

3.8 Recreation and Wild and Scenic Rivers

This section describes the recreation resources within the boundaries of the site and evaluates the effects of the Proposed Project on these resources. The Proposed Project's conformance with the federal and state WSRA is evaluated, and the Wild and Scenic River Section 7 Analysis and Determination is documented in Appendix E. Recreation resources are further addressed in the Master EIR, Section 4.8.

3.8.1 Affected Environment/Environmental Setting

The federal government manages about 72 percent of the land in Trinity County. BLM is the primary land manager for public lands between Lewiston Dam and the confluence of the North Fork Trinity River, including lands in the corridor of the mainstem Trinity River that comprise portions of the project area. Recreational opportunities are generally available on BLM-managed lands. The Trinity River was designated as a National Wild and Scenic River in 1981. The designated Wild and Scenic reach extends from Lewiston Dam downstream to Weitchpec. Three tributaries to the Trinity River are also designated as Wild and Scenic: the New River, South Fork Trinity River, and North Fork Trinity River. Two scenic byways cross Trinity County: the Trinity Heritage Scenic Byway and the Trinity Scenic Byway. These byways provide scenic travel routes through Trinity County for residents and visitors.

The Trinity River provides year-round recreation opportunities. These opportunities include drift boating, kayaking, canoeing, rafting, inner tubing, fishing, swimming, wading, camping, gold panning, nature study, picnicking, hiking, hunting, and sightseeing. Fishing for Chinook salmon, steelhead, and rainbow and brown trout are major recreational activities on the Trinity River throughout the year. Although instream recreational activities occur throughout the year, they are most prevalent between the months of April and February. Access to the Trinity River is available from both public and private lands, and ranges from undeveloped or primitive use areas to fully developed commercial resorts. Developed recreation areas along the Trinity River consist of private campgrounds, resorts, and lodges; public campgrounds and picnic areas; and fishing access sites. Numerous river access sites occur between Lewiston Dam and Weitchpec. Although public use is restricted at most private river access points, public agencies, including BLM, USFS, CDFW, and California DWR offer a number of public river access points throughout the 40-mile reach including a BLM boat ramp at the Bucktail site. Public river access is not only used for a variety of water-based recreational activities, but for other activities as well, such as wildlife viewing and picnicking. River access and recreational development is concentrated around the communities of Lewiston, Douglas City, and Junction City.

Many kinds of development have occurred along the 40-mile reach of the Trinity River. In addition to residential and commercial development, there are a number of recreation developments managed by public agencies. These areas provide a variety of recreation opportunities, such as fishing, whitewater rafting, picnicking, and wildlife viewing. Within the Bucktail site, there is a BLM river access facility that includes a boat ramp and comfort station.

3.8.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The analysis of the potential effect on recreation resources as a result of the Proposed Project consists of identifying recreational resources (e.g., recreation facilities) near the boundaries of the project area and determining whether implementation of the action would impact these resources. This analysis is qualitative. In addition to evaluating the impacts on recreational resources, an evaluation was made of the Proposed Project's consistency with Trinity County recreation objectives and state and federal Wild and Scenic River designations. The WSRA Section 7 Determination for the Bucktail site (Appendix E to this EA/IS) concluded that the Proposed Project would enhance the river's outstandingly remarkable values (i.e., its fishery).

CEQA Significance Criteria

Impacts associated with recreational uses would be significant under CEQA if the Proposed Project would:

- Conflict with established or planned recreational uses within the sites' boundaries;
- Substantially affect existing recreational opportunities; or
- Result in an increase in the use of the existing neighborhood, regional parks, public lands in general, or other recreational facilities such that substantial deterioration of these facilities would occur or be accelerated.

The following criteria were used to determine if the Proposed Project's impacts to riverine recreation would be significant under CEQA:

- A substantial increase in turbidity so as to negatively affect recreation aesthetics;
- Incompatibility with the federal or state wild and scenic river designation, which is defined as jeopardizing the river's scenic, recreational, or fish and wildlife resources; or
- Non-compliance with Trinity County recreation resource objectives.

Impacts and Mitigation Measures/Project Design Features

Table 16 summarizes the potential recreation impacts resulting from the No Project and Proposed Project alternatives.

Table 16. Summary of Potential Recreation Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.8-1. Construction associated with the project could disrupt recreation activities, such as boating, fishing, and swimming, in the Trinity River.		
No impact	Significant	Less than significant

Table 16. Summary of Potential Recreation Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.8-2. Construction of the project could result in an increased safety risk to recreational users or resource damage to recreational lands within the project boundaries.		
No impact	Significant	Less than significant
Impact 3.8-3. Construction activities associated with the project could lower the Trinity River's aesthetic value for recreationists by increasing its turbidity.		
No impact	Significant	Less than significant
Impact 3.8-4. Implementation of the project could affect Wild and Scenic River values.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

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

No Project Alternative

Under the No Project alternative, there would be no disruption of recreation activities in the Trinity River, such as boating, fishing, and swimming, because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

During Proposed Project implementation, there would be construction equipment and activity within the active river channel, the floodplain, and adjacent upland areas in close proximity to the Trinity River. Activities would include vegetation removal and grading. Overall, treatments proposed within the activity areas described in Chapter 2 could result in temporary interruptions of public access and use in the immediate vicinity of the activity areas. However, river access at the site would continue to be available because several public and private access points are present in the vicinity. These alternative access points would ensure uninterrupted public access to the river in the vicinity. Potential disruptions to recreational activities within the project area would be temporary, lasting only during construction, but this impact would be significant.

Mitigation Measures/Project Design Features

Construction associated with the Proposed Project could disrupt recreation activities such as boating, fishing, and swimming in the Trinity River, as well as camping along the river. The environmental commitments and project design features listed in Chapter 2, in conjunction with mitigation measures 4.8-1a and 4.8-1b described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of these mitigation measures would reduce the impacts to less than significant.

Impact 3.8-2: Construction of the Proposed Project could result in an increased safety risk to recreational users or resource damage to lands within the Project boundaries.

No Project Alternative

Under the No Project alternative, there would be no safety risks to recreational users or resource damage to lands within the project area because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

During construction of the Proposed Project, there would be heavy equipment activity and construction vehicle traffic operating within, and immediately adjacent to, the Trinity River. Activities associated with the Proposed Project would require in-river construction work for a short period of time (approximately 3 to 6 weeks) during the in-river work window. These construction-related activities could distract recreational users (e.g., boaters, anglers). The in-river work activities would be accomplished in a way that minimizes impacts to navigation (i.e., safety) but this would still be considered a significant impact, albeit temporary.

Activities associated with in-river work would occur between July 15 and September 15. However, work directly adjacent to the wetted channel might continue for the duration of the construction period. Vehicular access to activity areas, including both uplands and in-river activity areas, would be limited to authorized personnel.

Temporary construction activities associated with the Proposed Project could pose a significant hazard to recreational users of the river and cause resource damage to recreational lands within the project area. Potential hazards to recreationists include the operation of construction equipment and vehicles in and around the site, changes to the bed and banks of the river as a result of excavation and/or placement of alluvium (e.g., gravel), the addition of large wood into the channel, and an increased potential for a hazardous materials spill (e.g., diesel and hydraulic fluid) related to the presence of construction equipment and vehicles operating in and adjacent to the river. Potential hazards to resources on recreational lands within project boundaries include an increased potential for hazardous materials spills and unstable riverbanks and/or uplands resulting from excavation, material addition, road creation, and vegetation removal. These impacts would be temporary, but significant.

Post construction, activity areas would be evaluated by Reclamation in conjunction with land managers to identify specific prescriptions required to minimize any further potential safety risks to recreational users and to ensure the avoidance of any further Project effects to resources occurring on recreational lands within the project area.

Mitigation Measures/Project Design Features

Construction of the Proposed Project could result in an increased safety risk to recreational users or resource damage to lands within the project area. The environmental commitments and project design features listed in Chapter 2, in conjunction with mitigation measures 4.8-1a and 4.8-1b described in Appendix B, will be implemented to reduce the potential for impacts associated with the Proposed Project. These mitigation measures respond to multiple issues. In an effort to reduce the

size of document, they are referred to for multiple impacts rather than reiterating the list numerous times. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.8-3: Construction activities associated with the Proposed Project could lower the Trinity River's aesthetic values for recreationists by increasing its turbidity.

No Project Alternative

Under the No Project alternative, turbidity levels in the Trinity River would not increase because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Implementation of the Proposed Project could increase turbidity in the Trinity River for some distance downstream. The level of this increase would be largely dependent on the flow regime at the time of the project. Flows that typically contribute to good fishing tend to be clear, thus nominal increases in turbidity may affect the recreational experience of anglers and the aesthetic values held by other user groups. Water quality objectives for the Trinity River specifically prohibit the discharge of any materials into the river that could cause a nuisance or adversely affect beneficial uses (e.g., recreation).

The Regional Water Board's Basin Plan (Regional Water Board 2011) includes two specific prohibitions directed at construction, logging, and other associated non-point source activities:

- The discharge of soil, silt, bark, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited; and
- The placing or disposal of soil, silt, bark, slash, or sawdust or other organic and earthen material from any logging, construction or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.

Implementation of the Proposed Project would increase the potential for turbidity and total suspended solids during construction activities. Fine sediments could be suspended in the river for several hours following in-channel activities. The extent of downstream sedimentation would be a function of the instream flow velocity and particle size. For example, fine-grained sediments like silts and clays could be carried several thousand feet downstream of the activity area, while larger-sized sediments like sands and gravels would tend to drop out of the water column within several feet of the construction limit. Increased turbidity and suspended solids levels would adversely affect water quality (refer to Section 4.5, Water Quality, of the Master EIR) and could adversely affect anadromous fish species that are known to occur in the Trinity River (refer to Section 4.6, Fisheries Resources, of the Master EIR), and could have a noticeable effect on the river's aesthetics. Increases in turbidity would be a significant impact.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could reduce the Trinity River's aesthetic values for recreationists by increasing turbidity. The environmental commitments and project design features listed in Chapter 2, in conjunction with mitigation measures 4.5-1a, 4.5-1b, 4.5-1c, 4.5-1d, and 4.5-1e identified to protect water quality and described in Appendix B, will be implemented to reduce the potential for impacts associated with the Proposed Project. These commitments, features and measures specifically reduce turbidity but also minimize potential impacts to multiple resource areas (e.g., water quality, fisheries, and recreation). In an effort to reduce the size of document, these mitigation measures are referred to in multiple resource areas rather than reiterating the list numerous times in the appendix. Implementation of these mitigation measures would reduce the impacts to less than significant.

Impact 3.8-4: Implementation of the Proposed Project could affect Wild and Scenic River values.

No Project Alternative

Under the No Project alternative, there would be no adverse impacts to Wild and Scenic River values because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Construction and implementation of the Proposed Project would have a temporary effect on the scenic and recreational components of the Trinity River's Wild and Scenic River values. However, this temporary impact would be less than significant because the rehabilitation activities would ultimately enhance the overall form and function of the Trinity River, thereby enhancing the outstandingly remarkable values for which it was designated a Wild and Scenic River. Temporary impacts on the scenic quality of the river are previously discussed under Impact 3.8-3 and in Section 3.12 (Visual Resources). The impact on Wild and Scenic River values would be less than significant because Proposed Project activities would be temporary and would ultimately enhance the "natural" qualities of the river.

3.9 Socioeconomics

This section evaluates potential impacts on socioeconomic conditions, population, and housing from Project implementation. This section is tiered to the detailed discussion of regional socioeconomic conditions, population, and housing in the Master EIR, Section 4.9. Information regarding poverty rates and population by race and ethnicity is included in Section 3.18, Environmental Justice, of this EA/IS. Much of the information in this section is derived from Trinity County 2007: Economic and Demographic Profile (Center for Economic Development 2007). Trinity County is a rural region with substantial amounts of public land and a minimal private land base. As a result, the region is largely dependent on natural resources and recreation-based industries for its economic base.

3.9.1 Affected Environment/Environmental Setting

Labor Market, Population, and Housing

The labor market, population, and housing discussions in the Master EIR (Section 4.9) provide general information that applies to the project area.

Labor Market

The average total labor force in Trinity County between the years of 1991 and 2006 was 5,250 people (California Employment Development Department 2008; Center for Economic Development 2007). Annual variations have ranged from 4,850 people in 1999 to 5,420 people in 2003 (California Employment Development Department 2008; Center for Economic Development 2007). The majority of Trinity County's labor force is concentrated in Weaverville and Hayfork. Trinity County's unemployment rate has been and continues to be consistently higher than the California average. In December 2010, unemployment in Trinity County was 20.5 percent (California Employment Development Department 2011).

Population

Trinity County's population continues to grow at a considerably lower rate than California on average, and was ranked by the U.S. Census Bureau as 54th in total population out of 58 California counties (U.S. Census Bureau 2008). Declines in the timber industry and an attendant loss of jobs have had a significant effect on the county's population. The population of Trinity County is generally characterized by a higher proportion of white and retirement-age persons and lower proportions of Native American, Hispanic, and young working-age persons (Center for Economic Development 2007). The county's demographics are influenced by the large amount of federally owned land in combination with land used for private industrial timber production (10 percent), much of which is restricted from development due to zoning as a Timber Production Zone (Trinity County 2003). Thus, only about 15 percent of the county is private land that is usable for development purposes. The county's rugged terrain and remote location also influence its demographics by limiting the developable area. Most of the population of Trinity County is concentrated in Weaverville, Hayfork, and Lewiston. Education levels of residents are typical of most rural northern California counties, with a greater proportion of high school graduates and a smaller proportion of college graduates (Center for Economic Development 2007).

Housing

The total number of housing units in Trinity County in 2006 was estimated at 8,251 (U.S. Census Bureau 2008). The total number of occupied housing units was estimated at 5,587 (U.S. Census Bureau 2008). During the period of 2000 to 2007, there were 374 single family homes constructed in Trinity County; only two of these were multifamily units (California Employment Development Department 2008). The community of Lewiston offers only limited services, including several commercial enterprises, a U.S. Post Office, and Lewiston Elementary School. The community also has several recreation-based businesses along the river upstream of the Bucktail site, including the Trinity River Resort and RV Park, the Old Lewiston Bridge RV Resort, and the River Oaks Resort. These businesses provide economic benefits to the local community and the county, however, the

Lewiston community is primarily residential. Existing land uses in the general vicinity of the project area are primarily rural residential or lands managed by federal or state agencies and timber management companies.

