KARUK TRIBE CASINO PROJECT

TRIBAL ENVIRONMENTAL IMPACT REPORT

OCTOBER 2013

PREPARED FOR:

Karuk Tribe
64236 Second Avenue
Happy Camp, CA 96039

PREPARED BY:

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EXECUTIVE SUMMARY

KARUK TRIBE CASINO PROJECT

ES.1 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT

This Draft Tribal Environmental Impact Report (TEIR) has been prepared pursuant to the requirements of the Draft Tribal-State Gaming Compact (Compact) between the federally recognized sovereign Indian Karuk Tribe (Tribe) and the State of California to provide the public and government agencies with information about the potential off-reservation environmental effects of the proposed Karuk Tribe Casino Project (Proposed Project). The Tribe proposes to develop a Class III Gaming Complex in two phases on Tribal trust and Tribally-owned fee lands (project site) located in Siskiyou County (County) within the City of Yreka (City), California (Proposed Project). **Figure 1-1** shows the Proposed Project's regional location, and **Figure 1-2** provides the site and vicinity of the project site. The Compact specifies that the Tribe's gaming facility will be located on the Yreka trust land site, Section 35, Township 45 North Range 7 West, Mount Diablo Meridian. Accordingly, the casino and hotel would be constructed on a 10-acre portion of the approved gaming site on trust land (**Figure 1-3**). The Proposed Project would be constructed in two phases and consists of the following major elements:

- Phase I
  - Construction of a 36,497-square foot (sf) Class III Gaming Complex, which would include a 13,800-sf gaming floor containing approximately 500 gaming machines and 8 table games, a 120-seat restaurant and casino bar, and casino operation and support areas; and
  - Development of approximately 556 parking stalls.
- Phase II
  - Construction of a 20,000-sf expansion to the casino, which would include a 9,500-sf gaming floor containing approximately 300 additional gaming machines and 8 additional table games, a new 100-seat restaurant, and casino operation and support areas;
  - Construction of a 3-story, 80-room, 48,000-sf hotel adjoined to the casino; and
  - Development of an additional approximately 500 parking stalls and construction over some existing parking stalls, bringing the total net number of parking spaces to 723.

The Proposed Project would utilize City water and City sewer and wastewater treatment facilities. A connection would be established during Phase I with capacity to meet the water demands of Phase II. Site plans for Phases I and II of the Proposed Project are provided as **Figures 2-1** and **2-3**, respectively. Regional access to the project site is provided by I-5 via the Moonlit Oak Avenue exit south of the project site.

Implementation of the Proposed Project would assist in meeting the following objectives:

- Improve the socioeconomic status of the Tribe by providing a revenue source that would be used to accomplish the following:
  - Strengthen the Tribal government;
  - Fund a variety of social, housing, governmental, administrative, cultural, historical, educational, health and welfare services, and programs to improve the quality of life of Tribal members; and
  - Provide capital for other economic development and investment opportunities;
- Provide additional recreational amenities to the community and tourists along the Interstate 5 (I-5) corridor;
- Provide employment opportunities to the Tribe and non-Tribal community; and
- Allow Tribal members to obtain economic self-sufficiency.

ES.2 ISSUES OF CONCERN

A Notice of Preparation (NOP) for the Proposed Project (**Appendix B**) was circulated for a public review period, which began July 22, 2013 and ended August 21, 2013. The NOP included a brief description of the Proposed Project and its location and a summary of potential environmental impacts to off-reservation resources that could result from the Proposed Project. Comment letters were received from the California Department of Transportation (Caltrans), California Department of Fish and Wildlife (DFW), the County, and the City that raised various issues, most of which are addressed within the Draft TEIR and some of which were beyond the scope of the Draft TEIR. Potentially significant off-reservation environmental impacts associated with the requests for additional information are addressed in **Section 3.0.** Mitigation is proposed where warranted.

ES.3 ALTERNATIVES TO THE PROPOSED PROJECT

The following two alternatives to the Proposed Project are discussed in detail in **Section 4.0** of this Draft TEIR.

REDUCED-INTENSITY ALTERNATIVE

The Reduced-Intensity Alternative (RIA) consists of a hotel and casino, though smaller than the Proposed Project. Under this alternative, the square footage of the casino and hotel as well as the number of gaming positions and hotel rooms would be reduced by approximately 25 percent. The number of parking spaces and employees would be reduced accordingly. Grading and drainage site improvements and utility connections associated with the RIA would be similar to what is needed for the Proposed Project. The RIA would include the following:

- 42,373-sf casino,

- 600 gaming machines and 12 table games,
- 165 seats in two restaurants,
- 36,000-sf hotel with 60 rooms,
- 542 parking spaces, and
- 300 employees.

The RIA would result in slightly reduced off-reservation impacts as compared to the Proposed Project, but would not fully meet the Tribe's objectives to strength tribal government and fund the programs necessary to improve the long-term welfare and quality of life of Tribal members.

NO ACTION ALTERNATIVE

Under the No Action Alternative, the casino and hotel would not be developed. Based on the location and land use designation surrounding the project site, it is anticipated that under the long-term planning cycle, the Tribe would develop the site for commercial purposes. Under this alternative, it is anticipated environmental impacts similar to either the Proposed Project or RIA would be experienced, depending upon the project selected.

ES.4 ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION

UNAVOIDABLE AND IRREVERSIBLE SIGNIFICANT IMPACTS

The environmental analyses provided in **Section 3.0** address all potential off-reservation environmental impacts of the Proposed Project, as required by the Compact. Given the design of the Proposed Project and with the implementation of proposed mitigation measures, all potentially significant off-reservation impacts would be reduced to less than significant levels. There are no unavoidable or irreversible significant impacts attributable to the Proposed Project.

IMPACTS AND MITIGATION SUMMARY

Table ES-1 presents a summary of potential off-reservation environmental impacts of the Proposed Project and recommended mitigation measures that would avoid or minimize potentially significant off-reservation impacts based off the analysis presented in **Section 3.0**. In this table, the level of significance of each off-reservation environmental impact is indicated both before and after the application of the recommended mitigation measure(s). For detailed discussions of all identified off-reservation environmental impacts attributable to the Proposed Project and corresponding mitigation measures, the reader is referred to the individual environmental analysis sections within **Section 3.0** of this Draft TEIR.

TABLE ES-1
IMPACTS AND MITGATION MEASURES SUMMARY TABLE
(PS=POTENTIALLY SIGNIFICANT, NI= NO IMPACT; LS= LESS THAN SIGNIFICANT)

	Impact	Level of Significance	Draft TEIR Identified Mitigation Measure	Residual Significance
3.2	**Aesthetics**			
3.2.1	The Proposed Project would not have a substantial adverse effect on a scenic vista.	**LTS**	None required.	**LTS**
3.2.2	The Proposed Project would not substantially damage off-reservation scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings adjacent to a state scenic highway.	**LTS**	None required.	**LTS**
3.2.3	Although the Proposed Project would add additional sources of lighting to the commercial area, it would not adversely affect day or nighttime views of historic buildings or views in the area.	**LTS**	None required.	**LTS**
3.3	**Land Use, Population and Housing, and Recreation**			
3.3.1	The Proposed Project would not conflict with any off-reservation land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect.	**LTS**	None required.	**LTS**
3.3.2	The Proposed Project would not conflict with any applicable habitat conservation plan or natural communities conservation plan covering off-reservation lands.	**LTS**	None required.	**LTS**
3.3.3	The Proposed Project would not necessitate the construction of off-reservation housing because the Proposed Project would not displace any existing housing nor induce substantial off-reservation population growth.	**LTS**	None required.	**LTS**
3.3.4	The Proposed Project would likely increase the use of existing off-reservation neighborhood and regional parks or other recreational facilities; however, increased use would not be to the extent that substantial physical deterioration of a facility would occur or be accelerated.	**LTS**	None required.	**LTS**
3.4	**Air Quality and Greenhouse Gas Emissions**			
3.4.1	The Proposed Project would emit CAPs in the NEPAB. However, the NEPAB is designated as either unclassified or attainment for all CAPs under the NAAQS and CAAQS. Therefore, CAP emissions attributed to Phases I and II of the Proposed Project would not conflict with or obstruct the implementation of an applicable off-reservation air quality plan, cause an off-reservation violation of NAAQS or CAAQS, or contribute to a projected off-reservation air quality violation.	**LTS**	None required.	**LTS**
3.4.2	The Proposed Project could cause high concentrations of DPM and may expose off-reservation sensitive receptors to	**PS**	3.4.1. The Tribe shall develop and implement an ordinance establishing requirements similar to the CARB	**LTS**

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	substantial DPM concentrations.		Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485) for buses and other commercial diesel-fueled vehicles, which requires that the driver of any diesel bus shall not idle for more than five minutes at any location, except in the case of passenger boarding where a ten minute limit is imposed, or when passengers are onboard. The Tribe shall post signs in parking lots, at loading docks, and other applicable areas displaying the requirements.	
3.4.3	The Proposed Project would not emit odors detectable in the off-reservation environment and the off-reservation environment in the vicinity of the project site does not include a substantial number of people; therefore, implementation of the Proposed Project would not create objectionable odors affecting a substantial number of people off-reservation.	**LTS**	None required.	**LTS**
3.5	**Biological Resources**			
3.5.1	The Proposed Project could potentially have a substantial adverse impact, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the CDFW, USFWS, or NMFS.	**PS**	3.5.1. To address potential off-reservation impacts associated with special status plants, the Tribe shall carry out the following measures prior to construction of Phases I and II of the Proposed Project on the fee parcel: a) A qualified biologist/botanist shall conduct a focused botanical survey within the nonnative grassland on the fee parcel during the blooming period for Shasta orthocarpus (May) prior to commencement of construction activities of Phases I and II. A letter report shall be submitted to the Tribe within 30 days following the preconstruction survey to document the results. Should no species be observed, then no additional mitigation is required. b) Should Shasta orthocarpus be observed during the focused botanical survey on the fee parcel, the qualified biologist/botanist shall contact the Tribe and CDFW within one day following the focused botanical survey to report the findings. If feasible, a 10-foot buffer shall be established around the species using construction flagging prior to commencement of construction activities. c) Should avoidance of Shasta *orthocarpus* be infeasible, the qualified botanist would salvage and	**LTS**

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			relocate the individuals in an area comprised of suitable habitat in the vicinity of the project site that would not be impacted by the Proposed Project. Prior to the attempted relocation, seeds shall be gathered from the identified plants for use in the area identified for relocation. 3.5.2. To address potential off-reservation impacts associated with migratory birds and other birds of prey, the Tribe shall carry out the following measures prior to construction of Phases I and II of the Proposed Project: a) Prior to any Phase I or II construction or ground disturbance within 500 feet of potential habitat for birds of prey and migratory birds during the nesting season (between March 1 and September 15), a qualified biologist will conduct a preconstruction bird survey for nesting sites within 500 feet of construction activities. The preconstruction bird survey shall be conducted within 14 days prior to commencement of construction activities. The biologist will document and submit the results of the preconstruction survey in a letter to CDFW and the Tribe within 30 days following the survey. The letter shall include: a description of the methodology used during the survey, including dates of field visits, the names of survey personnel, a list of references cited and persons contacted; and a map showing the location(s) of any bird nests observed on the project site. If no active nests are identified during the preconstruction survey, then no further mitigation is required so long as construction commences within 14 days of the preconstruction survey. If construction does not commence within 14 days of the preconstruction survey or construction halts for more than 14 days, an additional nesting survey will be required. b) If any active nests are identified during the preconstruction survey within the vicinity of the development footprint of either phase of the Proposed Project, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The	

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			biologist shall continue to conduct weekly monitoring until construction activities are no longer occurring within the vicinity of the established buffer or until the biologist determines that the nestlings have successfully fledged. The biologist will delimit the buffer zone with construction tape or pin flags within 250 feet of any active migratory bird nest or within 500 feet of any active raptor nest until the end of the breeding season or until the young have successfully fledged. Guidance from CDFW will be requested if establishing a 250-foot or 500-foot buffer zone is impractical. The biologist shall have the authority to stop any work within the vicinity of the active nests if the nestlings appear to be disturbed. Work shall be halted until the biologist determines that the nestlings are no longer in distress. A letter report shall be submitted to CDFW and the Tribe within 30 days following the final monitoring date.	
3.5.2	The Proposed Project would not have a substantial adverse effect on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.	**LTS**	None required.	**LTS**
3.5.3	The Proposed Project could potentially have a substantial adverse effect on potentially jurisdictional waters of the U.S., as defined by Section 404 of the CWA, during both phases of the Proposed Project.	**PS**	3.5.3. If the USACE determines that the waterways to be impacted are jurisdictional, the Tribe shall submit an application for a CWA Section 404 permit. In addition, a CWA Section 401 water quality certification through the North Coast Regional Water Quality Control Board shall be obtained. The Tribe shall comply with all mitigation measures identified in the Section 404 permit and Section 401 certification, which may include, but would not be limited to, the following: a) Avoidance buffers shall be established around the edges of any drainage features, as identified by a qualified biologist, in the vicinity of and outside of the construction area. Temporary orange construction fencing shall be installed prior to the commencement of any earthmoving activities and shall remain in place until all construction activities in the vicinity have been completed; b) Construction activities near any USACE jurisdictional features shall be conducted during the dry season to minimize impacts related to erosion, water quality,	**LTS**

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			and aquatic resources; and c) Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials associated with construction activities into jurisdictional features. A contaminant program shall be developed and implemented in the event of release of hazardous materials. This may be incorporated into the Storm Water Pollution Prevention Plans (SWPPPs) to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.	
3.5.4	The Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	**LTS**	None required.	**LTS**
3.5.5	The Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	**LTS**	None required.	**LTS**
3.6	**Geology and Soils**			
3.6.1	The Proposed Project would not expose off-reservation people or structures to substantial adverse effects caused by rupture of a known earthquake fault or other strong seismic ground shaking.	**LTS**	None required.	**LTS**
3.6.2	The Proposed Project would not expose off-reservation people or structures to substantial adverse effects involving seismic-related ground failure, including liquefaction.	**LTS**	None required.	**LTS**
3.6.3	The Proposed Project would not expose off-reservation people or structures to substantial adverse effects involving landslides.	**LTS**	None required.	**LTS**
3.6.4	The Proposed Project could result in substantial off-reservation soil erosion or the loss of topsoil.	**PS**	3.6.1. The SWPPPs to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of both the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities shall	**LTS**

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			include, but are not limited to, the following BMPs: a) If excavation occurs during the rainy season, stormwater runoff from the construction area shall be regulated through a stormwater management/erosion control plan that shall include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as the temporary silt basins. Sediment basins/traps shall be located and operated to minimize the amount of off-reservation sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location on site, away from concentrated flows, or removed to an approved disposal site. b) Temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be provided until perennial revegetation or landscaping is established to minimize discharge of sediment into nearby waterways. c) No disturbed surfaces shall be left without erosion control measures in place during the spring and winter months. d) Erosion protection shall be provided on all cut-and-fill slopes and stockpiled soils. Revegetation shall be facilitated by mulching, hydroseeding, or other methods and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season.	
3.7	**Hazards and Hazardous Materials**			
3.7.1	The Proposed Project could create a hazard to the off-reservation public and/or off-reservation environment through routine transport, use, or disposal of hazardous materials.	**PS**	3.7.1. The Storm Water Pollution Prevention Plans (SWPPPs) to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of both the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction	**LTS**

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			and Land Disturbance Activities shall include, but are not limited to, the following BMPs: a) Hazardous materials such as fuels and solvents used in the construction of Phases I and II of the Proposed Project shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents shall be contained in an area of impervious surface with containment capacity equal to the volume of materials stored. b) A stockpile of spill cleanup materials shall be readily available at the project site. Construction workers shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities. c) Equipment used in the construction of Phases I and II shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants.	
3.7.2	The Proposed Project could create a significant hazard to the off-reservation public and/or the off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction or operation of the Proposed Project.	**PS**	Mitigation Measure 3.7.1, discussed above.	**LTS**
3.7.3	The Proposed Project has the potential to emit hazardous emissions or involve the handling of hazardous materials within one quarter-mile of an existing or proposed off-reservation school.	**PS**	Mitigation Measures 3.6.1 and 3.7.1, discussed above.	**LTS**
3.7.4	The Proposed Project would expose off-reservation people or structures to a significant risk of loss, injury, or death involving wildland fires during construction, but not operation, of the Proposed Project.	**PS**	3.7.2. During Phases I and II, construction personnel shall follow written standard operating procedures (SOPs) for servicing and operating construction equipment and vehicles to reduce the potential for wildland fires. These SOPs shall address equipment use and the storage and use of hazardous materials during construction of the Proposed Project. The SOPs shall include the following where feasible and when reasonable: a) Refueling shall be conducted only with approved pumps, hoses, and nozzles; b) Catch-pans shall be placed under equipment to catch potential spills during servicing; c) All disconnected hoses shall be placed in containers	**LTS**

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			to collect residual fuel from the hose; d) Vehicle engines shall be shut down during refueling; e) No smoking, open flames, or welding shall be allowed in refueling or service areas; f) Service trucks shall be provided with fire extinguishers; g) Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak; h) Any construction equipment that normally includes a spark arrester shall be equipped with an arrestor in good working order; and i) All hazardous materials transported to or from the project site shall be done in accordance with applicable State and federal regulations as required based on quantity and class of materials.	
3.8	**Water Resources**			
3.8.1	Construction and operation of Phases I and II of the Proposed Project has the potential to violate water quality standards or waste discharge requirements off-reservation.	**PS**	3.8.1. The SWPPPs to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of both the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities shall include, but are not limited to, the following BMP: Erosion control measures shall be consistent with National Marine Fisheries Service conservation and minimization requirements as a means to minimize impacts on Coho salmon in the Yreka Creek drainage basin. 3.8.2 . The use of a rain garden type filter shall be included into the design of the storm drainage facility to ensure that stormwater is filtered for pollutants and sediments deposited prior to entry into Yreka Creek.	**LTS**

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3.8.2	The Proposed Project would not substantially deplete off-reservation groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local ground water table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	**LTS**	None required.	**LTS**
3.8.3	Construction and operation of the Proposed Project would substantially alter the existing drainage pattern of the site in a manner which could result in substantial erosion or siltation off-site. Construction of the Proposed Project would not result in the alteration in a course of a stream or river.	**PS**	Mitigation Measures 3.6.1, 3.7.1, 3.8.1, and 3.8.2, discussed above.	**LTS**
3.8.4	Construction of the Proposed Project would substantially alter the existing drainage pattern of the site and substantially increase the rate and amount of surface runoff in a manner which could result in flooding off-site. Construction of the Proposed Project would not result in the alteration in a course of a stream or river.	**LTS**	None required.	**LTS**
3.8.5	The Proposed Project may create or contribute runoff water which would exceed the capacity of existing stormwater drainage systems and may provide substantial additional sources of polluted runoff off-reservation.	**PS**	Mitigation Measure 3.8.2, discussed above.	**LTS**
3.8.6	The Proposed Project would not place any structure within a 100-year flood hazard area, and therefore would not impede or redirect off-reservation flood flows.	**LTS**	None required.	**LTS**
3.8.7	The Proposed Project would not expose off-reservation people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a dam or levee.	**LTS**	None required.	**LTS**
3.9	**Noise**			
3.9.1	The Proposed Project has the potential to expose off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**PS**	3.9.1. The following measures are recommended to minimize the effects of noise from construction of the Proposed Project: a) Through contractual obligation, standard outdoor construction activities for the Proposed Project will be conducted between 7:00 A.M. and 5:00 P.M, except when a special exemption is needed. The Tribe shall obtain an exemption from the City to cover special circumstances to conduct construction activities outside of that timeframe on the fee parcel.	**LTS**

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			b) Through contractual obligation, the Tribe shall limit standard outdoor construction activities for the Proposed Project on the trust parcel to between 7:00 A.M. and 5:00 P.M., to the extent feasible and reasonable except when a special exemption is needed. c) To further address the impact of construction of the Proposed Project, the Tribe shall, through contractual requirement, implement the following: 1) Construction crews shall utilize the best available noise control techniques, i.e. mufflers per the equipment manufacturers' requirements for all internal combustion engines, equipment redesign, intake silencers, ducts, engine enclosures and noise attenuating shields or shrouds on all equipment and trucks. This mitigation measure would reduce off-reservation noise from heavy equipment use. 2) Construction crews shall only use impact tools that are hydraulically or electrically powered, use exhaust mufflers on compressed air exhaust, use external jackets on tools, and use drills instead of impact equipment and other quieter procedures when feasible. This mitigation measure would reduce off-reservation noise from impact tools and hand-held compressed air tools. 3) Construction crews shall place stationary construction equipment as far from off-reservation sensitive noise receptors as possible. This mitigation measure would reduce or eliminate off-reservation noise from stationary construction equipment.	
3.9.2	The Proposed Project would not expose off-reservation persons to excessive groundborne vibration or groundborne noise levels.	**LTS**	None required.	**LTS**
3.9.3	The Proposed Project would not result in a substantial permanent increase in the ambient noise level in the off-reservation vicinity of the Proposed Project.	**LTS**	None required.	**LTS**
3.9.4	During construction, the Proposed Project could result in a substantial temporary increase in ambient noise levels in the off-reservation vicinity of the Proposed Project.	**PS**	Mitigation Measure 3.9.1, discussed above.	**LTS**

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3.10	**Public Services and Utilities**			
3.10.1	The Proposed Project would generate a demand for fire protection services; however, this demand would not require the construction of new or expanded facilities and thereby would not cause significant off-reservation environmental impacts.	**LTS**	None required.	**LTS**
3.10.2	The Proposed Project would generate a demand for police protection services and would contribute to the existing need for a new station building to maintain service level standards, the new construction or expansion of which could cause significant off-reservation environmental impacts.	**PS**	3.10.1 During IGA negotiations, and prior to operation of Phase I, the Tribe shall enter into a service agreement to reimburse the Yreka PD for additional service demands caused by the operation of the Proposed Project. This service agreement shall include, but is not limited to, the following: a) An agreement for compensation that is to be fair share payment for any additional staffing as the parties agree is needed to serve development of Phases I and II, allowing the City to maintain public services at existing levels as well as reduce potential off-reservation environmental impacts. Based on preliminary negotiations between the Tribe and the Yreka PD, this fair share payment may be equivalent to funding required for one full-time equivalent (FTE) police officer and one additional police vehicle. b) The agreement shall be reviewed periodically by the Tribe and the City.	**LTS**
3.10.3	The Proposed Project would not generate a significant increase in demand for educational services, and therefore would not require the construction of new or expanded school facilities to maintain service level standards.	**LTS**	None required.	**LTS**
3.10.4	The Proposed Project would not generate a significant increase in solid waste, and therefore would not require the construction of new or expanded solid waste facilities to maintain service level standards.	**LTS**	None required.	**LTS**
3.10.5	The Proposed Project has the potential to increase demand on emergency medical services and could require the construction of new or expanded facilities, which could cause significant off-reservation environmental impacts, to maintain service level standards.	**LTS**	None required.	**LTS**
3.10.6	The Proposed Project could generate wastewater that would exceed the capacity of City wastewater facilities.	**PS**	Mitigation Measure 3.10.2, discussed below.	**LTS**

