turbidity measurements will be collected whenever a visible increase in turbidity is observed.</p> <ul style="list-style-type: none"> <li>• If increases in turbidity and total suspended solids are observed as a result of erosion from constructed features, field turbidity measurements will be collected 50 feet upstream of a point adjacent to the end of the feature and 500 feet downstream of the feature.</li> <li>• If the grab sample indicates that turbidity levels exceed the established thresholds identified in the Basin Plan, the Regional Water Board will be notified. The need to implement erosion control measures for turbidity that is expected to result from overland river flows (versus surface run-off) will be evaluated with Regional Water Board staff to determine if remediation measures are needed.</li> </ul>		Reclamation (implementation)	
<b>4.5-2c</b> To reduce the potential for the access routes to continually contribute soil materials to the Trinity River following project construction, thereby increasing turbidity and total suspended solids in the river, these routes will be stabilized or decommissioned upon completion of work in those areas consistent with the requirements outlined in at the end of this appendix (Design Elements and Construction Criteria). Decommissioning is defined as removing those elements of a road that reroute hillslope drainage and present slope stability hazards.		Reclamation (implementation)	
<b>Impact 3.5-3:</b> Construction of the proposed project could cause contamination of the Trinity River from hazardous materials spills.			
<b>4.5-3a</b> Reclamation will prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements.		Reclamation (implementation)	
<b>4.5-3b</b> Reclamation will ensure that any construction equipment that will come in contact with the Trinity River be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water will be adequately treated prior to discharge if that is the desired disposal option.			

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p><b>4.5-3c</b> Reclamation will ensure that hazardous materials, including fuels, oils, and solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel or within an adequate secondary fueling containment area. Gas pumps and engines will be stored and maintained on impermeable barriers so that any leaking petroleum products are isolated from the ground. In addition, the construction contractor will be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.</p>			
<p><b>Impact 3.5-5:</b> Construction and maintenance of the proposed project could result in the degradation of Trinity River beneficial uses identified in the Basin Plan.</p>			
<p>Water Quality Mitigation Measures 4.5-1a, 4.5-1b, 4.5-1c, 4.5-1d, 4.5-1e, 4.5-2a, 4.5-2b, 4.5-2c, 4.5-3a, 4.5-3b, and 4.5-3c described above shall be implemented to protect the beneficial uses of the Trinity River.</p>		<p>Reclamation (implementation)                      Regional Water Board (SWPPP review and approval)                      BLM (SWPPP review)</p>	
<p><b>3.6 Fishery Resources</b></p>			
<p><b>Impact 3.6-1:</b> Implementation of the proposed project could result in effects on potential spawning and rearing habitat for anadromous fishes, including the federally and state-listed coho salmon.</p>			
<p><b>4.6-1a</b> The proposed construction schedule avoids in-channel work during the period in which it could affect spawning spring- and fall-run Chinook salmon, coho salmon, and steelhead or their embryos once in the gravel. As directed by the 2000 Biological Opinion (National Marine Fisheries Service 2000), Reclamation will ensure that all in-channel construction activities are conducted during late-summer, low-flow conditions (e.g., July 15-September 15).</p>		<p>Reclamation (implementation)</p>	
<p><b>4.6-1b</b> Alluvial material used for coarse sediment additions will be composed of washed, spawning-sized gravels (3/8- to 5-inches diameter) from a local Trinity River Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter; will be free of contaminants, such as petroleum products; and will pass Caltrans cleanliness test #227 with a value of 85 or greater.</p>		<p>Reclamation (implementation)</p>	
<p><b>Impact 3.6-2:</b> Implementation of the proposed project could result in increased erosion and sedimentation levels that could adversely affect fishes, including</p>			

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p>the federally and state-listed coho salmon.</p>			
<p><b>4.6-2a</b> The water quality objective for turbidity levels in the Trinity River, as listed in the Basin Plan for the North Coast Region (North Coast Regional Water Quality Control Board 2011), is summarized below.</p> <ul style="list-style-type: none"> <li>• Turbidity levels shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.</li> <li>• Due to the nature of the proposed restoration activities and the clarity of the Trinity River during low flow conditions, the Regional Water Board has determined that an allowable zone of turbidity dilution is appropriate and necessary in order for Trinity River restoration activities to be accomplished in a meaningful, timely, and cost-effective manner that fully protects beneficial uses without resulting in a violation of the water quality objective for turbidity.</li> <li>• Project activities that occur in areas outside of the active river channel will not increase turbidity levels by more than 20 percent above naturally occurring background levels. During in-river construction activities and until the first extended period of post-construction high flow (i.e., flows of at least 6,000 cfs inundate the project areas and floodplain for a minimum of 7 days) a zone of turbidity dilution within which higher percentages will be tolerated will be defined in discharge permits as the full width of the river channel within 500 linear feet downstream of any project activity that increases naturally occurring background levels, provided that all other required controls and appropriate BMPs for sediment and turbidity control are in place and downstream beneficial uses are also fully protected. When naturally occurring background levels are less than or equal to 20 NTUs, turbidity levels immediately downstream of the zone of turbidity dilution shall not exceed 20 NTUs. If naturally occurring background levels are greater than 20 NTUs, turbidity levels immediately downstream of the 500 linear foot zone of dilution shall not be increased by more than 20 percent above the naturally occurring background level.</li> </ul>		<p>Reclamation (implementation)</p>	
<p><b>4.6-2b</b> To ensure that turbidity levels do not exceed the thresholds described above (4.6-2a) during in-river project construction activities, Reclamation shall monitor turbidity levels upstream within 50 feet of project activities (i.e., natural background) and 500 feet downstream of the in-river construction activities that could increase turbidity. At a minimum, field turbidity measurements shall be collected whenever a visible increase in turbidity is observed. Monitoring frequency shall be a minimum of every two hours during in-river work periods and when activities commence that are likely to increase turbidity levels above any previously monitored levels.</p> <p>If grab sample results indicate that turbidity levels exceed 20 NTU at 500 feet downstream from construction activities, remedial actions will be implemented to reduce and maintain turbidity at or below 20 NTU immediately downstream of the 500 linear foot zone of dilution. Potential remedial actions include halting or slowing construction activities and implementation of additional BMPs until turbidity</p>		<p>Reclamation (implementation)</p>	