There is little likelihood that parcels in the vicinity of the project area would be further subdivided because of their location in the floodplain, zoning restrictions, soil conditions, and minimal county services (e.g., community water service). Zoning designations within the community of Lewiston are largely residential, with minimum parcel sizes ranging from 1 to 40 acres (Trinity County 2003). Rural Residential zoning within this community requires a minimum parcel size of 1 to 5 acres to retain the rural character of the area. Many of these parcels do not have access to community services, and rely on individual sewer and water services. In addition, portions of many parcels located directly adjacent to the river are designated as Flood Hazard and Open Space zones, restricting further development in these areas. Therefore, there is little potential for increased development densities in the project area. BLM-managed public lands in and adjacent to the project area are primarily managed for resource and recreation uses, and planned development would need to be consistent with resource and recreation goals and objectives of agency management plans.

3.9.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The following section provides a brief overview of the methods used to assess the potential socioeconomic impacts of the Proposed Project. These methods included qualitative assessments of potential impacts associated with employment, income, conflicts with county and local plans, population growth, displacement of persons and businesses, and community disruption. For this assessment, Trinity County is considered to be the area of potential socioeconomic impact.

CEQA Significance Criteria

For purposes of CEQA, under which “economic or social impacts of the Proposed Project shall not be treated as significant impacts on the environment,” impacts on population and housing are relevant only if they either (i) directly relate to an impact on the physical environment, in which case a lead agency may, but need not, consider economic or social impacts in determining whether such physical impacts are significant, or (ii) would result in a reasonably foreseeable indirect impact on the physical environment (See CEQA Guidelines, § 15131). Under CEQA, the Proposed Project would have a significant impact on population and housing if it:

- Induces substantial growth in an area, either directly or indirectly;
- Displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impacts and Mitigation Measures/Project Design Features

Table 17 summarizes the potential socioeconomic impacts that could result from implementation of the No Project alternative and the Proposed Project.

Table 17. Summary of Potential Impacts on Socioeconomics for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.9-1. Construction of the project would provide temporary employment opportunities for construction workers in Trinity County.		
No impact	Beneficial	Not applicable ¹
Impact 3.9-2. Implementation of the project could result in the disruption or displacement of local businesses.		
No impact	Less than significant	Not applicable ¹
Impact 3.9-3. Implementation of the project would result in an increased demand for housing during construction.		
No impact	Less than significant	Not applicable ¹
Impact 3.9-4. Implementation of the project would result in concentrated population growth.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is beneficial or less than significant, no mitigation is required.

Impact 3.9-1: Construction of the Proposed Project would provide temporary employment opportunities for construction workers in Trinity County.

No Project Alternative

Under the No Project alternative, no employment opportunities would be created because the Project would not occur. Therefore, there would be no impact.

Proposed Project

Project implementation would generate temporary construction-related employment in Trinity County. The generation of employment would create a beneficial effect on the local economy, even if the employment is short-lived. The exact number of design, construction, and clerical positions required to complete the Proposed Project is undetermined, but implementation of the rehabilitation activities is expected to add a small percentage to existing local jobs during implementation. The duration of employment would be dependent on the length of the contracting and construction period (anticipated to be approximately six months). Although the Proposed Project would provide direct local employment opportunities only if workers are hired from the local labor force, this potential impact would be beneficial.

Impact 3.9-2: Implementation of the Proposed Project could result in the disruption or displacement of local businesses.

No Project Alternative

Under the No Project alternative, there would be no disruption or displacement of local businesses because the Project would not occur. Therefore, there would be no impact.

Proposed Project

Local businesses in the vicinity of the project area would not be disrupted or displaced by activities associated with the Proposed Project. Construction equipment and vehicle access would not impair access to local businesses, and business operations would not be impaired. Access to the river and to recreation sites along the river may be temporarily affected because of the presence of equipment. However, because several other public access locations are available in the vicinity of the project area, the impact would be less than significant.

Impact 3.9-3: Implementation of the Proposed Project would result in an increased demand for housing during construction.

No Project Alternative

Under the No Project alternative, there would be no increased demand for housing during construction because the project would not occur. Therefore, there would be no impact.

Proposed Project

The area surrounding the community of Lewiston is primarily rural residential, and few rental opportunities are available. What rental property does occur in adjacent rural residential areas is typically seasonal rental property available for recreational users. More readily available short-term apartment and single-family rentals are concentrated in the nearby community of Weaverville and, to a lesser degree, Hayfork.

Implementation of the Proposed Project would not result in the displacement of any individual from his or her home. It is not anticipated that any short-term increase in the demand for housing in Weaverville would occur as a result of construction workers seeking lodging during the staging and construction period (primarily July through November) for the Proposed Project. Based on the estimated increase in annual employment generated by the Proposed Project (approximately 20 to 30 persons for the whole project as described in the Master EIR), this would be a less than significant impact, both regionally and locally. In addition to accommodating the short-term demands for housing during previous TRRP rehabilitation projects, the nearby communities have been capable of meeting short-term increases in housing demands resulting from a large influx of fire suppression personnel on a recurring basis. The Proposed Project would generate a much smaller number of housing needs in comparison to the housing demands generated by wildland fires, and the impact would occur only in the short term. Therefore, the impact would be less than significant.

Impact 3.9-4: Implementation of the Proposed Project would result in concentrated population growth.

No Project Alternative

Under the No Project alternative, there would not be a population increase because the project would not occur. Therefore, there would be no impact.

Proposed Project

The Proposed Project would require about 20 to 30 individuals during implementation. An increase in population is not anticipated; if any increase were to occur it would likely occur on a temporary basis. Based on current populations in the local communities, the projected number of workers that could move to the greater Weaverville area would result in a localized increase of less than one percent on a temporary basis. This amount would not constitute a significant change in population. Workers would likely be drawn from the local work force, which would further lessen potential population growth associated with the Proposed Project implementation. Overall, this impact would be less than significant.

3.10 Cultural Resources

Cultural resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary federal legislation that outlines the federal government's responsibility related to cultural resources. 54 U.S.C § 306108, commonly known as Section 106 of the NHPA, requires the federal government to take into consideration the effects of the undertaking on any historic property, i.e., cultural resources listed on or eligible for inclusion in the National Register of Historic Places (NRHP).

The Section 106 process is outlined in the federal regulations at 36 CFR 800. These regulations describe the process that the federal agency takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, the federal agency must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, the federal agency must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Officer, to seek concurrence on their findings. In addition, the federal agency is required through the Section 106 process to consult with Indian tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties. Pursuant to 36 CFR 800.2 (a)(2), Reclamation has been identified as the lead federal agency for Section 106 for the current proposed undertaking.

CEQA is the primary state statute that guides cultural resources considerations for actions involving state or local agencies. Similar to the NHPA, the CEQA process seeks to identify cultural resources that are significant and are eligible for inclusion in the California Register of Historical Resources (CRHR) (PRC, Section 21084.1). The guidelines for considering impacts to cultural resources under CEQA are located in the CEQA guidelines, Section 15064.5. If actions result in significant and

unavoidable impacts to resources eligible for inclusion in the CRHR, these effects must be mitigated through prescribed procedures. According to CEQA guidelines, if a cultural resource is eligible for inclusion in the NRHP it is eligible for inclusion in the CRHR and a means of mitigating significant and unavoidable impacts under CEQA can be to resolve adverse effects to historic properties using the Section 106 process. In addition to the environmental commitments and project design features listed in Chapter 2, the mitigation measures provided in Appendix B would be incorporated into a Memorandum of Agreement (MoA) to resolve adverse effects to historic properties assuming such impacts are adverse or significant and unavoidable. By completing the Section 106 process, all the steps and considerations for impacts to cultural resources for CEQA are effectively satisfied.

3.10.1 Affected Environment/Environmental Setting

Trinity County was primarily shaped by three economic pursuits: ranching, logging, and mining. Early settlers during the 1840s farmed, logged, and milled lumber (Colby 1982; Cox 1958; Medin and Allen 1998). This lifestyle was disrupted by the discovery of gold in Trinity County at Reading Creek in 1848. Mining on the Trinity River was a significant industrial operation that contributed to the economic development of Trinity County beginning in the 1850s and continuing to the 1960s (Bradley 1941; Jones 1981; Medin and Allen 2007). Boom towns quickly sprang up throughout the basin, with Weaverville and Trinity Center being among the largest, and nearly every flat and bar along the river was subsequently prospected.

Evidence of mining within the vicinity of the Trinity River is easily identified by even the casual observer. Large dredge tailings created by multiple gold dredge operations line the banks of the Trinity River depicting various stages of dredge development and implementation. Remnant placer mine operations also mark the hillsides along with their supporting infrastructure such as roads and ditches that brought people, equipment, and water to the gold operations. Historic mining activities are exceedingly apparent throughout the TRRP including the current project area. Although it is known that Native Americans extensively used the lands in, and immediately adjacent to, the Trinity River, evidence of this use is not easily located within the TRRP project areas as a result of historic mining operations. Archaeological sites containing Native American type artifacts are rare within TRRP project areas.

Cultural resource inventories, including records searches and pedestrian surveys, were conducted for the majority of the Bucktail site in conjunction with TRRP Phase 1 projects at the Dark Gulch and Lowden Ranch sites in 2007 (Reclamation 2007). Subsequently, additional surveys were conducted specific to the current Bucktail APE in 2015 (Reclamation 2015). BLM's Heritage Resources Program Manager was involved as a reviewer of both reports prepared by Reclamation consistent with its role as co-lead for this NEPA process. All known cultural resources have been recorded and documented in the referenced reports. Reclamation has made the determination that none of these cultural resources are eligible for inclusion in the NRHP. Additionally, consultation with representatives of the HVT and Yurok Tribe and other members of the local Native American community did not identify any traditional cultural properties within or adjacent to the APE.

3.10.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The project area's cultural resources identification and significance determination efforts were conducted in consultation with the BLM and the California State Historic Preservation Office (SHPO) pursuant to the NHPA's Section 106 process and its implementing regulations at 36 CFR Part 800.

CEQA Significance Criteria

The activities within the project area were evaluated to determine how they might affect cultural resources. Impacts on cultural resources are considered significant if implementation of the proposed project would potentially disturb unique cultural resources or properties on, or eligible for, the NRHP.

For historical resources, the lead agencies have reviewed both the federal NHPA and CEQA in order to determine thresholds of significance. CEQA provides that a project may cause a significant environmental effect if the project "may cause a substantial adverse change in the significance of an historical resource" (PRC, Section 21084.1). CEQA Guidelines Section 15064.5 defines a substantial adverse change in the significance of an historical resource to mean "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines, Section 15064.5, subd. (b)(1)). CEQA Guidelines Section 15064.5, subdivision (b)(2), states that the significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR;
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

With these definitions in mind, the lead agencies considered impacts on historical resources eligible for the NRHP or CRHR to be significant if the project would alter their eligibility for the NRHP or CRHR by:

- Physically destroying or materially altering the characteristics of the historical resource that convey its historical significance and justify its eligibility for listing on the NRHP or CRHR;

- Introducing visual, audible, or atmospheric elements out of character with the historical resource and its setting in such a way as to demolish or materially alter the characteristics that convey its historical significance and justify its eligibility for listing on the NRHP or CRHR;
- Causing the historical resource to be subject to neglect to such a degree that the characteristics that convey its historical significance and justify its eligibility for listing on the NRHP or CRHR would be materially impaired; or
- Resulting in the historical resource being transferred, leased, or sold, with the probability that the characteristics that convey its historical significance and justify its eligibility for listing on the NRHP or CRHR would be materially impaired.

In addition, based on CEQA Guidelines Section 15064.5 and Appendix G of the CEQA Guidelines, the Proposed Project would have significant effects under CEQA if they would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

Impacts and Mitigation Measures/Project Design Features

Table 18 summarizes the potential cultural resource impacts resulting from the No Project and Proposed Project alternatives.

Table 18. Summary of Potential Cultural Resources Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.10-1. Implementation of the project could cause a substantial adverse change in the significance of a known cultural resource.		
No impact	Less than significant	Not applicable ¹
Impact 3.10-2. Implementation of the project could potentially result in disturbance of undiscovered prehistoric or historic resources.		
No impact	Potentially significant	Less than significant
Impact 3.10-3. Implementation of the project could potentially result in disturbance of undiscovered human remains.		
No impact	Potentially significant	Less than significant

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.10-1: Implementation of the Proposed Project could cause a substantial adverse change in the significance of a known cultural resource.

No Project Alternative

Under the No Project alternative, Reclamation would not provide funds towards the restoration efforts along the Trinity River. Because no federal funding or approval of a federal action would occur, there would be no undertaking pursuant to 36 CFR § 800.16(y) and no nexus for initiating Section 106 of the NHPA. Conditions within the project area would not be altered by the proposed federal action resulting in no impact to cultural resources.

Proposed Project

Implementation of the Proposed Project would effectively avoid, minimize or mitigate impacts to cultural resources as described in the Programmatic Agreement (PA; USFWS et al. 2000b). By following the stipulations of the PA, there would be minimal impacts to cultural resources and all actions under CEQA and NHPA would be fulfilled. Reclamation will continue to work with BLM cultural staff to ensure that implementation plans are consistent with the PA. Reclamation commits to fulfilling the stipulations of the PA prior to implementation of the Proposed Project.

Impact 3.10-2: Implementation of the Proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources.

No Project Alternative

Under the No Project alternative, there would be no effects on cultural resources because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

TRRP rehabilitation activities have the potential to affect unknown cultural resources that may be present in the project area. Consistent with the environmental commitments and project design features listed in Chapter 2, in the event that any cultural resources are encountered during project implementation, all work in the area of the find would halt and Reclamation's Regional Archeologist would be immediately notified and given the opportunity to determine if the resource requires further study and what steps are necessary to comply with 36 CFR 800.13 (b)(3). Any such impact related to the Proposed Project would be potentially significant.

Mitigation Measures/Project Design Features

Implementation of the Proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources. Therefore, mitigation measure 4.10-2a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measure would reduce the impacts to less than significant.

Impact 3.10-3: Implementation of the Proposed Project could potentially result in disturbance of undiscovered human remains.

No Project Alternative

Under the No Project alternative, there would be no effects to undiscovered human remains because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

TRRP rehabilitation activities have the potential to affect undiscovered human remains that may be present in the project area. Federal law and regulations (Archaeological Resources Protection Act [ARPA], 16 USC 470 and 43 CFR 7; Native American Graves Protection & Repatriation Act [NAGPRA], 25 USC 3001 and 43 CFR 10; and Public Lands, Interior [43 CFR 8365.1-7]), as well as California state law (California Health & Safety Code 7050.5, *Dead Bodies* and California Public Resources Code 5097.98, *Notification of Discovery of Native American Human Remains*) require all parties that discover human remains in California to follow a well-defined process.