TABLE ES-1
IMPACTS AND MITGATION MEASURES SUMMARY TABLE
(PS=POTENTIALLY SIGNIFICANT, NI= NO IMPACT; LTS= LESS THAN SIGNIFICANT)

	Impact	Level of Significance	Draft TEIR Identified Mitigation Measure	Residual Significance
3.10.7	The development of the Proposed Project may result in the need for new, upgraded, or expanded water or wastewater treatment facilities, the construction of which could cause significant off-reservation environmental effects.	**PS**	3.10.2. The Proposed Project shall utilize City water and wastewater services. During IGA negotiations, and prior to operation of Phase I, the Tribe shall enter into a service agreement to reimburse the City for any new, upgraded, or expanded water or wastewater treatment facilities needed due to operation of the Proposed Project. This service agreement shall include, but is not limited, to the following: An agreement for compensation that is intended to be fair share payments for new, upgraded, or expanded water supply and wastewater conveyance facilities to serve development of Phases I and II, including development of appropriately sized infrastructure to meet Proposed Project flows. Such improvements shall be sized to maintain existing public services at levels.	**LTS**
3.10.8	The Proposed Project would not require the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects.	**LTS**	None required.	**LTS**
3.10.9	The Proposed Project may result in a determination by the City that it has adequate capacity to serve the Proposed Project's projected demand in addition to the City's existing commitments.	**PS**	Mitigation Measure 3.10.2, discussed above.	**LTS**
3.10.10	The Proposed Project could affect the workload of the County criminal justice system; however, it would not result in the need for new or physically altered County facilities.	**LTS**	None required.	**LTS**
3.11	**Transportation and Traffic**			
3.11.1	Construction worker trips and delivery of construction materials and equipment during construction of Phases I and II of the Proposed Project would increase off-reservation traffic. However, the associated increase in trips would not conflict with the applicable measures of effectiveness for the performance of the off-reservation circulation system nor would the associated increase in trips conflict with the applicable standards for off-reservation roads or highways.	**LTS**	None required.	**LTS**

TABLE ES-1
IMPACTS AND MITGATION MEASURES SUMMARY TABLE
(PS=POTENTIALLY SIGNIFICANT, NI= NO IMPACT; LTS= LESS THAN SIGNIFICANT)

	Impact	Level of Significance	Draft TEIR Identified Mitigation Measure	Residual Significance
3.11.2	Under Proposed Project conditions, operation of the Proposed Project (Phase I and Phase II) would generate new vehicle trips. However, these additional trips would not conflict with the applicable measures of effectiveness for the performance of the off-reservation circulation system nor would the associated increase in trips conflict with the applicable standards for off-reservation roads or highways.	**LTS**	None required.	**LTS**
3.11.3	Operation of Phase I and Phase II of the Proposed Project would result in the addition of new vehicle trips along the area roadway network. This increase would not substantially increase hazards to an off-reservation design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), but would create a safety hazard.	**LTS**	None required.	**LTS**
3.11.4	Operation of Phase I and Phase II would result in additional vehicle trips along the study roadway network but would not adversely impact the existing performance of the off-reservation pedestrian and bicycle facilities, which are a part of the circulation system.	**LTS**	None required.	**LTS**
3.11.5	Operation of the Proposed Project would not result in inadequate emergency access for off-reservation responders.	**LTS**	None required.	**LTS**
3.12	**Cultural Resources**			
3.12.1	The Proposed Project would not cause a substantial adverse change in the significance of a known off-reservation historical or archaeological resource; however, the Proposed Project has the potential to impact unknown resources.	**PS**	3.12.1 In the event of any discovery of historical, archaeological, or paleontological resources during construction, the Tribe shall assure that all work within 50 feet of the find shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, can assess its significance. The Karuk Tribal Historic Preservation Office shall also be contacted. If any archaeological find is determined to be important by the archaeologist, or paleontologist as appropriate, the Tribe's representatives shall meet with the designated expert to determine the appropriate course of action, including the development of a treatment plan, if necessary. Important cultural or paleontological materials recovered shall be subject to scientific analysis, culturally sensitive treatment, and disposition and/or professional curation, as appropriate. The professional archaeologist or paleontologist shall prepare a report according to current	**LTS**

TABLE ES-1
IMPACTS AND MITGATION MEASURES SUMMARY TABLE
(PS=POTENTIALLY SIGNIFICANT, NI= NO IMPACT; LTS= LESS THAN SIGNIFICANT)

	Impact	Level of Significance	Draft TEIR Identified Mitigation Measure	Residual Significance
			professional standards.	
3.12.2	The Proposed Project would not directly or indirectly destroy a known unique off-reservation paleontological resource or site or unique off-reservation geologic feature; however, the Proposed Project has the potential to impact unknown resources.	**PS**	Mitigation Measure 3.12.1, discussed above.	**LTS**
3.12.3	The Proposed Project would not disturb any known off-reservation human remains, including those interred outside of formal cemeteries; however, the Proposed Project has the potential to impact unknown resources.	**PS**	33.12.2 If human remains are encountered, the Tribe shall comply with Section 15064.5(e)(1) of the State CEQA Guidelines and Section 5097.98 of the California Public Resources Code. All project-related ground disturbance within 100 feet of the find shall be halted until the Siskiyou County Coroner has been notified. The Karuk Tribal Historic Preservation Office shall also be contacted. If the remains are determined to be of Native American origin, the State Native American Heritage Commission shall be contacted within 24 hours and no further excavation or disturbance of the site shall occur until the process set forth in Section 5097.98 of the California Public Resources Code is implemented. Nor shall any project-related ground disturbance in the vicinity of the find resume until the process detailed in Section 15064.5(e) of the State CEQA Guidelines has been completed.	**LTS**
3.12	**Population Growth-Inducing and Cumulative Off-Reservation Environmental Impacts**			
3.12.1	**Growth-Inducing Impacts**			
	Employees for the Proposed Project would come from the City or surrounding areas, thereby reducing the need for individuals and families to relocate to the area. Any new, expanded, or upgraded facilities, including associated support infrastructure, that would be developed to meet the needs of the Proposed Project would be specific to the casino and hotel and would therefore not induce additional development. Accordingly, the Proposed Project would not create significant off-reservation growth-inducing impacts.	**LTS**	None required.	**LTS**
3.12.2	**Cumulative Impacts**			
	Aesthetics The Proposed Project would not have significant cumulatively considerable impacts with respect to off-reservation aesthetics.	**LTS**	None required.	**LTS**

TABLE ES-1
IMPACTS AND MITGATION MEASURES SUMMARY TABLE
(PS=POTENTIALLY SIGNIFICANT, NI= NO IMPACT; LTS= LESS THAN SIGNIFICANT)

Impact	Level of Significance	Draft TEIR Identified Mitigation Measure	Residual Significance
Land Use, Population and Housing, and Recreation The Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation land use plans, population growth, housing availability, agricultural resources, or to recreation and park facilities.	**LTS**	None required.	**LTS**
Air Quality and Greenhouse Gas Emissions Operational emissions of the Proposed Project in the cumulative year 2030 would not result in cumulatively considerable impacts to off-reservation air quality.	**LTS**	None required.	**LTS**
Direct CO2e emissions would be well below the CEQ reporting standard (refer to Section 3.4.1). Indirect emissions are also below the reporting standard. Therefore, a less than significant cumulative climate change impact would occur with the implementation of the Proposed Project.	**LTS**	None required.	**LTS**
Biological Resources The Proposed Project would not result in cumulatively considerable impacts on off-reservation biological resources.	**LTS**	None required.	**LTS**
Geology and Soils The Proposed Project would not have a cumulatively considerable impact with respect to off-reservation geology and soil resources.	**LTS**	None required.	**LTS**
Hazards and Hazardous Materials The Proposed Project would not result in cumulatively considerable off-reservation impacts with respect to hazardous materials.	**LTS**	None required.	**LTS**
Because impacts to fire-fighting services would be less than significant with mitigation (**Section 3.10**), the Proposed Project would not result in cumulatively considerable impacts concerning wildland fires.	**LTS**	None required.	**LTS**
Water Resources The Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation drainage and flooding.	**LTS**	None required.	**LTS**
The Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation surface water quality.	**LTS**	None required.	**LTS**
Implementation of the Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation groundwater quantity in the region.	**LTS**	None required.	**LTS**
The Proposed Project would not result in cumulatively	**LTS**	None required.	**LTS**

TABLE ES-1
IMPACTS AND MITGATION MEASURES SUMMARY TABLE
(PS=POTENTIALLY SIGNIFICANT, NI= NO IMPACT; LTS= LESS THAN SIGNIFICANT)

Impact	Level of Significance	Draft TEIR Identified Mitigation Measure	Residual Significance
considerable impacts with respect to off-reservation groundwater quality.			
Noise Vehicle noise attributable to the Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation noise.	**LTS**	None required.	**LTS**
Operation of the Proposed Project would not result in cumulatively considerable impacts to the off-reservation noise environment.	**LTS**	None required.	**LTS**
Public Services and Utilities and Service Systems The Proposed Project would not result in cumulatively considerable impacts to public services and utility service systems.	**LTS**	None required.	**LTS**
Transportation and Traffic Operation of the Proposed Project would contribute to the degradation of LOS at the I-5 Northbound Ramps/Moonlit Oaks Avenue intersection.	**PS**	3.13.1. In coordination with Caltrans and the City, the Tribe would provide fair-share funding improvements to the intersection of I-5 Northbound Ramps and Moonlit Oaks Avenue either through an IGA or by other means. Improvements necessary to obtain an acceptable LOS at this intersection may include either of the following: a) Conversion of the intersection into a single-lane roundabout; or b) Conversion of the intersection to a signalized intersection.	**LTS**
Cultural Resources The Proposed Project would not result in cumulatively considerable impacts with respect to any known or unknown off-reservation cultural resources.	**LTS**	None required.	**LTS**

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SECTION 1.0
INTRODUCTION

1.1 BACKGROUND AND PURPOSE OF THE TRIBAL ENVIRONMENTAL IMPACT REPORT

This Draft Tribal Environmental Impact Report (TEIR) has been prepared pursuant to the requirements of the Draft Tribal-State Gaming Compact (Compact) between the Karuk Tribe (Tribe) and the State of California to provide the public and government agencies with information about the potential off-reservation environmental effects of the proposed Karuk Tribe Casino Project (Proposed Project). The Proposed Project is to be located on Tribal trust and Tribally-owned fee land (project site) within the City limits of Yreka (City) in Siskiyou County (County), California. The Tribe proposes to develop a Class III Gaming Complex in two phases. Phase I would include an approximately 36,500 square-foot casino. Phase II would include an expansion of the casino and addition of a hotel.

The Compact requires that the Tribe prepare a TEIR that analyzes the potential off-reservation environmental impacts of the Proposed Project. This TEIR assesses the potentially significant environmental impacts that may occur off of trust land as a result of development of the Proposed Project. The scope of this TEIR is established by the Compact, which requires that a TEIR consider all of the potential off-reservation environmental impacts that are listed in the Off-Reservation Environmental Impact Analysis Checklist (Checklist) attached to the Compact. A copy of the Checklist is included as **Appendix A** of this TEIR.

The Tribe will use this TEIR to determine if the construction and operation of the Proposed Project would likely result in potentially significant impacts to the off-reservation environment. The comments received on the Notice of Preparation (NOP) of the Draft TEIR were considered during the preparation of this Draft TEIR. A detailed description of the Proposed Project is provided in **Section 2.0**. The existing off-reservation environmental setting and the potentially significant off-reservation environmental impacts of the Proposed Project, including mitigation measures to address off-reservation impacts, are discussed in **Section 3.0**. In accordance with the Compact, the Tribe has selected a reduced intensity development (Reduced-Intensity Alternative) to review in this TEIR as a potential alternative to the Proposed Project. The environmental setting and off-reservation impact analysis of the Reduced-Intensity Alternative and the No Action Alternative are addressed in **Section 4.0** of this Draft TEIR.

1.2 GENERAL SETTING OF THE PROPOSED PROJECT

The Proposed Project would be constructed on portions of two parcels located in the southeast corner of the City immediately east of Interstate 5 (I-5) (**Figures 1-1** and **1-2).** Regional access to the project site is provided by I-5 via the Moonlit Oak Avenue exit south of the project site. Through the City, I-5 is a four-lane highway with below grade intersections 0.6-mile south, 1.2-miles north, and 1.8 miles north of the project site.

Of the 60-acre project site, 10 acres are held in trust by the United States for the Tribe (trust parcel), and the remaining 50 acres are owned in fee by the Tribe (fee parcel) (**Figure 1-3**). The northern quarter of project site is the moderately steep western slope of a ridge while the remaining area of the project site consists of sloped lands with relatively flat land along the western central portion (**Figure 1-2**). There are no existing structures or developments on the project site. Some access roads and drainage ditches are present, and the Karuk Tribe Housing Authority currently stores unoccupied mobile homes on the fee parcel. Light industrial uses surround the land to the west and north; a few single family residences and open space are located to the east and south. Vegetation on the site consists of mostly grassy fields with shrubs, chaparral brush, and some small trees.

1.3 TEIR PROCESS

This document was prepared in compliance with Section 11 of the Compact, which requires that a TEIR be prepared before the commencement of construction of the Proposed Project. This Draft TEIR identifies and analyzes potential off-reservation environmental impacts attributable to the Proposed Project and Alternatives and recommends mitigation measures to eliminate or minimize these impacts. The Checklist (**Appendix A**) was used to guide and determine the scope and format of this Draft TEIR. In accordance with the Checklist, the potential off-reservation environmental impacts are identified for each specific resource area included in the Checklist.

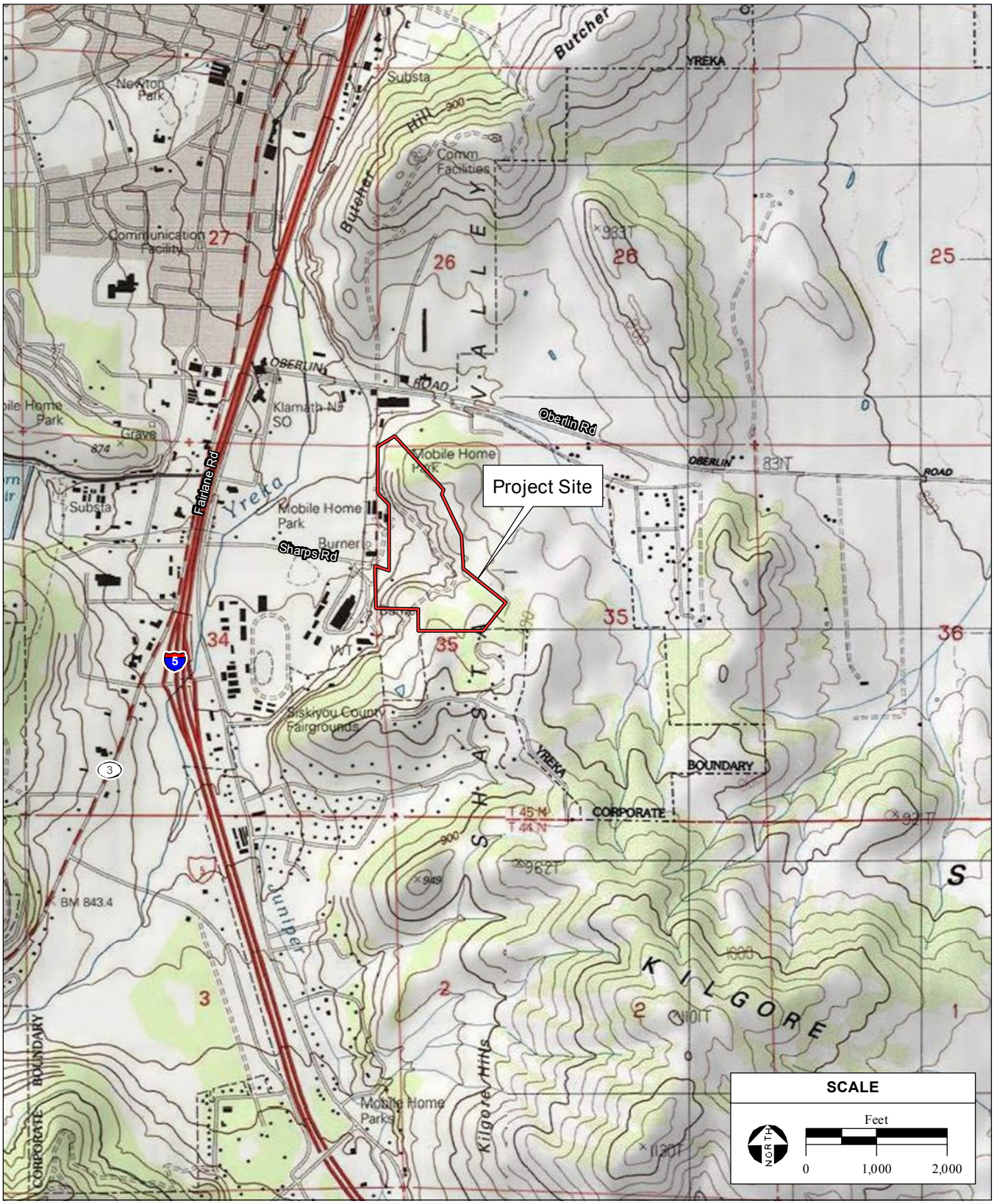
1.3.1 NOTICE OF PREPARATION AND COMMENTS

The NOP (**Appendix B**) for the Proposed Project was issued by the Tribe on July 22, 2013. As required by the Compact, the comment period remained open for 30 days until August 21, 2013. Also required by the Compact, the NOP was delivered to the State Clearinghouse and the County for distribution to interested parties; the NOP was also delivered to the City. The NOP solicited comments on the Proposed Project and suggestions for the potentially significant off-reservation environmental impacts that should be evaluated in the TEIR. Four comment letters were received in response to the NOP; letters are included with **Appendix B**.

A comment letter from the California Department of Transportation (Caltrans) requested early review of the Transportation Impact Analysis (TIA), particularly the trip distribution and trip generation rates, prior

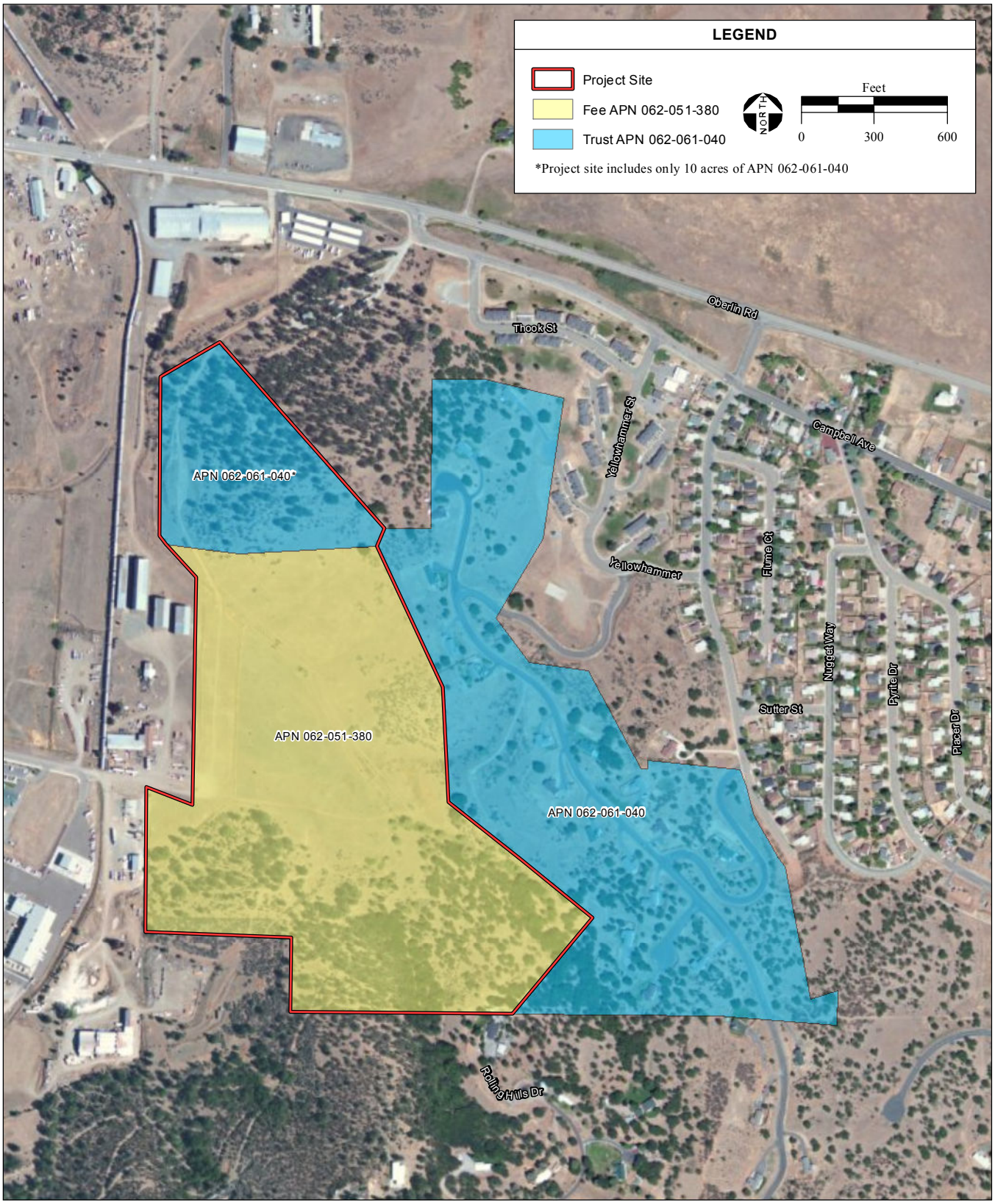
SOURCE: StreetMap North America, 2009; AES, 2013

Figure 1-1
Regional Location



SOURCE: "Yreka, CA" USGS 7.5 Minute Topographic Quadrangle, T45N, R7W, Section 35, Humboldt Baseline & Meridian; Karuk Tribe, 2013; AES, 2013

Figure 1-2
Site and Vicinity



SOURCE: Karuk Tribe, 2013; UC-G aerial photograph 8/8/2010, AES, 2013

Figure 1-3
Aerial Photograph

to release of the Draft TEIR. However, the request was received after completion of the draft TIA, and the Tribe determined that early release of the TIA to solicit comments from Caltrans prior to release of the Draft TEIR would result in delays in the TEIR process. The TIA is included within the Draft TEIR (**Appendix F**) and was released to Caltrans for review at the start of the public comment period. The Tribe will coordinate with Caltrans during the Draft TEIR review period to receive comments on the TIA and will address any Caltrans comments in the Final TEIR.