**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
levels are at or below 20 NTU.			
<p><b>4.6-2c</b> Fill gravels used on the streambeds, stream banks, and river crossings will be composed of washed, spawning-sized gravels from a local Trinity River Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminants such as petroleum products. Washed gravel will pass Caltrans cleanliness test #227 with a value of 85 or greater.</p>		Reclamation (implementation)	
<p><b>4.6-2d</b> Reclamation will prepare and implement a SWPPP that describes BMPs for the project, including silt fences, sediment filters, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls will be adequate to minimize sediment inputs into the Trinity River until vegetation regrowth occurs. All required controls and BMPs, including sediment and erosion control devices, will be inspected daily during the construction period to ensure that the devices are properly functioning. Excavated and stored materials will be kept in upland activity areas with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland activity areas. All applicable erosion control standards will be required during stockpiling of materials.</p>		Reclamation (implementation) Regional Water Board (SWPPP review and approval) BLM (SWPPP review)	
<p><b>4.6-2e</b> To minimize the potential for increases in turbidity and suspended sediments entering the Trinity River as a result of access routes (e.g., roads), Reclamation will implement the following protocols:</p> <ul style="list-style-type: none"> <li>• Keep bare soil to the minimum required by designs. Erosion control devices/measures will be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season.</li> <li>• Keep runoff from bare soil areas well dispersed. Dispersing runoff keeps sediment on-site and prevents sediment delivery to streams. Direct any concentrated runoff from bare soil areas into natural buffers of vegetation or areas with more gentle slopes where sediment can settle out.</li> <li>• Disconnect and disperse flow paths, including roadside ditches, that might otherwise deliver fine sediment to stream channels.</li> <li>• Decomact or rip floodplain areas so that surfaces are permeable and no surface water runoff occurs.</li> </ul>		Reclamation (implementation)	
<p><b>Impact 3.6-3:</b> Construction activities associated with the Proposed Project could result in the accidental spill of hazardous materials that could adversely affect fishes, including the federally and state-listed coho salmon.</p>			
<p><b>4.6-3a</b> Construction specifications will include the following measures to reduce potential impacts associated with accidental spills of pollutants (fuel, oil, grease, etc.) on vegetation and aquatic habitat resources within the project boundary:</p> <ul style="list-style-type: none"> <li>• Equipment and materials will be stored away from wetland and surface water features.</li> </ul>		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<ul style="list-style-type: none"> <li>• Vehicles and equipment used during construction will receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling will be conducted in an area at least 150 feet away from waters of the Trinity River or within an appropriate secondary fueling containment area. Gasoline engines and pumps operated on the floodplain will be isolated from the ground by an impermeable barrier.</li> <li>• The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill control plan. The contractor will be responsible for immediate containment and removal of any toxins released.</li> </ul>			
<b>Impact 3.6-4:</b> Construction activities associated with the Proposed Project could result in the mortality of rearing fishes, including the federally and state-listed coho salmon.			
<b>4.6-4a</b> To avoid impacts to spawning and incubating salmonids, instream work will only occur between July 15 and September 15.		Reclamation (implementation)	
<b>4.6-4b</b> To avoid or minimize potential injury and mortality of fish during riverine activities (e.g., addition and grading of coarse sediment), equipment will be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area.		Reclamation (implementation)	
<b>4.6-4c</b> Reclamation will minimize potential injury and mortality of fish during the use of low-flow channel crossings. This will be accomplished by minimizing vehicle traffic and by operating equipment and vehicles slowly and deliberately to alert and scare adult and juvenile salmonids away from the crossing area, or by having a person wade ahead of equipment to scare fish away from the crossing area.		Reclamation (implementation)	
<b>4.6-4d</b> To avoid or minimize potential injury and mortality of fish during excavation and placement of fill materials in the active low-flow channel, equipment will be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. Reclamation will ensure that before submerging an excavator bucket or laying gravel below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area. To avoid impacts to mobile life stages of salmonids that may be present in the water column, the first layers of clean gravel that are being placed into the wetted channel will be added slowly and deliberately to allow fish to move from the work area.		Reclamation (implementation)	
<b>4.6-4f</b> Monitoring of the constructed inundation surfaces for salmon fry stranding will be performed by a qualified fishery biologist immediately after recession of flood flow events designated as a 1.5- year or less frequent event (i.e., $Q \geq 6,000$ cfs) for a period of 3 years following construction. These flows, and associated fry stranding surveys, will typically occur between January and May. If substantial stranding is observed, Reclamation will take appropriate measures to return stranded fishes to river habitats and to		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
subsequently modify the constructed surfaces prior to the next managed flow release to reduce the likelihood of future occurrences of fry stranding.			
<b>Impact 3.6-5:</b> Implementation of the Proposed Project would result in the permanent and temporary loss of SRA for anadromous salmonids.			
<b>4.6-5a</b> Prior to the start of construction activities, Reclamation will retain a qualified biologist to identify potential construction access routes necessary for the projects to ensure that these features avoid and/or minimize to the fullest extent impacts to riparian habitats and wetland waters. In addition, Reclamation will clearly identify, and flag in the field, biologically sensitive areas (e.g., jurisdictional waters and riparian habitat) to be protected, and will provide the contractor with specific instructions to avoid any construction activity within these features. Reclamation will inspect and maintain flagged areas on a regular basis throughout the construction phase.		Reclamation (implementation)	
<b>4.6-5b</b> Reclamation will continue to implement the Riparian Revegetation and Monitoring Plan during Proposed Project implementation. The plan acknowledges that the ultimate goals of the TRRP include enhancement and maintenance of functional riparian habitat and no net-loss of riparian habitat and jurisdictional wetlands within channel rehabilitation site boundaries and generally throughout the 40-mile reach of the Trinity River below the TRD.		Reclamation (implementation)	
<b>4.6-5c</b> Reclamation will initiate a 10-year mitigation monitoring program after the first growing season following project implementation. After a period of 5 years, the need for additional riparian habitat and wetland enhancement will be evaluated in a written report. At that time, Reclamation, in consultation with the USACE, Regional Water Board, and CDFW, will determine whether there is a need to further enhance or create additional areas of riparian habitat or jurisdictional wetlands within the project boundary so that there will be no net loss of riparian habitat after a 10-year monitoring period. In addition, wetlands will be redelineated 5 years post-project implementation to ensure no net loss of wetland habitat. Riparian habitat reporting 5 years after project implementation and wetland delineation 5 years after implementation will provide Reclamation with needed data in a timely fashion to take additional pro-active measures towards meeting the goals of no net loss of riparian and jurisdictional wetland habitat within rehabilitation site boundaries after 10 years.		Reclamation (implementation)	
<b>Impact 3.6-6:</b> Implementation of the Proposed Project would result in fish passage being temporarily impaired during the in-stream construction phase.			
<b>4.6-6a</b> Low water crossings will only be constructed and used between July 15 and September 15. Fill gravels used on the low-water crossings, streambeds, and stream banks will be composed of washed, spawning-sized gravels from a local Trinity Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminants such as petroleum products. Washed gravel will pass Caltrans cleanliness test #227 with a value of 85 or greater. Abutment and embankment		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
materials used for bridges will be native alluvium obtained from within the boundaries of the Remaining Phase 1 or Phase 2 sites.			
<b>4.6-6b</b> Reclamation will construct the low-flow channel crossings to allow adequate depths and velocities for adult and juvenile salmonids to pass safely. Flows associated with storm events are not considered critical because the width and hydrologic conditions associated with low-flow channel crossings in the Trinity River are not considered to limit fish passage at elevated flows and would be comparable to hydrologic conditions in local riffle-and-run features. For Trinity River low-flow channel crossings at base flows, velocities will not exceed 2 feet per second to allow for juvenile fish passage and water depths will not be less than 12 inches in two-thirds of the river channel to provide adequate depth for adult salmon and steelhead passage.		Reclamation (implementation)	
<b>4.6-6c</b> The number of vehicle and equipment crossings of the Trinity River will be minimized.		Reclamation (implementation)	
<b>4.6-6d</b> Reclamation will not impede the physical features or hydraulic process of the Trinity River in a fashion that would be inconsistent with the 2000 Biological Opinion (National Marine Fisheries Service 2000), or result in a temporary impairment to fish passage related to a bridge.		Reclamation (implementation)	
<b>3.7 Vegetation, Wildlife, and Wetlands</b>			
<b>Impact 3.7-1:</b> Construction activities associated with the Proposed Project could result in the loss of jurisdictional waters including wetlands.			
<b>4.7-1a</b> Prior to the start of construction activities, Reclamation will retain a qualified biologist to identify potential construction access routes to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, Reclamation will clearly identify, and flag in the field, biologically sensitive areas (e.g., jurisdictional waters and riparian habitat) to be protected, and will provide the contractor with specific instructions to avoid any construction activity within these features. Reclamation will inspect and maintain marked areas on a regular basis throughout the construction phase.		Reclamation (implementation)	
<b>4.7-1b</b> Reclamation will continue to implement the Riparian Revegetation and Monitoring Plan during Proposed Project implementation. The plan acknowledges that the ultimate goals of the TRRP include enhancement and maintenance of functional riparian habitat and no net loss of riparian habitat and jurisdictional wetlands both within channel rehabilitation site boundaries and generally throughout the 40-mile reach of the Trinity River below the TRD.		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p><b>4.7-1c</b> Reclamation will initiate a 10-year mitigation monitoring program after the first growing season following project implementation. Monitoring and maintenance of planted vegetation will take place in the first several years after planting. After a period of 5 years, the need for additional riparian habitat and wetland enhancement will be evaluated in a written report. At that time, Reclamation, in consultation with the USACE, Regional Water Board, and CDFW, will determine whether there is a need to further enhance or create additional areas of riparian habitat or jurisdictional wetlands within the project boundary so that there will be no net loss of wetlands at the end of a 5 year period and no net loss of riparian habitat after a 10-year monitoring period. In addition, wetlands will be re-delineated 5 years after project implementation to ensure no net loss of wetland habitat. Riparian habitat reporting 5 years after planting and wetland delineation 5 years after project implementation will provide Reclamation with needed data in a timely fashion to take additional pro-active measures towards meeting the goals of no net loss of riparian habitat and jurisdictional wetlands within boundaries established for TRRP rehabilitation sites after 10 years.</p>		Reclamation (implementation)	
<p><b>Impact 3.7-4:</b> Construction activities associated with the Proposed Project could result in impacts to the state-listed little willow flycatcher (<i>Empidonax traillii</i>).</p>			
<p><b>4.7-4a</b> Prior to the start of construction, a qualified biologist will conduct a survey of the rehabilitation sites to determine whether suitable nesting habitat for the little willow flycatcher is present. If suitable habitat is present, Mitigation Measure 4.7-4b will be implemented.</p>		Reclamation (implementation)	
<p><b>4.7-4b</b> Grading and other construction activities will be scheduled to avoid the nesting season to the extent possible. The nesting season for this species in Trinity County extends from June 1 through July 31. If construction occurs outside of the breeding season, no further mitigation is necessary. If the breeding season cannot be completely avoided, Mitigation Measures 4.7-4c and 4.7-4d will be implemented.</p>		Reclamation (implementation)	
<p><b>4.7-4c</b> A qualified biologist will conduct a minimum of one pre-construction survey for the little willow flycatcher within the rehabilitation sites and a 250-foot buffer around the sites. The survey will be conducted no more than 15 days prior to the initiation of construction in any given area. The pre-construction survey(s) will be used to ensure that no nests of this species within or immediately adjacent to the rehabilitation site will be disturbed during project implementation. To the extent possible given timing for construction and with the contract award, pre-construction surveys will conform to methodologies identified in a Willow Fly Catcher Survey Protocol for California available online at: <a href="http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Birds">http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Birds</a> . If an active nest is found, CDFW will be contacted prior to the start of construction to determine the appropriate mitigation measures.</p>		Reclamation (implementation)	
<p><b>4.7-4d</b> If vegetation is to be removed by the projects and all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that will be removed by the projects will be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially</p>		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
decrease the likelihood of direct impacts.			
<b>Impact 3.7-5:</b> Construction activities associated with the Proposed Project could result in impacts to the foothill yellow-legged frog ( <i>Rana boylei</i> ).			
<b>4.7-5a</b> If any construction in the Trinity River channel will occur prior to August 1 of any construction season, a pre-construction survey for the foothill yellow-legged frog larvae and/or eggs will be conducted by a qualified biologist. This survey will be conducted within the construction boundary no more than 2 weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist will relocate them to a suitable location outside of the construction boundary.		Reclamation (implementation)	
<b>4.7-5b</b> In the event that a foothill yellow-legged frog is observed within the construction boundary, the contractor will temporarily halt in-stream construction activities until qualified personnel have moved the frog(s) to a safe location within suitable habitat outside of the construction limits. Planned locations for placement of transferred animals will be downstream of the construction limits and will be reported to the CDFW prior to construction.		Reclamation (implementation)	
<b>4.7-5c</b> Mitigation measures identified in Section 3.5 (Water Quality) of this EA/IS for addressing erosion and sedimentation and accidental spills will be fully implemented to mitigate for potential indirect impacts to dispersal habitat for the foothill yellow-legged frog due to sedimentation and accidental spills.		Reclamation (implementation)	
<b>4.7-5d</b> Mitigation measures associated with the disturbance to riparian habitat (Mitigation Measures 4.7-1a, 4.7-1b, and 4.7-1c) will be fully implemented.		Reclamation (implementation)	
<b>Impact 3.7-6:</b> Construction activities associated with the Proposed Project could result in impacts to the western pond turtle ( <i>Actinemys marmorata pallida</i> ).			
<b>4.7-6a</b> A minimum of one survey for western pond turtle nests will be conducted during the nesting season (generally late June-July) prior to construction. A qualified biologist will be retained by Reclamation to conduct the survey. If a western pond turtle nest is found, the biologist will flag the site and determine whether construction activities can avoid affecting the nest. If the nest cannot be avoided, the nest will be excavated by the biologist and reburied at a suitable location outside of the construction limits.		Reclamation (implementation)	
<b>4.7-6b</b> Prior to construction in open water habitat, a qualified biologist will trap and move western pond turtles out of the construction area to nearby suitable habitats.		Reclamation (implementation)	
<b>4.7-6c</b> During construction, in the event that a western pond turtle is observed within the construction limits, the contractor will temporarily halt construction activities until qualified personnel have moved the		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
turtle(s) to a safe location within suitable habitat outside of the construction limits. Planned locations for placement of transferred animals will be downstream of the construction limits and will be reported to the CDFW prior to construction.			
<b>4.7-6d</b> Mitigation measures presented in Section 4.5 (Water Quality) for addressing erosion and sedimentation and accidental spills will be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills.		Reclamation (implementation)	
<b>4.7-6e</b> The mitigation measure associated with the disturbance to riparian habitat (Mitigation Measures 4.7-1a, 4.7-1b, and 4.7-1c) will be fully implemented.			
<b>Impact 3.7-7:</b> Construction activities associated with the Proposed Project could result in impacts to nesting Vaux's swift ( <i>Chaetura vauxi</i> ), California yellow warbler ( <i>Dendroica petechia</i> ), and yellow-breasted chat ( <i>Icteria virens</i> ).			
<b>4.7-7a</b> Prior to the start of construction, a qualified biologist will conduct surveys of the rehabilitation sites to determine whether suitable nesting habitat for the species is present. If suitable habitat is present, Mitigation Measure 4.7-7b will be implemented.		Reclamation (implementation)	
<b>4.7-7b</b> Grading and other construction activities will be scheduled to avoid the nesting season for these species to the extent possible. The nesting season for these species in Trinity County extends from March 15 through July 31. If construction occurs outside the breeding season, no further mitigation is necessary. If construction during the breeding season cannot be completely avoided, Mitigation Measures 4.7-7c and 4.7-7d will be implemented.		Reclamation (implementation)	
<b>4.7-7c</b> A qualified biologist will conduct a minimum of one preconstruction survey for these species within the rehabilitation sites and a 250-foot buffer around the sites. The survey will be conducted no more than 15 days prior to the initiation of construction in any given area. The preconstruction surveys will be used to ensure that no nests of these species within or immediately adjacent to the rehabilitation sites will be disturbed during project implementation. If an active nest is found, a qualified biologist will determine the extent of a construction-free buffer zone to be established around the nest.		Reclamation (implementation)	
<b>4.7-7d</b> If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting habitat (e.g., shrubs and trees) that will be removed by the projects will be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially decrease the likelihood of direct impacts.		Reclamation (implementation)	
<b>Impact 3.7-8:</b> Construction activities associated with the Proposed Project could result in impacts to bald eagle ( <i>Haliaeetus leucocephalus</i> ) and northern goshawk ( <i>Accipiter gentilis</i> ).			

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
Due to the removal of the bald eagle from the endangered species list, and the availability of the National Bald Eagle Management Guidelines provided by the US Fish and Wildlife Service to protect the bald eagle, additional measures are outlined below. These measures are now stricter than those outlined in the 2009 Master EIR/Programmatic EA, and provide additional protections for the bald eagle to abide by directives within the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d):			
<b>4.7-8a</b> Prior to the start of construction, a qualified biologist will conduct a survey of the rehabilitation sites to determine whether suitable habitat for the species is present. If suitable habitat is present, Mitigation Measure 4.7-8b will be implemented.		Reclamation (implementation)	
<b>4.7-8b</b> Construction will be scheduled to avoid the nesting season for bald eagles and northern goshawks to the extent feasible. The nesting season for most raptors in Trinity County extends from February 15 through July 31. Thus, if construction can be scheduled to occur between August 1 and February 14, the nesting season will be avoided and no impacts to nesting bald eagles and northern goshawks will be expected. If it is not possible to schedule construction during this time, mitigation measures 4.7-8c and 4.7-8d will be implemented.		Reclamation (implementation)	
<b>4.7-8c</b> Pre-construction surveys for bald eagles and nesting northern goshawks will be conducted by a qualified biologist to ensure that no disturbance will occur during project implementation. These surveys will be conducted no more than 14 days prior to the initiation of construction activities. The biologist will conduct surveys immediately adjacent to the impact areas for bald eagles and northern goshawk nests. If eagles or an active nest are found within 500 feet of the construction areas to be disturbed by these activities, the biologist, in consultation with the CDFW and the National Bald Eagle Management Guidelines, will determine the extent of a construction-free buffer zone to be established.		Reclamation (implementation)	
<b>4.7-8d</b> If vegetation is to be removed as part of the project and all necessary approvals have been obtained, potential nesting habitat (i.e., trees) that will be removed by the projects will be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially decrease the likelihood of direct impacts. Directives under the Bald and Golden Eagle Management Protection Act will be adhered to.		Reclamation (implementation)	
<b>Impact 3.7-9:</b> Construction activities associated with the Proposed Project could result in impacts to special status bats and the ring-tailed cat ( <i>Bassariscus astutus</i> ).			
<b>4.7-9a</b> Pre-construction surveys for roosting bats and ring-tailed cats will be conducted prior to the start of construction activities. The surveys will be conducted by a qualified biologist. No activities that will result in disturbance to active roosts of special status bats or dens of ring-tailed cats will proceed prior to completion of the surveys. If no active roosts or dens are found, no further action is needed. Because		Reclamation (implementation)	