Consistent with the environmental commitments and project design features listed in Chapter 2, in the event that any human remains are encountered during Proposed Project implementation, all work in the area of the find would halt. The remains would be treated with respect and dignity and the area secured. The Trinity County Coroner's office would be immediately notified as well as Reclamation's Regional Archeologist and BLM's Field Office Archaeologist. After the coroner has determined the remains to be archaeological or historic in nature, the proper procedures under ARPA and/or NAGPRA would be initiated to determine the proper disposition of the remains. If the remains are determined to be Native American, the steps as outlined in NAGPRA, 43 CFR 10.6 (*Inadvertent discoveries*) must be followed. Any such impact related to the Proposed Project would be potentially significant.

Mitigation Measures/Project Design Features

Implementation of the Proposed Project could potentially result in disturbance of undiscovered human remains. Therefore, mitigation measure 4.10-3a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measure would reduce the impacts to less than significant.

3.11 Air Quality

This section evaluates the air quality impacts associated with implementation of the Proposed Project. Air emissions from project activities are measured against federal and state standards. Air quality in the vicinity of the project area is discussed in detail in the Master EIR (Section 4.11.1). The information below is summarized from that document.

3.11.1 Affected Environment/Environmental Setting

Climate and Topography

Trinity County has a climate characterized by hot, dry summers and cold, moderately wet winters (USDA 1998). Most precipitation in the county results from major storms originating in the Pacific Ocean; however, short thunderstorms resulting from localized climate conditions occur in the summer months. The higher mountain ridges receive precipitation as snow and hold most of it until late spring. Precipitation in the lower elevations is predominantly rainfall, with occasional snow in the winter (NCUAQMD 1995). Trinity County has an average summer high temperature of 93.9°F and winter low of 27.3°F.

Air Quality

The Master EIR summarizes federal, state and local air quality requirements applicable to the project area. The 1977 federal Clean Air Act (CAA) requires the EPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. Trinity County is part of the North Coast Air Basin (NCAB), and is under the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD). Similar to federal requirements, the 1988 California Clean Air Act (CCAA) outlines a program to attain the California Ambient Air Quality Standards (CAAQS). The county is currently in attainment with all federal air quality standards and most state air quality standards; however, the county is in non-attainment for the state particulate matter standard for particulate matter less than 10 microns in diameter (PM₁₀). The California Air Resources Board (CARB), California's state air quality management agency, regulates mobile source emissions and oversees the activities of the NCUAQMD. The NCAB is comprised of five counties in northwest California: Del Norte, Humboldt, Trinity, Mendocino, and a portion of Sonoma County. NCUAQMD is responsible for monitoring and reporting air quality for Trinity County as well as two others.

Trinity County's air quality is generally good. The low population density, limited number of industrial and agricultural operations and minimal traffic congestion problems contribute to the good air quality. Ambient air quality data is available from the Weaverville air monitoring station, which is located approximately 15 miles from the Bucktail site. Air quality measured at the Weaverville station may not be a precise representation of ambient air quality in the immediate vicinity of the site but it does provide a good indication of air quality in the general area.

Climate Change and Greenhouse Gases

Climate change refers to a significant change in measures of climate, such as average temperatures, precipitation, and wind patterns, over time. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to the accumulation of greenhouse gas (GHG) emissions in the atmosphere.

As of August 2007, CEQA lead agencies are required by law to analyze the potential of a project to produce GHG emissions, which consist primarily of carbon dioxide (CO₂), nitrous oxide (N₂O), and methane (CH₄) (PRC Section 21083.05). The Governor's Office of Planning and Research released a

Technical Advisory in June 2008 (California Office of Planning and Research 2008) that provides guidance for addressing CEQA GHG environmental impacts. In particular, “Lead agencies should make a good faith effort, based on available information, to calculate, model, or estimate the amount of CO₂ and other GHG emissions associated with vehicular traffic, energy consumption, water usage and construction activities” (California Office of Planning and Research 2008).

Sensitive Receptors

A sensitive receptor is a location where human populations, particularly children, seniors, and sick individuals, are present and where there is a reasonable expectation of continuous human exposure to pollutants. The project area is not located near a hospital or senior housing. However, it is located about 2 miles from the Lewiston Elementary School. Additionally, the site has residential areas adjacent to the boundaries and provides recreation opportunities.

3.11.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Data for the impacts analysis were taken from the following reports on local and regional air quality: Particulate Matter Attainment Plan (NCUAQMD 1995), California Air Quality Data Statistics (California Air Resources Board 2008), North Coast Rules and Regulations (NCUAQMD 2005), and the Trinity County General Plan (Trinity County 2003). Reclamation also considered the conditions that occurred during the previously constructed channel rehabilitation projects in close proximity to the Bucktail site; there were no complaints about air quality for those projects. The air quality analysis is qualitative, and was conducted by assessing anticipated construction-related impacts of the Proposed Project and comparing them to existing and anticipated future air quality conditions.

CEQA Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would normally have an adverse impact on air quality if it would:

- Violate any ambient air quality standard;
- Contribute substantially to an existing or projected air quality violation;
- Conflict with or obstruct implementation of any applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant (e.g., PM₁₀) for which the region is in non-attainment under an applicable state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in substantial air emissions or deterioration of air quality;
- Create objectionable odors;
- Alter air movement, moisture, or temperature, or result in any change in climate, either locally or regionally;
- Produce toxic air contaminant emissions that exceed the air pollution control district’s threshold level for health risk; or
- Result in a substantial increase or cumulatively considerable net increase in GHG emissions (e.g., CO₂).

Since the first two criteria include violation of either federal or state air quality standards, these criteria would also be used to determine significance for NEPA compliance. The NCUAQMD has not formally adopted a CEQA threshold of significance for criteria pollutants such as carbon monoxide (CO), nitrogen oxide (NO_x), PM₁₀, and sulfur dioxide (SO₂), but does use the significant emission rates listed in Table 4.11-3 of the Master EIR as a baseline when evaluating a project's potential impacts to air quality.

Impacts and Mitigation Measures/Project Design Features

Table 19 summarizes the potential air quality impacts that would result from the No Project alternative and the Proposed Project.

Table 19. Summary of Potential Air Quality Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.11-1. Construction activities associated with the project could result in an increase in fugitive dust and associated particulate matter (PM ₁₀ and PM _{2.5} ⁴) levels.		
No impact	Significant	Less than significant
Impact 3.11-2. Construction activities associated with the project could result in an increase in construction vehicle exhaust emissions.		
No impact	Significant	Less than significant
Impact 3.11-3. Construction and transportation activities associated with the project could result in an increase of greenhouse gas emissions and effects on climate change.		
No impact	Less than significant	Not applicable ¹
Impact 3.11-4. Construction activities would generate short-term and localized fugitive dust, gas, and diesel emissions, and smoke that could affect adjacent residences and schools.		
No impact	Significant	Less than significant

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.11-1: Construction activities associated with the Project could result in an increase in fugitive dust and associated particulate matter (PM₁₀ and PM_{2.5}) levels.

No Project Alternative

Under the No Project alternative, there would be no construction-related increase in fugitive dust and associated particulate matter levels because the project would not be constructed. Therefore, there would be no impact.

⁴ Particulate matter less than 2.5 microns in aerodynamic diameter.

Proposed Project

Rehabilitation activities associated with the Proposed Project would require excavation, grading, disposal of earthen materials, and the use of heavy equipment and travel on unpaved roads, which would temporarily contribute fugitive dust in the project area. Fugitive dust emissions would also result from activities associated with vegetation removal. As discussed previously, these sources of fugitive dust are associated with PM₁₀, a criteria pollutant, for which the air basin is in non-attainment.

High levels of PM₁₀ in Trinity County generally coincide with regional wildland fire events during the dry summer months and with periods of cool, wet weather when localized woodstove use and brush burning activities contribute particulate matter to the air. Fugitive dust resulting from project activities would occur during the dry summer and early fall months, when PM₁₀ levels may be elevated by wood stove use, brush burning, or wildland fires.

As described in Chapter 2, the Proposed Project includes NCUAQMD-required measures to minimize fugitive dust in and adjacent to the project area. Once rehabilitation activities cease at the site, the resulting impact on air quality would also cease. While the project design minimizes fugitive dust, project-generated fugitive dust would be considered a significant impact because the air basin is in non-attainment status for particulate matter. The impact would be temporary (lasting only during implementation).

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in an increase in fugitive dust and associated particulate matter (PM₁₀ and PM_{2.5}) levels. Therefore, mitigation measure 4.11-1a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measure would reduce the impacts to less than significant.

Impact 3.11-2: Construction activities associated with the Proposed Project could result in an increase in construction vehicle exhaust emissions.

No Project Alternative

Under the No Project alternative, no increase in construction vehicle exhaust emissions would occur because the Project would not be constructed. Therefore, there would be no impact.

Proposed Project

Construction associated with the Proposed Project would require the use of equipment that would temporarily contribute to air pollution in the Trinity River Basin. Exhaust emissions from heavy equipment during construction could contribute to air pollution. Project construction activities would generate emissions from diesel- and gasoline-powered equipment and vehicles. Diesel particulate is an identified Hazardous Air Pollutant (HAP) and Toxic Air Contaminant (TAC), emissions of which should be minimized. In this regard, construction activities would require the contractor to comply with NCUAQMD Rule 104 (3.0), Particulate Matter, or use portable internal combustion engines

registered and certified under the state portable equipment regulation. Because diesel particulate matter is both a HAP and a TAC, and because these pollutants would be emitted as a result of Proposed Project implementation, there would be a significant impact on air quality.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in an increase in construction vehicle exhaust emissions. Therefore, mitigation measure 4.11-2a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project.

Implementation of the specified mitigation measure would reduce the impacts to less than significant.

Impact 3.11-3: Construction and transportation activities associated with the Proposed Project could result in an increase of greenhouse gas emissions and effects on climate change.

No Project Alternative

Under the No Project alternative, the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Transportation and construction activity associated with project implementation would generate GHG emissions from diesel- and gasoline-powered vehicles and equipment. Burning vegetation would also emit CO₂, which is a GHG. Several measures are identified in Appendix B that are intended to reduce the impacts relative to climate change and GHGs. These measures are incorporated into the Proposed Project. Additionally, the following measures would be used to enhance the awareness of global warming in conjunction with the Proposed Project:

- Provide Project contractors with educational material about fuel efficiency and incentives;
- Promote incentives for contractors to initiate ride-sharing programs;
- Promote the use of energy efficient and alternative fuel construction equipment and transportation fleets through contract incentives;
- Require contractors to provide recycling bins for on-site waste materials;
- Provide incentives for contractors to use re-usable water containers rather than plastic bottled water;
- Provide incentives for contractors to hire locally; and
- Require re-useable batteries for equipment that can use them.

In order to determine the significance of the impact of a rehabilitation project, a “carbon foot-print” was estimated in the Master EIR based on a project’s potential generation of GHGs (primarily CO₂) from project activities at the remaining Phase 1 sites. Project activities that would offset potential impacts were weighed in the equation. The analysis in the Master EIR determined that rehabilitation at all of the remaining Phase 1 sites would produce approximately 3 metric tons of CO₂ per day over

the life of the project. Total GHG emissions resulting from the proposed activities would be approximately 2,050 metric tons of CO₂.⁵

Vegetation replanting and natural re-seeding within the existing riparian area would offset the total project GHG emissions by approximately 20 metric tons of CO₂ over a five-year period. Additionally, project activities may result in opportunities to increase the amount of riparian and upland vegetation.

Based on those calculations, the Master EIR determined that rehabilitation at the remaining Phase 1 sites would not generate significant increases in GHGs or an ongoing increase in the demand for off-site energy production because there would be no new facilities constructed. While a project's GHG emissions associated with the use of heavy equipment would be measurable over the course of the project, GHG emissions and any effects on global climate change would not be cumulatively significant considering the amount of GHG emissions generated by the rehabilitation and the current local air quality conditions. Overall, the impacts of rehabilitation activities would be less than significant with respect to GHG. As a result, the Proposed Project would result in impacts that would be less than significant because it represents a much smaller action than that analyzed in the Master EIR.

Impact 3.11-4: Construction activities would generate short-term and localized fugitive dust, gas, and diesel emissions, and smoke that could affect adjacent residences and schools.

No Project Alternative

Under the No Project alternative, no construction or transportation activities would occur because the Project would not be implemented. Therefore, there would be no impact.

Proposed Project

Construction activity associated with the Proposed Project would generate fugitive dust, gas, and diesel emissions and could generate smoke from vegetation burn piles, all of which could expose a number of adjacent residents, recreational users, and nearby elementary school to air pollutants. Schools and residences are considered sensitive receptors. Therefore, this would be a significant impact.

Mitigation Measures/Project Design Features

Construction activities would generate short-term and localized fugitive dust, gas, and diesel emissions, and smoke that could affect adjacent residences, recreational users, and schools. Therefore, mitigation measures 4.11-5a, 4.11-5b, 4.11-5c, and 4.11-5d described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

⁵ The mobile combustion CO₂ Emissions Calculation Tool was used to calculate GHG emissions for combustible fuel (Greenhouse Gas Protocol Initiative 2005), and the Construction Carbon Calculator was used to calculate GHG emissions for vegetation loss (BuildCarbonNeutral 2007). The calculation is based on 23 days of construction per site as estimated for the Remaining Phase 1 sites and includes diesel fuel combustion and loss of vegetation.

3.12 Visual Resources

This section describes the scenic values and visual resources that are known to occur within the project area and evaluates the effect that the Proposed Project could have on these values and resources. The BLM is responsible for managing public lands for multiple uses while ensuring that the scenic values and open space character of the public lands are considered before authorizing actions on public lands. The BLM accomplishes this through the Visual Resource Management (VRM) system. The VRM system classifies land based on visual appeal, public concern for scenic quality, and visibility from travel routes or observation points. VRM classes are used to identify the degree of acceptable visual change within a landscape based on the physical and sociological characteristics: Classes I and II are the most valued, Class III represents a moderate value, and Class IV is of least value. The Proposed Project would affect BLM administered public lands in the project area with the VRM Class Objective of II (USDI BLM 1993).

The BLM Manual 8431, Visual Resource Contrast Rating, provides the following management objectives for this VRM class (BLM 1986):

Class II Objective: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

More details about this resource are described in the Master EIR (Section 4.12). In the long term, the Proposed Project would maintain the Visual Resource Class II Objective.

3.12.1 Affected Environment/Environmental Setting

Visual Environment

The visual environment, or character, is a function of both the natural and artificial landscape features that make up a view. Geologic, hydrologic, botanical, wildlife, recreational, and urban features, such as roads, homes, and earthworks, directly influence the visual character of an area. The perception of the visual character of an area can vary significantly by season and even by hour as light, shadow, weather, and the elements that compose the view change. Form, line, color, and texture are the basic components used to describe visual character and quality for most visual assessments. The dominance of each of these components on the landscape serves to form the viewer's impression of the area. The visual character of the Trinity River as a whole is typified by the river channel, bordered by bands of riparian vegetation interspersed between homes, businesses, and, occasionally, deposits of dredge tailings. The riparian vegetation transitions to upland vegetation as the viewer moves away from the river. The location and boundaries of the project area are illustrated in Figure 2.