Comment letters were also received from the California Department of Fish and Wildlife (DFW), the County, and the City. Issues raised in comment letters were carefully considered and several are addressed in this Draft TEIR; **Table 1-1** identifies the comment items and associated section(s) within this Draft TIER that addresses the item.

TABLE 1-1
PUBLIC NOP COMMENTS ADDRESSED IN DRAFT TIER

Commenter	Comment Item	Section of Draft TEIR that Addresses Comment
Caltrans	Traffic and Transportation	Section 3.11 and Appendix F
City	Public Services (police, emergency response, and fire)	Section 3.10
	Public Utilities (flood control and drainage, solid waste management, City water, City wastewater collection, City wastewater treatment plant)	Section 3.10
	Roads	Section 3.11
	Air Quality	Section 3.4
	Hazardous Materials	Section 3.7
	Character of Area, Incompatible Land Uses	Section 3.3
	Aesthetic Impact	Section 3.2
	Biological Resources	Section 3.5
	Noise	Section 3.9
	Geology and Soils	Section 3.6
	Future Land Uses	Section 3.13
	Ancillary Uses and Structures	Section 2.0
County	Transportation	Section 3.11
	Public Services (emergency services)	Section 3.10
	Public Utilities (solid waste)	Section 3.10
	Light and Noise	Sections 3.2 and 3.9
	Hydrology and Water Quality	Section 3.8
	Air Quality	Section 3.4
	Land Use Authority and NEPA Review	Sections 2.0 and 3.3
DFW	Biological Resources	Section 3.5 and 4.0

One issue highlighted in the City's comment letter is no longer applicable to the Proposed Project. The City commented the Tribe had proposed to construct a travel center, recreations vehicle park, and other complementary facilities to the casino, and the Draft TEIR should be inclusive in its evaluation. Since the Tribe initiated discussions with the City regarding development on the project site, the Tribe has revised

its proposed development plans to include only the casino and hotel as described in **Section 2.0**. Therefore, this Draft TEIR evaluates impacts of all components of the Proposed Project.
Lastly, some issues raised in the comment letters are beyond the scope of this TEIR as the focus of this TEIR is on physical changes to the environment in accordance with the Checklist. **Table 1-2** identifies the items from the comment letters that are not addressed in this Draft TEIR.

TABLE 1-2
PUBLIC NOP COMMENTS NOT ADDRESSED IN DRAFT TIER

Commenter	Comment Item	Rationale for Not Addressing Comment in Draft TEIR
City	Alcohol and Drug Abuse Prevention	Beyond scope of TEIR
	Financial Impacts	Beyond scope of Draft TEIR
County	Social Services	Beyond scope of TEIR

1.3.2 DRAFT TEIR

This Draft TEIR contains a description of the Proposed Project, a description of the environment, discussions of potential off-reservation environmental impacts, discussions of measures to be implemented to mitigate identified and anticipated potentially significant off-reservation environmental impacts, discussions of any unavoidable or irreversible potentially significant off-reservation environmental impacts, and an analysis of alternatives to the Proposed Project as required by the Compact.

1.3.3 PUBLIC REVIEW OF THE DRAFT TEIR

This Draft TEIR is being submitted to the State Clearinghouse, the State Gaming Agency, and the California Department of Justice and is being distributed to local (including the City and the County), State, and federal agencies and to interested persons and entities who previously requested in writing the opportunity to review and comment on this Draft TEIR. Notice of completion of this Draft TEIR is being given to the public in the manner required by the Compact. Submission of this Draft TEIR to the State Clearinghouse, the City, and the County marks the beginning of a 45-day public review and comment period, during which period the Tribe will accept written comments regarding this Draft TEIR at the following address:

Karuk Tribe
Attn: Scott Quinn
P.O. Box 1016
Happy Camp, CA 96039
Fax: (530) 493-5322

1.3.4 FINAL TEIR

Written comments on this Draft TEIR received by the Tribe at the above address within the 45-day comment period will be reviewed and will be addressed in a Final TEIR. The Final TEIR will include

copies of all comments on this Draft TEIR received by the Tribe at the address above within the 45-day review; responses to off-reservation environmental issues raised by such comments; and any updates, modifications, or revisions to this Draft TEIR as warranted. Upon completion, the Final TEIR will be presented to the Karuk Tribal Council, which will then consider approval and certification of the Final TEIR. If the Final TEIR is certified, the Tribe will make the certified Final TEIR available to the State Clearinghouse, State Gaming Agency, California Department of Justice, the City, and the County.

1.3.5 INTERGOVERNMENTAL AGREEMENT

The Compact requires that the Tribe offer to commence negotiations with the City and County for an intergovernmental agreement (IGA) no later than the issuance of the Final TEIR. The IGA will address the mitigation of potentially significant off-reservation impacts. The IGA may also cover other subjects listed in the Compact that are not covered by this Draft TEIR and will not be covered by the Final TEIR. If the Tribe and the City and/or County have not agreed on the terms and conditions of such an IGA within 55 days after the date on which the Final TEIR is provided to the City and County, then either the Tribe or the City/County may demand that the terms and conditions of such IGA be determined by arbitration.

1.4 DRAFT TEIR ORGANIZATION

This Draft TEIR is organized as described below.

- **Executive Summary**. This summary includes a brief description of the Proposed Project and Alternatives, a list of potentially significant off-reservation environmental impacts attributable to the Proposed Project that are addressed in this Draft TEIR, and a summary of the potentially significant off-reservation environmental impacts identified in this Draft TEIR and recommended mitigation measures for those impacts. The executive summary includes a table of potential off-reservation environmental impacts and associated mitigation measures proposed.
- **Section 1.0 – Introduction**. This section describes the purpose and organization of this Draft TEIR and the TEIR preparation, review, and certification process.
- **Section 2.0 – Project Description**. This section describes the Proposed Project and outlines the objectives of the Proposed Project. Components of the Proposed Project are presented in this section, including design features to reduce anticipated potentially significant off-reservation environmental impacts.
- **Section 3.0 – Environmental Analysis**. For each environmental resource area listed in the Checklist (**Appendix A**), this section describes the applicable regulatory setting for the Proposed Project and the existing off-reservation environmental setting; discusses the potentially significant off-reservation environmental impacts attributable to the construction and operation of the

Proposed Project, including direct growth-inducing and cumulative off-reservation impacts; and identifies mitigation measures for those impacts.

- **Section 4.0 – Alternatives**. This section describes potential alternatives to the Proposed Project, including the Reduced-Intensity Alternative and the No Action Alternative. This Draft TEIR includes sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison. This section discusses the potentially significant off-reservation environmental impacts associated with the construction and operation of the Alternatives, including direct growth-inducing and cumulative off-reservation impacts, and identifies mitigation measures for those impacts. A discussion of other alternatives considered but not subjected to detailed analysis and a comparison of the merits of the Proposed Project and the Alternatives are also included in this section.
- **Section 5.0 –Report Authors and Persons Consulted**. This section provides the names of the authors who participated in and agencies or individuals consulted during preparation of this Draft TEIR.
- **Section 6.0 – Bibliography**. This section provides a list of reference materials used to prepare the Draft TEIR.
- **Appendices**. The appendices to this Draft TEIR are listed in the Table of Contents.

SECTION 2.0

PROJECT DESCRIPTION

2.1 OVERVIEW AND BACKGROUND

The Karuk Tribe (Tribe), a federally recognized sovereign Indian tribe, proposes to develop a Class III Gaming Complex in two phases on Tribal trust and Tribally-owned fee lands (project site) located in Siskiyou County (County) within the City of Yreka (City), California (Proposed Project). The phased components of the Proposed Project are described in more detail in **Section 2.4**. **Figure 1-1** shows the Proposed Project's regional location, and **Figure 1-2** provides the site and vicinity of the project site. An aerial view of the project site and the two parcels that comprise the project site are shown in **Figure 1-3**.

The Tribe and State of California are in the process of finalizing the Draft Tribal-State Gaming Compact (Compact) for Class III gaming. The Compact specifies that the Tribe's gaming facility will be located on the Yreka trust land site, Section 35, Township 45 North Range 7 West, Mount Diablo Meridian. Accordingly, the casino and hotel would be constructed on a 10-acre portion of the approved gaming site on trust land.

2.2 PROJECT OBJECTIVES

Implementation of the Proposed Project would assist in meeting the following objectives:

- Improve the socioeconomic status of the Tribe by providing a revenue source that would be used to accomplish the following:
    - Strengthen the Tribal government;
    - Fund a variety of social, housing, governmental, administrative, cultural, historical, educational, health and welfare services, and programs to improve the quality of life of Tribal members; and
    - Provide capital for other economic development and investment opportunities;
- Provide additional recreational amenities to the community and tourists along the Interstate 5 (I-5) corridor;
- Provide employment opportunities to the Tribe and non-Tribal community; and
- Allow Tribal members to obtain economic self-sufficiency.

Additionally, the Proposed Project would generate positive contributions to the economy of the City, County, and region. The Proposed Project would provide economic support for the City government

through its services, generate long-term employment opportunities for non-Tribal members, increase commercial recreational facilities in the area, and increase economic activity within the City and County. An increase in regional tourism and new business opportunities would be indirect outcomes of the Proposed Project.

2.3 EXISTING SETTING

The project site is comprised of a 10-acre portion of Assessor's Parcel Number (APN) 062-061-040 (held in trust, "trust parcel") and the entire 50 acres of APN 062-051-380 (owned in fee, "fee parcel"), located in the southeastern portion of the City, immediately east of I-5 and south of Oberlin Road. The 10 acre portion of the trust parcel is the steep western slope of a ridge. The remaining area of the project site consists of sloped lands with relatively flat land along the western central portion. There are no existing structures or developments on the project site. Portions of the project site have previously been graded and/or disturbed to serve as parking for Tribal events and local businesses along Sharps Road and/or as wildland fire suppression measures.

As explained in **Section 1.2**, regional access to the project site is provided by I-5 via the Moonlit Oak Avenue exit south of the project site. Through the City, I-5 is a four-lane highway with below grade intersections 0.8-mile south, 1.2-miles north, and 1.8 miles north of the project site.

Existing land uses surrounding the project site include light industrial, single-family residential, and undeveloped lands. Light industrial development along Oberlin Road and I-5, to the west and north of the project site, includes automotive services, equipment rental services, public storage facilities, local government facilities, offices. A few single-family residences, some of which are located on Tribal trust lands, and undeveloped land are located east and south of the project site. The Siskiyou County Fairgrounds are located southwest of the project site. Surrounding land use is further discussed in **Section 3.3**.

In general, the project site slopes to the west. At present, existing storm drainage runoff flows across the unimproved property into existing drainage ditches and swales and eventually to Yreka Creek. There is an existing drainage ditch that runs northwesterly bisecting the fee parcel. Upslope stormwater is collected by the ditch and transported northwesterly until it exits the property in the ditch. The ditch then continues to the flat below into a series of drainage ditches, inlets, and pipes. An old railroad grade has several cross drains in place that carry stormwater to the west of the tracks. Slopes below the ditch are collected via an earthen berm that runs north to south and collects storm runoff between the ditch and the berm. Storm drainage from the trust parcel runs westerly toward the drainage ways on the flat below; however, these flows are not concentrated into one exit point as are the flows from the fee parcel. Percolation of native materials onsite is relatively slow for disposal of stormwater runoff.

2.4 DESCRIPTION OF THE PROPOSED PROJECT

The Proposed Project includes the development of a casino and hotel facility and associated support facilities. As discussed above, development would occur in two phases: the casino, parking, and associated support facilities would be developed in Phase I, and an expansion of the casino, the hotel, additional parking, and additional support facilities would be developed in Phase II.

2.4.1 PHASE I: CASINO DEVELOPMENT

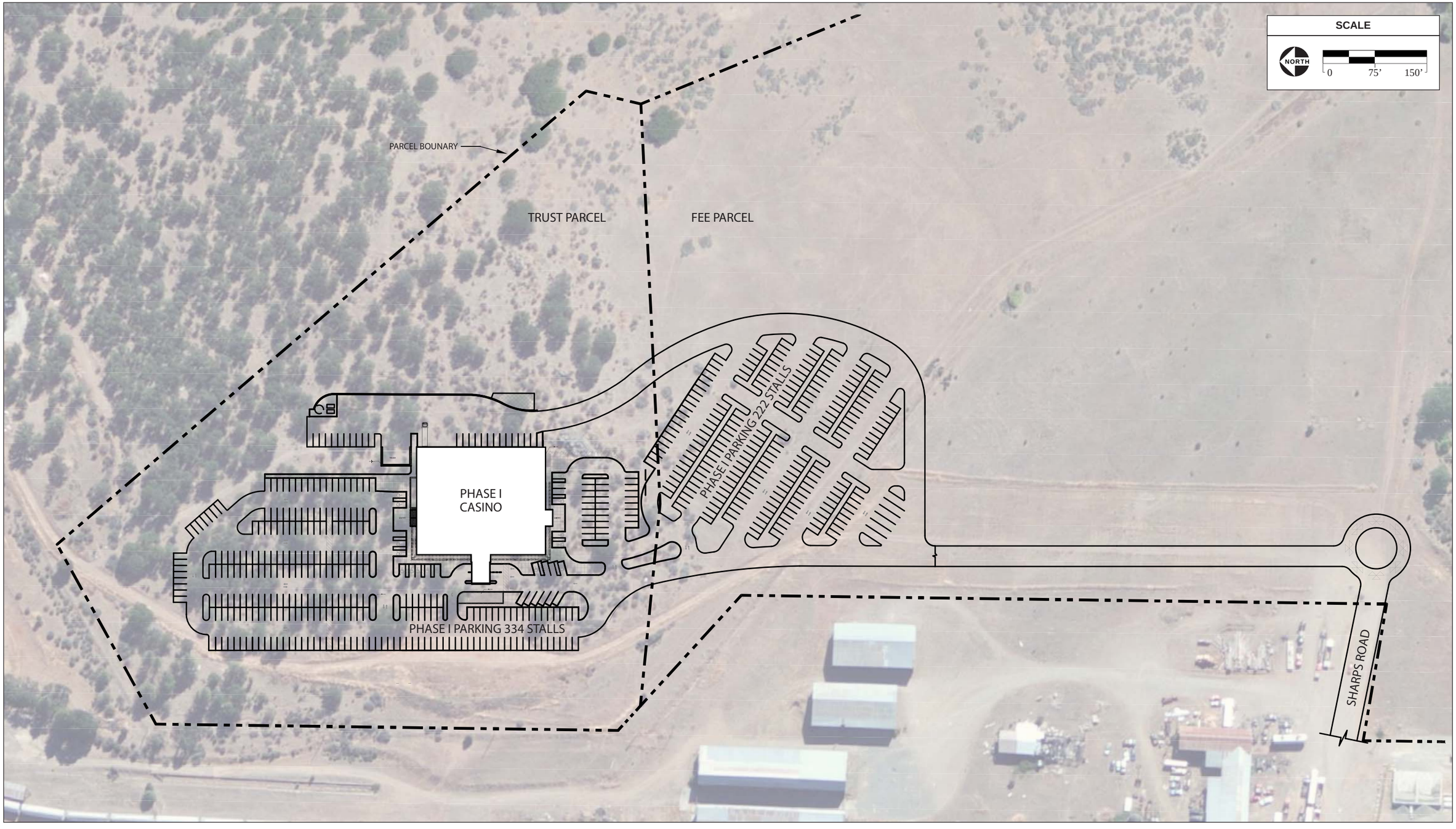
The Tribe proposes to develop an approximately 36,497 square foot (sf) Class III Gaming Complex on Tribal trust lands during Phase I of the Proposed Project. The casino complex would consist of approximately 13,800 sf of gaming floor containing approximately 500 gaming machines and 8 table games. The remainder of the building would be utilized for players' services; food and beverage areas, including a 120-seat restaurant and casino bar; and casino operation and support areas. Restrooms, janitorial and maintenance areas, surveillance and security facilities, systems and storage areas, employee restrooms and lockers, and staff offices would make up the casino operation and support areas. The casino would be a turn-key facility with modern casino amenities, including appropriate security and surveillance features. **Figure 2-1** depicts the proposed developments and site plan for Phase I, and key elements of Phase I are shown in **Table 2-1**. The Phase I development footprint is the approximate nine-acre area within the project site that would be occupied by structures developed during Phase I of the Proposed Project.

TABLE 2-1
PHASE I PROPOSED FACILITY COMPONENTS

Area / Function	Approximate Square Feet
Gaming (500 Slots and 8 Table Games)	13,800
Guest Support and Administration Offices	16,785
Restaurant, Casino Bar, and Support Areas (120 Seats in Restaurant)	5,912
Parking (556 Parking Stalls)	NA
Phase I Casino Facilities	**36,497**

NA – Not Applicable

The design of the casino building would reflect the heritage and culture of the Tribe and the Northern California setting. The primary exterior wall finish material would be wood upon a three-foot high base with aesthetic design features such as natural or man-made stone around the perimeter of the building. The casino building would be set into the lower portion of the existing hillside on the project site, and the wood with stone base design is intended to reflect this rural hillside location. The building would also have design elements that reflect the California craftsman style of architecture with wood structural members reflected on the exterior of the building and a covered wood trellis over a perimeter sidewalk on three sides of the building. The shapes of the trellis and of the upper fascia of the building are based a traditional Tribe basket pattern representing 'Friendship.' **Figure 2-2** provides an architectural rendering.



SOURCE: Group West, 7/9/2013; UC-G aerial photograph 8/8/2010; AES, 2013

Figure 2-1
Site Plan - Phase I

SOURCE: Group West Companies PLLC, 2013; AES, 2013

Figure 2-2
Phase I Architectural Rendering

The Compact requires and the Tribe has designed the gaming facility to meet or exceed the requirements of the California Building Code (CBC) and the Public Safety Code applicable to the City as set forth in Titles 19 and 24 of the California Code of Regulations, including all fire, plumbing, electrical, mechanical, and related codes in effect at the time of construction. This includes the recent update of the CBC incorporating the California Green Building Standards (CALGreen) Code. Additionally, the Tribe will take all necessary steps per the requirements of the Compact to reasonably ensure ongoing availability of sufficient and qualified fire suppression services to the gaming facility.

PARKING AND CIRCULATION

Phase I of the Proposed Project would include on-site development of approximately 556 parking stalls located primarily west and south of the casino. The parking lot south of the casino would be on the fee parcel (**Figure 2-1**). Parking stalls would be for patrons, hotel guests, and employees and would include space for general use, valet, bus, and handicapped parking. The entrance to the project site would be located at the east terminus of the existing Sharps Road.

As described in **Section 2.3**, regional access to the project site would be obtained via I-5. Northbound and southbound visitors would exit at the I-5 off-ramp at Moonlit Oak Avenue and proceed east, turning north onto Fairlane Road and then right (east) onto Sharps Road; the project site is located approximately 1 mile from the I-5/Moonlit Oak Avenue interchange. East Oberlin Road could provide local access to the project site; eastbound and westbound traffic would turn south onto Fairlane Road and then left (east) onto Sharps Road.

WATER SUPPLY

A Water and Wastewater Technical Study was prepared for the Proposed Project (**Appendix H**). Water supply needs for Phase I of the Proposed Project are estimated as follows:

- Estimated Average Annual Demand: 30,000 gallons per day (gpd); and
- Fire Flow and Storage Requirements: 1,500 gallons per minute (gpm) at a 2 hour duration which equates to 180,000 gallons of storage.

The Tribe proposes to utilize the City's municipal water service to meet the water demands of Phase I of the Proposed Project. The project site would connect to the existing 10-inch water main located along Sharps Road, the east terminus of which would be the entrance to the project site, or to the existing 8-inch water main located along Aspuun Road, which runs in a general north to south direction along the ridge located approximately 200 feet east of the project site. Existing water storage facilities would be used or water storage would be developed on the trust parcel. In accordance with the CALGreen Code, the Tribe would include plumbing fixtures and fittings that would reduce the overall use of potable water within the building by 20 percent compared to the maximum allowable water use per plumbing fixture and fitting.

WASTEWATER TREATMENT AND DISPOSAL

Wastewater disposal needs for Phase I of the Proposed Project are estimated as follows:

- Average daily flow: 26,000 gpd; and
- Peak day flow: 52,000 gpd (**Appendix H**).

The Tribe proposes to utilize the City's sewer service to serve Phase I of the Proposed Project. A gravity sewer connection would be made at the existing eight-inch sewer mains located either along Sharps Road or along Oberlin Road, which runs in an east to west direction and is located approximately 600 feet north of the project site.

UTILITIES AND SERVICES

PacifiCorp is the electrical utility provider for the City. The active connection nearest the undeveloped project site is at the east terminus of Sharps Road. Independent suppliers provide propane to businesses and residences in the City. The Tribe would coordinate with PacifiCorp to connect the structures developed during Phase I of the Proposed Project to the power grid and with suppliers to obtain propane. A propane storage tank would be located on the project site.

Solid waste collection in the City is provided by the Yreka Transfer Company. In accordance with the CALGreen code, at least 50 percent of the non-hazardous construction debris would be recycled and/or salvaged for reuse, and all rocks, soils, and vegetation removed from grading would be reused or recycled. Additionally, the Tribe would provide readily accessible, secure, and protected recycling areas for non-hazardous materials for use by casino operations and associated signage for those areas that serve the entire building. Recycling receptacles and adequate signage would also be provided for patrons of the casino. Where feasible, recycling areas would be located adjacent to solid waste collection areas.

GRADING AND DRAINAGE

Phase I of the Proposed Project would include grading of the trust and fee parcels to include a total disturbed area of approximately 14.25 acres. The preliminary elevation recommended for the finish floor of the building is 2,724.5 feet above sea level (NGVD 29 datum), with parking slopes ranging from two percent minimum to five percent maximum. All Americans with Disabilities Act (ADA) accessible parking and routes of travel would conform to the requirements of the 2010 CBC.

Grading of the project site would include a 35-foot high engineered fill slope on the west side of the project site and a 70-foot high cut slope on the east side of the project site. The preliminary grading plan in Attachment B of **Appendix C** indicates the approximate limits of excavation and grading for the project site. The preliminary grading plan was developed in accordance with the grading requirements in the 2010 CBC. Cut and fill slopes would be developed using 2:1 max slopes. Benches 6 feet in width would be incorporated into slopes where the heights of the slopes exceed 30 feet vertically. All benches

would require surfaced drainage swales to collect stormwater from the slopes and direct it to appropriate storm drainage facilities. Additionally, the top of the cut slope would require a surfaced swale to direct stormwater from above the cut slope away from the face of the cut slope. Estimated earthwork volumes in cubic yards (CY) associated with construction of Phase I are shown in **Table 2-2**. During grading activities under Phase I, waste materials would be incorporated and engineered fill placed into the future Phase II parking area located on the fee parcel to the south. The City has a grading ordinance and requires a grading permit for all proposed grading within the City limits.