**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p>bats are known to abandon young when disturbed, if a maternity roost is located, a qualified bat biologist will determine the extent of a construction-free zone to be implemented around the roost. If a bat maternity roost or hibernaculum is present, or a ring-tailed cat den is present, Mitigation Measures 4.7-9b and/or 4.7-9c will be implemented. CDFW will also be notified of any active bat nurseries within the disturbance zones.</p>			
<p><b>4.7-9b</b> If an active maternity roost or hibernaculum is found, the projects will be redesigned to avoid the loss of the tree or structure occupied by the roost, if feasible. If the projects cannot be redesigned to avoid removal of the structure, demolition of that structure will commence before bat maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). The disturbance-free buffer zones described above will be observed during the bat maternity roost season (March 1–July 31). If a non-breeding bat hibernaculum is found in a tree or structure to be razed, the individuals will be safely evicted under the direction of a qualified bat biologist, by opening the roosting area to allow air to flow through the cavity. Demolition will then follow no sooner than the following day (i.e., there will be no less than one night between initial disturbance for air flow and the demolition). This action will allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during darker hours.</p>		Reclamation (implementation)	
<p><b>4.7-9c</b> Ring-tailed cats are fully protected species under Fish and Game Code Section 4700. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research. If an active ring-tailed cat nest is found, the projects will be redesigned to avoid the loss of the tree occupied by the nest if feasible. If the projects cannot be redesigned to avoid removal of the occupied tree, the CDFW will be contacted for their input. If approved by CDFW, demolition of the tree will commence outside of the breeding season (February 1 to August 30). If a non-breeding den is found in a tree scheduled to be removed, prior to disturbance, the CDFW will be notified to review and approve proposed procedures to ensure that no take occurs as a result of the action. Trees with dens that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow ring-tailed cats to escape during the darker hours.</p>		Reclamation (implementation)	
<p><b>Impact 3.7-11:</b> Construction activities associated with the proposed project could result in impacts to BLM and USFS sensitive species.</p>			
<p>Mitigation measures identified previously would reduce impacts to BLM and USFS sensitive species to less than significant. Mitigation measures 4.7-4a, 4.7-4b, and 4.7-4c would reduce impacts to the little willow flycatcher to a less than significant level. Mitigation measures 4.7-5a, 4.7-5b, 4.7-5c, and 4.7-5d would reduce the impacts to the foothill yellow-legged frog to a less than significant level. Mitigation measures 4.7-6a, 4.7-6b, 4.7-6c, and 4.7-6d would reduce the impacts to the western pond turtle to a less</p>		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
than significant level. Mitigation measures 4.7-8a, 4.7-8b, and 4.7-8c would reduce the impacts to the northern goshawk to a less than significant level. Mitigation measures 4.7-9a and 4.7-9b would reduce impacts to special status bats and the ring-tailed cat to less than significant.			
<b>Impact 3.7-13:</b> Implementation of the proposed project could result in the spread of non-native and invasive plant species.			
<b>4.7-13a</b> When using imported erosion control materials (as opposed to rock and dirt berms), use only certified weed-free materials, mulch, and seed.		Reclamation (implementation)	
<b>4.7-13b</b> Preclude the use of rice straw in riparian areas.		Reclamation (implementation)	
<b>4.7-13c</b> Limit any import or export of fill to materials to those that are known to be weed free.		Reclamation (implementation)	
<b>4.7-13d</b> Ensure all construction equipment is thoroughly washed prior to entering and leaving the worksite. Equipment will be inspected to ensure that it is free of plant parts as well as soils, mud, or other debris that may carry weed seeds.		Reclamation (implementation)	
<b>4.7-13e</b> Use a mix of native grasses, forbs, and non-persistent non-native species for seeding disturbed areas that are subject to infestation by non-native and invasive plant species. Where appropriate, a heavy application of mulch will be used to discourage introduction of these species. Use of planting plugs of native grass species may also be used to accelerate occupation of disturbed sites and increase the likelihood of reestablishing a self-sustaining population of native plant species.		Reclamation (implementation)	
<b>4.7-13f</b> Within the first 3 to 5 years post-project, if it is determined that the project has caused non-native invasive vegetation to out-compete desired planted or native colonizing riparian vegetation, opportunities to control these non-native species will be considered. When implementing weed control techniques, the approach will consider using all available control methods known for a weed species.		Reclamation (implementation)	
<b>4.7-13g</b> Within the first 3 to 5 years post-project, if it is determined that on-site revegetation/post-project conditions do not meet landowner requirements, opportunities to revisit the site and remedy the concern will be considered.		Reclamation (implementation)	

**3.8 Recreation**

**Impact 3.8-1:** Construction associated with the proposed project could disrupt recreation activities such as boating, fishing, and swimming in the Trinity River.

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<p><b>4.8-1a</b> Reclamation shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the project boundaries along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Notification signs shall be posted at public river access areas located within the project area and managed by BLM. Additionally, public notification of proposed project construction activities and associated safety hazards shall be circulated in the local <i>Trinity Journal</i> newspaper prior to the onset of project construction.</p>		Reclamation (implementation)	
<p><b>4.8-1b</b> Reclamation will repair and/or replace any facilities associated with the Proposed Project that are impacted by project activities. This measure includes installation of interpretive signage consistent with the requirements of the BLM. Preconstruction meetings between Reclamation and landowners/land managers will identify the amount of vegetative screening to be retained at each recreation site within the project area.</p>		Reclamation (implementation)	
<p><b>Impact 3.8-2:</b> Construction of the proposed project could result in an increased safety risk to recreational users or resource damage to lands within the project boundaries.</p>			
<p>Implementation of Mitigation Measures 4.8-1a and 4.8-1b described above would make this impact less than significant.</p>		Reclamation (implementation)	
<p><b>Impact 3.8-3:</b> Construction activities associated with the proposed project could lower the Trinity River’s aesthetic values for recreationists by increasing its turbidity.</p>			
<p>Mitigation measures 4.5-1a, 4.5-1b, 4.5-1c, 4.5-1d, and 4.5-1e described above for impact 3.5-1 would reduce impacts to less than significant.</p>		Reclamation (implementation)	
<p><b>3.10 Cultural Resources</b></p>			
<p><b>Impact 3.10-2:</b> Implementation of the proposed project could potentially result in disturbance of undiscovered prehistoric or historic resources.</p>			
<p><b>4.10-2a</b> Prior to initiation of construction or ground-disturbing activities, all construction workers will be alerted to the possibility of discovering cultural resources. This includes prehistoric and/or historic resources. Personnel will be instructed that upon discovery of buried cultural resources, work within 50 feet of the find will be halted and Reclamation’s designated archaeologist will be consulted. Once the find has been identified, Reclamation will be responsible for developing a treatment plan for the cultural resource including an assessment of its historic properties and methods for avoiding any adverse effects, pursuant to the PA and in compliance with the NHPA.</p>		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<b>Impact 3.10-3:</b> Implementation of the proposed project could potentially result in disturbance of undiscovered human remains.			
<p><b>4.10-3a</b> If human remains are encountered during construction on non-federal lands, work in that area will be halted and the Trinity County Coroner’s Office will be immediately contacted. If the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) will be notified within 24 hours of determination, as required by PRC, Section 5097. The NAHC will notify designated Most Likely Descendants, who will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If Native American human remains and associated items are discovered on federal lands, they will be treated according to provisions set forth in the Native American Protection and Repatriation Act (25 USC 3001) as well as Reclamation’s Directives and Standards LND 02-01. If the find is determined to be a historical resource or a unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation will be made available. Work may continue on other parts of the project while mitigation for historical or unique archaeological resources takes place.</p>		Reclamation (implementation)	
<b>3.11 Air Quality</b>			
<b>Impact 3.11-1:</b> Construction activities associated with the proposed project could result in an increase in fugitive dust and associated particulate matter (PM <sub>10</sub> and PM <sub>2.5</sub> ) levels.			
<p><b>4.11-1a</b> Reclamation will implement a dust control program to limit fugitive dust and particulate matter emissions. The dust control program will include the following elements as appropriate:</p> <ul style="list-style-type: none"> <li>• Inactive construction areas will be watered as needed to ensure dust control.</li> <li>• Pursuant to the California Vehicle Code (Section 23114), all trucks hauling soil or other loose material to and from the construction site will be covered or will maintain adequate freeboard to ensure retention of materials within the truck’s bed (e.g., ensure 1-2 feet vertical distance between top of load and the trailer).</li> <li>• Excavation activities and other soil-disturbing activities will be conducted in phases to reduce the amount of bare soil exposed at any one time. Mulching with weed-free materials will be used to minimize soil erosion, as described in Section 3.3, Geology, Fluvial Geomorphology, and Soils, and Section 3.5, Water Quality.</li> <li>• Watering (using equipment and/or manually) will be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.</li> <li>• All paved access roads, parking areas, and staging areas will be swept (with water sweepers), as required by Reclamation.</li> <li>• Paved roads will be swept (with water sweepers) if visible soil material is carried onto adjacent</li> </ul>		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
private and public roads, as required by Reclamation. <ul style="list-style-type: none"> <li>• All ground-disturbing activities with the potential to generate dust will be suspended when winds exceed 20 mph, as directed by the NCUAQMD.</li> <li>• Reclamation or its contractor will designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person will also respond to citizen complaints.</li> </ul>			
<b>Impact 3.11-2:</b> Construction activities associated with the proposed project could result in an increase in construction vehicle exhaust emissions.			
<b>4.11-2a</b> Reclamation will comply with NCUAQMD Rule 104 (4.0) Particulate Matter. This compliance could occur by using portable internal combustion engines registered and certified under the state portable equipment regulation (Health & Safety Code 41750 through 41755).		Reclamation (implementation)	
<b>Impact 3.11-4:</b> Construction activities would generate short-term and localized fugitive dust, gas, and diesel emissions, and smoke that could affect adjacent residences and schools.			
<b>4.11-5a</b> Construction activity occurring within 300 feet of elementary schools will be limited to the period when school is not in session.		Reclamation (implementation)	
<b>4.11-5b</b> Construction activity occurring within 300 feet of residences will be limited to Monday through Saturday, from the hours of 9 a.m. to 5 p.m.		Reclamation (implementation)	
<b>4.11-5c</b> Reclamation will notify residences within 300 feet of the site and project activity and elementary schools will be notified of construction activity located near the school prior to site construction activities.		Reclamation (implementation)	
<b>4.11-5d</b> Reclamation will ensure that a notice is posted at/adjacent to the rehabilitation site, which contains a phone number for the public to contact for concerns related to air quality.		Reclamation (implementation)	
<b>3.12 Visual Resources</b>			
<b>Impact 3.12-1:</b> Implementation of the proposed project could result in the degradation and/or obstruction of a scenic view from key observation areas.			
Implementation of mitigation measures 4.7-1a, 4.7-1b, and 4.7-1c described above for Impact 3.7-1 and mitigation measures 4.5-1a, 4.5-1b, 4.5-1c, 4.5-1d, and 4.5-1e described above for Impact 3.5-1 would reduce impacts to less than significant.		Reclamation (implementation)	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
<b>3.14 Noise</b>			
<b>Impact 3.14-1:</b> Construction activities associated with the proposed project would result in noise impacts to nearby sensitive receptors.			
<b>4.14-1a</b> Construction activities near residential areas will be scheduled between 7:00 a.m. and 7:00 p.m., Monday through Saturday. No construction activities will be scheduled for Sundays or other hours and days established by the local jurisdiction (i.e., Trinity County). The contractor may submit a request for variances in construction activity hours, as needed.		Reclamation (implementation)	
<b>4.14-1b</b> Reclamation will require that all construction equipment be equipped with manufacturer's specified noise muffling devices.		Reclamation (implementation)	
<b>4.14-1c</b> Reclamation will require placement of all stationary noise-generating equipment as far away as feasibly possible from sensitive noise receptors or in an orientation minimizing noise impacts (e.g., behind existing barriers, storage piles, unused equipment).		Reclamation (implementation)	
<b>3.15 Public Services and Utilities/Energy</b>			
<b>Impact 3.15-3:</b> Implementation of the proposed project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities.			
<b>4.15-3a</b> Reclamation will require that staging and construction work, including temporary road or bridge closures occurs in a manner that allows for access by emergency service providers.		Reclamation (implementation)	
<b>4.15-3b</b> Reclamation will provide 72-hour notice to the local emergency providers and affected users prior to the start of temporary closures.		Reclamation (implementation)	
<b>4.15-3c</b> Reclamation will coordinate road closures occurring during the school year (mid-August through mid-June) with the appropriate school districts to avoid disruption of school attendance and student access to bus service.		Reclamation (implementation)	
<b>3.16 Transportation/Traffic Circulation</b>			
<b>Impact 3.16-2:</b> Construction activities would generate short-term increases in vehicle trips.			
<b>4.16-2a</b> Reclamation will post signs during gravel haul activities notifying travelers of trucks entering the		Reclamation	

**Table A-1. Summary of Mitigation Monitoring Requirements.**

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date and initials)
roadway. Reclamation will ensure that gravel trucks maintain a speed limit of 15 mph on residential and private roads and operate only between the hours of 7 a.m. and 7 p.m., Monday through Saturday.		(implementation)	
<b>Impact 3.16-4:</b> Construction activities would increase wear and tear on local roadways.			
<b>4.16-4a</b> Reclamation will perform a pre-construction survey of local federal and state roads to determine the existing roadway conditions of the construction access routes, and will consult with the relevant agencies/private parties about road conditions prior to construction activity and post construction activity. An agreement will be entered into prior to construction that will detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation.		Reclamation (implementation)	
<b>Impact 3.16-5:</b> Construction activities could pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians.			
<b>4.16-5a</b> Reclamation will prepare and implement a traffic control plan that will include provision and maintenance of temporary access through the construction zone, reduction in speed limits through the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate bicyclists, pedestrians, and equestrians from construction activities. Reclamation will obtain encroachment permits from the appropriate entities to work within road easements. These permits will require traffic control and signage to meet California standards.		Reclamation (implementation)	

## **Project Design Elements**

Project design elements are specific design features proposed by the project applicant and incorporated into the project to prevent the occurrence of, or reduce the significance of potential environmental effects. Because project design elements have been incorporated into the project, they do not constitute mitigation measures as defined by CEQA. However, project design elements are identified to ensure that they are included in the MMRP to be developed and implemented as part of the Proposed Project. The design elements discussed below are common to the Proposed Project. These elements are excerpted from Chapter 2 of the Draft Master EIR.