Viewer Groups

The project area may be subject to the perceptions of the following three distinct viewer groups: motorists, residents, and recreationists. Motorists are those persons who would view the project area

from a moving vehicle and may be drivers or passengers. Views of the river corridor from area roads in the project vicinity are limited and would only be visible to a small number of people because of the remoteness of the area. Residents are people whose homes and/or property are in close proximity to, and may have a view of, the project area. The individual sensitivity of residents to aesthetics and changes within a viewshed is highly variable. Recreationists are members of the community or the general public who use the recreational resources available within or adjacent to a site. The Trinity River provides a myriad of recreational opportunities that are discussed in Section 3.8 (Recreation). Typically, recreational users are highly sensitive to the visual character of the river corridor since most are drawn to the area by an appreciation of its scenic nature.

Light and Glare

Because of the rural nature of the Trinity River corridor, the primary sources of artificial light are limited to vehicles passing through the area on state, local, and private roads; concentrations of commercial/residential buildings; and, to a lesser degree, recreational features and facilities. Glare may occur during the daylight hours as the sun is reflected off the river or light-colored alluvium associated with the Trinity River floodplain.

Key Observation Points

Key observation points⁶ (KOPs) are identified along commonly traveled routes or other likely observation points from which a representative group (i.e., residents, recreationists, or motorists) could view the project area (Figure 9). KOPs for the Proposed Project were based on potential visibility from surrounding homes, public access areas, including for recreationists within the Trinity River channel and along Old Lewiston Road and Browns Mountain Road (Figure 9). Although the river channel is somewhat obscured from the view of motorists by vegetation and topography, some portions of the construction areas are visible from these roads. Table 20 provides a brief description of the KOPs and representative photographs of the site are included in Table 21.

⁶ Points from which the project boundary or portions thereof are visible from sensitive receptor areas, such as major travel routes and/or surrounding homes.

3.12 Visual Resources

This section describes the scenic values and visual resources that are known to occur within the project area and evaluates the effect that the Proposed Project could have on these values and resources. The BLM is responsible for managing public lands for multiple uses while ensuring that the scenic values and open space character of the public lands are considered before authorizing actions on public lands. The BLM accomplishes this through the Visual Resource Management (VRM) system. The VRM system classifies land based on visual appeal, public concern for scenic quality, and visibility from travel routes or observation points. VRM classes are used to identify the degree of acceptable visual change within a landscape based on the physical and sociological characteristics: Classes I and II are the most valued, Class III represents a moderate value, and Class IV is of least value. The Proposed Project would affect BLM administered public lands in the project area with the VRM Class Objective of II (USDI BLM 1993).

The BLM Manual 8431, Visual Resource Contrast Rating, provides the following management objectives for this VRM class (BLM 1986):

Class II Objective: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

More details about this resource are described in the Master EIR (Section 4.12). In the long term, the Proposed Project would maintain the Visual Resource Class II Objective.

3.12.1 Affected Environment/Environmental Setting

Visual Environment

The visual environment, or character, is a function of both the natural and artificial landscape features that make up a view. Geologic, hydrologic, botanical, wildlife, recreational, and urban features, such as roads, homes, and earthworks, directly influence the visual character of an area. The perception of the visual character of an area can vary significantly by season and even by hour as light, shadow, weather, and the elements that compose the view change. Form, line, color, and texture are the basic components used to describe visual character and quality for most visual assessments. The dominance of each of these components on the landscape serves to form the viewer's impression of the area. The visual character of the Trinity River as a whole is typified by the river channel, bordered by bands of riparian vegetation interspersed between homes, businesses, and, occasionally, deposits of dredge tailings. The riparian vegetation transitions to upland vegetation as the viewer moves away from the river. The location and boundaries of the project area are illustrated in Figure 2.

Viewer Groups

The project area may be subject to the perceptions of the following three distinct viewer groups: motorists, residents, and recreationists. Motorists are those persons who would view the project area

from a moving vehicle and may be drivers or passengers. Views of the river corridor from area roads in the project vicinity are limited and would only be visible to a small number of people because of the remoteness of the area. Residents are people whose homes and/or property are in close proximity to, and may have a view of, the project area. The individual sensitivity of residents to aesthetics and changes within a viewshed is highly variable. Recreationists are members of the community or the general public who use the recreational resources available within or adjacent to a site. The Trinity River provides a myriad of recreational opportunities that are discussed in Section 3.8 (Recreation). Typically, recreational users are highly sensitive to the visual character of the river corridor since most are drawn to the area by an appreciation of its scenic nature.

Light and Glare

Because of the rural nature of the Trinity River corridor, the primary sources of artificial light are limited to vehicles passing through the area on state, local, and private roads; concentrations of commercial/residential buildings; and, to a lesser degree, recreational features and facilities. Glare may occur during the daylight hours as the sun is reflected off the river or light-colored alluvium associated with the Trinity River floodplain.

Key Observation Points

Key observation points⁶ (KOPs) are identified along commonly traveled routes or other likely observation points from which a representative group (i.e., residents, recreationists, or motorists) could view the project area (Figure 9). KOPs for the Proposed Project were based on potential visibility from surrounding homes, public access areas, including for recreationists within the Trinity River channel and along Old Lewiston Road and Browns Mountain Road (Figure 9). Although the river channel is somewhat obscured from the view of motorists by vegetation and topography, some portions of the construction areas are visible from these roads. Table 20 provides a brief description of the KOPs and representative photographs of the site are included in Table 21.

⁶ Points from which the project boundary or portions thereof are visible from sensitive receptor areas, such as major travel routes and/or surrounding homes.

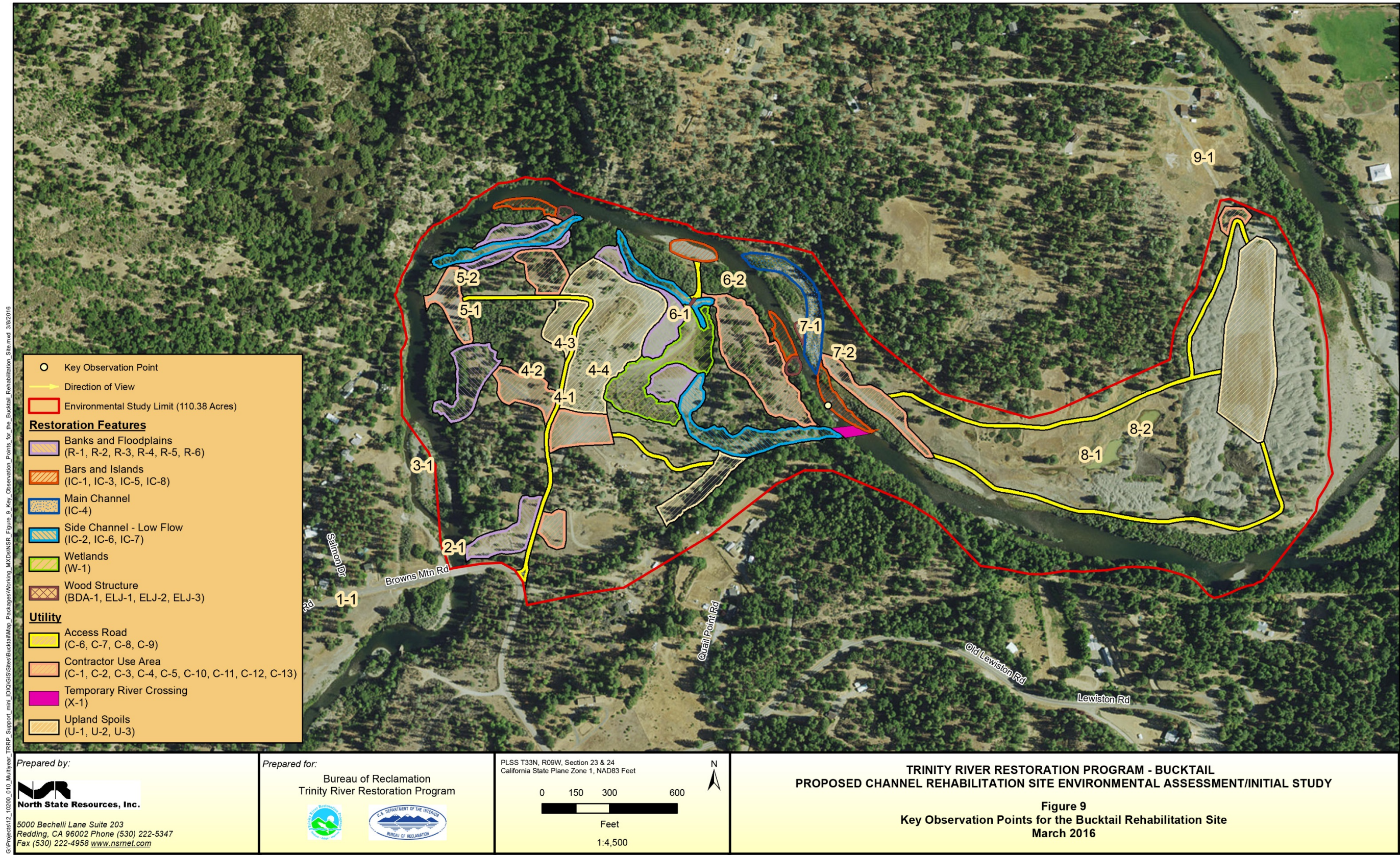


Figure 9. Key Observation Points for the Bucktail Rehabilitation Site.

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Table 20. Key Observation Points for the Proposed Project.

KOP	Description of Key Observation Points
1-1	View, looking east into the project area from Browns Mountain Road.
2-1	View looking upstream into project area from Bucktail Bridge.
3-1	View of Trinity River from residential area on right bank between the Bucktail Hole boat launch and Bucktail Bridge.
4-1	View of open area east of the Bucktail Hole River Access, looking south.
4-2	View of open area east of the Bucktail Hole River Access, looking west toward Trinity River.
4-3	View of open area east of the Bucktail Hole River Access, looking north toward Trinity River.
4-4	View of open area east of the Bucktail Hole River Access, looking east.
5-1	View from point upstream of Bucktail Hole boat launch, looking east into project area.
5-2	View looking upstream from point upstream of Bucktail Hole boat launch.
6-1	View looking into project area, from area east of the Bucktail Hole River Access.
6-2	View of river looking upstream, from area east of the Bucktail Hole River Access.
7-1	View looking downstream at river, from private property access road on river right.
7-2	View looking perpendicular to river, from private property access road on river right.
8-1	View looking west toward pond on private property on river right.
8-2	View looking northeast toward ponds and dredge tailings on private property on river right.
9-1	View from north of ESL on river right, looking downstream toward project area.

Table 21. Photographs of Views from Various Key Observation Points for the Bucktail Rehabilitation Site



Photo 1. KOP 4-3, East of the Bucktail Hole River Access, looking northeast toward Trinity River.



Photo 2. KOP 2-1, Bucktail Bridge, looking upstream (north).



Photo 3. KOP 3-1, Upstream view from access at Bucktail Bridge, right bank of river.



Photo 4. KOP 8, View from ponded area in tailings.

Wild and Scenic Rivers

The project area is located within the corridor of the Trinity River designated under the federal and state WSRA. A review of the consistency of the Proposed Project with federal and state Wild and Scenic River designations is documented in Appendix E, consistent with the requirements for a National Wild and Scenic River Section 7 Analysis and Determination.

3.12.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Analysis of potential impacts to aesthetic and visual resources relative to the Proposed Project is based on the significance criteria described in Appendix G of the CEQA Guidelines (Association of Environmental Professionals 2008). The Regional Water Board, acting as the CEQA lead agency, has used these criteria to develop significance thresholds. Significance thresholds are used to evaluate the Proposed Project's potential impact on the visual character of the project area with an emphasis on KOPs that are selected to characterize the aesthetic values and visual resources. This section provides a general discussion of the type and magnitude of impacts that could occur as a result of the Proposed Project. The assessment is qualitative, with the potential impacts of activities in the project area evaluated in the context of the viewshed of the Trinity River corridor. A review of the consistency of the Proposed Project with federal and state Wild and Scenic River designations is presented in Appendix E of this EA/IS.

CEQA Significance Criteria

The Proposed Project would have a significant impact under CEQA if it:

- Obstructs a scenic view from public viewing areas;
- Has a substantial adverse effect on a scenic vista;
- Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrades the existing visual character or quality of the rehabilitation sites and their surroundings;
- Introduces physical features that are substantially out of character with adjacent residential areas;
- Alters the sites so that the scale or degree of change appears as a substantial, obvious, and disharmonious modification of the overall scenes (to the extent that they clearly dominate the view);
- Creates substantial daytime glare associated with new construction;
- Disrupts adjacent residential areas because of new night-time lighting;
- Creates a new source of substantial light or glare that would adversely affect day or nighttime views in the sites;
- Is inconsistent with the policies of the Trinity County and local general plans relating to aesthetics; or
- Is inconsistent with the goals and objectives of either the federal or state WSRA with regards to the Trinity River.

Impacts and Mitigation Measures/Project Design Features

Table 22 summarizes the potential impacts to visual resources resulting from implementation of the No Project alternative and Proposed Project.

Table 22. Summary of Potential Visual Resource Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project with Mitigation
Impact 3.12-1. Implementation of the project could result in the degradation and/or obstruction of a scenic view from key observation areas.		
No impact	Significant	Less than significant
Impact 3.12-2. Implementation of the project could substantially change the character of, or be disharmonious with, existing land uses and aesthetic features.		
No impact	Less than Significant	Not applicable ¹
Impact 3.12-3. The project may be inconsistent with federal and state WSRA or Scenic Byway requirements.		
No impact	Less than significant	Not applicable ¹
Impact 3.12-4. The project could generate increased daytime glare and/or nighttime lighting.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.12-1: Implementation of the Proposed Project could result in the degradation and/or obstruction of a scenic view from key observation areas.

No Project Alternative

Under the No Project alternative, the degradation and/or obstruction of a scenic view from key observation areas would not occur as a result of construction activities because the Project would not be constructed. Therefore, there would be no impact.

Proposed Project

Potential impacts of project activities would include changes brought about by the removal of vegetation, the construction of inundated surfaces, the creation of access roads, and the presence of equipment in the project area, as described in Chapter 2. The proposed activities are intended to restore the form and function of an alluvial river, thereby enhancing the overall aesthetic values and visual resources associated with the Trinity River and the surrounding landscape. The environmental commitments and project design features intended to reduce impacts to the environment are also described in Chapter 2. While the adverse impacts are expected to be temporary in nature and the long-term outcome should improve the visual diversity of the corridor, the short-term impacts would persist for some time.