TABLE 2-2
NET EARTHWORK VOLUMES PHASE I BUILD OUT

	Earth (cubic yards)
Excavation Volume	182,000
Fill Volume	132,000
Net Difference (excess)	**50,000**

The existing stormwater drainage patterns were discussed in **Section 2.3**. A detailed Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to construction.

The facilities developed during Phase I would be constructed such that stormwater drainage remains on site and does not exceed flows from a 10 minute duration and a 10 year event (Phase I Q =18.45 cubic feet per second [cfs]). Stormwater detention facilities would be installed during construction of Phase I of the Proposed Project and would be designed as outlined below:

- Phase I storm detention on-site infrastructure would be designed for a 25-year storm event for a volume of 17,900 cubic feet. Storm drainage would be directed to drainage facilities and routed to detention structures as necessary to meet the above outlined detention volumes. Detention basins would be designed to meet these storage volumes with one foot of freeboard as outlined in the City of Yreka Storm Drainage Design and Evaluation Criteria.
- All trust parcel drainage would be detained on the trust parcel in detention basins located under the parking area. Discharge from the detention basin would be directed to the existing drainage ditch that bisects the fee parcel.
- All drainage facilities including pipes, curbs, inlets, and swales would be sized for a 10 year, 24 hour storm event.

LIGHTING

External lighting at the proposed casino and associated parking lot would consist of downcast lamps designed for public safety and security. In accordance with the CALGreen Code, the Tribe would shield all exterior luminaires or provide cutoff luminaires per Section 132 (b) of the California Energy Code, contain interior lighting within each source, allow no more than 0.01 horizontal foot candles to escape 15 feet beyond the site boundary, and automatically control exterior lighting dusk to dawn to turn off or

lower light levels. These provisions will apply to all lighting except emergency and nighttime security lighting in compliance with the CALGreen Code.

GREEN BUILDING

Phase I of the Proposed Project is designed and would be constructed utilizing green building and performance measures. Sustainable building strategies would be integrated into the project to the greatest extent feasible. These features include designated parking for low-emitting, alternative fuel, and carpool/van pool vehicles as well as bicycle racks. In addition, through contractual requirements, the Tribe would require that finishing materials (adhesives, sealants, paints, coatings, composite wood, and carpet systems) comply with the CALGreen provisions for low emitting materials, and that heating, ventilation, and air conditioning (HVAC) systems; refrigeration; and fire suppression systems are free of chlorofluorocarbons (CFCs). Green building practices would be incorporated into the Phase I of the Proposed Project to achieve the following:

- Improve the overall performance of the buildings;
- Lower operating costs;
- Reduce waste sent to landfills;
- Conserve energy and water;
- Reduce water run-off;
- Improve the health and safety of guests/occupants;
- Reduce harmful greenhouse gas emissions;
- Qualify for incentives; and
- Demonstrate the Tribe's commitment to environmental stewardship and social responsibility during the implementation of commercial ventures.

CONSTRUCTION

Construction of Phase I of the Proposed Project would last approximately 11 months and involve site clearing, earthwork and grading, placement of concrete foundations, steel and wood structural framing, electrical and mechanical work, building finishing, and paving. Significant grading and excavation would be required prior to construction, and engineer fill would be laid across the Phase I development footprint. Anticipated grading and excavation equipment is listed in **Table 2-3**. Excess fill excavated during Phase I would be stockpiled on the fee parcel to facilitate construction of the additional parking spaces under Phase II, and no earth would be hauled off site. No impact equipment (i.e. pile drive, vibratory hammers, etc.) would be used during construction of Phase I of the Proposed Project. Construction of infrastructure additions for the facilities constructed in Phase I of the Proposed Project would occur simultaneously with building construction, such that all required infrastructure improvements would be functional before the Proposed Project is opened to the public. All staging areas for construction would be located on trust land within or adjacent to Phase I development footprint.

TABLE 2-3
PHASE I ANTICIPATED EQUIPMENT NEEDS

Type of Equipment	Number Needed	Length Needed[1]
Site Clear and Grub Process		
Scrappers (11 CY)	3	70 hours
Dozers (300 horse power)	2	9 days
Loaders (5.5 CY)	2	9 days
Dump trucks (20 CY)	6	9 days
Mass Excavation Process		
Hydraulic excavators (1 CY)	3	70 hours
Loaders (5.5 CY)	2	70 hours
Dozers (300 horse power)	2	70 hours
Dozer with ripper (410 horse power)	1	70 hours
Dump trucks (20 CY)	10	40 hours
Water Truck	1	5 weeks

CY – Cubic yards
[1] Per each piece of equipment

After detailed plans and specifications are prepared for Phase I of the Proposed Project and all necessary permits and approvals are obtained, a contractor hired by the Tribe would begin construction. All contractual obligations associated with mitigation measures described in **Section 3.0** would be incorporated into executed contracts prior to the start of construction. Among the key construction activities that would occur are the following:

- Earthwork and site preparation –clearing, grading, excavation, backfill, and earth retention;
- Concrete – forming, rebar placement, and concrete delivery and placement;
- Structural steel work – assembly and welding;
- Non-structural framing (wood or steel);
- Masonry construction;
- Installation of mechanical equipment and piping;
- Landscape and hardscape; and
- Interior finishing.

In accordance with the Compact, the Tribe shall separately engage the services of either a Class 1 inspector of the Division of the State Architect or a Class A inspector licensed by the Division of Statewide Health Planning and Development (Inspector) to ensure all work is completed according to the required specifications and codes. The State of California may also designate an agent or agents to accompany the Inspector on any such inspection.

OPERATION

Operation of the casino to be developed during Phase I would require approximately 350 full time equivalent positions. The Tribe and its team of highly qualified professionals would manage the Proposed Project. The casino would operate 24 hours per day, 7 days per week.

2.4.2 PHASE II: CASINO EXPANSION AND HOTEL DEVELOPMENT

During Phase II of the Proposed Project, the Tribe proposes to expand the casino facility, develop a hotel, and construct additional parking. The casino expansion would add approximately 20,000 sf to the north side of the casino building. The expansion would be adjoined to the previously constructed building and increase the total area of the entire casino facility to 56,497 sf. Approximately 9,500 sf of the expansion would be used for gaming to accommodate approximately 300 additional gaming machines and 8 additional table games. The remaining space would be utilized for player services; a new restaurant with seating for 100 patrons and expanded food and beverage support areas; and additional casino operation and support areas, which would include additional restrooms, janitorial and maintenance areas, and systems and storage areas.

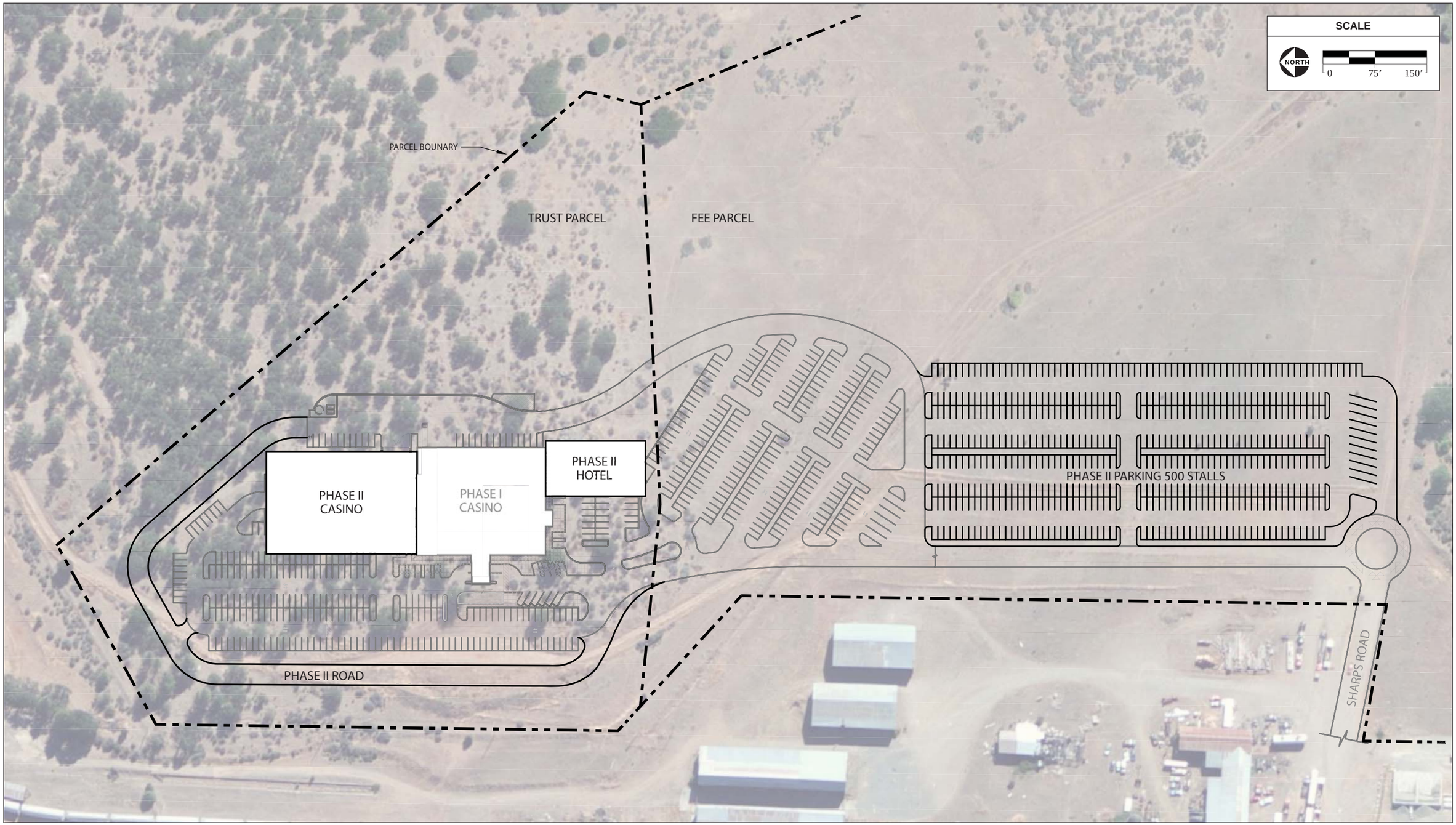
The hotel would be constructed along the eastern half of the south side of the casino building constructed during Phase I, and new construction would link the two buildings. The hotel would consist of approximately 48,000 sf, of which 31,500 sf would accommodate 73 standard guest rooms, 6 junior suites, and 1 large suite. The balance of the hotel space would be used for hotel guest amenities and facilities, including a fitness center, an indoor swimming pool, a banquet room, executive meeting space, and hotel administration and support areas. Modern amenities, features, and furnishings would be used, and the hotel would be a turn-key facility. To minimize the footprint of the facility, the hotel would be three stories tall.

Figure 2-3 depicts the proposed developments and site plan for Phase II, and key elements of Phase II are shown in **Table 2-4**. As shown in **Figure 2-3**, the casino expansion and hotel would be constructed over parking lot areas developed during Phase I. Implementation of Phase II would result in a development footprint increase of approximately five acres. The full build-out development footprint is approximately 14 acres.

TABLE 2-4
PHASE II PROPOSED FACILITY COMPONENTS

Area / Function	Approximate Square Feet
Gaming (300 Slots and 8 Table Games)	9,500
Guest Support and Administration Offices	6,990
New Restaurant and Support Areas (100 Seats in Restaurant)	3,510
Casino Expansion Subtotal	**20,000**
Hotel (73 Standard Rooms, 6 Junior Suites, and 1 Large Suite)	31,500
Hotel Guest Amenities, Guest Support, and Administration Offices	16,500
Hotel Subtotal	**48,000**
Parking (500 Parking Stalls)	NA
Phase II Casino Expansion and Hotel	**68,000**

NA – Not Applicable



SOURCE: Group West, 7/9/2013; UC-G aerial photograph 8/8/2010; AES, 2013

Figure 2-3
Site Plan - Phase II

The casino expansion and hotel would be located on Tribal trust lands, and the design of both facilities would be consistent with the casino constructed during Phase I. The architectural design that showcased Tribal heritage and culture as well as reflected the Northern California setting would be incorporated into the facilities constructed during Phase II.

PARKING AND CIRCULATION

The casino expansion and hotel to be constructed during Phase II would be developed over parking lot areas constructed during Phase I, thereby reducing the number of parking stalls. An addition of approximately 500 parking stalls would be developed during Phase II on the adjacent fee parcel south of the southern parking lot developed during Phase I. The total net number of parking spaces that would serve the Proposed Project would be 723. The new parking lot would connect to the entrance to the project site on Sharps Road, and access to the project site would not change from Phase I to Phase II.

WATER SUPPLY

Total water supply needs for complete build-out of the Proposed Project are estimated as follows:

- Estimated Average Annual Demand: 40,000 gpd; and
- Fire Flow and Storage Requirements: 1,500 gpm at a 4 hour duration which equates to 360,000 gallons of storage (**Appendix H**).

The Tribe proposes to utilize the City's municipal water service to supply the casino expansion and hotel. Connection to City water would be established during Phase I with capacity to meet the water demands of Phase II.

WASTEWATER TREATMENT AND DISPOSAL

Wastewater disposal needs complete build-out of the Proposed Project are estimated as follows:

- Average daily flow: 33,000 gpd; and
- Peak day flow: 66,000 gpd (**Appendix H**).

The Tribe proposes to utilize the City's sewer service to serve the casino expansion and hotel. Connection to the City sewer system would be established during Phase I with capacity to meet the water demands of Phase II.

UTILITIES AND SERVICES

Connection of the project site to the PacifiCorp power grid and subsequent service would be established during Phase I with the capacity to provide for the power supply demands of Phase II. Similarly, service from a propane supplier and the Yreka Transfer Company would be established during Phase I, and services would be expanded as needed to support the facilities developed during Phase II.

GRADING AND DRAINAGE

Due to the nature of the project site and Proposed Project, mass grading of the site would be accomplished during Phase I. Excavated material from the trust parcel would be placed on the fee parcel during Phase I. It is anticipated that the site earthwork would be near balanced. Grading on the trust parcel during Phase II would be limited to the casino expansion and hotel buildings' footprints and the areas adjacent to the buildings to adjust the site for building access and parking. The majority of the site grading for Phase II would be on the fee parcel and would include construction of required parking and storm drainage facilities. The preliminary grading plan in Attachment C of **Appendix C** indicates the approximate limits of excavation and grading for the site. Cut and fill slopes were developed using 2:1 max slopes. Cut and fill slopes for the parking area on the fee parcel would range from 10 to 20 feet vertically. Estimated earthwork volumes associated with construction of Phase II are included in **Table 2-5**.

TABLE 2-5
NET EARTHWORK VOLUMES PHASE II BUILD OUT

	Earth (cubic yards)
Excavation Volume	184,000
Fill Volume	184,000
Net Difference	**0**

The existing stormwater drainage patterns were discussed in **Section 2.3**. Similar to Phase I, construction of Phase II will require a SWPPP.

The facilities developed during Phase II would be constructed such that storm drainage remains on site and does not exceed flows from a 10 minute duration and a 10 year event (Phase II Q = 23.59 cfs). The stormwater detention facilities that would be constructed during Phase I of the Proposed Project would be upgraded or expanded as necessary during construction of Phase II to address the additional stormwater drainage from the additional impervious surfaces developed as a part of Phase II construction. The stormwater detention facilities to be constructed during Phase II would be designed as outlined below:

- Phase II storm detention on-site infrastructure would be designed for a 25-year storm event for a volume of 6,400 cubic feet. Storm drainage would be directed to drainage facilities and routed to detention structures as necessary to meet the above outlined detention volumes. Detention basins would be designed to meet these storage volumes with one foot of freeboard as outlined in the City of Yreka Storm Drainage Design and Evaluation Criteria.
- All drainage from the full build-out footprint would be detained on the trust parcel in detention basins located under the parking area. Discharge from the detention basin would be directed to the existing drainage ditch that bisects the fee parcel.
- All drainage facilities including pipes, curbs, inlets, and swales would be sized for a 10 year, 24 hour storm event.

LIGHTING

External lighting on the proposed casino expansion and hotel facility, including the associated parking lot, would be established similar to that developed during Phase I and would comply with regulations and standards of the CALGreen Code and Section 132(b) of the California Energy Code.

GREEN BUILDING

As with Phase I, Phase II of the Proposed Project is also designed and would also be constructed utilizing green building and performance measures, including compliance with CALGreen provisions for low emitting materials. The building practices would be incorporated into development of the casino expansion and hotel to achieve the same objectives listed for Phase I (refer to **Section 2.4.1**, Green Building).

CONSTRUCTION

Construction of Phase II of the Proposed Project would last approximately 1 year (12 months) and would involve processes similar to those used during Phase I construction, including earthwork and grading, placement of concrete foundations, steel and wood structural framing, electrical and mechanical work, building finishing, and paving. All site clearing and a large portion of the grading and excavation necessary to construct the casino expansion and hotel would be completed during Phase I. The fee parcel would be used to stockpile excess earth excavated during Phase I construction, and a large portion of the stockpiled earth would be used as engineer fill on the fee parcel for the proposed parking lot to be constructed in Phase II. Anticipated grading and excavation equipment are identical to those required for Phase I and listed in **Table 2-6**; it is also anticipated the grading and excavation required for Phase II construction would result in zero excess earth as all would be used as engineered fill. No impact equipment (i.e. pile drive, vibratory hammers, etc.) would be used during construction of Phase II facilities. Any expansion or additions of infrastructure to support facilities constructed during Phase II of the Proposed Project would occur simultaneously with building construction, such that all required infrastructure improvements would be functional before the casino expansion and hotel are opened to the public. All staging areas for construction would be located on trust land within or adjacent to the Phase II development footprint.

TABLE 2-6

PHASE II ANTICIPATED EQUIPMENT NEEDS

Type of Equipment	Number Needed	Length Needed[1]
Site Clear and Grub Process		
Scrappers (11 CY)	3	70 hours
Dozers (300 horse power)	2	9 days
Loaders (5.5 CY)	2	9 days
Dump trucks (20 CY)	6	9 days
Mass Excavation Process		
Hydraulic excavators (1 CY)	3	70 hours
Loaders (5.5 CY)	2	70 hours

Type of Equipment	Number Needed	Length Needed[1]
Dozers (300 horse power)	2	70 hours
Dozer with ripper (410 horse power)	1	70 hours
Dump trucks (20 CY)	10	40 hours
Water Truck	1	5 weeks

CY – Cubic yards
[1] Per each piece of equipment

After detailed plans and specifications are prepared for Phase II of the Proposed Project and all necessary permits and approvals are obtained, a contractor hired by the Tribe would begin construction. All contractual obligations associated with mitigation measures described in **Section 3.0** would be incorporated into executed contracts prior to the start of construction. The key construction activities that would occur during Phase I would also occur during Phase II.

OPERATION

Approximately 50 additional full time equivalent positions would be created to operate the casino expansion and hotel facility developed during Phase II of the Proposed Project. Both the casino and hotel would operate 24 hours per day, 7 days per week.

2.4.3 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

The information contained in this Draft TEIR may be used as the basis for the following Phase I and Phase II project-related approvals:

- Issuance of National Pollutant Discharge Elimination System (NPDES) general construction permit under Section 402 of the Clean Water Act (CWA) for stormwater drainage.
- Issuance of a conditional use permit for construction of a parking lot on the fee parcel.
- Issuance of a grading permit for deposition on the fee parcel of excess fill from the trust parcel.
- Approval by the City of a City Building Permit, Electrical Permit, Impact Permit, Mechanical Permit, and Plumbing Permit for work on the fee parcel.
- Compliance with all aspects of the City Municipal Code Chapter 11.01 Buildings and Construction for work on the fee parcel.

SECTION 3.0

ENVIRONMENTAL ANALYSIS

3.1 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

Section 3.0 of this Draft Tribal Environmental Impact Report (TEIR) describes the existing off-reservation environment, including the appropriate regulatory setting; potential off-reservation environmental impacts attributable to Phases I and II of the Proposed Project and the methodology used to determine such impacts; and mitigation to reduce these impacts where appropriate. This section is divided into 12 subsections, and the topics addressed include:

- Aesthetics;
- Land Use, Population and Housing, and Recreation;
- Air Quality and Greenhouse Gas Emissions;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Water Resources;
- Noise;
- Public Services and Utilities and Service Systems;
- Transportation/Traffic; and
- Growth Inducing and Cumulative Effects.

These topics were identified for analysis on the basis of an Environmental Impact Analysis Checklist (Checklist), which is provided as **Appendix A** of this Draft TEIR. Pursuant to the Draft Tribal-State Gaming Compact (Compact), the Checklist was used to determine that there is no potential for impacts to the following off-reservation environmental resources, and these are therefore not addressed further:

- Agricultural and Forest Resources
- Mineral Resources

According to the Compact, a significant effect on the off-reservation environment occurs if any one of the following conditions exist:

- A proposed project has the potential to degrade the quality of the off-reservation environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals;
- The possible effects on the off-reservation environment of a project are individually limited but cumulatively considerable. As used herein, 'cumulatively considerable' means that the

incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effect of probable future projects; or

- The off-reservation environmental effects of a project will cause substantially adverse effects on human beings, either directly or indirectly.

For each off-reservation environmental resource evaluated in this Draft TEIR, significance criteria have been adopted from the Checklist and incorporated into the off-reservation environmental analysis in each subsection. The cumulative impact analysis in **Section 3.13** is based on the implementation of Phases I and II of the Proposed Project in the context of the maximum potential development through the year 2030.

Mitigation measures are recommended to eliminate or reduce the magnitude of potentially significant off-reservation impacts that may be experienced during construction and/or operation of Phases I and II of the Proposed Project. In cases where no mitigation is available or required, this conclusion is noted. Unless stated otherwise, where multiple mitigation measures are listed, all are necessary to mitigate a potentially significant off-reservation environmental impact.

3.2 AESTHETICS

This section describes existing off-reservation aesthetic setting, evaluates potential off-reservation impacts of the Proposed Project on such settings, and presents mitigation measures to reduce significant off-reservation impacts.

3.2.1 REGULATORY SETTING

STATE SCENIC HIGHWAYS

In 1963, the State Legislature established the California Scenic Highway Program through Senate Bill (SB) 1467, provisions of which were added to the Streets and Highways Code. The goal of the California Scenic Highway Program is to preserve and enhance the natural beauty of California, with scenic highways being designated based upon the amount of natural landscape visible to a passing motorist (Caltrans, 2007). Scenic highway designation does not preclude nearby development; however, the program encourages development that does not degrade the scenic value of the highway corridor (Caltrans, 2008). The California Department of Transportation (Caltrans) identifies Interstate 5 (I-5) as an Eligible State Scenic Highway from its intersection with State Route 3, another Eligible State Scenic Highway located south of the project site, to the Oregon border.

CITY OF YREKA GENERAL PLAN

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation aesthetic resources are as follows:

LU.6.C. Consider views during project review and design, maintaining visual access whenever practical.