## **Description of Common Activities and Construction Criteria and Methods**

### **Common Activities**

#### *Vegetation Removal*

Vegetation removal would involve the following:

- Remove vegetation to provide access to activity areas using a combination of manual labor and heavy equipment (i.e., chainsaw, excavator, and vegetation masticator).
- Remove stumps, roots, and vegetative matter to allow river scour on excavated floodplain surfaces. Some LWD would be retained for use in the floodplain to enhance fish habitat.
- Dispose of removed vegetation by chipping, hauling offsite, burning, burying within spoil areas, or other appropriate methods. Reclamation would continue to work with local agencies to encourage the efficient use of chipping as a priority method of disposing of vegetative waste.
- Protect vegetation designated for preservation within clearing limits. Vegetation outside the clearing limits would be preserved and protected.
- Mechanically remove submerged roots from river fringe areas with ripping bars or excavator buckets. Equipment chassis (i.e., tires, tracks) would remain outside of the wetted portion of the river channel when removing submerged roots.

#### *Water Use*

Water would be used at all sites, in accordance with the following:

- Riparian water rights held by public and private landowners on the Trinity River would be used to obtain Trinity River water to support restoration. Dust abatement water would be obtained from on-site seep wells or the Trinity River. When drafting from the Trinity River, pump intakes would be in conformance with criteria established by NMFS and CDFW to prevent impacts to aquatic organisms. Make-up water pumped from the river would pass through a screen at the inlet with maximum ¼-inch openings and a maximum intake velocity of 0.8 fps.

In the event irrigation is necessary for revegetation efforts, the primary water source would be the Trinity River. Any surface water sources used for irrigation would be developed in order to comply with the water rights of land management agencies and landowners. Pump intakes would be in



conformance with criteria established by NMFS and CDFW to prevent impacts to aquatic organisms. Make-up water pumped from the river would pass through a screen at the inlet with maximum ¼-inch openings and a maximum intake velocity of 0.8 fps.

### *Monitoring*

The ROD provided a restoration strategy for the TRRP but did not identify methods for assessing the effectiveness of the management actions in achieving TRRP goals or management targets. Instead, it directed the TRRP to organize assessments around the principles of AEAM and to use this to rigorously assess the river's response to management actions. The Integrated Assessment Plan (IAP) provides the basis for applying the AEAM principles outlined in the ROD.

These principles would be applied to quantitatively determine the overall status and trend of river system attributes relative to TRRP objectives, using appropriate data to describe each attribute, with data collected based upon scientifically defensible monitoring designs. The causal relationship between rehabilitation of the fluvial nature of the river and increasing salmonid production would be the major focal point for monitoring and modeling. The focus of the IAP is to identify key assessments that:

- Evaluate long-term progress toward achieving program goals and objectives; and
- Provide short-term feedback to improve program management actions by testing key hypotheses and reducing management uncertainties.

The IAP provides a general framework for integrating and linking assessments across monitoring domains. Integration of assessments would be essential for evaluating the TRRP's overall restoration strategy, involving coordinated actions to support multiple ecosystem processes and components. This integration allows development of coordinated sampling designs and assessments that serve multiple or complementary objectives, and is intended to improve the understanding of qualitative and quantitative functional relationships associated with the mainstem Trinity River.

The IAP framework focuses on six key elements; each of these would be integrated into the MMRP to ensure that authorized activities are consistent with the AEAM. Key elements of the IAP include:

1. Create and maintain spatially complex channel morphology.
2. Increase/improve habitats for freshwater life stages of anadromous fish to the extent necessary to meet or exceed production goals.
3. Restore and maintain natural production of anadromous fish populations.
4. Restore and sustain the natural production of anadromous fish populations downstream of Lewiston Dam to pre-dam levels to facilitate dependent tribal, commercial, and sport fisheries' full participation in the benefits of restoration via enhanced harvest opportunities.
5. Establish and maintain riparian vegetation that supports fish and wildlife.
6. Rehabilitate and protect wildlife habitats and maintain or enhance wildlife populations following implementation.

Additional information on the IAP is available on the TRRP website:

<http://www.trrp.net/science/IAP.htm>

## Design Elements

Attachment 1 following the appendices in Volume IV of the Master EIR/Programmatic EA is a glossary of design and construction terms for use by the design team.

### *Hydraulics*

The Proposed Project would occur in areas that FEMA has designated as Special Hazard Zones AE and X, as described in Section 3.2 of this document. In the Zone AE areas, Reclamation has established a design criterion stating that not only would the County's floodplain ordinance be followed, but implementation of the Proposed Project would not increase the flood risk for the community. This criterion resulted in a stipulation that coarse sediment and excavated material would be strategically placed to ensure that 100-year flood elevations would not increase over current conditions. As previously described, the site boundaries generally conform to the river corridor, bounded by prominent geographic features such as roads and fences.

The design of the activity areas was based on an understanding of the relationships between the flow regime and the hydrologic/hydraulic characteristics of the action. A fundamental constraint was to *do nothing to increase the flood risk in the general vicinity, and to not raise the water surface elevation above the current FEMA estimated 100-year base flood elevation*. Evaluation of the Proposed Project requires comparing estimated seasonal base flows and estimated return-period flows. USACE's HEC-RAS hydraulic model would be used by the design team during final design activities to predict changes in flood elevations at various points along the project reach. Table A-2 lists the components of the flow regime, the seasonal or other periodic return intervals, and the flow rates that would be used during final design to ensure that the action meets the flood constraints described above.

**Table A-2. Estimated Mainstem Trinity River Flow Conditions Used for Design.**

Flow Description	Flow Event	Flow Rate (Cfs)
Summer base flow <sup>a</sup> (July 22 to October 15 of each year)	Q <sub>s</sub>	450
1.5-year return interval design flow	Q <sub>1.5</sub>	6,000
Estimated FEMA 100-year flow below Rush Creek	Q <sub>100</sub>	19,300
Estimated FEMA 100-year flow below Grass Valley Creek	Q <sub>100</sub>	23,600

<sup>a</sup> Base flow defined as cfs from TRD release and accretion flow

Q = flow rate; Q<sub>1.5</sub> = 1.5 year return interval design flow; Q<sub>100</sub> = 100-year flood flow; Q<sub>s</sub> = summer base flow

A HEC-RAS model for the Trinity River from Lewiston Dam to the North Fork Trinity River was developed by California DWR and provided to the TRRP as part of the administrative record. This model was calibrated to match measured WSEs in the Trinity River within and adjacent to the site boundaries for the design flow. Since WSEs have not been measured (validated) for the 100-year flow, the predicted WSEs are based on the output of the model using carefully selected Manning's

“n” values that reflect the overbank conditions at each site. The model incorporates empirical data from surveyed cross-sections, including bathymetric and overbank/floodplain topography in the general vicinity of the rehabilitation sites. To obtain WSEs for design flows, the model was calibrated using surveyed WSEs and known flows (from gage data). The model was determined to be accurate for the level of evaluation and design required.

There are several significant flow conditions that are important to the design of the Proposed Project. Two of the most important flow conditions are summertime low flows of about 450 cfs, which is the release from Lewiston Dam, and the 1.5-year-event (ordinary high water) flow of 6,000 cfs, as measured below Rush Creek. The design team regards the design flows portrayed in Table A-1 as the “best available information” per FEMA requirements. The FEMA Q<sub>100</sub> “near Douglas City” (38,500 cfs) was established in the 1976 USACE report (USACE 1976) used by FEMA to develop the current FIRMs for the Trinity River. The 6,000 cfs 1.5-year event is based on the ROD flow release. This flow information provides the basis for the designs incorporated into the Proposed Project.

The HEC-RAS hydraulic model was developed and calibrated for the existing conditions to calculate the WSE at various flow releases. The calibration was based on water-surface profiles surveyed at low flow and water profiles and points surveyed at different flows, ranging from 4,500 cfs to 10,000 cfs releases from Lewiston Dam. After the model was properly calibrated, various WSEs were determined for the activity areas and used to develop the design topography. The illustrations at the end of this chapter portray the design topography concepts. The final designs would ensure that constructed surfaces are self-draining in order to minimize potential fish stranding.

#### *Roadway Approaches*

As an alternative to disposing of excavated materials onsite, materials may be hauled to commercially approved off-site locations. This option would reduce the impact of spoiling excavated materials in upland habitats. Hauling a portion of excavated materials generated under the Proposed Project could require substantial truck traffic to off-site locations. The traffic would be staged over the project duration, generally between August 1 and November 15. Traffic control measures would be applied in accordance with BLM, Trinity County, and Caltrans requirements.

#### *Recreation Facilities*

As appropriate, recreation facilities (e.g., parking areas, access trails, picnic areas) affected by project activities would be returned to the same level of service as those offered prior to project implementation. Reclamation, in consultation with the BLM, California DWR, and CDFW, could enhance one or more of these facilities consistent with project objectives. Examples of enhancement could be updated signage, surfacing of trails or parking areas with permeable materials, improvements to fishing access locations or establishment of interpretive features intended to increase public awareness of the ongoing efforts to restore the Trinity River.

#### *Drainage*

As appropriate, culverts or other drainage structures would be constructed at temporary stream crossings or cross-drainage channels to allow for unimpeded surface drainage.

### *Rights-of-Way/Easements*

Prior to construction, formal realty agreements would be made between Reclamation; land managers for BLM, California DWR, and CDFW; and private landowners whose property would be affected. These agreements would clarify the terms and conditions under which Reclamation would work on private property. In addition, these agreements would compensate landowners, based on fair market value of identified construction easements, and would hold property owners harmless during construction activities.

### *Utilities*

There are a number of utility features located within and/or adjacent to the site boundaries. Water intakes, power and telephone poles, and water supply lines parallel or cross the Trinity River in a number of locations. These utilities are considered in the project design to ensure that service would not be disrupted.

## **Construction Criteria and Methods**

### *Construction Process Overview*

- Vegetation removal would occur as necessary and in compliance with all regulatory requirements. An expected August 1 start date for clearing and grubbing of vegetation would allow completion of nesting by avian species. Alternatively, vegetation may be removed prior to the start of the nesting season, which is early March for this area.
- Where available, existing roads (activity L) would be used to access the activity areas. New access roads and haul routes (activity M) would be constructed when necessary and restored to a stable condition in accordance with landowner requirements at the completion of the project.
- Excavation would begin on the floodplain to bring it down to grade.
- When specified, finer grained materials (e.g., sand) excavated from riverine activity areas may be stockpiled for use at upland or other riverine activity areas.
- Any riverine treatment areas (e.g., constructed inundation surfaces) that have been compacted from construction activities would be ripped to a depth of approximately 18 inches. The furrows developed by this ripping would ensure that most storm water runoff is retained and filtered on-site so that there is little or no construction-related turbidity. This action would effectively control the release of storm water runoff and turbidity from the site and eliminate the need for use of post-construction sediment-control measures (e.g., silt fences, berms).
- The timing for work adjacent to the river may be affected by river flows. If for some reason the flow is low when construction starts, but it is anticipated that flows would increase before the floodplain can be excavated, excavation would occur at the lower elevations (adjacent to river) first and at the higher floodplain elevations last.
- In-channel activities would generally take place during low flows (July 15 to September 15 as allowed by the coho salmon in-river work window in NMFS' 2000 Trinity River biological

opinion) to create immediate point bars and allow mobilization of in-channel materials at high flows.