KOP 1-1 illustrates views of the project area from Browns Mountain Road and KOP 2-1 illustrates the views of the project area from the Bucktail Bridge (Table 21; Photo 2). Most of the proposed activity areas would be obscured from view from the road and bridge because of intervening vegetation but some project activities could be visible in background views. Several homes front the river downstream of the Bucktail Hole boat launch and upstream of the Bucktail Bridge; KOP 3-1

illustrates views of the project area from the backyards of adjacent homes where some equipment may be visible in the background. Photo 3 in Table 21 shows vegetation present in this area that would obscure views of the activity areas. Views upstream from the river bank would be mostly obscured by vegetation as well, although some equipment may be visible in background views.

KOPs 4-1, 4-2, 4-3, and 4-4 are within the BLM's Bucktail Hole river access area. This area supports dense stringers of riparian vegetation along both sides of the river, which obscures much of the river when viewed from the uplands (Table 21; Photo 1); however, the frequent use of this river access by fishermen and rafters/boaters would result in Proposed Project activities being visible to a number of individuals visiting the river access. Project activities could be visible in the background from KOPs 4-1 through 4-4. Users of the Bucktail Hole boat launch and fishermen accessing the river in the vicinity of KOPs 5-1 and 5-2 would have a view of the Proposed Project. Work is not proposed in the river channel in this area but would be visible in the uplands in the background. Recreationists in the area could also view portions of the project area from KOPs 6-1 and 6-2, although vegetation is thick in this area and would obscure background views.

KOPs 7-1, 7-2, 8-1, 8-2, and 9-1 represent potential views from river right. The right bank of the river in this location is privately owned and largely undeveloped. Private land owners could see portions of the project area from KOPs 7-1 and 7-2 when accessing the river from their home. Because the home is some distance from the activity areas and because of the presence of screening vegetation, visual impacts would be less than significant. KOPs 8-1 and 8-2 are located in the portion of the site that encompasses a large accumulation of dredge tailings deposited during the bucket-line dredge era. Views of proposed activity areas would be partially obstructed by distance, topography, and vegetation. Proposed activity in this area would have little or no visual impact on homes in the vicinity due to the distance of homes from the activity area, topography, and the presence of stands of vegetation. Activity areas C-12 and U-3 could be visible from KOP 9-1, although they would also be obscured by vegetation, topography, and distance.

Other than the views of the project area from Bucktail Bridge, motorists traveling on roads in the vicinity of the site would have views screened by vegetation, topography, and distance. Proposed rehabilitation activities would be visible to occasional rafters/boaters passing by via the channel in this reach of the river (e.g., via raft/boat).

Project-related visual changes at the site would be apparent to in-channel recreationists. In-channel recreationists such as rafters would have unobstructed views of much of the in-channel construction as well as some of the upland project activities where they are not blocked by dense riparian vegetation that is common to the Trinity River.

Impacts to visual resources would be potentially significant, however because Proposed Project activities are intended to restore the form and function of an alluvial river, potentially adverse visual impacts occurring during construction would be temporary, lasting only until natural processes take over.

Mitigation Measures/Project Design Features

Project implementation could result in degradation and/or obstruction of a scenic view from key observation areas. In order to minimize impacts to visual resources resulting from the removal of

vegetation, the environmental commitments and project design features listed in Chapter 2, as well as mitigation measures 4.7-1a, 4.7-1b, and 4.7-1c, as described in Section 3.7 (Vegetation, Wildlife, and Wetlands) and in Table B-1 in Appendix B, will be implemented where applicable. Visual impacts related to water quality (e.g., the potential for increased turbidity to adversely impact the aesthetic quality of the river) would be addressed by applying the environmental commitments and project design features listed in Chapter 2, as well as the implementation of mitigation measures 4.5-1a, 4.5-1b, 4.5-1c, 4.5-1d, and 4.5-1e (described in Table B-1 in Appendix B), as discussed for Impact 3.8-3 (in Section 3.8, Recreation), where applicable. These particular commitments, design features, and mitigation measures minimize potential impacts to multiple resource areas (e.g., vegetation, water quality, and fisheries in addition to visual resources). In an effort to reduce the size of this document, these mitigation measures are referred to in multiple resource areas rather than reiterating the list numerous times in the appendix. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.12-2: Implementation of the Proposed Project could substantially change the character of, or be disharmonious with, existing land uses and aesthetic features.

No Project Alternative

Under the No Project alternative, no construction would occur in the project area. No changes would occur to the character or harmony of aesthetic features and existing land uses. Therefore, there would be no impact.

Proposed Project

Activities associated with the Proposed Project are intended to be not only functional (e.g., enhance fisheries and restore river sinuosity), but to complement the aesthetic values and visual resources associated with the project area. Overall, the Proposed Project incorporates the diversity of landscapes and vegetation types to define the location, character, and magnitude of the rehabilitation activities. For example, materials excavated from riverine areas would be removed to upland areas or used as a source of coarse sediment to enhance the alluvial function of the river. Material transported to upland activity areas would be placed in a manner that blends the materials into the contours of the topography. Retention of existing topographic features would lessen the degree of visual impact.

The activities described in Chapter 2 provide a framework for reestablishing the physical processes necessary to enhance the alluvial attributes of the river channel and floodplain over time, particularly those attributes that are flow dependent. Over time, the Proposed Project would produce gradual, ever-improving changes in the aesthetic quality of this reach of the Trinity River, while maintaining the character of the surrounding land uses. Because changes associated with the Proposed Project would retain the character of existing land uses and features, implementation would result in a less than significant impact on visual resources.

Impact 3.12-3: The Proposed Project may be inconsistent with the federal or state WSRA or Scenic Byway requirements.

No Project Alternative

Under the No Project alternative, no construction activities would occur. No changes would occur that would be inconsistent with the federal or state WSRA or Scenic Byway requirements. Therefore, there would be no impact.

Proposed Project

Under Section 7 of the WSRA, direct and adverse effects to the values for which the Trinity River was recognized as a Wild and Scenic River are prohibited. Project implementation would be consistent with these values because the activities would not be considered substantially out of character with the current aesthetic conditions. Implementation of the Proposed Project would result in a less than significant impact to WSRA and Scenic Byway requirements.

Impact 3.12-4: The Proposed Project could generate increased daytime glare and/or nighttime lighting.

No Project Alternative

Under the No Project alternative, no changes in daytime glare or nighttime lighting would occur because the project would not be implemented. Therefore, there would be no impact.

Proposed Project

Under the Proposed Project, significant increases in daytime glare and/or nighttime lighting are not anticipated to occur. Construction activities would not take place during nighttime hours; therefore, nearby homes and motorists traveling on roads adjacent to the river corridor would not be subjected to the headlights of construction equipment or stationary spotlights. Material removed from the floodplain and deposited at various activity areas is generally not reflective and would not increase the level of daytime glare observable to the viewer. Some changes may occur in the locations and amounts of glare produced by water over the constructed inundation surfaces, but, overall, these changes would be short-lived and variable by day, as well as season. The impacts of these changes would be less than significant. Occurrences of daytime glare produced by the sun reflecting off the water or construction equipment would be of short duration. Such an impact would be less than significant.

3.13 Hazards and Hazardous Materials

3.13.1 Affected Environment/Environmental Setting

This section evaluates hazards and hazardous materials that may currently be present within the project area. The potential for using hazardous materials or generating hazardous waste in conjunction with rehabilitation activities is discussed in the Master EIR (Section 4.13). Hazardous

materials and the potential for health hazards to be generated by implementation of the Proposed Project are also assessed in this section.

Hazardous Material and Hazardous Waste

Federal, state, and local agencies regulate hazardous materials and hazardous waste. Nonetheless, illegal storage and disposal and unintentional releases of hazardous materials or waste from leaks and accidents can occur when hazardous materials are used or hazardous waste is generated by a project. Regional roadways including SR-299 and SR-3 are frequently used to transport hazardous materials throughout Trinity County. Under 13 CCR, Section 1150-1194, and 49 CFR, the California Highway Patrol (CHP) regulates the transport of hazardous materials. When a spill of hazardous material or waste occurs on a highway, the CHP is responsible for directing cleanup and enforcement (California Vehicle Code 2450-2453b).

Roadways and Evacuation Routes

Access to the site would be made from SR-299, Lewiston Road, Browns Mountain Road, and Trinity Dam Boulevard. These roads would also serve as the primary evacuation routes for the site.

Wildland Fire

Steep topography and a mosaic of mixed-conifer, hardwood, and chaparral woodlands coupled with typically hot, dry summers create extreme fire danger throughout most of Trinity County. Human-caused fires, particularly along roadways and other developed areas, are relatively common, although the county is also frequently subject to lightning-caused fires. Wildland fire, regardless of the cause, can be detrimental to watershed function, killing vegetation, burning the organic matter in litter and soil, and forming impervious soil layers, factors that contribute directly to accelerated runoff and erosion from the watershed during and immediately after a storm event. However, it is important to note that fire is also a natural disturbance that the landscape has evolved with over centuries. Habitat modification occurs as a result of fire as well as from a lack of fire.

Trinity County fire protection needs are met by 16 volunteer fire departments (VFDs) dispersed throughout the county, and Cal Fire and the USFS. Fire protection on BLM lands occurs under an annual local operating plan that is tiered under a multi-party agreement (the California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement) between the USFS, Cal Fire, National Park Service, USFWS, and Bureau of Indian Affairs. The Lewiston Community Services District (LCSD) provides services within the Lewiston general plan area, and is responsible for structural fire protection and rescue services in Trinity County throughout the year.

Flooding and Seismic Events

A review of the FEMA FIRMs indicates that the project area is within an area for which the BFEs have been determined and the site is in a designated floodway. Areas designated by FEMA as being within "Zone X," are subject to a 100-year flood with average depths of less than 1 foot or with drainage areas of less than 1 square mile. Trinity River flows through the project area are moderated by the TRD below Lewiston Dam.

Infrequently, seismic events occur in the region generally in the form of low to moderate levels of ground shaking associated with nearby or distant earthquakes. The potential for landslides triggered by seismic events is not significant within the corridor of the mainstem Trinity River, due to the low level of historical occurrence of seismic activity in the region. However, the steep topography and shallow, erosive soils found in much of the region increase the potential for landslides and rockfalls triggered by seismic events, precipitation, or other types of disturbances. Seismic activity known to occur in the region is discussed in the Master EIR (Sections 4.3 and 4.13), including a detailed discussion of geologic hazards that could be associated with rehabilitation activities.

3.13.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Hazards and hazardous materials associated with the project area were assessed in the field by TRRP staff. In addition, Trinity County Planning Department and Environmental Health Department staff will be consulted regarding the potential for hazardous substances to occur in the general vicinity of the site boundaries.

CEQA Significance Criteria

An impact related to hazards and hazardous materials would be significant under CEQA if the Proposed Project would:

- Involve the use, production, or disposal of materials that pose a hazard to people or to animal or plant populations in the area affected;
- Create a substantial potential public health or safety hazard due to risk of upset (accidents);
- Create a substantial potential public health or safety hazard due to a reasonably foreseeable release of hazardous materials and/or hazardous waste (i.e., from contaminated soil);
- Violate applicable laws intended to protect human health and safety or expose employees to working situations that do not meet health standards;
- Physically interfere with, or impair implementation of, emergency response plans or emergency evacuation plans;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to *California Government Code* Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school; or

- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impacts and Mitigation Measures/Project Design Features

Table 23 summarizes the potential hazards and hazardous materials impacts that could result from implementation of the No Project alternative and Proposed Project.

Table 23. Summary of Hazards and Hazardous Materials Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.13-1. Implementation of the project could increase the potential for release of, or exposure to, potentially hazardous materials that could pose a public health or safety hazard.		
No impact	Less than significant	Not applicable ¹
Impact 3.13-2. Construction activities associated with the project may interfere with emergency response and evacuation plans by temporarily slowing traffic flow.		
No impact	Less than significant	Not applicable ¹
Impact 3.13-3. Implementation of the project may contribute to wildland fire potential and catastrophic fire behavior in the project area.		
No impact	Less than significant	Not applicable ¹
Impact 3.13-4. Implementation of the project may contribute to an increased risk of landslides and flooding.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.13-1: Implementation of the Proposed Project could increase the potential for release of, or exposure to, potentially hazardous materials that could pose a public health or safety hazard.

No Project Alternative

Under the No Project alternative, construction activities that could potentially release hazardous substances (e.g., oil, gas, diesel, and mercury) into the environment at levels that could pose a health or safety hazard to the public would not occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Activities associated with the Proposed Project would utilize potentially hazardous materials (e.g., oil and fuels) associated with the operation of vehicles and construction equipment during project implementation. These materials are similar to those routinely used for other types of construction projects throughout Trinity County. The widespread use and associated transport of these materials along the highways and county roads that traverse Trinity County, combined with the low level of

incidents (spills), suggest that impacts related to rehabilitation activities would be similar to that elsewhere in Trinity County. Implementation of BMPs would minimize the potential for any project-related hazardous materials becoming a public hazard. This impact would be less than significant; therefore, no mitigation is required.

Impact 3.13.2: Construction activities associated with the Proposed Project may interfere with emergency response and evacuation plans by temporarily slowing traffic flow.

No Project Alternative

Under the No Project alternative, construction activities that could interfere with emergency response and evacuation plans would not occur because the Project would not be implemented. Therefore, there would be no impact.

Proposed Project

Under the Proposed Project, construction traffic would include the mobilization and demobilization of construction equipment (e.g., scrapers, excavators, and bulldozers) to and from the project area over the course of the construction period. Once the equipment is on site, construction traffic would be limited to daily trips for personnel and routine service and supply vehicles. Construction activities would be managed to ensure that emergency response and evacuation plans are not impeded. The impacts created would be less than significant; therefore, no mitigation is required.

Impact 3.13.3: Implementation of the Proposed Project may contribute to wildland fire potential and catastrophic fire behavior in the Project area.

No Project Alternative

Under the No Project alternative, there would be no impact on wildland fire potential or catastrophic fire behavior because the project would not be implemented. Therefore, there would be no impact.

Proposed Project

The proposed activities described in Chapter 2 would occur within or adjacent to the riparian corridor of the Trinity River. Potential fuels within the boundaries of the project area (e.g., grasses and herbaceous weeds) are generally noncontiguous and the river serves as a substantial natural firebreak. The types and amounts of fuels and their continuity may be decreased temporarily by implementation of this alternative, particularly in areas subject to vegetation removal, but any such changes would not be significant with respect to fire potential and behavior. In the long-term, potential fire conditions would be similar to those that currently exist (e.g., potential fuels would be limited to riparian vegetation, sporadic grasses, and herbaceous weeds). Proposed Project implementation would have a less than significant impact on wildland fire potential and behavior; therefore, no mitigation is required.