LU.6.D. Coordinate development activity on private lands, outside of the City that are part of the Yreka view shed, with Siskiyou County as a function of the interagency review process, with the intent of minimizing impact on the local view shed.

LU.6.E. The City may purchase or require, as dedication during development requests, open space easements for ridgelines and other scenic vistas.

While open space by itself is not necessarily scenic, the General Plan includes the following regarding open space and includes a policy regarding open space that is related to scenic value.

> The mountains which surround the Yreka planning area and the abundance of vacant lands within and adjacent, are a significant open space feature of the community. Their presence provides scenic vistas throughout most of the community and

enhances the feeling of openness. The City is active in development of parks adding to the open space and improving the residential quality of the community. The importance of open space increases as community population grows and the urban character becomes more predominant.

CO.7.A. Encourage the use of Planned Developments wherein public and private open space lands (parks, drainage areas, wildlife habitats, etc.) are set aside for public benefit.

3.2.2 ENVIRONMENTAL SETTING

VISUAL CHARACTER OF THE REGION

The City is set within the Shasta Valley of Siskiyou County (County). Extensive forests, mountainous terrain, and rivers define the region. This has led to the protection of these resources by numerous State and national parks and forestlands, including the Klamath and Shasta-Trinity National Forests that include Mount Shasta, Modoc Lava Beds National Monuments, and the Marble Mountains and Salmon-Trinity Wilderness areas. Characteristic visual resources include views of mountains, forested slopes, rivers, agricultural lands, and wildlife. Residents appreciate these visual resources for the natural amenities they provide to their communities and for their aesthetic appeal to the tourists that support the local economy. Scenic resources that have been identified in the City and surrounding area consist of the views of the local vistas. Caltrans has not identified any specific scenic viewpoints along either I-5 or State Route 3 in the vicinity of the project site (Caltrans, 2012).

VISUAL CHARACTER OF THE OFF-RESERVATION ENVIRONMENT

The immediate areas adjacent to the Tribe's trust parcel consist of open space with nonnative grassland and ruderal areas with industrial uses. The Charlie Byrd Youth Corrections Center/Juvenile Probation building, the Waiiaka Trailer Haven Recreational Vehicle (RV) Park, and a baseball diamond equipped with lights for nighttime play are located west of the project site along Sharps Road. Further west along Fairlane Road (Old U.S. Route 99) is a commercial strip consisting of light industrial uses (e.g. tire shop, muffler repair). The Siskiyou County Fairgrounds, which has parking areas and exhibit hall, is south of Sharps Road. Residential uses near the project site are to the east.

North of Sharps Road and south of E. Oberlin Road, the area between Fairlane Road (Old U.S. 99) and the project site is divided by the north-south drainage of Yreka Creek. There are a number of large trees and willows located along the drainage; the thickness and height of the large trees and willows completely blocks views of the project site from I-5 in some places.

Figure 3.2-1 provides characteristic views of the project site and surroundings. Portions of the fee parcel have been previously graded, and few trees are present (**Figure 3.2-1, Photo 1**). Presently, the Tribe is

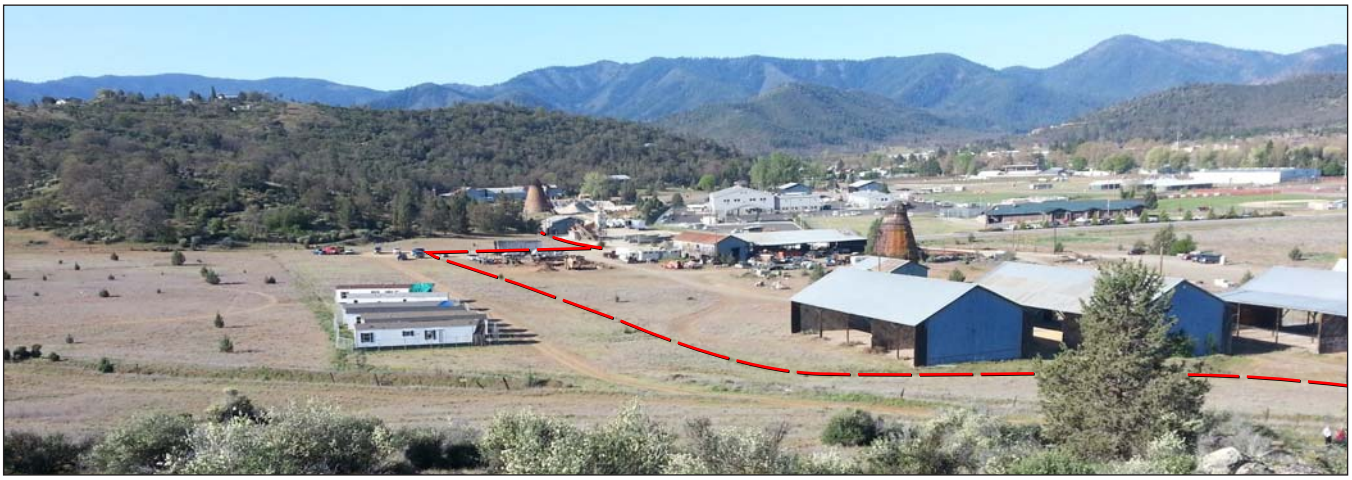


PHOTO 1: View to the south of the fee parcel from the Trust parcel; red line indicates project site boundary.

PHOTO 2: View to the north along the western boundary of the project site from the eastern terminus of Sharps Road; red line indicates project site boundary.

PHOTO 3: View to the west of Sharps Road from the western boundary of the project site; red line indicates project site boundary.

SOURCE: AES, 2013

Figure 3.2-1
Site Photographs

storing a few unused mobile homes on the fee parcel. The project site is located near the existing commercial development along Sharps Road (**Figure 3.2-1, Photos 2** and **3**).

The Proposed Project would be accessed from I-5 at Moonlit Oaks Avenue, which is south of the project site. Approaching from the south, the project site does not become visible to motorists until their vehicles are on Sharps Road. Approaching from the north on I-5, the project site may be glimpsed between various buildings and the trees of Yreka Creek. Views of the project site become unobstructed only as the site is approached from Sharps Road and Oberlin Road. Views from I-5 in the area consist of commercial development, residences, and forested hillsides to both the east and west.

SHADOW, LIGHT, AND GLARE

The fee parcel of the project site is located in a designated industrial area of the City. The existing nighttime environment in the vicinity of the project site is dominated by security lighting from the various buildings, parking lots, and storage areas. Lighting from RVs using the Waiiaka Trailer Haven RV Park form localized light pools as do the residences located to the east. The most significant source of nighttime lighting and glare is direct and indirect lighting from the baseball field during evening use.

3.2.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section I of the Checklist (**Appendix A**) and have therefore been used in this section to evaluate the potential off-reservation impacts of Phases I and II of the Proposed Project with respect to off-reservation aesthetics. An impact is considered significant if it would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage off-reservation scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views of historic buildings or views in the area.

METHODOLOGY

The evaluation of potential impacts to off-reservation aesthetics consisted of the following:

- Field observation;
- Photographic documentation;
- Review of site plans and renderings; and
- Analysis of regulations that apply to off-reservation aesthetic resources. Off-Reservation Impacts of the Proposed Project

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact
3.2.1 The Proposed Project would not have a substantial adverse effect on a scenic vista.

While I-5 is eligible for designation as a scenic highway, there are no designated scenic vistas along I-5 as it traverses through the City. Accordingly, implementation of Phases I and II of the Proposed Project would result in no impact to designated scenic vistas.

Impact
3.2.2 The Proposed Project would not substantially damage off-reservation scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings adjacent to a state scenic highway.

A majority of the fee parcel within the full-build out development footprint of the Proposed Project has previously been graded and/or disturbed during wildland fire suppression measures and to serve as parking for local businesses along Sharps Road. There are no historic buildings or rock outcroppings located on the fee parcel. The portion of development on the fee parcel for Phases I and II would require the removal of no more than 30 trees. The full build-out development footprint on the fee parcel is approximately 7 acres, which leaves more than 80 percent of the 50-acre fee parcel as undeveloped open space.

The proposed design of Phases I and II of the Proposed Project is consistent with other local commercial facilities along the I-5 corridor. As discussed in **Section 2.4**, architectural themes, building materials, and colors used for the construction of Phases I and II of the Proposed Project would reflect the northern California setting, including the existing landscaping, neighboring properties, and local architectural aesthetics and design themes. All planting and irrigation designs would be developed for Phases I and II of the Proposed Project by a landscape architect familiar with local native vegetation. Landscaping will be used to tie the aesthetics of the Proposed Project to the surrounding natural environment. The implementation of Phases I and II of the Proposed Project would result in a less than significant impact to off-reservation scenic resources.

Impact
3.2.3 Although the Proposed Project would add additional sources of lighting to the commercial area, it would not adversely affect day or nighttime views of historic buildings or views in the area.

There are no historic buildings in the vicinity of the project site (refer to **Section 3.12**), and therefore lighting associated with the Proposed Project would not adversely affect day or nighttime views of historic buildings.

The exterior lighting of the Proposed Project would increase off-reservation nighttime illumination. However, this lighting would be consistent with the existing facilities in the vicinity of the project site. As discussed in **Section 3.2.2**, existing lighting includes security lighting from the various buildings and storage areas, parking lot lighting, and individualized lighting from the RV park and residences. The baseball field and Siskiyou County Fairgrounds contribute a substantial amount of direct and indirect lighting when operated during the evening. Nighttime lighting directly related to the buildings developed during Phases I and II of the Proposed Project would consist of landscape lighting, wall/building mounted lighting, and other similar lighting used to highlight the casino and hotel with minimal impact to surrounding receptors. As discussed in **Section 2.4**, the Tribe would shield exterior luminaires or provide cutoff luminaires per Section 132 (b) of the California Energy Code, contain interior lighting within each source, allow no more than 0.01 horizontal foot candles to escape 15 feet beyond the site boundary, and automatically control exterior lighting from dusk to dawn to turn off or lower light levels. With the incorporation of the required lighting design conditions and development within an existing commercial corridor with existing nighttime lighting, lighting associated with the Proposed Project (Phases I and II) would not adversely affect day or nighttime views in the area, resulting in a less than significant impact.

3.3 LAND USE, POPULATION AND HOUSING, AND RECREATION

This section describes existing off-reservation land use, population and housing, and recreation settings; evaluates potential off-reservation impacts of the Proposed Project on such settings; and presents mitigation measures to reduce significant off-reservation impacts.

3.3.1 REGULATORY SETTING

CITY OF YREKA GENERAL PLAN

The City of Yreka (City) General Plan (General Plan) adopted in 2003 is the guiding document for development in the City. The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation land use, population and housing, and recreation and parks are as follows:

L.U.2.D The City shall provide a land use designation for all land within its Sphere of Influence, and may provide a designation for lands outside the Sphere of Influence, but that could have an impact on the future development of the City.

L.U.3.D The City shall discourage the extension of services outside of the City limits. Following the adoption of the General Plan, the City shall establish procedures for the review of such requests. Typical findings for extending services may be based on jobs, public health, and safety, etc.

L.U.4.C The City shall review new projects to determine if final design is compatible with the surrounding neighborhood.

L.U.5.G The City may require buffers between dissimilar land uses, and between open space, sensitive environmental areas, sensitive biological resources, adjacent to streams and wetlands or agriculture and urban development. Buffers may include solid barriers, additional setbacks, redesign, or other means to protect it in the short-term until the appropriate time for development.

L.U.8.D The City may restrict or prohibit residential development next to industrially designated or developed land to avoid conflict. The City may also increase setbacks to avoid conflict as a function of the development process.

L.U.10.A Avoid development which results in land use incompatibility. Specifically, avoid locating objectionable land uses within residential neighborhoods and protect areas designated for existing and future industrial uses from encroachment by sensitive uses.

L.U.10.E The City shall incorporate design buffers between potentially incompatible land uses and may restrict new uses from compromising existing businesses from operations.

H.E.2.D Maintain community character through review of standards in the zoning ordinance for permitted uses which will help to insure compatibility with adjacent uses.

3.3.2 ENVIRONMENTAL SETTING

LAND USE

Character of Region

The project site is located in Siskiyou County (County) within the City limits along the Interstate 5 (I-5) corridor, approximately 20 miles south of the California/Oregon border. Forests, mountainous terrain, and rivers characterize this region. The City is surrounded by both public and private lands in addition to the Klamath National Forest. Shasta Valley is located to the east of the City, and Kilgore Hills is located to the southeast. Within the County, land is set aside as State and national parks and forestlands, including the Klamath National Forest and Shasta-Trinity National Forest. These national forests and other public parks create diverse and scattered recreation activities throughout the County.

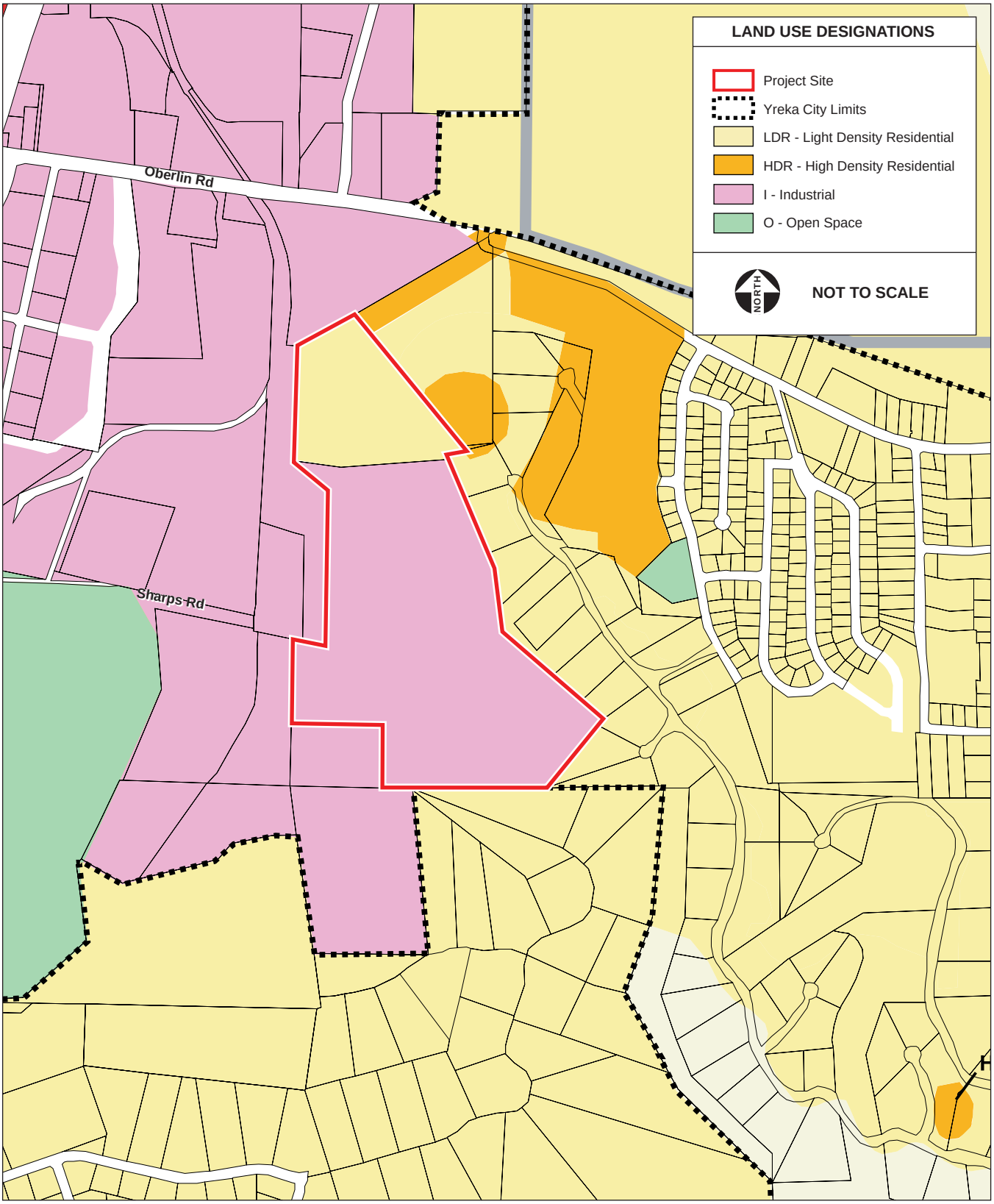
As a result of the widespread national forest lands, communities are limited to scattered cities and towns along the region's major highways, including I-5. The City is the largest community within the County, with a population of 7,765. The City of Mount Shasta is the second largest community, with a population of 3,394, and is located approximately 38 miles to the south. The City of Weed, population 2,967, is the third largest population center and is located approximately 29 miles to the south. Other communities in the region include Dunsmuir, population 1,650 and located approximately 46 miles to the south, and Montague, population 1,443 and located approximately 6 miles to the east (Department of Finance, 2010).

Land Use Designation

Figure 3.3-1 shows the land use designations for the project site and surrounding area. These land uses include Industrial, Low Density Residential (LDR), High Density Residential (HDR), and Open Space. The Tribe's fee parcel, which is within the jurisdiction of the City, is designated as Industrial land use. The General Plan describes the Industrial designation as follows:

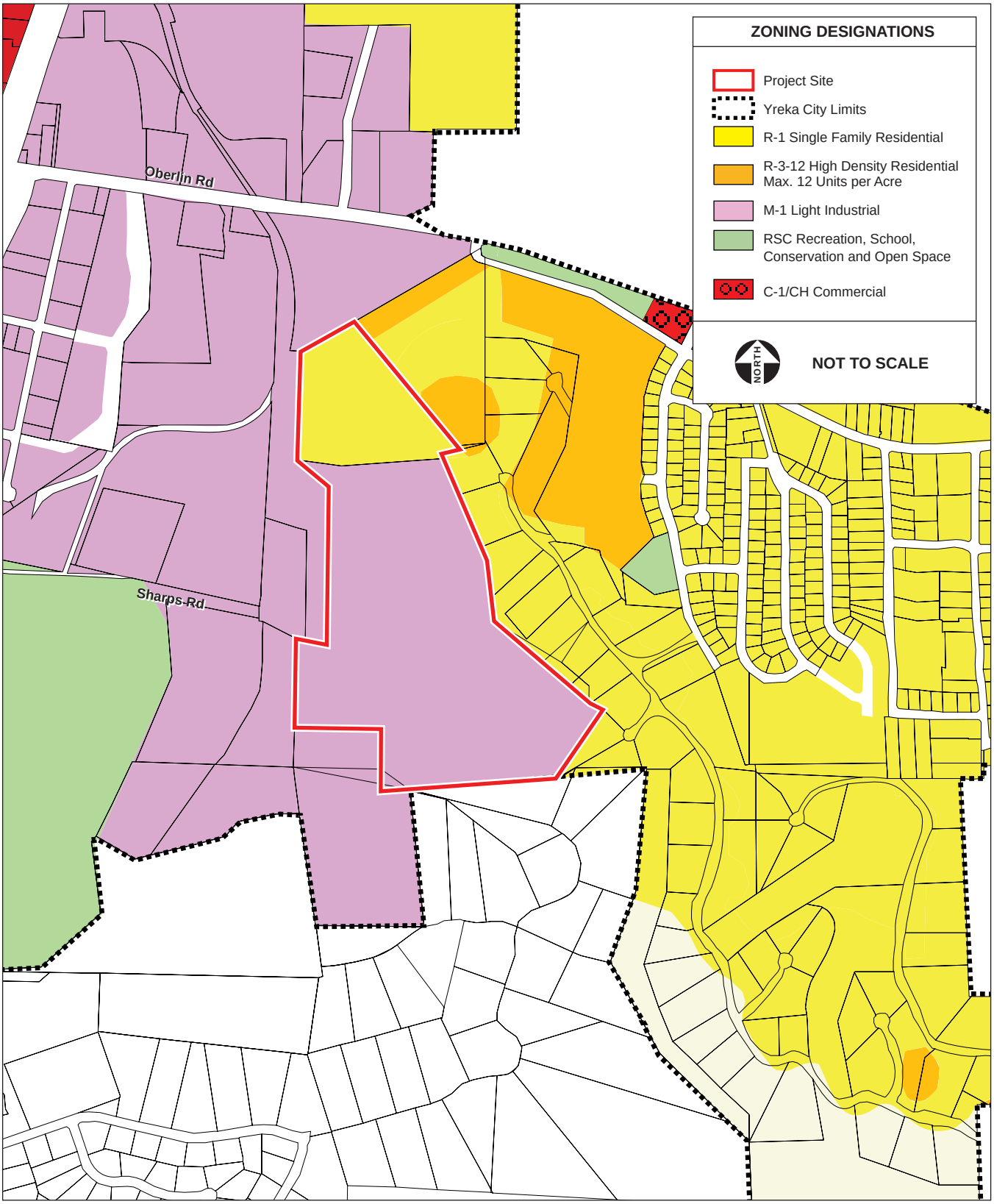
> The manufacture, production, and processing of consumer goods. Industrial is divided into heavy industrial uses such as such as construction yards, quarrying, and factories; and light industrial uses, such as research and development and less intensive warehouse manufacturing.
>
> The typical uses in this Industrial designation include lumber mills, asphalt plants, and manufacturers of product designed predominantly for sale off site.

The City zoning code designates the fee parcel of the project site as Light Industrial (M-1) (**Figure 3.3-2**). The City Zoning Ordinance describes Light Industrial (M-1) use as follows:



SOURCE: City of Yreka General Plan, December 18, 2003; AES 2013

Figure 3.3-1
City of Yreka General Plan Land Use Designations



SOURCE: City of Yreka Zoning Map, 2/19/2004; AES 2013

Figure 3.3-2
City of Yreka Zoning Designations

This M-1 zone district is intended to serve as the light industrial district, permitting light industrial and manufacturing uses which are not objectionable to the neighborhood and allow certain types of commercial land uses. Such uses may include manufacture of electronics and consumer goods, food processing, laboratories, machine shops, tire shops, truck terminal and repair stations, storage warehouses, welding shops and fuel yards.

The following uses are permitted under M-1 upon approval and validation of a conditional use permit:

- All uses in a C-2 or CH zone requiring a conditional use permit including: parking lots, mortuaries, and museums (refer to § 16.34.070)
- Kennels
- Buildings and structures over forty-five (45) feet in height
- Light industrial and manufacturing uses which do not meet the requirements of § 16.40.050.

Existing land uses surrounding the project site include light industrial, single-family residential, and undeveloped lands. Light industrial development along Oberlin Road and I-5, to the west and north of the project site, includes Dunn Automotive, L & M Rentals and Equipment, JB Oberlin Storage, and various offices. Land use immediately west of the project site includes property operated by the County Road Department, Mountain Ready Mix Concrete, and other industrial businesses. The Charlie Byrd Youth Corrections Center/Juvenile Probation building, a baseball field, the Waiiaka Mobile Home Park, and the Siskiyou County Fairgrounds are located within 0.1 to 0.3 mile to the west of the project site along Sharps Road. Located to the east and south of the project site are undeveloped lands and single-family residences. All single-family residences immediately adjacent to the project site are on Tribal fee lands. The Yreka Estates housing development, located 0.2 mile to the east of the project site, is the nearest non-Tribal housing development.