- Alcoves and side channels would be constructed from the existing grade down slope. Measures would be taken (e.g., sediment plug, sandbags) to isolate the work area from flowing water. If necessary, pumps would be used to dewater the excavation to inhibit any sediment from entering the river. Typically, reconnecting these features to the river relies on high-flow events. If necessary, the TRRP would remove materials used to isolate these side channels after they have been constructed.
- Final grading would occur as necessary for all activity areas.
- Demobilization of construction equipment and site clean-up would be accomplished consistent with Reclamation requirements.
- Revegetation would take place during wet conditions (fall/winter) and would generally occur in riparian areas to maximize use by fish and wildlife species. Projects would be designed and implemented to achieve no net loss in riparian vegetation (within the project site boundaries) from planting and natural revegetation consistent with the Draft Riparian Revegetation Plan.

#### *In-River Construction*

- Where necessary, heavy equipment would be used to grub tree and shrub roots from the edge of the river. Vegetation would often be maintained along the river's active channel to maintain the currently available low-water fish habitat. During root removal, equipment chassis would generally not enter the low-water river channel.
- In-river excavation would generally begin at the far edge of the activity area and work back toward the riverbank so that heavy equipment is on dry land or in shallow water.
- In-river materials or coffer dams may be used to temporarily redirect flow around work areas and to create platforms from which to work. In addition to providing the means for volitional fish passage (upstream and downstream), at least one navigable (by raft/boat) passage through the activity area would remain open at all times.

#### *Traffic Control/Detour*

Short-term traffic control is expected and would be in conformance with the following requirements established by the appropriate jurisdictional authority for mobilization and demobilization of heavy equipment or wide-load vehicles:

- Reclamation would coordinate with jurisdictional agencies to identify specific requirements that shall be included for use of existing roadways and haul routes. Requirements may include seasonal or other limitations or restrictions, payment of excess size and weight fees, and posting of bonds conditioned upon repair of damage.
- Temporary construction access may be required; access routes shall be of a width and load-bearing capacity to provide unimpeded traffic for construction purposes.

### *Staging Areas*

Staging areas and storage facilities for the Proposed Project are shown on Figure 3. These areas would be used throughout the duration of the project activities. Some short-term staging and equipment storage and parking would be needed in the activity areas as the project is implemented.

### *Air Pollution and Dust Control*

Efforts would be made to minimize air pollution and reduce greenhouse gas emissions related to construction operations. Reclamation specifications require that the contractor comply with all applicable air pollution control rules, regulations, ordinances, and statutes. In addition, project contractors would be given educational material about fuel efficiency and the benefits of using vehicles powered by alternative energy sources to enhance awareness of global warming issues. Contractors would also be required to provide recycling bins for on-site waste materials.

Contract documents would also specify that the contractor would be responsible for limiting dust by watering construction site areas used by trucks and vehicles. If water is taken from the river, pump intakes would be in conformance with criteria established by NMFS and CDFW to prevent impacts to aquatic organisms. Make-up water pumped from the river would pass through a screen at the inlet with maximum ¼-inch openings and a maximum intake velocity of 0.8 fps.

### *Fire Protection and Prevention*

Due to the high fire hazard and history of equipment-caused fires in Trinity County, construction contractors would be required to follow applicable regulations of Public Resource Code 4428-4442 during dry periods to minimize the potential for the initiation and spread of fires from the work site.

### *Water Pollution Prevention*

Reclamation would implement water pollution control measures that conform to applicable and appropriate permits. Reclamation would require the contractor to use extreme care to prevent construction dirt, debris, storm water run-off, and miscellaneous byproducts from entering the stream. Some key water pollution control measures that would be implemented by Reclamation are listed below:

- Every reasonable precaution would be exercised and BMPs would be implemented to protect the Trinity River from being polluted by fuels, oils, petroleum byproducts, and other harmful materials and shall conduct and schedule operations to avoid or minimize muddying and silting of the river. Care shall be exercised to preserve roadside vegetation beyond the limits of construction.
- Construction equipment would be cleaned of dirt and grease prior to any in-channel activities. All construction equipment would be inspected daily and maintained to ensure that fuel or lubricants do not contaminate the Trinity River. Spill containment kits would be onsite at all times and, where feasible, berms or other containment methods would be kept in place around the work areas when performing in-channel work.
- Water pollution control work is intended to provide prevention, control, and abatement of water pollution in the Trinity River, and would consist of constructing those facilities that

may be shown on the plans, specified herein or in the special provisions, or directed by the Contracting Officer.

- Farrowing of riparian areas that have been compacted during construction activity is expected to minimize or stop delivery of storm water runoff to the river. As necessary, Reclamation would provide temporary water pollution control measures, including, but not limited to, dikes, basins, ditches, and straw and seed application, that may become necessary as a result of the contractor's operations.
- Before starting any work on the project, Reclamation would develop an agency-approved SWPPP to effectively control water pollution during construction of the project. The SWPPP would show the schedule for the erosion control work included in the contract and for all water pollution control measures Reclamation proposes to take in connection with construction of the project to minimize the effects of the operations on adjacent streams and other bodies of water. Reclamation would not perform any clearing and grubbing or earthwork on the project until the SWPPP has been accepted by responsible agencies.
- Oily or greasy substances originating from Reclamation's operations would not be allowed to enter, or be placed where they would later enter, a live stream, soil, or groundwater.

# Appendix C

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## Aquatic Conservation Strategy Consistency Evaluation

### Introduction

The Bureau of Reclamation (Reclamation), under the auspices of the Trinity River Restoration Program (TRRP), is the proponent for implementing a series of channel rehabilitation and sediment management activities throughout the 40-mile reach of the Trinity River below Lewiston Dam. This evaluation is for the Deep Gulch and Sheridan Creek sites, as described in Chapter 2 of this EA/IS at (River Mile 81.6–82.9).

This document evaluates and determines the consistency of the TRRP activities with the Aquatic Conservation Strategy (ACS) in the Record of Decision (ROD) for the Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Related Species within the Range of the Northern Spotted Owl. The ACS was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The ROD amended the Redding Resource Management Plan (RRMP) prepared by the Bureau of Land Management (BLM) in 1994.

The intent of this evaluation is to ensure that decision makers have the information necessary to determine whether the proposed TRRP activities at the Deep Gulch and Sheridan Creek sites are consistent with the ACS objectives. This evaluation incorporates information provided in the Mainstem Trinity River Watershed Analysis (U.S. Bureau of Land Management 1993), incorporates by reference the 2009 Master Environmental Impact Report prepared by Reclamation in cooperation with BLM, and other information in the administrative record to assist the decision maker. In order to make the finding that a project or management activity “meets” or “does not prevent attainment” of the ACS objectives, the decision maker must ensure that management actions that do not maintain the existing condition or lead to improved conditions in the long term would not be implemented.

The ACS states that species-specific strategies aimed at defining explicit standards for habitat elements would be insufficient for protecting even the targeted species. The intent of the ACS is to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and to restore currently degraded habitats. This approach seeks to prevent further habitat degradation and restore habitat over broad landscapes as opposed to implementing individual projects or focusing on small watersheds. Because the ACS is based on natural disturbance processes, the ROD recognized that it is a long-term strategy that may take decades, and possibly more than a century, to accomplish all of its objectives.



The ACS contains four components: riparian reserves, key watersheds, watershed analysis, and watershed restoration. Each component is integral to improving the health of the aquatic ecosystems encompassed by the ROD. A detailed discussion of these components is provided in the ROD.

Since the BLM's RRMP predated the ROD, it was subsequently amended to include Attachment A of the ROD.

Attachment A of the ROD includes Standards and Guidelines (S&Gs) that were incorporated as management direction into the BLM RRMP to ensure compliance with the ROD. This hierarchy of land allocations is described below.

1. Congressional Reserved Areas – Includes wilderness, federal wild and scenic Rivers, national monuments, and other federal lands not administered by the Forest Service or Bureau of Land Management.
2. Late Successional Reserves – Lands identified with an objective of protecting and enhancing conditions for late-successional and old-growth forest ecosystems.
3. Adaptive Management Areas – Areas with objectives of developing and testing new management approaches to integrate ecological and economic health and other social objectives.
4. Managed Late-Successional Areas – Specific late-successional areas in the drier provinces where regular and frequent fire is a natural part of the ecosystem.
5. Administratively Withdrawn Areas – Areas identified in current Forest and District Plans or draft plan preferred alternatives. These areas include recreation and visual areas, backcountry areas, and other areas where management emphasis precludes scheduled timber harvest.
6. Riparian Reserves – As a key component of the ACS, riparian reserves provide an area along all streams, wetlands, ponds, lakes, and unstable/potentially unstable areas where riparian-dependent resources receive primary emphasis. These reserves are important to the terrestrial ecosystem as well, providing connectivity corridors and dispersal habitat for certain terrestrial species.
7. Matrix – The matrix consists of those federal lands outside the six previous allocations.

The activities proposed by Reclamation under the auspices of the TRRP are confined to a narrow corridor that parallels the Trinity River from Lewiston Dam downstream to Helena, California. This section of the Trinity River is both federally and state designated as a wild and scenic river; it therefore meets the definition of a Congressionally reserved area. Riparian reserve and matrix designations are also used to classify lands within this corridor. This evaluation focuses on riparian reserves as defined in the RRMP.

The following sections of this evaluation address the consistency of the TRRP's proposed action at the Deep Gulch and Sheridan Creek I sites as a single project with the four components of the ACS and the nine ACS objectives described in Attachment B to the ROD.

## **Components of the Aquatic Conservation Strategy**

### **Riparian Reserves**

The project area contains riparian reserves, as defined in the BLM's RRMP. Watershed analyses have been completed by BLM for federal lands within the Trinity River corridor; these analyses did not modify the designated widths of the riparian reserves established by the S&Gs described in the BLM's RRMP as amended by the ROD. The width of the riparian reserves essentially correlates with the floodplain of the Trinity River, as well as a buffer around riparian features identified during the wetland delineation process within the project area defined for the Deep Gulch and Sheridan Creek sites. Table A-1 at the end of this document shows the S&Gs that were integrated into the project.

### **Key Watersheds**

There are no key watersheds within or downstream of the 40-mile reach of the Trinity River downstream of Lewiston Dam, although the Forest Service does manage key watersheds in the upper Trinity River watershed, primarily associated with the Salmon-Trinity Alps Wilderness Area. This component of the ACS is therefore not applicable to the activities proposed by the TRRP in the Deep Gulch/Sheridan Creek EA/IS.

### **Watershed Analysis**

The BLM conducted watershed analyses for the lands within the Trinity River corridor. These analyses did not identify specific recommendations regarding the riparian reserve widths; therefore, the S&Gs established under the ACS are applicable to this project. Any activities proposed within these riparian reserves will conform to the site-specific conditions established in the S&Gs to ensure consistency with the ACS.

### **Watershed Restoration**

By its nature, the project is a comprehensive ecosystem restoration project intended to restore the physical processes and biological resources of the mainstem Trinity River. While some short-term impacts may occur to riparian-dependent species, the scale of the activities proposed by the TRRP, including this project, ensures that restoration of ecological processes and functions will be consistent with the ACS.

### **Aquatic Conservation Strategy Objectives**

The following section evaluates the consistency of the proposed action with the nine ACS objectives listed in Attachment B of the ROD.

The lands managed by the STNF and BLM within the range of the northern spotted owl will be managed to:

- 1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.*

The project by its nature is intended to restore the landscape processes, specifically the alluvial and riparian functions, that have been impaired by construction of the Trinity River Division of the

Central Valley Project. The activities that are proposed on federal lands subject to the ACS are an integral part of the larger project and are intended to assist BLM in attaining this ACS objective.

2. *Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.*

The project area defined in Figure 2-2 of the EA/IS for the Deep Gulch and Sheridan Creek sites ensure that project activities are implemented in a manner that complements the functional values offered by the Trinity River between the Lewiston and Helena. The TRRP, in cooperation with BLM, has been involved in the identification and prioritization of channel rehabilitation sites for a number of years. This project has been designed to acknowledge the inter-relationship between aquatic and riparian habitats that occur throughout this reach. Specifically, this project includes a number of activities to enhance the connectivity of aquatic and riparian habitat in the general vicinity of the project area consistent with the overall objectives of the TRRP for the 40-mile reach of the Trinity River downstream of Lewiston Dam. Modifications of floodplains, removal of grade control structures, construction of functional side-channel and off-channel habitat, and augmentation of spawning gravel are examples of restoring connectivity for a variety of aquatic and riparian-dependent species. The intent of this project is to assist the BLM in attaining this ACS objective.

3. *Maintain and restore the physical integrity of the aquatic system, including shorelines, banks and bottom configurations.*

A fundamental component of the project are the activities intended to restore the bed, banks, and floodplain of the Trinity River. The modification of grade control, expansion of functional floodplain habitat, construction of off-channel wetland complexes, efforts to enhance the coarse sediment supply, and placement of large wood and boulders that provide refugia habitat are examples of the activities intended to restore the physical integrity of the aquatic system. Collectively, these efforts are designed to restore the alluvial habitat and associated riparian character of the Trinity River, which was impaired by reductions in flow and sediment upstream. The intent of this project is to assist the BLM in attaining this ACS objective.