Impact 3.13.4: Implementation of the Proposed Project may contribute to an increased risk of landslide or flooding.

No Project Alternative

The No Project alternative would have no impact on the potential for landslides or flooding because the Project would not be implemented. Therefore, there would be no impact.

Proposed Project

Under the Proposed Project, most of the activities described in Chapter 2 would take place in the river channel or floodplain, in areas that have relatively flat topography. Furthermore, the alternative does not involve alteration of toe-slopes adjacent to any geologically unstable areas (e.g., landslides). Proposed Project implementation would result in either no change to the BFE or a reduction of the BFE, since stockpiled excavated material would be stored in the adjacent uplands. The potential for flooding would not be increased in the project area. These impacts would be less than significant; therefore, no mitigation is required.

3.14 Noise

This section evaluates the potential noise impacts associated with implementation of the Proposed Project. The evaluation is based on a review of local land use plans and policies pertaining to noise and field reconnaissance used to identify potential sensitive receptors within and adjacent to the project area boundaries. A detailed discussion of methodology used to quantify noise is provided in the Master EIR (Section 4.14).

3.14.1 Affected Environment/Environmental Setting

Noise is generally defined as excessive and unwanted sound emanating from noise-producing objects. Total environmental noise exerts a sound pressure level that is generally measured with an A-weighted decibel scale (dBA), which approximates the range of sound audible to the human ear (where 10 dBA is at the low threshold of hearing and 120-140 dBA is the threshold of pain). Human responses to noise are subjective and can vary. The subjective effects of noise are difficult to measure as are the corresponding reactions of annoyance and dissatisfaction. Individual tolerance thresholds vary widely based on an individual's past experiences with noise. Intensity, duration, frequency, time pattern of noise, and existing background noises are some factors that can influence individual responses to noise. Table 4.14-1 of the Master EIR lists examples of dBA levels for a range of noises and Table 4.14-2 of the Master EIR lists the U.S. General Services Administration maximum noise levels allowed for government contract construction activities. Typical construction noise levels that could occur in the project area are shown in Table 24. The noise levels shown in this table assume the operation of various types of construction equipment, as shown in Table 25.

Table 24. Typical Construction Noise Levels.

Construction Stage	Noise Level (dBA, L_{eq})¹
Ground clearing	84
Excavation	89
Hauling	88
Revegetation	65

¹ Average noise levels 50 feet from the noisiest source and 200 feet from the rest of the equipment associated with a given construction stage. Noise levels correspond to public works projects (50 dBA ambient environments) (Bolt et al. 1971).

Table 25. Construction Equipment Noise.

Type Of Equipment	Maximum Level (dBA At 50 Feet)
Truck	75
Scrapers	80
Bulldozers	75
Backhoe	75
Pneumatic tools	80

Source: Sincero and Sincero 1996.

Noise is not considered a problem in Trinity County. A community noise survey was conducted in Trinity County in 2002 (Brown-Buntin 2002) as part of an update that was being developed for the noise element of the County's General Plan. The community noise survey results indicate that typical noise levels in noise-sensitive areas range from approximately 44 to 52 decibel (dB) L_{dn}⁷. These are low noise levels and are typical of small communities and rural areas. Maximum noise levels observed during the survey were generally caused by local automobile traffic or heavy trucks. Other sources of maximum noise levels included occasional aircraft and construction activities. Background noise levels in the absence of these maximum-noise generating sources are largely attributable to distant traffic, water, wind, livestock, birds, and insects.

Noise-sensitive receptors that have been identified in the general vicinity of the project area include private residential areas; commercial facilities; persons, primarily recreationists (e.g., hikers, picnickers, anglers, and rafters); and wildlife that use the Trinity River corridor. Noise tolerance levels for these groups are subjective, varying widely between individuals.

The Bucktail site is located adjacent to Browns Mountain Road, Steelhead Circle, and Quail Point Road. Traffic from these roads would be heard passing by the site; traffic-generated noise would be buffered by vegetation and topography. The residential developments near the site represent sensitive

⁷dB L_{dn} = The average equivalent sound level during a 24-hour day, obtained after addition of 10 A-weighted decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m. A-weighted decibels, abbreviated dBA, or dB(a), are an expression of the relative loudness of sounds in air as perceived by the human ear.

noise receptors. Residential areas are subjected to varying degrees of ambient noise levels from the river (including recreationists) and intermittent traffic using roads in the vicinity. To varying degrees, construction vehicles entering and leaving the site would temporarily increase traffic levels and, thus, ambient noise levels along the roads adjacent to the site. Homes in the area may experience some increased ambient noise levels during construction, but in general, noise levels would be buffered somewhat by distance, topography, and vegetation.

3.14.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Since the Proposed Project would not result in a noticeable increase in traffic volume, construction-related noise is the focus of this impact analysis. Construction noise impacts are based on an assumed mixture of construction equipment and related noise levels. Assumptions related to construction equipment and industry noise averages were used to evaluate construction-related noise impacts, including noise levels at the nearest sensitive receptors. Previous TRRP channel rehabilitation actions in the immediate vicinity of the Bucktail site did not result in any noise-related complaints from residents or recreational users.

CEQA Significance Criteria

Based on Appendix G of the CEQA Guidelines (Association of Environmental Professionals 2008) the Proposed Project would have a significant direct noise impact under CEQA if it would result in:

- Exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Proposed Project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels; or
- Exposure of persons to, or generation of, noise levels in excess of standards established in the Trinity County General Plan noise element, or applicable standards of other agencies.

Impacts and Mitigation Measures/Project Design Features

Table 26 summarizes the potential noise impacts resulting from implementation of the No Project alternative and Proposed Project.

Table 26. Summary of Potential Noise Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.14-1. Construction activities associated with the proposed project would result in noise impacts to nearby sensitive receptors.		
No impact	Significant	Less than significant

Impact 3.14-1: Construction activities associated with the Proposed Project would result in noise impacts to nearby sensitive receptors.

No Project Alternative

Under the No Project alternative, no change in ambient noise levels would occur because the project would not be implemented. Therefore, there would be no impact.

Proposed Project

During the construction phase of the Proposed Project, noise from construction activities would temporarily dominate the noise environment in the project area. Construction activities would generate maximum noise levels ranging from 65 to 84 dBA at a distance of 50 feet, although intervening terrain and vegetation could reduce these noise levels. Construction noise would be temporary and is expected to occur primarily between the months of July and December. There would be no permanent noise impacts resulting from implementation of the Proposed Project.

Residences located near the site would be subjected to varying degrees of construction noise. It is not anticipated that ground vibration created by project activities would be detectable at any sensitive receptor location nor would it result in any structural damage. Recreational users in the general vicinity of the site could encounter increased ambient noise levels during construction activities. While such an increase in noise would be significant, its impact would be temporary and localized.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project would result in noise impacts to nearby sensitive receptors. Therefore, mitigation measures 4.14-1a, 4.14-1b, and 4.14-1c described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

3.15 Public Services and Utilities/Energy

This section addresses the public services and utilities associated with the project area and evaluation of the impacts on these resources from implementation of the Proposed Project. These resources are described in the Master EIR, Section 4.15.

3.15.1 Affected Environment/Environmental Setting

Water Supply and Distribution

Mutual and private water systems, wells, springs, and river intake systems serve development in the Lewiston community. Lewiston has two small water companies that serve the community core area, the Lewiston Park Mutual Water Company and the Lewiston Valley Water Company. Bucktail Mutual Water Company is a community system that serves the entire Bucktail subdivision.

Development outside of the Lewiston community core area and Bucktail subdivision relies primarily on individual and shared wells, springs, and river intake systems; several small community well systems are also maintained. Surface water, which tends to be less expensive to develop, is more frequently used in this area for domestic purposes than deep wells. Water supplies that serve small subdivisions and private residences often have filtration and treatment systems that are used to address local water quality concerns.

Surface Water

The Trinity River is the primary surface water body in the project area. Surface water is used primarily for domestic purposes, including gardens, livestock, and fire protection. The TRRP has been working with landowners in the general vicinity of the rehabilitation sites to relocate surface water intake systems affected by post-ROD flows and to upgrade on-site wastewater treatment facilities that were subject to inundation. Surface water sources are more frequently used for domestic purposes along the river corridor than groundwater sources and often require varying levels of treatment prior to use.

Groundwater

Groundwater wells provide water for domestic and commercial purposes in the vicinity of the project area. Due to the location and nature of the terrain, groundwater levels respond generally to river stage. Geologic investigations conducted for the Proposed Project suggest that groundwater levels fluctuate seasonally with river flows. Some domestic water sources collect groundwater from deep wells. Project activities have been designed to ensure that known groundwater wells are avoided.

Solid Waste Collection and Disposal

Trinity County operates nine solid waste transfer stations throughout the county, where waste is collected for shipment by truck to the Anderson Landfill in Shasta County. Solid waste collected from the project area would be transported by truck either to the Weaverville transfer station or to the landfill located in Anderson.

Fire Protection and Emergency Services

Cal Fire, BLM, and USFS provide fire protection services throughout Trinity County. Cal Fire generally provides fire protection services between May and late October. During the winter, Cal Fire responds from Weaverville with one engine, if personnel are present. During the summer, Cal Fire is equipped to provide three engines with 2,250 gallons of water and 12 to 13 firefighters. Minimum response time is 15 to 20 minutes on average. Half of the responses are typically for structure or flue fires and half are for wildland fires.

The LCSD provides fire protection for the Bucktail area. LCSD maintains three engines, a rescue vehicle, and an ambulance at its Texas Street station and responds to fires and aid calls year-round. The station has a 23-person volunteer crew and chief. LCSD crews respond to approximately four structure fires (not including flue fires) and 10 wildland fires a year.

Schools

The Lewiston Elementary School consists of grades kindergarten through eight. The Lewiston Elementary School District provides bus services for residents in that community. Bus service is provided throughout the community for students attending Trinity High School in Weaverville.

3.15.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The analysis addresses potential impacts from implementation of the Proposed Project on a number of public services and facilities that are described in detail in the Master EIR. The analysis qualitatively addresses potential impacts on energy resources resulting from substantial or wasteful energy use during project construction. The analysis is based on a review of planning documents applicable to the project area and field reconnaissance.

CEQA Significance Criteria

The Proposed Project would normally have a significant impact on public services or utilities under CEQA if it would:

- Not comply with published national, state, or local statutes, regulations, or standards relating to solid waste;
- Interfere with emergency services;
- Degrade the level of service of a public service or utility;
- Require relocating infrastructure;
- Result in substantial adverse physical impacts associated with the provision of, or 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 fire protection, police protection, schools, parks, or other public services;
- Require substantial improvements to the infrastructure or level of staffing of a public service or utility to maintain its existing level of service;
- Require or result in the construction of new water treatment, wastewater treatment, or storm water drainage facilities, or the expansion of such existing facilities, the construction of which could cause significant environmental effects;
- Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Disrupt utilities service to create a public health hazard or extended service disruption; or

- Encourage activities that result in the use of large amounts of fuel or energy, or would use fuel or energy in a wasteful manner.

Impacts and Mitigation Measures/Project Design Features

Table 27 summarizes the potential impacts on public services and utilities that could result from implementation of the No Project alternative and Proposed Project.

Table 27. Summary of Public Services and Utilities Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.15-1. Implementation of the project could disrupt existing electrical and phone service during construction activities.		
No impact	Less than significant	Not applicable ¹
Impact 3.15-2. Construction of the project could result in the generation of increased solid waste.		
No impact	Less than significant	Not applicable ¹
Impact 3.15-3. Implementation of the project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities.		
No impact	Significant	Less than significant
Impact 3.15-4. Construction of the project could result in a substantial use of nonrenewable energy resources.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.15-1: Implementation of the Proposed Project could disrupt existing electrical and phone service during construction activities.

No Project Alternative

Under the No Project alternative, no construction-related disruption to existing electrical or telephone service would occur because the project would not be implemented. Therefore, there would be no impact.

Proposed Project

Under the Proposed Project, no activities would occur to disrupt electrical or telephone service within or adjacent to the project area. Utility poles and/or underground lines located within the project area boundaries would be identified by the TRRP, and activities described in Chapter 2 have been designed to avoid impacts to these facilities. A number of electrical and phone lines cross access roads to the site, typically in a manner that provides adequate vehicular clearance for phone and utility lines. These clearances would be adequate to allow access by construction equipment.

Potential impacts on electrical and phone utilities and services as a result of Proposed Project implementation would be less than significant; therefore, no mitigation is required.

Impact 3.15-2: Construction of the Proposed Project could result in the generation of increased solid waste.

No Project Alternative

Increased quantities of solid waste would not be generated under the No Project alternative because there would be no construction activities. Therefore, there would be no impact.

Proposed Project

Under the Proposed Project, construction would result in the generation of solid waste associated with the removal of vegetation and other construction-related waste (e.g., garbage, containers, and oil). Vegetative materials (e.g., stumps, roots, and branches) would be disposed of within the project area. Disposal methods for vegetative materials could include chipping to provide mulch, burial, piling to provide wildlife habitat on site, or integration into the activity areas to provide structural habitat for juvenile fish. Solid waste generated by construction activities would either be disposed of at a local transfer station (Weaverville) or transported by truck to the Anderson Landfill in Shasta County. The Anderson Landfill currently has sufficient capacity and the necessary permits to accommodate non-hazardous construction waste. The contractor would be responsible for ensuring appropriate disposal of any hazardous waste, as approved by Reclamation. Disposal of potentially hazardous waste is evaluated in Section 3.13, Hazards and Hazardous Materials.

Temporary access routes built for Proposed Project implementation would be closed and/or decommissioned to ensure that the number of public access points on public lands would not increase, which could require the provision of public services (e.g., solid waste disposal) at locations that are inconsistent with agency management plans, guidelines, and policies. Therefore, this impact would be less than significant.

Impact 3.15-3: Implementation of the Proposed Project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities.

No Project Alternative

Since there would be no construction activities associated with implementation of the No Project alternative, emergency services, school bus routes, and student travel routes would not be disrupted. Therefore, there would be no impact.

Proposed Project

Construction activities would be confined within the project area boundaries. Construction personnel and service vehicles would use designated routes to and from the project area. Traffic control associated with activities would be minimal and is not expected to cause more than minimal disruptions to public services, if any. Access for mobilization and demobilization of heavy equipment, however, may require a higher level of traffic control for local roadways and may disrupt

traffic flow and circulation before, during, and after construction. Therefore, effects on emergency services, school bus routes, and student travel routes resulting from heavy equipment would be significant.