Habitat and Natural Community Conservation Plans

The Fruit Growers Supply Company Multi-Species Habitat Conservation Plan (HCP) dated March 2012 covers three management units within the County: Klamath River, Scott Valley, and Grass Lake. The total area covered in this HCP is 152,178 acres owned by Fruit Growers Supply Company. The Scott Valley management unit is the closest to the project site and is located approximately 20 miles southwest of the City. There are no Natural Community Conservation Plans that would guide the land use in the vicinity of the project site (CH2M Hill, 2012).

POPULATION

Table 3.3-1 identifies population estimates for the City, the County, and the State in 2000 and 2010. The City had a population of 7,765 in April of 2010, and the County population was 44,900 (Department of Finance, 2010). Over the 10-year period from 2000 to 2010, the population of the City grew at an

approximate rate of 0.7 percent per year, and the population of the County increased at a rate of 0.1 percent per year. These rates are both less than the State average.

TABLE 3.3-1
REGIONAL POPULATION

Location	2000[1]	2010[1]	Trend (% change per year)	Current Unemployment[2]
Yreka	7,290	7,765	+0.7	10.2%
Siskiyou County	44,301	44,900	+0.1	11.5%
California	33,871,648	37,253,956	+1.0	9.3%

SOURCE: [1]Department of Finance, 2010.
[2]EDD, 2013. Percentages represent July 2013 data.

HOUSING

Table 3.3-2 identifies housing estimates for the City, the County, and the State in 2000 and 2010. In April of 2010, there were 3,675 housing units in the City and 23,910 housing units in the County, with vacancy rates of approximately 8 percent and 18 percent, respectively. Over the 10-year period from 2000 to 2010, the housing supply of the City increased 0.8 percent, and the County housing supply increased 0.9 percent. These rates are both less than the increase of 1.2 percent for the State. Vacancy rates in the City increased on an average of 3.3 percent per year between 2000 and 2010, and the County vacancy rates increased 1.9 percent per year; these trends are similar to the State's increase in housing vacancies of an average of 4 percent per year between 2000 and 2010.

TABLE 3.3-2
REGIONAL HOUSING

Location	2000		2010		Trend (% change per year)	
	Total Units	Vacant (%)	Total Units	Vacant (%)	Total Units	Vacant
Yreka	3,303	5.7	3,675	7.6	+0.8%	+3.3%
Siskiyou County	21,947	15.5	23,910	18.4	+0.9%	+1.9%
California	12,214,549	5.8	13,680,081	8.1	+1.2%	+4.0%

SOURCE: Department of Finance, 2010.

RECREATION

Recreation and tourism are among the largest industries in the City and County. With the presence of ancient redwood forests and other unique, natural landscapes, various federal, State, and County parks and recreational facilities are located throughout the region. Within the Klamath National Forest and the Shasta-Trinity National Forest are Mount Shasta, Modoc Lava Beds National Monuments, Tulelake and Lower Klamath Wildlife refuges, and the Marble Mountain and Salmon Trinity Alps wilderness areas-all of which are popular recreational areas. The City itself has many recreational parks including Greenhorn Park, Miner Street Park, Native American Heritage Park, Newton Sports Park, Ringe Park & Pool, Shasta Avenue Park, and the Yreka Creek Greenway. The closest facility is the Yreka Creek Greenway located

approximately 0.4 mile northwest of the project site. These facilities are listed and described in **Table 3.3-3**.

TABLE 3.3-3
YREKA AND SISKIYOU AREA RECREATIONAL FACILITIES

Recreational Site	Responsible Agency	Features/Types of Use
Mount Shasta	National Forest	Day use, hiking, lake access
Yreka Creek Greenway	City	Hiking, biking
Modoc Lava Beds National Monument	National Parks Service	Day use
Lower Klamath Wildlife Refuge	National Wildlife Refuge (USFWS)	Day use
Marble Mtn Wilderness Area	County	River access, day use, fishing
Tule Lake Wildlife Refuge	National Wildlife Refuge (USFWS)	Day use
Greenhorn Park	City	Hiking, fishing, boating, sports
Miner Street Park	City	Day use, sports
Native American Heritage Park	City	Day use
Newton Sports Park	City	Sports
Ringe Park and Pool	City	Sports, swimming
Shasta Avenue Park	City	Day use, sports
Trinity Alps Wilderness Area	County	Day use

SOURCE: Siskiyou County Online, 2013a; Siskiyou County Online, 2013b; Yreka, 2013c.

3.3.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section IX (Land Use), Section XII (Population and Housing), and Sections XIII and XIV (Recreation and Parks) of the Checklist (**Appendix A**) and have been used in this section to evaluate the potential off-reservation impacts of Phases I and II of the Proposed Project on City land use, population and housing, and recreation and parks. Such an impact is considered significant if it would:

- Conflict with any off-reservation land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect;
- Conflict with any applicable habitat conservation plan or natural community conservation plan covering off-reservation lands;
- Induce substantial off-reservation population growth;
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere off-reservation; or
- Increase the use of existing off-reservation neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

METHODOLOGY

The impact analysis compares existing conditions described above to foreseeable changes to existing conditions that would likely result from implementation of the Proposed Project. The evaluation of off-reservation environmental impacts in this section consisted of the following:

- Field observations;
- Review of planning documents; and
- Review of site plans for, and infrastructure improvements associated with, the Proposed Project.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact
3.3.1 The Proposed Project would not conflict with any off-reservation land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect.

The casino and hotel would be built and operated entirely on the trust parcel for which the General Plan land use and zoning designations do not apply. The facilities would be adjacent to off-reservation lands designated for Industrial use, HDR use, and LDR use under the General Plan. Construction of the Proposed Project on the trust parcel would not influence or affect any off-reservation land use plan, policy, or regulation.

The proposed development of parking lots on the fee parcel during Phases I and II would be consistent with the General Plan designation of Light Industrial (M-1) for the area. The proposed parking lot use is also consistent with the adjacent land uses located to the west and south as those lands are also in the M-1 zoning designation.

In order to maintain zoning consistency, the Tribe may be required to apply for a Conditional Use Permit (CUP) for development on the fee parcel and would comply with all provisions. The Tribe will also obtain all necessary grading, paving, and related permits from the City prior to construction of Phases I and II on the fee parcel. The approval and validation of a CUP and other City permits will require compliance with the provisions of CEQA, which will reduce impacts to land use plans associated with the development on the fee parcel to a less than significant level.

Impact
3.3.2 The Proposed Project would not conflict with any applicable habitat conservation plan or natural communities conservation plan covering off-reservation lands.

Currently, there are no natural community conservation plans in effect within the vicinity of the project site. With the nearest HCP designated area greater than 20 miles south of the project site,

the Proposed Project would have a less than significant effect on the implementation of the off-reservation HCP.

Impact

3.3.3 The Proposed Project would not necessitate the construction of off-reservation housing because the Proposed Project would not displace any existing housing nor induce substantial off-reservation population growth.

There are no houses on the project site, and therefore implementation of Phases I and II of the Proposed Project would not displace existing housing.

Phase I of the Proposed Project is anticipated to generate approximately 350 new jobs, and Phase II is anticipated to generate an approximate additional 50 new jobs. As of July 2013, the unemployment rate of the City was 10.2 percent, which indicates approximately 800 people are unemployed and seeking work (EDD, 2013). Therefore, there are more than enough people currently residing in the City who could fill the full-time-equivalent positions. In addition, the unemployment rate of the County was 11.5 percent in July 2013, indicating over 5,000 people are unemployed and seeking work throughout the County (EDD, 2013). Residents from nearby cities, such as Montague, Weed, and Mount Shasta, could fill the full-time-equivalent positions and would therefore not require housing within the City. Lastly, housing in the City had a vacancy rate of 7.6 percent in 2010, which equates to approximately 279 vacant residences. If some portion of the work force for Phase I and/or Phase II of the Proposed Project was obtained from outside of the region, there are enough vacant residences to accommodate people needing to relocate to the City. Operation of Phases I and II of the Proposed Project would therefore not induce substantial off-reservation population growth that would necessitate the construction of off-reservation housing; the impact would be less than significant.

Impact

3.3.4 The Proposed Project would likely increase the use of existing off-reservation neighborhood and regional parks or other recreational facilities; however, increased use would not be to the extent that substantial physical deterioration of a facility would occur or be accelerated.

The implementation of the Proposed Project would provide new entertainment (Phase I) and lodging space (Phase II) within a community that relies on tourism for economic health. While the hotel and casino may draw patrons that would otherwise not tour the region, it is anticipated that a majority of patronage for both phases of the Proposed Project would be from tourists who would visit the regional recreational facilities, regardless of the development of either phase of the Proposed Project. In addition, any increase in patronage of the regional recreational facilities associated with Phases I and II of the Proposed Project would result in a beneficial impact by increasing expenditures within the local economy providing more funds to maintain and expand

recreational facilities within the City and County. Accordingly, implementation of both phases of the Proposed Project would result in a less than significant impact to the physical conditions of off-reservation recreational facilities.

3.4 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This section describes the existing off-reservation environment associated with air quality, evaluates potential impacts of the Proposed Project on off-reservation air quality, and presents mitigation measures to reduce significant off-reservation impacts.

Also included within this section is a discussion of climate change. A discussion of the federal, State, and local regulatory setting is provided followed by a discussion of the air quality setting as it relates to climate change. Impacts of the Proposed Project in relation to climate change are discussed in the cumulative analysis in **Section 3.13** of this Draft TEIR.

3.4.1 REGULATORY SETTING

FEDERAL

The Federal Clean Air Act (CAA) was enacted in 1970 and last amended in 1990 (42 USC §7401, *et seq*.) for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. The CAA establishes a framework for national, State, and local air pollution control efforts. Basic components of the CAA and its amendments include national ambient air quality standards (NAAQS) for criteria air pollutants (CAPs), requirements for State Implementation Plans (SIPs) to meet the NAAQS, motor vehicle emissions standards, stationary source emissions standards and permits, and enforcement provisions. The United States (U.S.) Environmental Protection Agency (USEPA) is the federal agency responsible for establishing the NAAQS, overseeing state air programs as they relate to the CAA, approving SIPs, and setting emissions standards for mobile sources under federal jurisdiction.

National Ambient Air Quality Standards

In 1971, the USEPA, under authority of the CAA, developed primary and secondary NAAQS. The primary NAAQS were established to protect public health with an adequate margin of safety, whereas the secondary standards were established to protect public welfare from known or anticipated adverse effects (aesthetics, crops, architecture, etc.) (42 USC §7409[b]). The USEPA designated six pollutants of primary concern as CAPs: carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone, lead (Pb), and particulate matter (PM). The NAAQS are time-averaged maximum ambient air concentrations. For various CAPs, more than one time-averaged maximum concentration has been established by the USEPA in order to address the typical exposures of the population from natural and anthropogenic sources in the environment. Concentrations above these time-averaged maximum concentrations are anticipated to cause adverse health effects to sensitive receptors (defined below). The violation criteria established by the USEPA are based on these time-averaged maximum concentrations specific to each CAP. For example, the NAAQS for ozone must be exceeded on more than three days in three consecutive years in order to constitute a violation. On the other hand, if the NAAQS for CO are

exceeded on more than one day in any given year, a violation has occurred. **Table 3.4-1** presents the violation criteria and the various averaging times of the NAAQS for each CAP.

TABLE 3.4-1
NAAQS AND ASSOCIATED VIOLATION CRITERIA

Pollutants	Averaging Times	Primary		Violation Criteria
		ppm	$\mu g/m^3$	
Ozone	8 hours	0.75	157	The 3-year average of the annual 4th highest daily 8-hour maximum is not to be above 0.075 $\mu g/m^3$
Carbon Monoxide	8 hours	9	10,000	If exceeded on more than 1 day per year
	1 hour	35	40,000	If exceeded on more than 1 day per year
Nitrogen Dioxide	Annual average	0.053	-	Not to be above 0.053 ppm in a calendar year.
	1 hour	0.100	-	The 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor is not above 0.100 ppm.
Sulfur Dioxide	Annual average	0.03	-	Not to be above 0.03 ppm in a calendar year.
	24 hours	0.14	-	If exceeded on more than 1 day per year
PM_{10}	24 hours	-	150	Not to be above 150 $\mu g/m^3$ on more than three days over three years with daily sampling
$PM_{2.5}$	Annual arithmetic mean	N-	15	The 3-year average from a community-oriented monitor is not above 15 $\mu g/m^3$.
	24 hours	-	35	The 3-year average of the 98th percentile for each population-oriented monitor within an area is not above 35 $\mu g/m^3$.
Lead	Rolling –Month Average	-	0.15	Not to be above 0.15 $\mu g/m^3$.
	Quarterly Average	-	1.5	-

Note 1-hour NO_2 standard was implemented in January 2011.
PM_{10} = particulate matter 10 microns in size;
$PM_{2.5}$ = particulate matter 2.5 microns in size.
SOURCE: CARB, 2011.

Attainment Status

To determine conformance with the NAAQS, states are responsible for providing ambient air monitoring data to the USEPA. The USEPA then determines, using the violation criteria, if the results of the monitoring data indicate compliance with the NAAQS. The USEPA classifies areas in compliance with the NAAQS as being in "attainment." Areas that do not meet the NAAQS are classified as being in "nonattainment" by the USEPA.

In accordance with the CAA, a state with nonattainment areas for CAPs within its borders must implement programs and procedures to reach attainment of the NAAQS by a specific timeline as designated by the USEPA. The compilation of these programs and procedures is the SIP. The SIP is not a single document, but a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), regional rules, State regulations, and federal controls. SIPs may include control strategies, such as emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. The SIP is not required to address areas designated as nonattainment for particulate matter.

Federal General Conformity

Title 40, Part 93 of the Code of Federal Regulations (CFR) was promulgated in order to determine conformity of federal actions to the applicable SIP. A lead agency must make a determination that a federal action conforms to the applicable implementation plan within the applicable SIP before the action is taken. A conformity determination is required for each pollutant where a total of direct and indirect emissions of CAPs in a nonattainment or maintenance area caused by the federal action are greater than *de minimis* thresholds as listed in 40 CFR 93.153(b).

The thresholds established in the general conformity rule provide simple and direct guidance for federal agencies to ensure they comply with an approved SIP. The general conformity rule includes a procedure for determining whether the rule is applicable to the actions of a federal agency. The procedure has two phases:

- The Conformity Review process, which entails a review of each analyzed alternative to assess whether a full conformity determination is necessary, and
- The Conformity Determination process, which demonstrates how an action would conform to the applicable SIP.

The first step compares emissions estimates for a project to the appropriate general conformity *de minimis* threshold based on nonattainment type. If the emission estimate from step one is below the thresholds, then a general conformity determination is not necessary and step two is not required. Although implementation of the Proposed Project does not include a federal action, Federal General Conformity is incorporated into the discussion of significance thresholds in **Section 3.4.3**.

Federal Hazardous Air Pollutant Program

Title III of the CAA requires the USEPA to promulgate National Emissions Standards for Hazardous Air Pollutants (NESHAPs). Hazardous air pollutants (HAPs) are pollutants known or suspected to cause cancer or other serious health effects, such as reproductive effects, birth defects, or adverse environmental effects; examples include beryllium, mercury, and arsenic. The NESHAPs may differ between regional sources and area sources. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other

sources are considered area sources. The emissions standards were promulgated in two phases. In the first phase (1992–2000), the USEPA developed technology-based emission standards designed to produce the maximum emission reduction achievable for major sources. For area sources, the standards were based on generally available control technology. In the second phase (2001–2008), the USEPA promulgated health risk–based emissions standards necessary to address risks remaining after implementation of the technology-based NESHAP standards.

In addition to standards for stationary sources of HAPs, the CAA also requires the USEPA to promulgate vehicle or fuel standards to include reasonable controls for toxic emissions, addressing benzene and formaldehyde at a minimum. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAA requires the use of reformulated gasoline in selected U.S. cities (those with the most severe ozone nonattainment conditions) to further reduce mobile-source emissions. NESHAP regulations are also commonly used to ensure that the emissions of HAPs (such as asbestos) are reduced or eliminated during construction through a permitting process.

STATE AND LOCAL

State and local regulations do not apply to the trust land but do apply to land owned in fee by the Karuk Tribe (Tribe).

California Clean Air Act

The USEPA allows states the option to develop independent standards only if the standards are more stringent than the NAAQS, and California has elected to designate independent ambient air quality standards. In 1988, the State legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. CCAA requirements include annual emission reductions, development and use of low emission vehicles, establishment of the California Ambient Air Quality Standards (CAAQS), and submittal of air quality attainment plans by air districts for incorporation into the California SIP. The California Air Resource Board (CARB) is the State agency responsible for coordinating both State and federal air pollution control programs in California. CARB designated CAAQS for the six federal CAPs and four additional pollutants: vinyl chloride, visibility reducing particles, sulfates, and hydrogen sulfide. **Table 3.4-2** presents the violation criteria of the CAAQS for each CAP.

TABLE 3.4-2
CAAQS AND ASSOCIATED VIOLATION CRITERIA

Pollutant	California
Ozone (1-hour)	0.09 ppm
Ozone (8-hour)	0.07 ppm
PM_{10} (24-hour)	50 µg/m^3
$PM_{2.5}$	-

Pollutant	California
Carbon Monoxide (8-hour)	9.0 ppm
Nitrogen Dioxide (annual)	0.030 ppm
Nitrogen Dioxide (1-hour)[1]	0.18 ppm
Lead (30 day average)	1.5 $\mu g/m^3$
Sulfur Dioxide (24-hour)	0.04 ppm
Visibility Reducing Particles	-
Sulfates	25 $\mu g/m^3$
Vinyl Chloride	0.01 $\mu g/m^3$
Hydrogen Sulfide	0.03 ppm

Note: PM_{10} and $PM_{2.5}$ = particulate matter 10 and 2.5 microns in size,

California SIP

California's SIP is comprised of the State's overall air quality attainment plans to meet the NAAQS as well as the individual air quality attainment plans of each Air Quality Management District (AQMD) and Air Pollution Control District (APCD). The items included in the California SIP are listed in 40 CFR Chapter I, Part 52, Subpart F §52.220. The California SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), AQMD and APCD rules, State regulations, and federal controls for each air basin and California's overall air quality. Many of the items within the California SIP rely on control strategies such as emissions standards for cars and heavy trucks, fuel regulations, and limitations on emissions from consumer products. AQMDs and APCDs, as well other agencies such as the Bureau of Automotive Repair, prepare draft California SIP elements and submit them to CARB for review and approval. The CCAA identifies CARB as the lead agency for compiling items for incorporation into the California SIP and submitting the items to the USEPA for approval.

Toxic Air Contaminants

In addition to California CAPs, Toxic Air Contaminants (TACs) are another group of pollutants regulated under the CCAA. TACs are less pervasive in the urban atmosphere than the CAPs but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are 244 chemicals listed by the State as TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and diesel motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Ambient air quality standards have not been set for TACs. Instead, these pollutants are typically regulated through a technology-based approach for reducing TACs. This approach requires facilities to install Maximum Achievable Control Technology (MACT) on emission sources.

Siskiyou County Air Pollution Control District

The Siskiyou County (County) Air Pollution Control District (SCAPCD) is the responsible air district for regulating off-reservation air quality in the portion of the Northeast Plateau Air Basin (NEPAB) surrounding the project site. The following SCAPCD rules and regulations apply to the off-reservation environment in the vicinity of the project site.

Rule 4-1: Visible Emissions

This Rule provides that visible emissions shall not exceed number 2 on the Ringelmann chart.

Rule 4-1: Nuisance

No person shall discharge from any source whatsoever, such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

Rule 4-5: Particulate Matter

This Rule provides that no person shall discharge from any non-combustion source particulate matter in excess of 0.30 grains per cubic foot of exhaust gas at standard conditions, or in any one hour total quantities in excess of the appropriate emission rate shown in table 1 of the Rule.

Rule 6-1: New Source Site – Construction Permit for Criteria Pollutants

This rule states that the air pollution control officer shall deny a permit request if the project emits greater the 250 pounds per day of an criteria pollutant (except carbon monoxide) or 2,500 pounds per day of carbon monoxide.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). Policies in the General Plan that are relevant to off-reservation air quality resources as described in the Checklist are as follows:

CO.5 Maintain and protect air quality within the City of Yreka at acceptable levels as defined by state and federal standards.

CLIMATE CHANGE

Federal

In 2002, President George W. Bush established a national policy goal of reducing the greenhouse gas (GHG) emission intensity (tons of GHG emissions per million dollars of gross domestic product) of the U.S. economy by 18 percent by 2012. No binding reductions were associated with the goal. Rather, the

USEPA administers a variety of voluntary programs and partnerships with GHG emitters in which the USEPA partners with industries producing and utilizing GHGs to reduce associated emissions.

Clean Air Act

In *Massachusetts et al.* vs. *Environmental Protection Agency et al.* (April 2, 2007), the U.S. Supreme Court ruled that the CAA authorizes the USEPA to regulate CO_2 emissions from new motor vehicles. The U.S. Supreme Court did not mandate that the USEPA enact regulations to reduce GHG emissions but found that the only instances where the USEPA could avoid taking action were if it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change. On December 15, 2009, the USEPA issued a final endangerment and cause finding (74 FR 66496) stating that high atmospheric levels of GHGs "are the unambiguous result of human emissions, and are very likely the cause of the observed increase in average temperatures and other climatic changes." The USEPA further found that "atmospheric concentrations of GHGs endanger public health and welfare within the meaning of Section 202 of the Clean Air Act." The finding itself does not impose any requirements on industry or other entities.

U.S. Environmental Protection Agency

On December 7, 2009, USEPA Administrator Lisa Jackson signed a final action, under Section 202(a) of the CCA, finding that six key well-mixed GHGs constitute a threat to public health and welfare, and the combined emissions from motor vehicles cause and contribute to climate change.

The following are the most recent regulatory actions taken by the USEPA:

- On July 23, 2009, USEPA published a final "rule which proposes to establish the criteria for including sources or sites in a Registry of Recoverable Waste Energy Sources (Registry)," as required by the Energy Independence and Security Act of 2007. Waste energy can be used to produce clean electricity. The clean electricity produced by waste energy would reduce the need for non-renewable forms of electricity production, thus reducing GHG emissions.
- On September 15, 2009, USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) proposed a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the U.S. USEPA proposed the first national GHG emissions standards under the CCA, and NHTSA proposed an increase in the Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act.
- In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161), USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. Signed by the Administrator on September 22, 2009, the rule requires that suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines outside of the light duty sector, and facilities that emit 25,000 metric tons or more of GHGs per year to submit annual reports to USEPA. The rule

is intended to collect accurate and timely emissions data to guide future policy decisions on climate change.