4. *Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.*

By its nature, the project will require removal of vegetation and extensive grading activities, including construction within the active channel of the Trinity River. In 2015, the North Coast Regional Water Quality Control Board (Regional Water Board) reissued three General Permits to the TRRP that provide authorization for channel rehabilitation, fine sediment management, and coarse sediment management activities under Section 401 of the Clean Water Act (CWA). As a cooperating agency, BLM has also worked closely with the TRRP to ensure that Best Management Practices are incorporated into the project description as environmental commitments to minimize effects on water quality. Compliance with conditions established by the USACE consistent with the requirements of Nationwide Permit 27 will ensure compliance with Section 404 of the CWA. As proposed, this

project would be consistent with the requirements of the Regional Water Board and the BLM's RRMP; it would therefore not prevent attainment of this ACS objective.

5. *Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.*

A fundamental element of the TRRP is restoration of the sediment regime in a manner that enhances the alluvial character of the 40-mile reach of the Trinity River downstream of Lewiston Dam. The Deep Gulch/Sheridan Creek project would ensure that the coarse sediment fraction of the sediment regime will be replenished on an ongoing basis, consistent with the timing, volume, and rates appropriate for the scaled-down channel. The inclusion of large wood and boulder clusters also increases the functional benefits of gravel augmentation. While there may be a change in the timing or volume of sediment input, overall the project is intended to assist BLM in attainment of this ACS objective.

6. *Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.*

The preferred alternative will not influence any in-stream flows. No modifications to the flow regime of the Trinity River or its tributaries are proposed; therefore, this ACS objective would be met.

7. *Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.*

The activities to modify the bed, banks, and floodplains of the Trinity River within the project boundary are designed to maintain and/or restore the hydrologic connection between the river and adjacent wetland/riparian habitat. By reducing the floodplain elevations, the current flow regime could provide additional opportunities to establish functional, connected wetland habitat adjacent to the Trinity River. The creation of off-channel wetland complexes that are hydrologically connected to the Trinity River will dramatically increase the wetland and riparian habitat within this 1.3-mile long segment. This project would be consistent with this ACS objective.

8. *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

A fundamental objective of the TRRP is to restore the species composition and structural diversity of native plant communities that occur along the mainstem Trinity River. The modifications proposed to the active channel, floodplain, and upland activity areas within the boundaries of the Deep Gulch and Sheridan Creek sites will provide conditions that are receptive to the reintroduction of a diverse assemblage of native riparian vegetation and reduce the potential for non-native, invasive, and noxious plant species. Woody material of various size classes removed as part of the rehabilitation activities will be incorporated into the project as appropriate. Placement of large wood within and/or adjacent to constructed alluvial features will enhance channel complexity and edge habitat. On-site

mulching of vegetative debris will provide effective ground cover and increase successful revegetation efforts. Overall, this natural recruitment of riparian communities, supplemented by riparian planting efforts, will ensure that this project meets this ACS objective.

9. *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.*

A fundamental objective of the TRRP is to restore the aquatic, riparian, and upland habitat along the 40-mile reach of the mainstem Trinity River. The project activities emphasize creation and/or rehabilitation of aquatic and riparian habitat within the boundaries of the Deep Gulch and Sheridan Creek sites. Collectively, these activities are intended to generate geomorphic responses downstream that will further the overall habitat enhancement objectives by reestablishing the alluvial processes that were impaired by the construction and operation of the Trinity River Division. The activities that are proposed on federal lands subject to the ACS are an integral part of the overall objective of the TRRP and are intended to assist BLM in attaining this ACS objective.

### Conclusion

Based on this evaluation, BLM finds that the project described in the NEPA decision document has been designed and would be constructed in a manner that does not prevent future attainment of the ACS objectives. The management actions incorporated into the preferred alternative will maintain the existing condition or lead to improved conditions in the long term, consistent with the intent of the ACS.

**Table C-1. ACS Applicable Standards and Guidelines**

<b>All Land Allocations</b>		
Survey and Manage	2	Survey prior to ground disturbing activities.
<b>Riparian Reserves</b>		
Timber Management	TM 1-c	Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquired desired vegetation characteristics needed to attain ACS objectives.
Roads Management	RF-1	Federal, state, and county agencies should cooperate to achieve consistency in road design, operation, and maintenance necessary to attain Aquatic Conservation Strategy objectives.
	RF-2	For each existing or planned road, meet Aquatic Conservation Strategy objectives by:
	RF-2a	Minimizing road and landing locations in Riparian Reserves.
	RF-2b	Completing watershed analyses (including appropriate geotechnical analyses) prior to construction of new roads or landings in Riparian Reserves.
	RF-2c	Preparing road design criteria, elements, and standards that govern construction and reconstruction.

RF-2d	Preparing operation and maintenance criteria that govern road operation, maintenance, and management.
RF-2e	Minimizing disruption of natural hydrologic flow paths, including diversion of streamflow and interception of surface and subsurface flow.
RF-2f	Restricting sidecasting as necessary to prevent the introduction of sediment to streams.
RF-3	Determine the influence of each road on the Aquatic Conservation Strategy objectives through watershed analysis. Meet Aquatic Conservation Strategy objectives by:
RF-3a	Reconstructing roads and associated drainage features that pose a substantial risk.
RF-3b	Prioritizing reconstruction based on current and potential impact to riparian resources and the ecological value of the riparian resources affected.
RF-3c	Closing and stabilizing, or obliterating and stabilizing roads based on the ongoing and potential effects to Aquatic Conservation Strategy objectives and considering short-term and long-term transportation needs.
RF-4	New culverts, bridges and other stream crossings shall be constructed, and existing culverts, bridges and other stream crossings determined to pose a substantial risk to riparian conditions will be improved, to accommodate at least the 100-year flood, including associated bedload and debris. Priority for upgrading will be based on the potential impact and the ecological value of the riparian resources affected. Crossings will be constructed and maintained to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.
RF-5	Minimize sediment delivery to streams from roads. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is unfeasible or unsafe. Route road drainage away from potentially unstable channels, fills, and hillslopes.
RF-7	Develop and implement a Road Management Plan or a Transportation Management Plan that will meet the Aquatic Conservation Strategy objectives. As a minimum, this plan shall include provisions for the following activities:
RF-7a	Inspections and maintenance during storm events.
RF-7b	Inspections and maintenance after storm events.
RF-7c	Road operation and maintenance, giving high priority to identifying and correcting road drainage problems that contribute to degrading riparian resources.
RF-7d	Traffic regulation during wet periods to prevent damage to riparian resources.
RF-7e	Establish the purpose of each road by developing the Road Management Objective.

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Recreation Management	RM-1	New recreational facilities within Riparian Reserves, including trails and dispersed sites, should be designed to not prevent meeting Aquatic Conservation Strategy objectives. Construction of these facilities should not prevent future attainment of these objectives. For existing recreation facilities within Riparian Reserves, evaluate and mitigate impact to ensure that these do not prevent, and to the extent practicable contribute to, attainment of Aquatic Conservation Strategy objectives.
	LH-3	Locate new support facilities outside Riparian Reserves. For existing support facilities inside Riparian Reserves that are essential to proper management, provide recommendations to FERC that ensure Aquatic Conservation Strategy objectives are met. Where these objectives cannot be met, provide recommendations to FERC that such support facilities should be relocated. Existing support facilities that must be located in the Riparian Reserves will be located, operated, and maintained with an emphasis to eliminate adverse effects that retard or prevent attainment of Aquatic Conservation Strategy objectives.
	LH-4	For activities other than surface water developments, issue leases, permits, rights-of-way, and easements to avoid adverse effects that retard or prevent attainment of Aquatic Conservation Strategy objectives. Adjust existing leases, permits, rights-of-way, and easements to eliminate adverse effects that retard or prevent the attainment of Aquatic Conservation Strategy objectives. If adjustments are not effective, eliminate the activity. Priority for modifying existing leases, permits, rights-of-way and easements will be based on the actual or potential impact and the ecological value of the riparian resources affected.
General Riparian Area Management	RA-2	Fell trees in Riparian Reserves when they pose a safety risk. Keep felled trees on-site when needed to meet coarse woody debris objectives.
	RA-3	Herbicides, insecticides, and other toxicants, and other chemicals shall be applied only in a manner that avoids impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives.

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## References

- Shasta-Trinity National Forest. 2005. Upper Trinity River watershed analysis. USDA Forest Service, Shasta-Trinity National Forest.
- U.S. Bureau of Land Management. 1995. Mainstem Trinity River Watershed Analysis.
- U.S. Bureau of Land Management. 1993. Redding Resource Management Plan and Record of Decision.

## Appendix D

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### Compliance with Standards and Guidelines for Survey and Manage Species

The Trinity River Channel Rehabilitation Sites: Deep Gulch and Sheridan Creek (River Mile 81.6-82.9) project is consistent with court orders relating to the Survey and Manage mitigation measure of the Northwest Forest Plan, as incorporated into the 1993 Redding Resource Management Plan.

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al. v. Rey, et al.*, No. 08-1067 (W.D. Wash.) (Coughenour, J.), granting Plaintiffs' motion for partial summary judgment and finding a variety of NEPA violations in the BLM and USFS 2007 ROD eliminating the Survey and Manage mitigation measure. Judge Coughenour deferred issuing a remedy in his December 17, 2009 order until further proceedings, and did not enjoin the BLM from proceeding with projects. Plaintiffs and Defendants entered into settlement negotiations that resulted in the 2011 Survey and Manage Settlement Agreement, adopted by the District Court on July 6, 2011.

The Ninth Circuit Court of Appeals issued an opinion on April 25, 2013, that reversed the District Court for the Western District of Washington's approval of the 2011 Survey and Manage Settlement Agreement. The case is now remanded back to the District Court for further proceedings. This means that the December 17, 2009, District Court order which found NEPA inadequacies in the 2007 analysis and records of decision removing Survey and Manage is still valid.

Previously, in 2006, the District Court (Judge Pechman) had invalidated the agencies' 2004 RODs eliminating Survey and Manage due to NEPA violations. Following the District Court's 2006 ruling, parties to the litigation had entered into a stipulation exempting certain categories of activities from the Survey and Manage standard (hereinafter "Pechman exemptions").

Judge Pechman's Order from October 11, 2006 directs: "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

- A. Thinning projects in stands younger than 80 years old (emphasis added):
- B. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- C. Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the



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stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions; and

D. The portions of project involving hazardous fuel treatments where prescribed fire is applied.

Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph a. of this paragraph.”

Following the District Court’s December 17, 2009 ruling, the Pechman exemptions still remained in place. The BLM has reviewed the Trinity River Channel Rehabilitation Sites: Deep Gulch and Sheridan Creek (River Mile 81.6-82.9) EA/IS in consideration of both the December 17, 2009 partial summary judgment and Judge Pechman’s October 11, 2006 order. Because these sites are the focus of a riparian and stream improvement project where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions, the BLM has made the determination that this project meets Exemption C of the Pechman Exemptions (October 11, 2006 Order), and therefore may still proceed even if the District Court sets aside or otherwise enjoins use of the 2007 Survey and Manage ROD since the Pechman exemptions would remain valid in such case.

# Appendix E

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## Deep Gulch and Sheridan Creek Rehabilitation Project Wild and Scenic River, Section 7 Analysis and Determination

### Introduction

The Trinity River was designated as a National Wild and Scenic River (WSR) in 1981 under the Federal Wild and Scenic Rivers Act (WSRA). In addition to the mainstem Trinity River from the confluence with the Klamath River to 100 yards below Lewiston Dam, three other sections of the river were designated: the North Fork from the Trinity River confluence to the southern boundary of the Trinity Alps Wilderness Area, the South Fork from the Trinity River confluence to the California State Highway 36 bridge crossing, and the New River from the Trinity River confluence to the Trinity Alps Wilderness Area.

These sections of the Trinity River were designated as Wild and Scenic to preserve the river's free-flowing condition, water quality, and the Outstandingly Remarkable Values (ORVs) identified on the date of designation: the anadromous and resident fisheries, outstanding geologic resource values, scenic values, recreational values, and cultural and historic values. The section of the Trinity River identified for the Deep Gulch/Sheridan Creek Rehabilitation Project was found to have outstandingly remarkable values (ORV's), due to its anadromous fishery. Under an interagency agreement between the National Park Service, the Bureau of Land Management (BLM), and the U.S. Forest Service, the BLM generally has the responsibility for conducting WSRA Section 7 determinations for the mainstem Trinity River from Lewiston Dam to the confluence with the North Fork Trinity River. After the designation, BLM classified the mainstem Trinity River as a Recreational River from 100 yards below Lewiston Dam downstream to Cedar Flat.