No road/bridge closures are planned for project implementation; however, in the event that it becomes necessary to temporarily close a road or bridge as a result of proposed activities, the road/bridge closures would occur during non-peak hours to avoid traffic circulation impacts associated with emergency services and school bus services. A closure, even during non-peak hours (i.e., 11:00 p.m. to 6:00 a.m.) could have the potential to increase significantly the response time for law enforcement, fire protection, and other emergency services. In the event that road closures would be required during the school year (mid-August through mid-June), these closures could delay school bus service, where it exists. While this impact would be temporary, it could interfere with student access to bus service and, thus, school attendance. Because of the potential for temporary traffic controls on local roadways, increased response time for emergency services, and interference with student travel, the impact would be significant.

Mitigation Measures/Project Design Features

Implementation of the Proposed Project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities. Therefore, mitigation measures 4.15-3a, 4.15-3b, and 4.15-3c described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.15-4: Construction of the Proposed Project could result in a substantial use of nonrenewable energy resources.

No Project Alternative

No use of nonrenewable energy resources would occur under the No Project alternative because construction activities would not occur. Therefore, there would be no impact.

Proposed Project

Energy expenditures associated with construction at the site would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be part of the direct energy use. Indirect energy use typically represents about three-quarters of total construction energy usage, with direct energy use constituting the remaining quarter. Though construction energy would be consumed only during the construction phase, it would represent an irreversible consumption of finite natural energy resources.

Construction would directly consume fuel and electricity. Construction would also indirectly consume fuel and electricity because of the energy used to provide the materials necessary for construction. Fuel would be consumed by both construction equipment and construction-worker vehicle trips. Minor electrical use might be required for some construction equipment, such as welding machines, power tools, and pumps.

Construction energy consumption would be a short-term impact and would not be an ongoing drain on finite natural resources. Construction would consume energy primarily in the form of fuel from local commercial sources and would not have a significant effect on local or regional energy sources. Therefore, this impact would be less than significant.

3.16 Transportation/Traffic Circulation

This section describes the existing transportation and traffic conditions in proximity to the project area and evaluates the potential impacts to transportation resources and traffic circulation from implementation of the Proposed Project.

3.16.1 Affected Environment/Environmental Setting

Regional and local roadways and circulation in the vicinity of the project area are described in Section 4.16 of the Master EIR. Table 28 identifies and characterizes the access roads for the project area. Based on reconnaissance information provided by TRRP staff and members of the design team, the roads identified in the table are maintained to varying degrees by the responsible party. No improvements to these roads are anticipated from proposed activities. SR-299 is a designated truck route between the Sacramento Valley and the coastal communities of northern California. It is the main access corridor to Trinity County and provides primary access to the Trinity River.

Table 28. Roadway Characteristics for Potential Access Roads Serving the Proposed Project Sites.

Road Name	Ownership	Surface Type	Roadway Class	Traffic Counts (ADT)
SR-299	State	Paved	Highway/ Scenic Byway	2,950 east of Junction City 1,900 west of Junction City
Trinity Dam Boulevard	County	Paved	Major Collector	441 at Rush Creek 897 at SR-299
Browns Mountain Road	Trinity County/BLM	Paved	Local/ Residential	Not available
Old Lewiston Road	Trinity County	Paved	Minor Collector	827
Bucktail Boat Ramp	BLM	Paved	Local/Recreation	Not Available

Sources: California Department of Transportation (Caltrans) 2007:

<http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2007>; Smith, pers. comm. 2008.

The Lewiston community is a collection of residential and commercial areas accessed by Trinity Dam Boulevard, Lewiston Road, and Rush Creek Road. These roads connect to either SR-3 or SR-299, and provide access from several directions to the area encompassed by the Lewiston Community Plan. Old Lewiston Road and Browns Mountain Road are located near the Bucktail site. Old Lewiston Road provides access to residential, resource, and commercial areas, and Browns Mountain Road provides access to residential areas and federal and private lands. These roads are part of the Trinity County road system. BLM maintains a single-lane paved road that accesses the Bucktail Boat Ramp from Browns Mountain Road. The development pattern in the vicinity of Lewiston includes a number of private roads maintained by individuals or associations. Public access is often restricted by private land owners.

Bicycle, pedestrian, and equestrian circulation is limited in the communities and residential neighborhoods that have developed along the Trinity River below Lewiston Dam. The Lewiston Community Plan contains a goal to provide a pedestrian and bicycle circulation system in the Lewiston community core and Historic District areas. Although bike lanes are not available on other roads in the general vicinity of the site, bicyclists, pedestrians, and equestrians use area roads for access, exercise, and recreational pursuits.

In addition to using existing roads to access the project area, roads within the boundaries of the site would be used to support various activities. New temporary access roads would be required to provide access for construction and monitoring activities. The BLM road through the site will be rehabilitated to its current standard; the temporary access roads throughout the site will be decommissioned and revegetated.

3.16.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

A qualitative assessment of traffic impacts was performed, based on the construction procedures and equipment that would be used, local transportation policies, site review of existing conditions, and traffic levels on key roadways.

CEQA Significance Criteria

Significance criteria were developed based on Appendix G of the CEQA Guidelines, as well as project-specific issues identified during the scoping process (e.g., access during construction). Significant construction-related impacts would result under CEQA if the Proposed Project would:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);
- Exceed, either individually or cumulatively, a level of service standard established by the county for designated roads or highways;
- Affect the form or function of SR-299, specifically bridges extending over the Trinity River and its tributaries;
- Affect the form or function of bridges under the jurisdiction of Trinity County or private parties;
- Disrupt existing traffic operations, including vehicular and bicycle traffic;
- Significantly degrade the existing conditions of local private roads;
- Obstruct access to adjacent land uses, including emergency access;
- Affect the operation of the local transit system;

- Conflict with adopted policies, plans, or projects supporting alternative transportation;
- Pose a safety hazard to motorists, bicyclists, equestrians or pedestrians;
- Cause substantial damage to or wear of public and private roadways; or
- Reduce available parking capacity.

Impacts and Mitigation Measures/Project Design Features

Table 29 summarizes the potential transportation and traffic impacts that would result from the No Project and Proposed Project alternatives.

Table 29. Summary of Potential Transportation Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.16-1. Construction activities would reduce/close existing traffic lanes.		
No impact	Less than significant	Not applicable ¹
Impact 3.16-2. Construction activities would generate short-term increases in vehicle trips.		
No impact	Significant	Less than significant
Impact 3.16-3. Implementation of the project would obstruct access to adjacent land uses.		
No impact	Less than significant	Not applicable ¹
Impact 3.16-4. Construction activities would increase wear and tear on local roadways.		
No impact	Significant	Less than significant
Impact 3.16-5. Construction activities could pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians.		
No impact	Significant	Less than significant
Impact 3.16-6. Construction activities could affect the form or function of bridges under the jurisdiction of Caltrans, Trinity County, or private parties.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.16-1: Construction activities would reduce/close existing traffic lanes.

No Project Alternative

Under the No Project alternative, there would be no construction-related reduction or closure of traffic lanes. Therefore, there would be no impact.

Proposed Project

Construction activities associated with the Proposed Project would be managed to ensure that SR-299, Old Lewiston Road, Trinity Dam Boulevard, and Browns Mountain Road, the primary roads serving as access for the project area, would remain open to through-traffic. The paved BLM road may be subject to short, intermittent closures while active construction occurs in the adjacent activity areas. Temporary traffic control may be necessary during the mobilization and demobilization of heavy equipment; however, no road closures are planned other than the BLM Boat Ramp Road. Passage for emergency vehicles would not be restricted. The adequate passage of traffic within and through the construction areas in the event of an emergency evacuation is discussed in Section 3.13, Hazards and Hazardous Materials. Because any traffic control requirements associated with access roads would be temporary, this impact would be less than significant.

Impact 3.16-2: Construction activities would generate short-term increases in vehicle trips.

No Project Alternative

Under the No Project alternative, short-term increases in vehicle trips would not occur because there would be no construction activities. Therefore, there would be no impact.

Proposed Project

Construction activities associated with the Proposed Project could require truck and worker vehicle trips on SR-299, Old Lewiston Road, Trinity Dam Boulevard, and Browns Mountain Road leading to and from the project area; thus, vehicle trips would increase on these roads. Construction equipment (e.g., large trucks, excavators, and back-hoes) would be mobilized to the project area prior to rehabilitation activities and would be removed upon completion of these activities. During the construction period, when the greatest number of workers and trucks would be required, 20 to 30 construction workers and their vehicles would need access to the site daily. These vehicle trips would be added to area roads on a recurring basis for the duration of rehabilitation activities at the site.

Throughout construction, Reclamation would limit the amount of daily construction equipment traffic by staging the construction equipment and vehicles in the project area boundary for the duration of work. Post-construction activities (i.e., revegetation, maintenance, and monitoring) would require intermittent access for 3 to 5 years. Existing traffic volumes along these area roads are low to moderate, and the potential increase in traffic generated from construction would be potentially significant.

Mitigation Measures/Project Design Features

Construction activities would generate short-term increases in vehicle trips. Therefore, mitigation measure 4.16-2a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measure would reduce the impacts to less than significant.

Impact 3.16-3: Implementation of the Proposed Project would obstruct access to adjacent land uses.

No Project Alternative

Under the No Project alternative, access to adjacent land uses would not be affected because no construction activities would occur. Therefore, there would be no impact.

Proposed Project

As described in Section 3.1, land uses in and adjacent to the project area consist mainly of public and private forestry and other resource lands and private residential areas. Land uses in the Lewiston Community Plan area that are adjacent to the Bucktail site include residential, resource, commercial, recreational, and agriculture. As previously described, activities associated with this site would use primary access points on Browns Mountain Road, the BLM Boat Ramp Road, and various private roads.

Access to adjacent public and private lands could be restricted for short periods of time using traffic control measures. Short-term access to the Trinity River for recreational use could be restricted, to varying degrees, during construction activities. However, several public access points would be available around this stretch of the river during the Project implementation period, both upstream and downstream. Reclamation would provide information on these alternate locations as part of its public outreach program using local media and website notifications. Impacts related to recreational access and other recreational resources are discussed under Section 3.8, Recreation. Short-term access limitations coupled with the construction criteria described in Appendix B (Traffic Control/Detour) would result in an impact that is less than significant.

Impact 3.16-4: Construction activities would increase wear and tear on local roadways.

No Project Alternative

Under the No Project alternative, there would be no increased wear and tear on local roadways. Therefore, there would be no impact.

Proposed Project

SR-299 is a designated truck route that was built to withstand occasional use by heavy equipment. Other local roads over which project-related trucks and heavy equipment must pass may not be constructed or maintained to support substantial volumes of truck traffic. Numerous local roadways would provide access for construction-related activities, including roads under the jurisdiction of federal, state, and local agencies. Use of these roads by project-related trucks and heavy equipment would increase wear and tear on the local roadways and could result in adverse impacts on road conditions. The degree of impact would depend on roadway design and existing condition prior to the onset of TRRP activities. Because SR-299 was designed to accommodate a mix of vehicle types, including heavy trucks, the Proposed Project is not expected to add significantly to roadway wear-and-tear on this highway.

While construction equipment would generally be staged on-site during construction, additional truck travel on local roads, including roads managed by BLM and Trinity County, would be required. It is estimated that 40 trips would be required to bring wood to the project area and over 700 trips would be required to bring gravel and boulders to the area for use in activity area features. Trucks transporting materials to the site would operate within the legal weight limits as determined by the state. The number and types of activities could require some level of road reconstruction at select locations before or after project implementation. The level of construction traffic could also require additional maintenance for some road segments in conjunction with various activities. Although standard construction and transportation practices would be implemented to reduce the potential for adverse impacts on roadway conditions, the potential wear and tear on some roads under the Proposed Project would be a significant impact.

Mitigation Measures/Project Design Features

Construction activities would increase wear and tear on local roadways. Therefore, mitigation measure 4.16-4a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measure would reduce the impacts to less than significant.

Impact 3.16-5: Construction activities could pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians.

No Project Alternative

The No Project alternative would not pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians because there would be no construction activities. Therefore, there would be no impact.

Proposed Project

Traffic safety hazards could arise for motorists, bicyclists, pedestrians, and equestrians in the vicinity of the construction access routes for the Proposed Project as a result of the movement of project-related trucks and heavy construction equipment. Truck and equipment access to the Trinity River during construction activities would be limited to designated routes to minimize public exposure to construction traffic. Trucks entering and exiting access roads off SR-299, Old Lewiston Road, and Browns Mountain Road may pose a particular hazard to motorists, cyclists, and equestrians using the roadway. The safety hazard would be limited to brief and intermittent time periods; nevertheless, it would be significant.

Mitigation Measures/Project Design Features

Construction activities could pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians. Therefore, mitigation measure 4.16-5a described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measure would reduce the impacts to less than significant.

Impact 3.16-6: Construction activities could affect the form or function of bridges under the jurisdiction of Caltrans, Trinity County, or private parties.

No Project Alternative

The No Project alternative would not affect bridges under the jurisdiction of Caltrans, Trinity County, or private parties because there would be no construction activities. Therefore, there would be no impact.

Proposed Project

A number of bridges over the Trinity River and/or its tributaries could be used to access the project area, depending on where the equipment is coming from. The hydraulic model (HEC-RAS) described in the Master EIR, Section 4.4, Water Resources, has been used to integrate the hydraulic controls established by these constructed features. Modification of the form or function of these structures would not be affected by rehabilitation activities in close proximity to these areas. Therefore, this impact would be less than significant.

3.17 Tribal Trust

The United States has a trust responsibility to protect and maintain rights reserved by, or granted to, federally recognized Indian tribes and individual Indians by treaties, statutes, and executive orders. The Secretary of the Interior is the trustee for the United States on behalf of Indian tribes and individuals. The trust responsibility requires that all federal agencies, including Reclamation, take all actions reasonably necessary to protect and maintain Indian trust assets.

Indian trust assets are legal interests in property held in trust by the federal government for federally recognized Indian tribes or individual Indians. “Assets” are anything owned that has monetary value. “Legal interest” means that a property interest exists for which there is a legal remedy, such as compensation or injunction, if there is improper interference. Indian trust assets can be real property, physical assets, or intangible property rights, such as a lease or a right of use. While most Indian trust assets are located on-reservation, they can also be located off-reservation. Examples of Indian trust assets include, but are not necessarily limited to, land, natural resources, native plants and wildlife, cultural resources, minerals, hunting and fishing rights, water rights, and instream flow. Tribal trust resources are discussed in Section 7.17 of the Master EIR.