- On September 30, 2009, USEPA proposed new thresholds for GHG emissions that define when CCA permits under the New Source Review and Title V operating permits programs would be required.
- In February 2010, the Council on Environmental Quality (CEQ) Chair released a memorandum titled *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*. The memorandum provides guidance on how project-related GHG emission should be analyzed in NEPA documents. The Draft Guidance provides that a NEPA climate change analysis shall provide quantification and mitigation to reduce GHG emissions. The guidance also provides that 25,000 metric tons of GHG emissions per year may be a helpful guideline to assist lead agencies in making informed decisions on climate change impacts resulting from a project subject to NEPA. The guidance notes that the 25,000 metric tons is not a threshold for evaluating climate change on the project level. The Tribe has not established GHG emissions standards for development on trust lands. While not applicable to Tribal trust lands, the 25,000 metric tons reporting guideline of the USEPA is utilized for the purposes of this analysis to assess the potential for the Proposed Project to significantly impact climate change.

State and Local

California has been a leader among the states in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide GHG emissions in the future. California's climate change strategy is multifaceted and involves a number of state agencies implementing a variety of State laws and policies. A brief summary of these laws and policies is provided below.

Assembly Bill 1493 (AB 1493)

Signed by the Governor in 2002, AB 1493 requires that CARB adopt regulations requiring a reduction in GHG emissions emitted by cars in the state. AB 1493 is intended to apply to 2009 and later vehicles. On June 30, 2009, the USEPA granted a CCA waiver, which the State needs in order to implement AB 1493.

Executive Order S-3-05 (EO S-3-05)

EO S-3-05 was signed by the Governor on June 1, 2005. EO S-3-05 established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010,
- Reduce GHG emissions to 1990 levels by 2020, and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

EO S-3-05 created a "Climate Action Team" (CAT) headed by the California Environmental Protection Agency and including several other State agencies. The CAT is tasked by EO S-3-05 with outlining the

effects of climate change on California and recommending an adaptation plan. The CAT is also tasked with creating a strategy to meet the emission reduction target required by EO S-3-05. In April 2006, the CAT published an initial report that accomplished these two tasks.

Assembly Bill 32 (AB 32)

Signed by the Governor on September 27, 2006, AB 32 codifies a key requirement of EO S-3-05, specifically the requirement to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 tasks CARB with monitoring state sources of GHGs and designing emission reduction measures to comply with the law's emission reduction requirements. However, AB 32 also continues the CAT's efforts to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall State climate policy.

In order to accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that it estimated could be implemented and would serve to meet about a quarter of the required 2020 emissions reductions (CARB, 2007). In order to assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In its October 2007 report, CARB cited the CAT strategies and other existing strategies that may be utilized in achieving the remainder of the emissions reductions. AB 32 requires that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. Consequently, in early December 2008 CARB released its scoping plan to the public, which was approved by CARB on December 12, 2008.

The scoping plan calls for an achievable reduction in California's carbon footprint. Reduction of GHG emissions to 1990 levels are proposed, which equates to cutting approximately 30 percent of emissions estimated for 2020, or approximately 15 percent from today's levels. The scoping plan relies on existing technologies and improving energy efficiency to achieve the 30 percent reduction in GHG emission levels by 2020. The scoping plan provides the following key recommendation to reduce GHG emissions:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable energy mix of 33 percent;
- Developing a statewide cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long term commitment to AB 32 implementation.

Executive Order S-01-07 (EO S-01-07)

EO S-01-07 was signed by the Governor on January 18, 2007. It mandates a statewide goal to reduce the carbon intensity of transportation fuels by at least 10 percent by 2020. This target reduction was identified by CARB as one of the AB 32 early action measures identified in their October 2007 report.

Senate Bill 97 (SB 97)

Signed by the governor on August 24, 2007, SB 97 requires that the Governor's Office of Planning and Research (OPR) prepare California Environmental Quality Act (CEQA) guidelines for evaluating the effects of GHG emissions and for mitigating such effects. The Natural Resources Agency adopted these guidelines in December 2009.

City of Yreka General Plan

The General Plan does not contain any policies or ordinances that are relevant to the off-reservation climate change conditions in the vicinity of the Proposed Project.

3.4.2 ENVIRONMENTAL SETTING

REGIONAL METEOROLOGY

The project site is located in the City, which lies within the NEPAB. The NEPAB extends from Lassen County in the southeast to the Oregon border in the north and includes Siskiyou County and Modoc County. Two major topographic units influence the climate of the NEPAB: the Klamath/Cascade Mountains and the Modoc plateau. The project site is located on the boundary between the Klamath Mountains and the Modoc plateau.

AIR POLLUTANTS OF CONCERN

Air pollutants of concern for an air basin include CAPs that are currently listed as having a nonattainment or maintenance status according to the applicable NAAQS or CAAQS and violation criteria. As shown in **Table 3.4-3**, the USEPA and the California Environmental Protection Agency have designated the NEPAB as unclassified or attainment for all CAPs.

TABLE 3.4-3
ATTAINMENT STATUS

Pollutant	NAAQS	CAAQS
O_3, 8-hour	Unclassified/Attainment	Attainment
O_3 1-hour	N/A	Attainment
PM_{10}	Unclassified	Attainment
$PM_{2.5}$	Unclassified/Attainment	Attainment

Pollutant	NAAQS	CAAQS
CO	Unclassified/Attainment	Unclassified
N_2O	Unclassified/Attainment	Attainment
SO_2	Unclassified	Attainment
Pb	Unclassified/Attainment	Attainment
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Visible Reducing Particles	N/A	Unclassified

SOURCE: CARB, 2012.

Toxic Air Contaminants

One of the most controversial TACs is diesel particulate matter (DPM), which accounts for over 70 percent of the health risk from TACs exposures within the state (CARB, 2010). DPM differs from many other TACs in that it is not a single substance, but rather a complex mixture of air pollutants, composed of gaseous and solid material from the combustion of diesel fuels. The visible emissions in diesel exhaust include particulate matter and carbon particles or "soot." Due to the controversy surrounding DPM, an assessment of the potential off-reservation impacts of DPM releases associated with the Proposed Project has been included in **Section 3.4.3**.

Carbon Monoxide

CO is readily dispersed throughout the atmosphere once emitted and is therefore a localized air quality issue close to the emission source. Carbon monoxide is an acute (short-term) health threat. Although the NEPAB is classified by the USEPA as being in attainment for the NAAQS, CO is a pollutant that has the potential to build up in high concentrations at major intersections with prolonged vehicle idling times. Currently, no intersection in the study area has prolonged idling time that would result in high concentrations of CO (**Appendix F**).

ODOR

While odors rarely cause any physical harm, they can be unpleasant and can lead to considerable distress among the public. No requirements for odor control are included in federal or State air quality regulations. Local air districts typically do not establish rules or standards related to odor emissions.

Types of operations that are typically evaluated for odor concerns include waste processing and heavy industrial facilities such as wastewater treatment plants (WWTPs), landfills and composting facilities, chemical manufacturing, and confined animal facilities. The project site does not include any sources that are associated with odors.

SENSITIVE RECEPTORS

Variables that may contribute to a greater-than-average sensitivity to air pollution include pre-existing health problems, proximity to an emissions source, and duration of exposure to air pollutants. Schools,

hospitals, and convalescent homes are considered to be sensitive receptors because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems. Residential areas are also considered sensitive to poor air quality because people usually stay home for extended periods of time, with greater exposure to ambient air. Recreational uses are considered sensitive because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The project vicinity is characterized by light industrial and low density residential uses. The adjacent residential lands are Tribally-owned lands, and it would be in the Tribe's best interest to reduce environmental impacts to those lands. The nearest sensitive receptor is the Waiiaka Trailer Haven Recreational Vehicle (RV) Park located approximately 1,500 feet west of the project site. The nearest school (Karuk Tribal Headstart) is located approximately 1,000 feet east of the project site. The nearest hospital (Fairchild Medical Center) is located approximately 0.75 mile northwest of the project site.

CLIMATE CHANGE

The extent to which human activities affect global climate change is a subject of considerable scientific debate. It is anticipated that the average global temperature could rise 0.6 to 4.0 ^{o}C (1.08 to 7.18 ^{o}F) between the years 2000 and 2100 (IPCC, 2007). The *Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report* identifies anthropogenic GHGs as a contributing factor to changes in the Earth's climate (IPCC, 2007). To err on the side of caution, the analysis in this Draft TEIR assumes anthropogenic GHGs are in fact contributing to global climate change.

Currently there are no GHG inventories for the County or City. The County and City have not developed Climate Action Plans to address GHG inventories and meet California reduction requirements. However, the County included strategies for reducing GHGs and development of a GHG inventory in its 2008 Siskiyou County Strategic Plan.

Primary sources of GHG emissions in the region include vehicles, trucks, airplanes, natural gas dispensing stations, and electricity generation facilities. However, there are many other sources of GHG emissions in the region.

3.4.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section III of the Checklist (**Appendix A**) and have therefore been used in this section to evaluate the potential impacts of Phases I and II of the Proposed Project with respect to off-reservation air quality. An impact is considered significant if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute to an existing or projected air quality violation;

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose off-reservation sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people off-reservation.

SIGNIFICANCE THRESHOLDS

Criteria Air Pollutants

Neither the Tribe nor the SCAPCD have established air quality standards for development within each authoritative body's jurisdictional lands. While not applicable to Tribal lands, the *de minimis* standards of the Federal General Conformity provisions of the CAA are utilized to assess the potential for the Proposed Project to significantly impact off-reservation air quality. As discussed in **Section 3.4.2**, the air basin surrounding the Proposed Project site is classified as attainment or unclassified for all CAPs under the NAAQS and CAAQS.

Carbon Monoxide

As discussed in **Section 3.4.2**, CO has the potential to build up in high concentrations at major intersections with prolonged vehicle idling times, even though the NEPAB is classified as being in attainment or unclassified. According to protocol adopted by the California Department of Transportation (Caltrans), operational impacts for CO are considered significant if any intersection in the project region would operate at a level of service (LOS) of E or F as a result of increase in vehicle traffic attributable to a proposed project (U.C. Davis, 1997) (refer to **Section 3.11** for the definition of LOS).

Diesel Particulate Matter

Since there are no applicable DPM thresholds, the potential for significant DPM impacts is typically evaluated based on the duration of exposure and location and quantity of off-reservation sensitive receptors surrounding the project site.

Odor

Since there are no applicable odor detection thresholds due to the subjective nature of odors and odor sensitivity, the potential for significant odor impacts is typically evaluated based on criteria such as historical complaints from receptors located at similar distances from similar odor sources.

Climate Change

No significance thresholds have been established by the City, County, CEQ, USEPA, or any other federal agency for climate change and GHG emissions. As discussed in **Section 3.4.1**, federal guidance on climate change provides that 25,000 metric tons of GHG emissions per year may be a helpful guideline to assist lead agencies in making informed decisions on climate change impacts resulting from a project subject to NEPA. For the purposes of this analysis, the draft quantification and assessment threshold of

25,000 metric tons per year of carbon dioxide equivalent (CO_2e) emissions as recommended by CEQ is utilized to determine if the Proposed Project would be considered a major source emitter of GHG to the off-reservation environment, and thereby result in a significant impact on off-reservation air quality.

Climate change is a global phenomenon attributable to the sum of all human activities and natural processes. State guidelines recommended that climate change analysis for environmental documents include quantification of GHG emissions, assessment of the significance of any impact on climate change, and identification of mitigation or alternatives that would reduce GHG emissions (CARB, 2008). The analysis presented in this Draft TEIR is consistent with the guidance, as this analysis considers whether project emissions are individually or cumulatively significant. Based on the Proposed Project's GHG emissions, it was determined that specific climate change impacts could not be attributed to the proposed development. As such, impacts of Phases I and II of the Proposed Project are most appropriately addressed in terms of the incremental contribution to a global cumulative impact. For a discussion and analysis of cumulative impacts related to climate change, refer to **Section 3.13**.

METHODOLOGY

Construction

Urban Emissions 9.2.4, 2007 (URBEMIS) is a USEPA and CARB air quality model that estimates construction emissions of CAPs from land uses by utilizing the most relevant USEPA, CARB, and/or district-specific emission factors and California meteorological data. URBEMIS was used to estimate emissions from construction-related sources of Phases I and II of the Proposed Project. URBEMIS modeling was performed with the assumption that construction of Phase I development would begin in January 1, 2014 and continue at an average of 22 days per month for 11 months. Phase II development assumed a 12 month construction window, with the same assumption of work-days per month. Although the actual construction date for Phase II would likely be several years after completion of Phase I construction, a start year of 2015 for construction of Phase II was selected for emissions modeling purposes. Emissions results from URBEMIS are presented below, and URBEMIS output files are included within **Appendix D**.

Operation

URBEMIS was used to estimate emissions associated with operation of the Proposed Project and Alternatives. Input values for the model included URBEMIS defaults and site specific data. The operational effects to air quality were analyzed for both near-term conditions and cumulative long-term 2030 conditions (refer to **Section 3.13**).

Trip Generation Rates

The trip generation rates used in the URBEMIS air quality model are from the Transportation Impact Analysis (TIA) (**Appendix F**) and are described in detail in **Section 3.11**.

Diesel Particulate Matter

DPM emissions from construction and operational emissions were quantified using the same procedures as CAP emissions estimates. DPM emissions from vendor trips during construction, which were conservatively assumed to be all made by heavy duty vehicles, were included in the analysis. For this analysis it is conservatively assumed that 100 percent of the exhaust PM would be DPM. Actual exhaust would not consist entirely of DPM. Construction worker commute trips were not included in the analysis due to their vehicle classes, which constitute a negligible fraction of diesel vehicles. Patron trips by private vehicles and employee commute trips were not considered in the analysis, because these trips would be made by vehicle classes that emit negligible amounts of DPM.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.4.1 The Proposed Project would emit CAPs in the NEPAB. However, the NEPAB is designated as either unclassified or attainment for all CAPs under the NAAQS and CAAQS. Therefore, CAP emissions attributed to Phases I and II of the Proposed Project would not conflict with or obstruct the implementation of an applicable off-reservation air quality plan, cause an off-reservation violation of NAAQS or CAAQS, or contribute to a projected off-reservation air quality violation.

Construction

Construction of the Proposed Project would generate reactive organic gases (ROG), NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions from the operation of heavy equipment and construction machinery, construction worker and vendor trips (mobile sources), and application of architectural coatings. Construction activities associated with both Phases I and II development would be temporary in nature and would occur intermittently (11 months for Phase I and 12 months for Phase II, with a period of no construction between construction of the two phases).

Table 3.4-4 presents the unmitigated construction emissions associated with Phases I and II of the Proposed Project as quantified using URBEMIS (**Appendix D**). Because the NEPAB is designated unclassified or attainment for all CAPs, construction of both phases of the Proposed Project is assumed not to conflict with or obstruct implementation of an off-reservation air quality plan, violate the NAAQS or CAAQS, or contribute to a projected off-reservation air quality violation as related to CAP emissions.

TABLE 3.4-4
CONSTRUCTION EMISSIONS OF THE PROPOSED PROJECT

Construction Year	Criteria Pollutants					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	tons per year					
Phase I (2014)	1.62	10.98	5.31	0.00	0.59	0.48
Phase II (2015)	1.92	10.36	5.27	0.00	0.80	0.51

Construction Year	Criteria Pollutants					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	tons per year					
Maximum Years Emissions	**1.92**	**10.98**	**5.27**	**0.00**	**0.80**	**0.51**
Conformity de minimis Levels	*100*	*100*	*100*	*100*	*100*	*100*
Exceedance of Levels	*No*	*No*	*No*	*No*	*No*	*No*

SOURCE: URBEMIS 9.2.4, 2007.

Operation

Operational emissions from Phases I and II of the Proposed Project would be primarily indirect (not associated with a point source on the project site) and would be generated by new patron, new employees, and new delivery vehicle trips to the project site. Combustion of propane on the project site would also contribute to total emissions associated with the operation of Phases I and II of the Proposed Project.

Table 3.4-5 presents the operational emissions associated with Phases I and II of the Proposed Project as quantified using URBEMIS. Since the NEPAB is designated as unclassified or attainment for all CAPs and because operational emissions for both phases of the Proposed Project would be relatively low, implementation of both Phase I and Phase II of the Proposed Project would not conflict with or obstruct implementation of an off-reservation air quality plans, cause a violation of the NAAQS or CAAQS, or contribute to a projected off-reservation air quality violation as related to the emissions of CAPs.

TABLE 3.4-5
OPERATION EMISSIONS OF THE PROPOSED PROJECT

Sources	Criteria Pollutants					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	tons per year					
Phase I						
Stationary	0.02	0.02	0.15	0.00	0.00	0.00
Mobile	0.74	1.13	9.04	0.01	1.80	0.35
Phase II						
Stationary	0.08	0.13	0.39	0.00	0.00	0.00
Mobile	0.73	0.99	8.02	0.01	1.73	0.33
Total Emissions	**1.57**	**2.27**	**17.60**	**0.02**	**2.53**	**0.68**
Conformity de minimis Levels	*100*	*100*	*100*	*100*	*100*	*100*
Exceedance of Levels	*No*	*No*	*No*	*No*	*No*	*No*

SOURCE: URBEMIS 9.4.2, 2007.

Although the NEPAB is classified as unclassified or attainment for CO, the impact of increased traffic resulting from the Proposed Project is assessed to determine if excessive, acute CO levels could occur. Introduction of project-related traffic would not result in an LOS that would result in extensive idling of off-reservation traffic (**Appendix F**). Therefore, implementation of the

Proposed Project would have a less than significant impact in relation to short-term CO concentrations.

Impact

3.4.2 The Proposed Project could cause high concentrations of DPM and may expose off-reservation sensitive receptors to substantial DPM concentrations.

Construction

Construction activities proposed under Phases I and II would emit DPM from heavy equipment use. The distance to the nearest sensitive receptor is 1,000 feet from construction activities (Karuk Tribal Headstart). The settling rate of DPM is such that concentrations in the air dissipate as the distance from an emissions source increases, and the DPM concentration at sensitive receptors 1,000 feet away would be significantly reduced. Therefore, construction-related DPM emissions would result in a less than significant impact to off-reservation air quality due to the distance between the project site (emission source) and nearest sensitive receptor, the intermittent use of heavy construction equipment, and temporary nature of construction activities proposed under the Proposed Project.

Operation

Off-reservation emissions would primarily occur from diesel vehicles used by vendors and charter buses. Emissions at the nearest sensitive receptor would be significantly less than emissions at the source due to the DPM settling rate. California law restricts these types of vehicles to five minutes of idling time, which reduces DPM emissions. The fee parcel is subject to California laws, and the following mitigation measure is proposed to restrict idling on the trust parcel during operation of Phases I and II of the Proposed Project:

Mitigation Measure

3.4.1 The Tribe shall develop and implement an ordinance establishing requirements similar to the CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485) for buses and other commercial diesel-fueled vehicles, which requires that the driver of any diesel bus shall not idle for more than five minutes at any location, except in the case of passenger boarding where a ten minute limit is imposed, or when passengers are onboard. The Tribe shall post signs in parking lots, at loading docks, and other applicable areas displaying the requirements.

Significance after Mitigation

Less than significant.

Impact

3.4.3 The Proposed Project would not emit odors detectable in the off-reservation environment and the off-reservation environment in the vicinity of the project site does not include a substantial number of people; therefore, implementation of the Proposed Project would not create objectionable odors affecting a substantial number of people off-reservation.

Construction

Construction activities associated with both phases would generate minor odors from heavy equipment and fugitive dust. Construction odors would dissipate quickly and would not extend beyond the boundaries of the project site. The impact regarding odors from construction of Phases I and II of the Proposed Project would be less than significant.

Operation

Operation of Phases I and II of the Proposed Project would not include new facilities that would generally emit odor, such as large industry and manufacturing. Furthermore, there are not a substantial number of people in the off-reservation vicinity of the project site as described above. No impact would occur as both phases of development would not include the emission of off-site odors.

3.5 BIOLOGICAL RESOURCES

This section describes existing off-reservation biological resources, evaluates potential off-reservation impacts of the Proposed Project on such resource,; and presents mitigation measures to reduce significant off-reservation impacts.

3.5.1 REGULATORY SETTING

FEDERAL

Federal Endangered Species Act

Provisions of the Federal Endangered Species Act of 1973 (FESA), as amended (16 U.S.C. § 1531), protect federally-listed threatened and endangered wildlife and their habitat from take (50 CFR § 17.11, 17.12). Under FESA, "take" includes activities that "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" as well as any "attempt to engage in any such conduct" (16 U.S.C. § 1531[3]). The United States (U.S.) Fish and Wildlife Service (USFWS) defines the term "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering" (50 CFR § 17.3).

The USFWS and the National Oceanic and Atmosphere Administration's (NOAA) National Marine Fisheries Service (NMFS) implement Section 10(a)(1)(b) of FESA, which allows non-federal entities under consultation with the USFWS and NMFS to obtain incidental take permits for federally-listed wildlife. Compliance with Section 10(a)(1)(b) is not required for federally-listed plants.

Bald and Golden Eagle Protection Act

In 1940, the Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d, 54 Stat. 250) was enacted (and later amended) which prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." For purposes of these guidelines, "disturb" means "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available."

Wetlands and Other Waters of the United States

Any project that involves discharge of dredged or fill material to navigable and other waters of the U.S. must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Projects requiring a Section 404 permit under the CWA also require a Section 401 certification from either the U.S. Environmental Protection Agency (USEPA) (for trust land such as the trust parcel within the project site) or the Regional Water Quality Control Board (RWQCB)

(for non-trust land). These two agencies also administer the National Pollution Discharge Elimination System (NPDES) general permits for construction activities disturbing one acre or more (refer to **Section 3.8** for further discussion).

Migratory Bird Treaty Act

All migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. §§ 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Under the MBTA, federally-listed migratory bird species (50 CFR § 10.13) and their nests and eggs are protected from injury or death, and project-related disturbances during the nesting cycle must be reduced or eliminated.

STATE AND LOCAL

A portion of the project site is located on trust land (trust parcel) and is not subject to State or local regulations concerning biological resources. However, such regulations apply to the fee parcel of the project site and off-reservation land in the vicinity of the project site.

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to FESA, but is limited to species under State jurisdiction that are listed by the State as threatened or endangered. Under Section 2080 of the California Fish and Game Code, off-reservation take is prohibited. Take is defined as activities that "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under Section 2081, California Department of Fish and Wildlife (CDFW) can authorize take if an incidental take permit is issued by the Secretary of the Interior or Commerce in compliance with FESA for jointly listed species, or if the director of CDFW issues a permit and impacts are minimized and mitigated for State-listed species. In general, CESA does not cover habitat impacts.