The proponent for the Proposed Action (Deep Gulch/Sheridan Creek Rehabilitation Site: River Mile 81.6-82.9) is the Bureau of Reclamation, Trinity River Restoration Program (TRRP). Because a portion of the proposed activity would occur on lands it manages, BLM serves as a co-lead federal agency along with the TRRP for the environmental assessment (EA) portion of the integrated NEPA/CEQA document (EA/IS) prepared for this project. This analysis and subsequent determination evaluates the effects of the proposed activity on the Trinity River's free-flowing condition, water quality, and the ORVs and ensures their protection as required under Section 7 of the WSRA. Because of the length and level of detail provided in the EA/IS, this WSR analysis is presented in summary form and refers the reader to the specific sections of Chapters 2, 3, and 4 of the EA/IS for additional information on water quality, fisheries, wildlife, flora and fauna, recreational, and aesthetic values.

Existing conditions at the Sheridan Creek site are influenced by early channel rehabilitation efforts implemented by the Bureau of Reclamation in the 1990's, prior to the formation of the TRRP. This

previous project essentially removed the riparian berm on the left side of the river with the objective of reestablishing an active floodplain. Because the flow regime was not changed until the TRRP implemented channel management flows in 2006, this riparian berm was reestablished over time. Additionally, a variety of natural and management disturbance mechanisms have occurred at both of these sites over the past 175 years. The channelization of the Trinity River associated with historic dredge activities was exacerbated by the modifications to the flow regime of the Trinity River downstream of Lewiston Dam beginning in 1964, when the Trinity River Division (TRD) of the Central Valley Project (CVP) became fully operational. At the date of designation, the riparian berms that were essentially channelizing the river at a number of locations had been developing for more than 15 years, and scientists recognized that the alluvial nature of the river had been modified extensively due to changes in the flow regime and sediment flux. Although changes in the flow regime since 2005 have provided some opportunity to modify the form and function of the river, the Record of Decision (ROD) for the Trinity River Mainstem Fishery Restoration Environmental Impact Statement/Environmental Impact Report (Department of Interior, 2000) required establishment of the TRRP and stipulated that mechanical channel rehabilitation, including management of sediment input (reduction in fine sediments (sand) and augmentation of coarse sediment (gravel), would be required to reconfigure sections of the river and provide opportunities for alluvial processes to become reestablished, albeit at a smaller scale than had occurred prior to the construction and operation of TRD facilities (e.g., Lewiston Dam) in 1964.

## **Section 7 Analysis**

Section 7(a) of the WSRA provides that water resource projects upstream or downstream of a WSR may occur as long as the project “will not invade the area, unreasonably diminish or have a direct adverse effect on the scenic, recreational, fish and wildlife values present in the area as of the date of designation.” This section also requires river-administering agency (i.e., BLM) to determine whether the proposed water resource project is consistent with its river-resource protection requirements. This determination evaluates the effects of proposed activities that involve construction below the ordinary high water mark within the WSR corridor on the river’s free-flowing condition, water quality, and scenic, recreational, fish and wildlife values. This analysis and determination follows the Evaluation Procedure provided to Reclamation by BLM’s Redding Field Office for the Klamath Facilities Removal Project prepared by the BLM, Forest Service and National Park Service in 2012.

The conditions that were present on the Trinity River when it was designated and included in the National System constitute the basis for evaluating the Proposed Action as described in the EA/IS. Therefore, the baseline conditions for the Trinity WSR are those present in 1981.

The initial question to be addressed in this WSR Section 7(a) determination is whether the Proposed Project described in the EA/IS invades or directly adversely affects the designated reach of the Trinity River; defined as encroachment or intrusion upon.

The next question to be answered, relative to the standard set forth in the WSRA, Section 7 and Section 7(a) is whether the proposed action will “unreasonably diminish or directly adversely affects” the scenic, recreational fish or wildlife values of the designated river. This standard implies that it’s acceptable to diminish or effect one or more of these values to some degree, therefore two additional questions must be considered:

1. Does the Proposed Action evaluated in the EA/IS cause the scenic, recreational, fish or wildlife values to be diminished or directly adversely affect relative to the date of designation?
2. If one or more value is diminished or directly adversely affected, is it unreasonable?

### **Definition of the Proposed Action**

The overarching purpose of the TRRP is to restore fish populations to pre-dam levels and restore dependent fisheries, including those held in trust by the federal government for the Hoopa Valley Tribe (HVT) and the Yurok Tribe (YT). The fundamental purpose of the proposed activity is to enhance the fishery and other values provided by the Trinity River in the general vicinity of the project area site by implementing the rehabilitation activities illustrated on Figure 2-2 in Chapter 2 of the EA/IS. Specifically, the Proposed Action would recreate complex salmon and steelhead habitat, enhance natural river processes for the benefit of wildlife, and provide conditions suitable for reestablishing native riparian vegetation. The Proposed Action was one of the original 43 projects listed in the 2000 ROD to restore the fish resources of the Trinity River. It is intended to enhance channel complexity and refugia habitat (e.g., large wood) that have emerged as important rehabilitation components as a result of the TRRP's ongoing monitoring efforts.

As part of the TRRP's Phase 2 channel rehabilitation efforts, the Proposed Action is one of about 1 channel rehabilitation projects that the TRRP expects to implement in the next 10 years. These Phase 2 projects are in addition to the ongoing flow/sediment management and watershed restoration elements of the TRRP.

Implementation of the Proposed Action will incorporate environmental commitments and project design features to ensure that it is consistent with the management goals and objectives established by BLM for the Trinity River under its Redding Resource Management Plan, specifically to support management actions intended to enhance the fishery and recreational ORVs of the Trinity River.

The Proposed Action was developed through a cooperative effort by the TRRP, BLM, and Yurok and Hoopa Valley tribes. It is intended to improve the conveyance of flows by reestablishing the alluvial attributes of the Trinity River, namely floodplains and side channels, while decreasing the potential for channel constriction by modifying floodplain widths and elevations.

The project proponents, the purpose and need for the project, and the geographic location of the proposed activity are described in Chapter 1 of the EA/IS. Specific information on the duration of the proposed activities and their magnitude and extent is provided in Chapter 2 of the EA/IS. Chapter 4 describes the relationship to past and future management activities with an emphasis on cumulative effects.

### **Does the Proposed Action Diminish or Directly Adversely Affect WSR Values?**

The following criteria were applied to evaluate potential for diminishment or direct adverse effects of the Trinity WSR. This Determination evaluates potential project effects upon four WSR values; scenery, recreation, fish and wildlife. The criteria presented below were also applied to evaluate effects upon these values within the Trinity WSR.

### **1.1.1 Scenery Value Evaluation Criteria**

Scenery was evaluated using the following criteria:

- Water flow character (river flows and accompanying geomorphic character)
- Water Appearance (clarity, turbidity, color)
- Fish and wildlife viewing
- Riparian vegetation
- Natural appearing landscape character (visual effects of facilities and structures as viewed from the designated WSR corridor)

### **1.1.2 Recreation Value Evaluation Criteria**

Recreation was evaluated using the following criteria:

- Whitewater boating
- Recreational fishing
- Other recreational activities (birding, swimming, camping)
- Recreational setting (water quality related aesthetics and public health and safety aspects)

### **1.1.3 Fisheries Value Evaluation Criteria**

Fishery was evaluated using the following criteria:

- Stream flow regime
- Water temperature
- Water quality (physical, biological and chemical)
- Aquatic habitat (geomorphic condition, sediment transport regime and substrate quality)
- Fish species population conditions, specifically:
  - Anadromous salmonid fish species
  - Resident fish species
  - Species traditionally used and culturally important to Native Americans

### **1.1.4 Wildlife Value Evaluation Criteria**

Wildlife was evaluated using the following criteria:

- Changes in habitat for affected species

## **Trinity Wild and Scenic River Evaluation**

### **1.1.5 Scenery Value**

Scenery was not identified as an ORV; however it is included in this evaluation consistent with the requirements of Section 7 of the WSRA. This evaluation focuses on river's unique landform, diverse vegetation, water and lack of negative cultural modification.

- **Water Flow Character:** Implementation of the Proposed Action (channel rehabilitation activities) is intended to restore the form and function of the treated reach to provide ability to convey flow, sediment and large wood in a manner similar to how the river functioned prior to construction of the TRD. The result would be to restore a more historic and natural appearing flows, increase the amount and diversity of riparian vegetation, and thereby improve scenic quality.

- **Water Appearance:** Implementation of the Proposed Action (e.g., channel rehabilitation activities) would result in short-term effects anticipated during project implementation, associated with: the removal of riparian and upland vegetation and excavation and placement of alluvial materials within and adjacent to the active channel/floodplain; grading activities within and adjacent to the wetted channel; placement of coarse sediment to enhance spawning habitat; construction of side-channel habitat; construction of off-channel wetlands complexes; and placement of large wood and/or boulder clusters to increase habitat complexity. In-channel construction actions would result in short-term increases in turbidity as well as a potential for short-term decreases in juvenile rearing habitat as a result of excavation and placement of alluvial materials. Consistent with the conditions of the General Permit issued to the TRRP by the North Coast Regional Water Quality Control Board (Water Board), mitigation and turbidity monitoring measures will be implemented to ensure that the overall appearance of the Trinity River will not be affected.
- **Fish Viewing:** Short-term impairment to fish viewing within the project area, and to varying degrees downstream in the WSR would result from localized increases in turbidity during the in-channel work window (July 15-September 15). However, in the long-term, the Proposed Action would increase the overall population of native fish and other aquatic organisms in the WSR. This would increase the overall number of salmonids and other native fish species that may be viewed.
- **Wildlife Viewing:** Improvements in riparian and upland habitat is a fundamental element of the purpose and need for the Proposed Action. Expansion of floodplain habitat and extensive revegetation efforts are key activities at a number of locations throughout the project area. Rehabilitation of large, barren dredge tailings would include both grading and revegetation intended to reestablish and enhance upland habitat for a wide array of species that utilize riparian and upland habitat throughout the project area. Increases in populations of fish and other aquatic organisms (e.g., mussels, turtles, frogs) would provide increased forage for riparian and riverine wildlife species that depend on these organisms as a prey base. Therefore, wildlife viewing opportunities would increase.
- **Riparian Vegetation:** The Proposed Action would change the gradient of the river, expand the floodplain, increase off-channel riparian and wetland habitat and remove the monoculture of willows that became established as a result of long-term flow reductions after Lewiston Dam became operational. The Proposed Action would result in a more natural looking channel and facilitate establishment of a complex and diverse assemblage of riparian vegetation typical of free flowing alluvial rivers.
- **Natural Appearing Landscape Character:** Implementation of the Proposed Action (e.g., channel rehabilitation activities) would result in reshaping the bed and banks of the WSR within the project area and to varying degrees downstream reach in a manner that reestablishes the alluvial process that occurred prior to historic large-scale dredging activities and that were subsequently impeded by modification of the flow and sediment regimes in the years following completion of the TRD. This project would result in a more natural setting ad character within and adjacent to the project area.

## ***Conclusion***

There would be short-term negative impacts to scenery due to project activities (e.g., clearing, grading, in-channel construction) and water appearance (localized turbidity increases). However, the long-term beneficial effects of the Proposed Action would enhance scenery of the Trinity WSR.

### **1.1.6 Recreation Value Evaluation**

Recreation was not identified as an ORV; however it is included in this evaluation consistent with the requirements of Section 7 of the WSRA. This evaluation focuses on boating opportunities, fishing for anadromous salmonids and other recreational uses.

- **Boating:** Since the 2005 ROD flows were implemented during the period from April to August, whitewater boating on the Trinity River has increased substantially, particularly during wetter water years. The reach of the river associated with the Proposed Action is primarily alluvial in nature and there are limited opportunities for whitewater boating within or in close proximity to the project area, other than during high flow periods resultant from TRD releases and/or large runoff events. One undeveloped public access point is available near the upstream end of the Deep Gulch site. Access to this site requires a high clearance vehicle, typically with four-wheel drive during low-flow conditions based on the depth and condition of sand at this location. While there are several private boat access locations within the project area, use at these locations is intermittent and tightly controlled by land owners. Within the project area, the primary boating activity is related to recreational fishing. Drift boats, prams and float tubes are used for fishing throughout the year, other than during large flow events that may last for several days or as much as several months. Public access for boaters would be restricted for short periods of time (several days to several weeks) at locations throughout the project area. In-channel construction and public notification efforts would occur in a manner that ensures that visitor use and public safety are not affected. Alternative locations for public access are available upstream at Lorenz Gulch and Dutton Creek; downstream at Oregon Gulch and Junction City boat launch sites. Impacts on boating would be limited to short-term affects at site-specific locations within the project area.
- **Recreational Fishing:** The fundamental objective for the Proposed Action is to restore the form and function of the Trinity River to enhance the fishery; specifically for anadromous salmonids. While there would be short-term impacts on recreational fishing within and adjacent to the project area due to construction closures. Public access will be available to BLM lands at various locations, some intermittently during project implementation. Consistent with the long-term goals of the TRRP, improvements in the flow and sediment regimes, coupled with channel rehabilitation efforts would increase fish populations. Therefore, recreational fishing would improve.
- **Other Recreational Uses:** During implementation of the Proposed Project, and for a period of time after grading is completed and revegetation activities are being implemented, short-term erosional processes could result in an increase in turbidity. These brief changes to water quality could have some impacts to other recreational uses (e.g., wildlife viewing, hiking) in the immediate vicinity of the Deep Gulch and Sheridan Creek sites.