3.17.1 Affected Environment/Environmental Setting

The need to restore and maintain the natural production of anadromous fish in the mainstem Trinity River is derived in part from the federal government’s trust responsibility to protect the fishery resources of the region’s Indian tribes. The Trinity River Basin Fish and Wildlife Restoration Act of 1984 (Public Law 98-541) expressly acknowledges tribal interests in the basin’s fishery resources by declaring that the measure of successful restoration of the Trinity River fishery includes the “ability of dependent tribal...fisheries” to participate fully, through enhanced in-river “harvest opportunities, in the benefits of restoration.” In addition, the 1992 CVPIA specifically recognizes the federal trust responsibility in regard to the Trinity River fishery. The Proposed Project could potentially affect

anadromous fish, non-anadromous fish, water, wildlife, vegetation, and overall riverine health; these impacts in turn could affect the sociocultures and economics of tribes.

This section focuses principally on the interests of the HVT and YT because, of the Indian tribes of the Klamath/Trinity Region, their interests could be the most directly affected by the Proposed Project. It should be understood, however, that potential impacts are important to the Karuk and Klamath people as well, since they share a common regional heritage.

Regional Setting

In 1855, President Pierce established the Klamath River Reservation. The reservation was designated as a strip of territory commencing at the Pacific Ocean and extending 1 mile in width on each side of the Klamath River for a distance of approximately 20 miles. Although the federal government's intent was to eventually move all the region's Indians onto the Klamath River Reservation, only some Yurok and Tolowa were moved. In 1864, the USDI issued a proclamation and instructions that established the Hoopa Valley Reservation on the Trinity River pursuant to legislation enacted by Congress that same year. The reservation is 12 miles square and bisected by 15 miles of the river (it has often been called the Square or the 12-mile Square). In 1876, President Grant issued an Executive Order formally establishing the boundaries of the Hoopa Valley Reservation.

Efforts soon began to provide a single contiguous homeland for the region's Indian people by connecting the Klamath River Reservation to the Hoopa Valley Reservation. In 1891, President Harrison extended the Hoopa Valley Reservation from the mouth of the Trinity River to the ocean, thereby encompassing and including the Hoopa Valley Reservation, the original Klamath River Reservation, and the intervening connecting strip. In 1988, Congress, under the Hoopa-Yurok Settlement Act, separated the Hoopa Valley Reservation into the present Yurok Reservation (a combination of the original Klamath River Reservation and other lands) and Hoopa Valley Reservation.

Indian Federally Reserved Rights

The United States has a trust responsibility to protect tribal trust resources. In general, this tribal trust responsibility requires that the United States protect tribal fishing and water rights, which are held in trust for the benefit of the tribes (USDI 1995). This trust responsibility is one held by all federal agencies. For projects under the auspices of the TRRP, Reclamation is obligated to ensure that their actions do not interfere with tribes' senior water rights. Pursuant to its trust responsibility and consistent with its other legal obligations, Reclamation must also prevent activities under its control that would adversely affect tribal fishing rights, even when those activities take place off-reservation.

Fishing Rights

Salmon, steelhead, sturgeon, and lamprey that spawn in the Trinity River pass through the Hoopa Valley and Yurok Reservations and are harvested in tribal fisheries. The fishing traditions of these tribes stem from practices that far pre-date the arrival of non-Indians. Accordingly, when the federal government established what are today the Hoopa Valley and Yurok Indian Reservations on the Trinity and Lower Klamath Rivers, it reserved for the benefit of the Indian tribes of those reservations a right to the fish resources in the rivers running through them. The federally reserved fishing rights

of the YT and HVT entitle them to take fish for ceremonial, subsistence, and commercial purposes. The federal government, as trustee, has an affirmative obligation to manage federally reserved Indian rights for the benefit of federally recognized Indian tribes. Federally reserved Indian fishing rights are vested property rights held in trust by the United States for the benefit of Indians.

Water Rights

In addition to fish, the tribes have reserved rights to water. The concept of reserved rights in general, and Indian reserved water rights specifically, originated just after the start of the 20th century⁸. The ruling in this case, commonly referred to as the Winters Doctrine, states that when the federal government established a reservation, it implicitly reserved a quantity of water necessary to fulfill the purpose of said reservation. The USDI Solicitor's office reaffirmed these rights with respect to Reclamation's activities, stating "Reclamation is obligated to ensure that project operations not interfere with the tribes' senior water rights."

Rights to Wildlife and Vegetation Resources

While the focus of the legal history surrounding Indian rights to resources has concentrated on water and fisheries, other resources, such as wildlife and vegetation, are also extremely important to the tribes, and the tribes have assessed that these resources are no less reserved. In the case of the HVT and YT, the decline in the health of the region's rivers has limited the availability of grasses and other plants important to traditional basketry, art, and medicine. Thus, while anadromous fish are the focus of the TRRP, other trust assets, such as vegetation, are embodied in the federal government's trust responsibility and, accordingly, need to be considered in the decision-making process.

Cultural Environment

Native uses of natural resources and the cultural significance of those resources have developed over many centuries, during the time that native people have lived in the heavily forested drainages of the Klamath and Trinity rivers and adjacent streams in northwestern California. Hunting, fishing, and gathering were the foundation of their societies. Tribes in the area included the Chilula, Hoopa Valley, Nongatl, Tsnungwe, and Whilkut, which spoke Athabascan languages; the Chimariko, Karuk, and Shasta, which spoke Hoka languages; the Wintun, which spoke a Penutian language; and the Wiyot and Yurok, which spoke Algonkian languages.

Some of these tribes, such as the Chilula, no longer exist. Others, including the Chimariko and Wintu, have not been officially recognized by the United States as a distinct and sovereign people. Among the Indian peoples still present in the region, only the Hoopa Valley, Yurok, Karuk, and Klamath tribes have received this recognition.

Strong social, cultural, and economic ties have existed through history among the tribes of the Klamath/Trinity Basin, based in large part on a shared reliance on the region's rivers and associated resources, particularly salmon. This reliance extends well beyond subsistence and commerce to the cultural and social fabric of their societies, as evidenced by their traditional, ceremonial, and spiritual ways of life that focus and center on the rivers and the fish, wildlife, and vegetation they support. For

⁸ *Winters v. United States*, 207 U.S. 564 (1908).

Indians of the Klamath/Trinity Basin, the interaction and identification with the natural environment define their cultures, lifestyles, and religions; therefore, the degradation of the natural environment has had a profoundly devastating impact.

Proposed Project Site

Based on consultation between the tribes and Reclamation, the Proposed Project site contains trust assets, including fish, vegetation, and wildlife. Corresponding sections of this document provide discussions of these resources. While no specific use of the site by the tribes has been identified, the Trinity River provides a valuable corridor that connects these resources to the HVT and YT.

3.17.2 Environmental Consequences/Impacts and Mitigation Measures

The purpose of this section is to evaluate the potential impacts of the alternatives on tribal trust assets and the subsequent effects those impacts may have on the Indian tribes of the Klamath/Trinity Basin.

Methodology

While the Proposed Project is aimed at improving the river's anadromous fisheries, an assessment of how implementation may actually affect the Indian trust assets of the HVT and YT must be performed, as directed in the USDI Departmental Manual (Part 512, Chapter 2) and Reclamation's Indian Trust Asset Policy. Toward this end, the Indian trust asset impact evaluation focuses on the potential effects of the rehabilitation activities described in Chapter 2 on the health of the Trinity River. Because the river's overall health is a primary factor in determining the availability of fish, the potential tribal trust impacts are not evaluated on an asset-by-asset basis.

CEQA Significance Criteria

Under CEQA, lead agencies are not explicitly required to consider a project's impacts on tribal trust assets as a distinct category of impacts. With its focus on the physical environment, CEQA requires agencies to focus on impacts to environmental resources, some of which, like fish, wildlife, and water quality, would be indirectly related to tribal trust values. Therefore, the significance criteria applied in this evaluation of potential consequences on tribal trust assets are general and based on the potential for components of the Proposed Project to result in any modification of, or change in, the quantity or quality of tribal trust assets.

Although CEQA does not expressly require the application of specific significance criteria for potential impacts to Indian trust assets, federal lead agencies evaluating proposed actions under NEPA typically include the evaluation of potential impacts to Indian trust assets as a distinct category of impacts. Accordingly, this evaluation assessed the impacts of the proposed activities described in this document relative to any modification or change in the value, use, quantity, quality, or enjoyment of downstream Indian trust assets.

Impacts and Mitigation Measures/Project Design Features

Table 30 summarizes potential impacts on Indian trust assets that would result from implementation of the No Project and Proposed Project alternatives.

Table 30. Summary of Potential Tribal Trust Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.17-1. Implementation of the project may reduce the quantity or quality of tribal trust assets.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.17-1: Implementation of the Proposed Project may reduce the quantity or quality of tribal trust assets.

No Project Alternative

Under the No Project alternative, mechanical channel rehabilitation activities would not be implemented at the Proposed Project site; therefore, no direct impact to tribal trust assets would occur as a result of the Proposed Project. However, implementation of other activities to improve the fishery and other resources of the mainstem Trinity River could still be undertaken. Thus, under the No Project alternative, the overall benefits to tribal trust assets gained through implementation of the overall TRRP would likely be achieved but the benefits associated with river rehabilitation at the Bucktail site would not be realized.

Proposed Project

Under the Proposed Project, the Trinity River would continue to support tribal trust assets. The short-term impacts described in sections pertaining to geology, fluvial geomorphology, and soils; water quality; fishery resources; and vegetation, wildlife, and wetlands would occur if the Proposed Project is implemented. These impacts are expected to be short-term and to be outweighed by the overall benefits to tribal trust assets gained through implementation of the overall TRRP and the Proposed Project. Therefore, this impact is less than significant.

3.18 Environmental Justice

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” dated February 11, 1994, requires federal agencies to identify and address adverse human health or environmental effects of their actions on minorities and low-income populations and communities as well as the equity of the distribution of the benefits and risks of their decisions. Environmental justice addresses the fair treatment of people of all races and incomes with respect to actions affecting the environment. Fair treatment implies that no group of people should bear a disproportionate share of negative impacts from an environmental action.

To comply with the environmental justice policy established by the Secretary of the Interior, all USDI agencies are to identify and evaluate any anticipated effects, direct or indirect, from a project, action, or decision on minority and low-income populations and communities, including the equity of the distribution of the benefits and risks. Accordingly, this section examines the anticipated impacts of the Proposed Project with respect to potentially affected minority and economically disadvantaged groups. Socioeconomic issues, including population and housing, are evaluated in this document in Section 3.9, Socioeconomics. This section does not function as part of the IS portion of this joint document, because CEQA does not require state or local agencies to address environmental justice concerns in an IS.

3.18.1 Affected Environment/Environmental Setting

The Trinity River is a valuable economic resource for Trinity County. Its popularity as a recreation destination, particularly for fishing, white-water recreation, gold panning, and as an access point to the Salmon-Trinity Alps, directly benefits communities such as Lewiston, Douglas City, and Junction City through increased business patronage. Businesses benefit during peak recreation-use periods (e.g., rafting, kayaking, and fishing). Other economic opportunities such as agriculture are severely limited by the surrounding topography; thus, minimizing the attraction for a transitional labor pool.

The U.S. Census uses a set of income limits that vary by family size and composition to determine who is in poverty. If a family's total income is less than the income limit, then that family, and every individual in it, is considered to be in poverty. Poverty income level thresholds are nationwide standards set by the Census. The formula for the poverty rate is the number of persons below the poverty level divided by the number of persons for whom poverty status is determined. For the period 2008-2012, 17.7 percent of the population in Trinity County was living in poverty compared to 15.3 percent for the state of California as a whole. The median household income for the period 2008-2013 for Trinity County was \$36,569, compared to the median California income of \$61,400 (U.S. Census Bureau 2014).

The 2013 population estimate for Trinity County showed that the vast majority of the population (approximately 88.8 percent) consisted of white individuals (U.S. Census Bureau 2014). The largest minority population in the county is Hispanic. The 2012 estimate showed that the Hispanic population was 7.0 percent of the total, compared to 38.2 percent in California as a whole. The American Indian population constitutes the next largest minority group. In 2012, American Indians constituted 4.9 percent of the total county population, compared to 1.7 percent for California as a whole (U.S. Census Bureau 2014). The percentage of black and Asian residents in the county is small (each less than 1 percent).

The Lewiston community is predominately white (89.1 percent) (2007-2011 estimate; U.S. Census Bureau 2013) and the proportion of people living below the poverty level is 20.8 percent. The Junction City census designated place is also predominately white (96.1 percent) and the proportion of people living below the poverty level is 15.9 percent (2007-2011 estimate; U.S. Census Bureau 2013). The 2012 estimate of people living below the poverty level for the United States is 15.9 percent (U.S. Census Bureau 2013).

3.18.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The EPA compares three factors—minority representation, low-income representation, and environmental burden—for a community of concern and one or more reference areas—for example, an entire county—to analyze potential environmental justice impacts. A community of concern can be defined in a number of ways, including a municipality, a census block group, a user-defined radius around a source of pollution, or a boundary drawn along physical features such as streets, streams, or railroad tracks. The demographic data for the community of concern can then be analyzed to determine whether there would be a potential environmental justice concern in the area. As part of this analysis, poverty levels and minority population levels were examined for Trinity County.

CEQA Significance Criteria

Because environmental justice is not a CEQA issue, specific significance criteria were not applied in evaluating potential environmental justice consequences. Instead, any modification or change in environmental justice factors that would occur in response to the Proposed Project is evaluated in accordance with NEPA requirements.

Impacts and Mitigation Measures/Project Design Features

Table 31 summarizes the potential environmental justice impacts that would result from implementation of the No Project and Proposed Project alternatives.

Table 31. Summary of Potential Environmental Justice Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.18-1. Implementation of the project could adversely affect a minority or low-income population and/or community.		
No impact	Less than significant	Not applicable ¹

¹ Because this potential impact is less than significant, no mitigation is required.

Impact 3.18-1: Implementation of the Proposed Project could adversely affect a minority or low-income population and/or community.

No Project Alternative

Under the No Project alternative, no impact to a minority or low-income population or community would occur because the Project would not be implemented. Therefore, there would be no impact.

Proposed Project

Although minority and low-income residents live in the vicinity of the Proposed Project, the impacts would generally be experienced by residents in relationship to their proximity to the site, regardless of their racial or income characteristics. There is no evidence to suggest that the Proposed Project would cause a disproportionately high adverse human health or environmental effect on minority and low-income populations compared to other area residents. The known health risks to residents that could be associated with the Proposed Project are evaluated in the Water Quality, Air Quality, Hazardous Materials, and Noise sections of this document. For the most part, these health risks are associated with construction aspects of the Proposed Project, in that residents and construction workers could be exposed to hazardous materials that may be associated with project activities. Possible health risks also include construction-related accidents. Reclamation would manage the Project to minimize these risks, as required by applicable federal and state safety regulations. Therefore, no disproportionate or specific health risks or other impacts to low-income groups would be associated with the Proposed Project.