### ***Conclusion***

There would be short-term, negative impacts on water quality that could impair recreational beneficial uses. The short-term access restrictions to some BLM parcels, limitations on fishing access and changes in the appearance of the Trinity River at this location will not substantially limit recreational uses.

#### **1.1.7 Fishery Value Evaluation**

Fish are an ORV in the Trinity River. The river supports a number of native and non-native fish and other aquatic organisms. Prior to the installation of the TRD, the river provided habitat for numerous anadromous fish species, including Chinook salmon, Coho salmon, steelhead trout and Pacific lamprey. A fundamental objective of the TRRP is restoration and enhancement of the Trinity River fishery.

Although it is generally recognized that the alluvial features existed on the date of designation, the transitory nature of riverine environments precludes the ability to fully quantify these features. The extensive body of scientific evidence available for the Trinity River suggests that the riparian berms and floodplain features had extensive riparian communities that were well established on the date of designation.

- **Stream Flow Regime:** The modification of the flow regime beginning in 1964 has provided the conditions for establishing a monoculture of riparian vegetation on the riparian berms on either side of the Trinity River and essentially channeling flows and inhibiting floodplain function during higher flows. The interaction between vegetation and fine sediment continued to expand this condition, although large floods (e.g., 1997) modified this riparian community to some degree. In addition to modifying the riparian vegetation, the riparian berm inhibited access of flows to the floodplain (1.5-year return interval) and subsequently affected the amount and types of vegetation on the floodplain. Since 2005, the flow regime of the Trinity River has been managed in accordance with the 2000 ROD to improve riparian and floodplain conditions in conjunction with channel rehabilitation projects like those proposed at the Bucktail site. Since 2005, the TRRP has made substantial changes to the flow regime of the Trinity River consistent with the requirement of the 2000 ROD to manage flows in a manner that rehabilitates and enhances the Trinity River fishery.
- **Water Temperature:** Prior to full implementation of the ROD in 2005, up to 90 percent of the natural Trinity River flow was diverted to the Sacramento River basin through facilities associated with the TRD. Beginning in 1964, water quality in the Trinity River, particularly its temperature and sediment regimes were substantially altered. The influence of Trinity Lake and Lewiston Reservoir on downstream conditions diminishes with distance. In general, the greater the release volumes from Lewiston Dam, the less susceptible the river's temperature is to other factors. Releases from the TRD are generally cold (42 to 47 degrees Fahrenheit [°F]). These temperatures are transmitted through Lewiston Reservoir to the Trinity River below Lewiston Dam. Although the Proposed Action would remove riparian vegetation, this action is not expected to have a negative impact on water temperatures in the river.



- **Water Quality:** In 1992, the Environmental Protection Agency (EPA) added the Trinity River to its list of impaired rivers under the provisions of Section 303(d) of the CWA in response to a determination by the State of California that the water quality standards for the river were not being met due to excessive sediment. In 2001, the EPA established a Total Maximum Daily Load for sediment in the river. The Regional Water Board has continued to identify the Trinity River as impaired in subsequent listing cycles. The primary adverse impacts associated with excessive sediment in the Trinity River pertain to degradation of habitat for anadromous salmonids. The restriction of streamflows downstream of the TRD has greatly contributed to the impairment of the Trinity River below Lewiston Dam (EPA 2001). With implementation of ROD flows and placement of coarse sediment in the Lewiston area, local reductions in fine sediment in the river bed have been observed and fish spawning has increased. Recent TRRP monitoring efforts provide data to compare in-channel fine sediment concentrations, pre- and post-ROD flows. This data indicates that gravel quality and river bed oxygen permeability have increased through the 40-mile reach.
- **Aquatic Habitat:** The Trinity River Flow Evaluation Final Report (USFWS and HVT 1999) determined that lack of spawning and rearing habitat for juvenile salmonids is likely a primary factor limiting the recovery of salmonid populations in the Trinity River. Activities associated with the Proposed Action within the project area are specifically designed to increase the abundance of habitat for Trinity River salmonids by reconnecting the river with its floodplain, increasing channel sinuosity, creating complex off-channel aquatic and riparian habitat, and providing shallow low velocity habitats in close proximity to the river's edge. The Proposed Action is designed to restore the alluvial processes of the Trinity River within the 1.3-mile reach associated with the Deep Gulch and Sheridan sites. As described in Chapter 3 of the EA/IS, increases in salmonid rearing habitat range from 1.4 acres (24% increase) under low-flow conditions (300 cfs) to more than more than 6.5 acres (67% increase) under high flows (7,150 cfs). As described in Chapter 2, 4.9 acres of off-channel ponds and riparian wetlands would be constructed and 7.3 acres of floodplain would be enhanced and/or improved as a result of the Proposed Action.
- **Fish Species Population Conditions:** Flows in the Trinity River downstream from Trinity and Lewiston Dams have been regulated since Trinity Dam closed in 1960. Diversion of up to 90 percent of the Trinity streamflow to the Sacramento River basin in the 1960s and 1970s led to substantial geomorphic change in many locations along the river, with the predominant responses being channel narrowing and vegetative encroachment along the channel margins. Concurrently, reductions in salmonid populations in the Trinity River resulted in congressional action to restore the Trinity River and its fishery. Activities included in the Proposed Project are intended to have beneficial effects on fisheries within the project area, and these benefits are expected to increase over time. While protecting high quality holding and spawning habitat as illustrated on Figure 2-1 of the EA/IS, in-channel activities would:
  - increase channel complexity and shallow low velocity refuge at a variety of flows and would provide almost 300,000 square feet of fry and juvenile rearing habitat that meets criteria for depth, velocity, and with the placement of habitat structures;

- construct riffles that would provide adult salmonid spawning areas and increases food resources (benthic macroinvertebrates) for fry and juvenile salmonids during critical winter and spring rearing periods;
- provide slow water refuge within side channel and off-channel habitat features to provide fry and juvenile habitat at flows ranging between 300 cfs and 4,500 cfs; and
- increase channel sinuosity and channel complexity, providing fry and juvenile rearing opportunities at a wide range of flows over existing conditions.

### ***Conclusion***

Although there would be short-term effects on riparian and floodplain habitat as a result of construction-related actions (e.g., clearing, grading, in-river excavation), the long-term effects on the fishery values of the Trinity River are expected to be positive and substantial.

#### **1.1.8 Wildlife Value Evaluation**

Wildlife habitat within the project area includes riparian and upland habitat. Habitat that typically occurs below the ordinary high water mark (6,000 cfs) of the Trinity River is characterized as riparian. Habitat that occurs above this elevation is considered upland habitat. The riparian corridor adjacent to the Trinity River provides habitat for a wide array of special-status plants and wildlife species. A full discussion of riparian-dependent species is provided in Chapter 3 of the EA/IS.

- **Riparian Habitat:** The Proposed Action would convert almost 5 acres of non-riparian areas (e.g., tailings, terrace deposits) to off-channel riparian habitat, including ponds and wetlands within a three-five year post project time frame. A revegetation program will be incorporated into the proposed activity and will emphasize reestablishing native species and increasing the diversity of vegetation throughout the project area. As described in Chapter 2 of the EA/IS, there are a number of environmental commitments to address a diverse array of riparian dependent species. These include pre-construction surveys and avoidance measures to protect nesting birds; relocation of amphibian species if encountered; and use of construction monitors to identify and avoid impacts to fully protected species (e.g., ringtailed cats).
- **Upland Habitat:** Most of the upland habitat that occurs within the project area has been subject to wide array of modification as a result various types of human disturbances. In addition to large-scale bucket-line dredge activity that occurred in and adjacent to the Trinity River between 1930 and 1950, more recent mining for sand and gravel has severely altered the landscape within and adjacent to the project area. To a lesser degree, residential development and recreational uses have also had effects on upland habitat. The Proposed Action would involve removing material (primarily fine-textured sediments) from the riparian berm and floodplain and placing this material on dredge tailings in the immediate area upslope of the 100-year floodplain; essentially converting about 11 acres of tailing piles into functional upland habitat. These tailing deposits are remnants of the bucket-line dredge activity that occurred at the many locations along the Trinity River. These features are long, linear piles of sand, gravel, cobbles, and boulders that are piled on the floodplains and terrace features adjacent to the present channel of the river and are essentially devoid of vegetation. Placement of excavated material on the dredge tailings would provide an opportunity to

enhance about 11 acres of upland habitat by reestablishing native upland plant communities while reducing the area occupied by non-native vegetation, thereby making the tailings more productive in terms of vegetation and wildlife species. A revegetation program is a critical element of the Proposed Action and emphasize reestablishing native species and increasing the diversity of vegetation throughout the project area.

### ***Conclusion***

Short-term and localized negative effects to wildlife species and their respective habitats due to the Proposed Action are expected. However, long-term improvements to riparian and upland habitat and increased wildlife forage opportunities resulting from this project, in conjunction with other TRRP actions would have long-term beneficial effects.

### **Section 7 Determination**

The evaluations presented in the previous section provide the basis for the determination to be made in this document. This determination will be made by the Redding Field Manager, Jennifer Mata. The next question relative to standard in Section 7(a) of the WSRA, is whether the Proposed Action will “unreasonably diminish or directly adversely effect” the scenic, recreational fish or wildlife values of the designated river. Given that the standard implies some diminishment or direct adverse effects of values may be acceptable, there are two questions to consider.

1. Does the Proposed Action evaluated in the EA/IS prepared for the Deep Gulch and Sheridan project cause diminution or adverse effects of the scenic, recreational, fish or wildlife values of the Trinity River as present at the date of designation?
2. If there is diminution or adverse effects, are they unreasonable? This would suggest an evaluation of the magnitude of the loss. Factors to be considered include: (1) whether the values contributed to the designation of the river (i.e., outstandingly remarkable); and (2) the current conditions and trends of the resource, (if diminution is determined unreasonable, measures may be recommended to reduce adverse effects to acceptable levels).

The information provided in the EA/IS, in conjunction with the project record has been fully considered in arriving at the following conclusions. A tabular summary of these conclusions is provided in Table 1.

The short-term effects of the Proposed Action, with the inclusion of environmental commitments and project design features would be short-term in nature (1-2 years as areas subject to clearing and grading within and adjacent to the Trinity River stabilize and become revegetated). The referenced commitments include a number of specific measures to protect native salmonids and other aquatic and riparian dependent species. Measures to protect upland wildlife species are also included as part of the Proposed Action.

**Table 1. Invade and Unreasonably Diminish Conclusions – Proposed Project at the Deep Gulch and Sheridan Sites**

WSR Segment Designation	Invade the WSR	Unreasonable Diminishment of WSR Values			
		Scenery Value	Recreation Value	Fishery Value	Wildlife Value
Trinity River Recreational	Yes	Enhanced (rehabilitates river reach to a condition that is improved from the date of designation)	Boating (No Change) Fishing and other Recreation Enhanced	Enhanced	Enhanced

In the long-term, the Proposed Action, in conjunction with other actions undertaken by the TRRP to rehabilitate and enhance habitat for anadromous salmonids and other aquatic and upland species will result in overall improvement to the scenery, recreation, fish and wildlife values in the Trinity WSR.

I have carefully considered the short-term closure of the high-clearance vehicle public access to BLM lands in the vicinity of Ice Box Hole at the upstream end of the Deep Gulch site. While public access to BLM lands throughout the project area is limited by adjoining private lands, access via the river corridor will not be restricted during construction activities. The overarching purpose and need for the Proposed Action is to improve the Trinity River fishery, thereby meeting the goals of the TRRP with respect to tribal trust resources and recreational fishing opportunities. Fishing opportunities for tribal members and recreational user would increase due to increase in the spawning and rearing habitat for anadromous salmonids and other aquatic and riparian dependent species.

The Proposed Action would result in long-term benefits to the scenery, recreation, fish and wildlife values present when the Trinity WSR was designated as a National W&SR in 1981. Since there would be no “direct adverse effects” of the Trinity WSR or “unreasonable diminishment” of its values, I find the Proposed Action as described in Chapter 2 of the EA/IS to be fully consistent with the protections afforded by the WSRA.

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Jennifer Mata  
Redding Field Manager  
Bureau of Land Management

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Date