California Fish and Game Code

California Fish and Game Code §§ 3503, 3503.5, and 3800 prohibit the off-reservation possession, incidental take, or needless destruction of birds, their nests, and eggs. Specifically, California Fish and Game Code 3503.5 protects all birds in the orders *Falconiformes* and *Strigiformes* (collectively known as birds of prey). California Fish and Game Code § 3511 lists birds or other species that are "fully protected" off-reservation and may not be taken or possessed except under specific permits. Consultation with CDFW may be required if construction on trust land would potentially impact off-reservation State-listed species or nesting raptors.

Streambed Alteration Agreement (Section 1602)

California Fish and Game Code Section 1602 requires notification before beginning any activities that obstruct or divert the natural flow of an off-reservation river, stream, or lake; change or use of any material from the bed, channel, or bank of an off-reservation river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into an off-reservation river, stream, or lake. California Fish and Game Code Section 1602 applies to all off-reservation perennial, intermittent, and ephemeral rivers, streams, and lakes in the State.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation biological resources are as follows:

CO.4.A. Apply appropriate mitigation measures to development projects to minimize impacts to biological resources during and after construction.

CO.4.B. Consider opportunities for habitat preservation and enhancement in conjunction with public facility projects, particularly storm drainage facilities. Construction activity involved in such preservation and enhancement shall be assessed to determine potential impacts on Coho salmon.

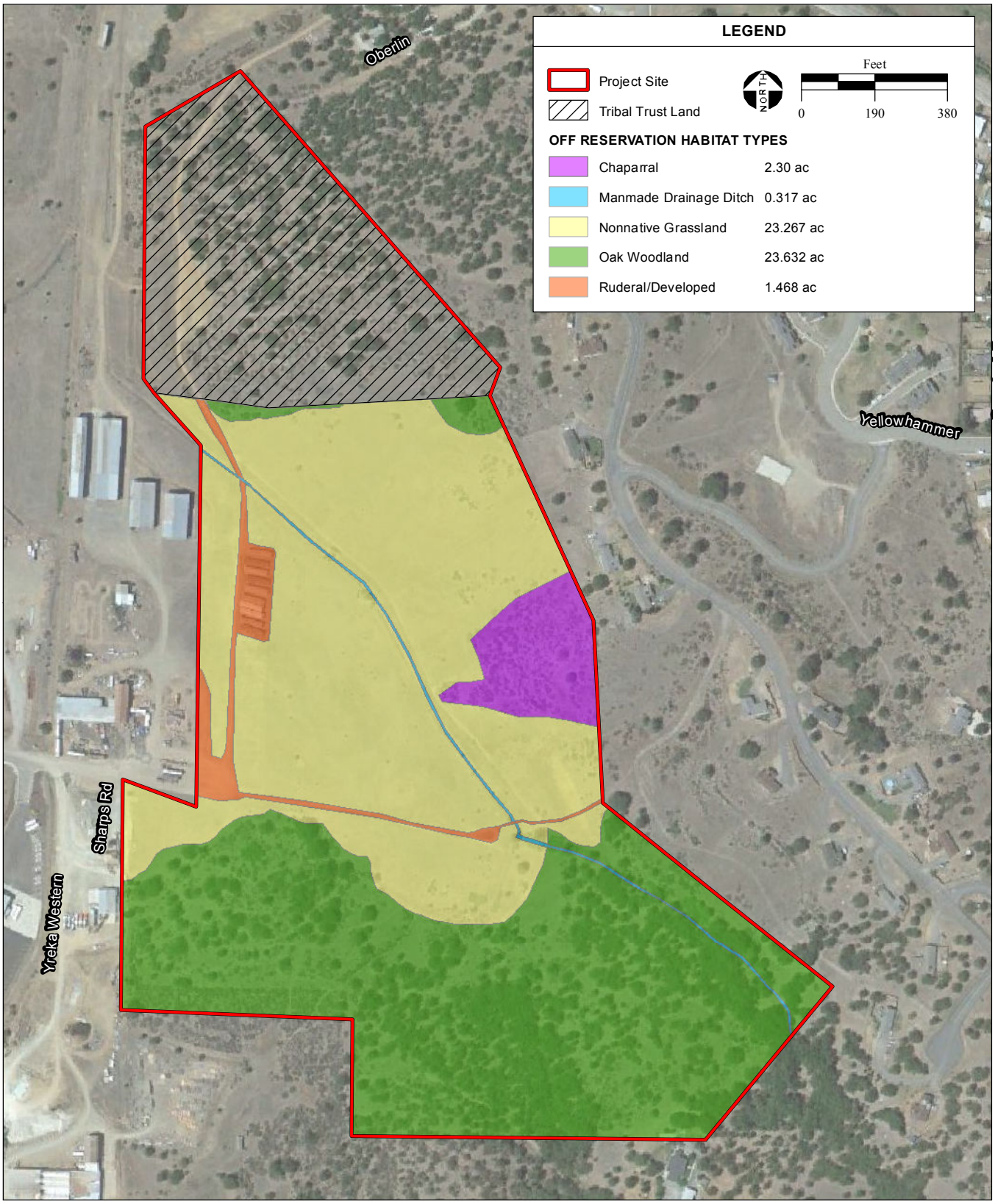
CO.4.C. Applicants for new development proposals shall be responsible for costs related to determining the potential for occurrence of protected plant and wildlife species within the proposed project area. City staff shall make the determination on the degree of field investigation required based on the project's location in relation to known occurrences.

CO.4.D. If the presence of protected species is determined to be likely, the project applicant shall be responsible for all costs associated with investigating species presence and preparation of any required mitigation plans.

3.5.2 ENVIRONMENTAL SETTING

HABITAT TYPES

The following habitat types occur within the fee parcel of the project site designated for parking under Phases I and II: nonnative grassland, chaparral, ruderal/developed areas, and manmade drainage (**Figure 3.5-1**). Habitat types adjacent to the project site include chaparral, oak woodland, and ruderal/developed areas. Dominant vegetation observed within the habitat types within the fee parcel and surrounding the project site are discussed below. Representative photographs of the habitat types are provided in **Figure 3.5-2**.



SOURCE:Group West 7/2013; DigitalGlobe Aerial Photograph, 7/2012; AES, 2013

Figure 3.5-1
Habitat Types

PHOTO 1: View northwest of non-native grassland and ruderal/developed areas within the project site on the fee parcel.

PHOTO 2: View west of non-native grassland within the project site on the fee parcel.

PHOTO 3: View east of manmade drainage within the central portion of the project site on the fee parcel.

PHOTO 4: View northwest of graded road that crosses the manmade drainage on the fee parcel within the project site. The manmade drainage continues northwest off site.

SOURCE: AES, 2013

Figure 3.5-2
Site Photographs

Nonnative Grassland

Nonnative grassland occurs within the majority of the fee parcel of the project site. Dominant plant species associated with the nonnative grassland includes dyer's woad (*Isatis tinctoria*), bottlebrush squirreltail (*Elymus elymoides*), filaree (*Erodium botrys*), field bindweed (*Convolvulus arvensis*), English plantain (*Plantago lanceolata*), perennial pepperweed (*Lepidium latifolium*), yarrow (*Achillea millefolium*), large-flowered agoseris (*Agoseris grandiflora*), vinegar weed (*Trichostema lanceolatum*), medusahead grass (*Taeniatherum caput-medusae*), moth mullein (*Verbascum blattaria*), and yellow star-thistle (*Centaurea solstitialis*).

Chaparral

Chaparral occurs within the central-eastern portion of the fee parcel. Dominant vegetation includes: buck brush (*Ceanothus cuneatus* var. *cuneatus*), western needle grass (*Stipa occidentalis*), and dyer's woad.

Oak Woodland

Oak woodland occurs on the trust parcel as well as on the southern portion of the fee parcel outside of the development footprint of the Proposed Project. Dominant vegetation associated with the oak woodland includes Oregon white oak (*Quercus garryana* var. *garryana*), western juniper (*Juniperus occidentalis* var. *occidentalis*), and buck brush.

Ruderal/Developed

Ruderal/developed habitat includes anthropogenic features such as railroad tracks, industrial and residential buildings, roads, parking lots, and outbuildings, and the typically highly disturbed vegetation communities associated with these features. Dominant vegetation associated with ruderal/developed areas within the fee parcel and surrounding the project site includes: medusahead grass, field bindweed, filaree, and yellow star-thistle.

Manmade Drainage

A manmade drainage occurs within the north-central portion of the fee parcel. Dominant vegetation consists primarily of upland species including yellow star-thistle, medusahead grass, field bindweed, and filaree and includes several shrubs.

SPECIAL STATUS SPECIES

For the purposes of this Draft TEIR, “special status” is defined to include those off-reservation species that are:

- Listed as endangered or threatened under FESA (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under CESA (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (§ 1901);

- Designated as fully protected, pursuant to California Fish and Game Code (§ 3511, § 4700, or § 5050);
- Designated as species of concern by the CDFW;
- Defined as rare or endangered under CEQA; or
- Considered by California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2).

The following information sources were reviewed to determine whether the fee parcel of the project site has the potential to provide habitat for special status species:

- Aerial photography of the project site and vicinity;
- Topographic map of the Yreka and Montague quads;
- National Wetlands Inventory (NWI) Online Mapper (USFWS, 2013a);
- USFWS species list, dated April 29, 2013, of federally listed special status species with the potential to occur on or be affected by projects on the Yreka and Montague quads (the Montague quad was reviewed since the project site occurs on the eastern boundary of the Yreka quad) (USFWS, 2013b);
- CNPS inventory, dated April 29, 2013, of special status plants known to occur within the Yreka and Montague quads and the surrounding 10 quads (CNPS, 2013);
- California Natural Diversity Database (CNDDB) Rarefind software query, dated April 2, 2013, of special status species known to occur within the Yreka and Montague quads and the surrounding 10 quads (CDFW, 2003); and
- CNDDB map of known species occurrences within a five-mile radius of the project site.

Biological surveys and focused botanical surveys were conducted at the project site on June 27 and 28, 2013. To determine the potential for occurrence of special status species, the habitat, elevation, and range requirements for each species were assessed and compared to those occurring within the fee parcel and off-reservation vicinity of the project site. Special status species that were determined not to have potential to be present on the fee parcel and in the off-reservation vicinity of the project site are not discussed further in this document (refer to **Appendix I**). Based upon the results of the biological surveys, the fee parcel and off-reservation vicinity of the project site represents potential habitat for five special status plants and two special status birds; although, none of these species were seen during the field surveys. The name, regulatory status, habitat requirements, and period of identification for potentially occurring species are shown in **Table 3.5-1** and briefly described thereafter.

TABLE 3.5-1
SUMMARY OF POTENTIALLY OCCURRING SPECIAL STATUS SPECIES

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION
Plants				
Balsamorhiza lanata Wooly balsamroot	--/--/1B	Known only from the area of Shasta and Scott valleys in Siskiyou and Trinity counties.	Perennial herb found in rocky and/or volcanic cismontane woodlands from 800 to 1,895 meters.	April-June
Calochortus greenei Greene's mariposa lily	--/--/1B	Known from Modoc and Siskiyou counties.	Perennial bulbiferous herb found on volcanic substrate in cismontane woodland, pinyon and juniper woodland; meadows and seeps, and upper montane coniferous forests from 1,035 to 1,890 meters.	June-August
Cirsium ciliolatum Ashland thistle	--/CE/2	Known from Siskiyou County.	Perennial herb found in cismontane woodlands and valley and foothill grasslands from 800 to 1,400 meters.	June-August
Lomatium peckianum Peck's lomatium	--/--/2	Known from Siskiyou County.	Perennial herb found in volcanic substrate in chaparral, cismontane woodland, pinyon and juniper woodlands; and lower montane coniferous forests from 700 to 1,800 meters.	April-June
Orthocarpus pachystachyus Shasta orthocarpus	--/--/1B	Known from Siskiyou County.	Annual herb found in Great Basin scrub, meadows and seeps, and valley and foothill grassland from 840 to 850 meters.	May
Animals				
Birds				
Accipiter gentilis Northern goshawk	--/CSC/--	Occurs throughout high elevation areas throughout North America. Known from the Sierras and northern California counties.	Found in forested areas with cleared openings for foraging.	All year
Aquila chrysaetos Golden eagle	--/FP/--	Known from Alameda, Colusa, Contra Costa, El Dorado, Fresno, Humboldt, Kern, Lake, Lassen, Los Angeles, Madera, Merced, Modoc, Mono, Monterey, Napa, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Joaquin, San Luis Obispo, Santa Clara, Siskiyou, Solano, Stanislaus, Trinity, Tulare, and Ventura counties.	Generally open country, in prairies, arctic and alpine tundra, open wooded country, and barren areas, especially in hilly or mountainous regions.	March-April

STATUS CODES:

STATE: (California Department of Fish and Wildlife)
CE = Listed as Endangered by the State of California
CSC = California Species of Special Concern
FP = Fully Protected by the State of California

CNPS: (California Native Plant Society)
List 1B = Plants Rare, Threatened, or Endangered in California and Elsewhere
List 2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
SOURCE: CNPS, 2013; CDFW, 2003.

SPECIAL STATUS PLANTS

Wooly Balsamroot (Balsamorhiza lanata)

Federal Status – None
State Status – None
Other – CNPS List 1B

Wooly balsamroot is a perennial herb found in rocky and/or volcanic cismontane woodland from 800 to 1,895 meters. This species blooms from April through June. The known range for this species is from the area of Shasta and Scott valleys in Siskiyou and Trinity counties (CNPS, 2013).

There are 12 CNDDB occurrences of this species within five miles of the project site (CDFW, 2003). The nearest record (CNDDB occurrence # 12) is from 1942 and is approximately 0.15 miles north of the project site. The record states that the exact location is unknown and that CNDDB mapped it as best guess. The oak woodland within the southern portion of the fee parcel provides habitat for this species. The June 27 and 28, 2013 biological surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed in the vicinity of the project site. This species does not occur within the project site.

Greene's Mariposa Lily (Calochortus greenei)

Federal Status – None
State Status – None
Other – CNPS List 1B

Greene's mariposa lily is a perennial bulbiferous herb found on volcanic substrate in cismontane and pinyon and juniper woodlands, meadows and seeps, and montane coniferous forests from 1,035 to 1,890 meters. This species blooms from June through August. The known range for this species is from Modoc County and Siskiyou County (CNPS, 2013).

There are no CNDDB occurrences of this species within five miles of the project site (CDFW, 2003). The oak woodland within the southern portion of the fee parcel provides habitat for this species. The June 27 and 28, 2013 biological surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed in the vicinity of the project site. This species does not occur within the project site.

Ashland Thistle (Cirsium ciliolatum)

Federal Status – None
State Status – Endangered
Other – CNPS List 2

Ashland thistle is a perennial herb found in cismontane woodlands and valley and foothill grasslands from 800 to 1,400 meters. This species blooms from June through August. The known range for this species is from Siskiyou County (CNPS, 2013).

There are no CNDDB occurrences of this species within five miles of the project site (CDFW, 2003). The nonnative grassland within the fee parcel of the project site provides habitat for this species. The oak woodland within the southern portion of the fee parcel provides habitat for this species. The June 27 and 28, 2013 biological surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed in the vicinity of the project site. This species does not occur within the project site.

Peck's Lomatium (Lomatium peckianum)

Federal Status – None
State Status – None
Other – CNPS List 2

Peck's lomatium is a perennial herb found on volcanic substrate in cismontane, cismontane woodland, pinyon and juniper woodlands, and lower montane coniferous forests from 700 to 1,800 meters. This species blooms from April through June. The known range for this species is from Siskiyou County (CNPS, 2013).

There are five CNDDB occurrences of this species within five miles of the project site (CDFW, 2003). The nearest record (CNDDB occurrence # 7) is from an unknown date and is approximately 0.12 miles north of the project site. Two different sources are provided for the record: one source is a 1982 printout of rare plants and the other source is an unknown CNPS collection on an unknown date. The record also states that the occurrence may be based on a vague 1904 collection stating that the plants were observed on a dry hill near the City. The oak woodland within the southern portion of the fee parcel provides habitat for this species. The June 27 and 28, 2013 biological surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed in the vicinity of the project site. This species does not occur within the project site.

Shasta Orthocarpus (Orthocarpus pachystachyus)

Federal Status – None
State Status – None
Other – CNPS List 1B

Shasta orthocarpus is an annual herb found in Great Basin scrub, meadows and seeps, and valley and foothill grassland from 840 to 850 meters. This species blooms in May. The known range for this species is from Siskiyou County (CNPS, 2013).

There is one CNDDB record of this species within five miles of the project site (CDFW, 2003). The record (CNDDB occurrence #2) is from the 1980s and is approximately 1.8 miles northwest of the project site. The record states that the occurrence was collected near the City and more information is needed. The nonnative grassland within the fee parcel of the project site provides habitat for this species. This species was not observed in the vicinity of the project site, however, the June 27 and 28, 2013 biological surveys were conducted outside of the evident and identifiable blooming period for this species. Therefore, this species has the potential to occur within the project site.

SPECIAL STATUS ANIMALS

Birds

Northern Goshawk (Accipiter gentilis)

Federal Status – None
State Status – California Species of Concern
Other – None

Northern goshawk nests in a wide variety of forest types including deciduous, coniferous, and mixed forests. Nests are generally located in mature or old-growth forests. This species forages in both heavily forested and relatively open habitats (NatureServe, 2013).

There is one CNDDB record of this species within five miles of the project site (CDFW, 2003). The record (CNDDB occurrence #340) is from 1996 and states that one adult was observed at a nest approximately 4.1 miles southwest of the City. The project site does not provide nesting habitat for this species. The nonnative grassland within fee parcel of the project site provides foraging habitat for this species. This species has the potential to forage within the project site. Removal of foraging habitat is not a significant impact.

Golden Eagle (Aquila chrysaetos)

Federal Status – None
State Status – Fully Protected
Other – None

The golden eagle ranges from sea level to 3,833 meters, utilizing habitats of rolling foothills, mountain areas, sage-juniper flats, and desert. Grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats provide necessary foraging habitat. Nests are placed on cliffs or large trees and are maintained year after year. The golden eagle prefers to nest in open habitats with canyons and escarpments. Breeding occurs from March through April (NatureServe, 2013).

There are no CNDDB occurrences of this species within five miles of the project site (CDFW, 2003). The nonnative grassland within the project site provides foraging habitat for this species. The project site

or vicinity do not provide breeding habitat for this species. This species was not observed in the vicinity of the project site. Removal of foraging habitat is not a significant impact.

Migratory Birds and Birds of Prey

Migratory birds and other birds of prey have the potential to nest within the shrubs along the manmade drainage, within the chaparral, and within the oak woodland. The generally accepted nesting season is from March 1 to September 15.

WATERS OF THE U.S.

During the biological surveys conducted on June 27 and 28, 2013, the project site and vicinity were informally assessed for water resources, such as wetlands, vernal pools, and streams. Any water features found were assessed for their potential to be regulated under the CWA (waters of the U.S.) or under the California Fish and Game Code (waters of the State of California); a formal wetland delineation was not performed. A single manmade drainage crosses the central portion of the fee parcel of the project site. The bed and bank disappear where a graded dirt road extends through the project site. The bed and bank reestablishes to the west of the graded dirt road and continues northwest outside of the project site to its confluence with an unnamed drainage. The unnamed drainage flows westward just south of Oberlin Road and drains into Yreka Creek. This feature is likely considered a jurisdictional feature since it is indirectly tributary to Yreka Creek, a water of the U.S.

RESIDENT OR MIGRATORY WILDLIFE CORRIDORS

Drainages and their associated riparian zones can typically provide corridors for the migration or daily movement of wildlife. Riparian corridors provide important habitat that is used during migration of migratory birds. The manmade drainage within the fee parcel of the project site lacks a riparian corridor. Residential dwellings are located to the north and east of the project site. Railroad tracks and industrial buildings are located to the northwest and west. These represent physical barriers to most wildlife movement.

3.5.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section IV of the Checklist (**Appendix A**) and have been used in this section to evaluate the potential off-reservation environmental impacts of the Proposed Project on off-reservation biological resources. Such an impact is considered significant if it would:

- Have a substantial adverse impact, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW, USFWS, or NMFS;

- Have a substantial adverse effect on federally protected off-reservation wetlands as defined by Section 404 of the CWA;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Methodology

The off-reservation impact assessment is based on the results of the biological surveys, which are described in the Environmental Setting (**Section 3.5.2**), the Project Description (**Section 2.0**), and the significance criteria presented above.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.5.1 The Proposed Project could potentially have a substantial adverse impact, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the CDFW, USFWS, or NMFS.

Special Status Plants

Shasta orthocarpus was not observed during the June 27 and 28, 2013 biological surveys of the project site fee lands; however, the surveys were conducted outside of the blooming period. Shasta orthocarpus has the potential to occur within the nonnative grassland habitat located within the fee parcel of the project site. Part of this potential habitat exists within the proposed development footprints of both Phases I and II of the Proposed Project. Full build-out on the fee parcel would result in the conversion of 6.9 acres of potential habitat. Loss of Shasta orthocarpus would be a significant impact should the species be present within the 6.9 acres of potential habitat. Implementation of **Mitigation Measure 3.5.1** would reduce the potential impacts (i.e., loss of potential habitat) of Phases I and II to Shasta orthocarpus to a less than significant level.

Mitigation Measure

3.5.1 To address potential off-reservation impacts associated with special status plants, the Tribe shall carry out the following measures prior to construction of Phases I and II of the Proposed Project on the fee parcel:

a. A qualified biologist/botanist shall conduct a focused botanical survey within the nonnative grassland on the fee parcel during the blooming period for Shasta orthocarpus (May) prior to commencement of construction activities of Phases I and II. A letter report shall be submitted to the Tribe within 30 days following the

preconstruction survey to document the results. Should no species be observed, then no additional mitigation is required.

b. Should Shasta orthocarpus be observed during the focused botanical survey on the fee parcel, the qualified biologist/botanist shall contact the Tribe and CDFW within one day following the focused botanical survey to report the findings. If feasible, a 10-foot buffer shall be established around the species using construction flagging prior to commencement of construction activities.

c. Should avoidance of Shasta *orthocarpus* be infeasible, the qualified botanist would salvage and relocate the individuals in an area comprised of suitable habitat in the vicinity of the project site that would not be impacted by the Proposed Project. Prior to the attempted relocation, seeds shall be gathered from the identified plants for use in the area identified for relocation.

Significance after Mitigation

Less than significant.

Migratory Birds

Prior to construction of Phases I or II of the Proposed Project, migratory birds and other birds of prey could establish nests on the fee parcel in areas that would be affected by development of Phases I or II. Potential disruption of nesting migratory birds and other birds of prey during construction of either phases could result in nest abandonment or mortality. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact birds if their nests are located within 500 feet of development footprints, depending on the species. The removal of an active nest during the breeding season, any disturbance that results in nest abandonment, or forced fledging of nestlings is considered take under the MBTA and is a significant impact. To ensure no active nests are abandoned and that no forced fledging occurs during construction of Phases I and II, **Mitigation Measure 3.5.2** is proposed.

Mitigation Measure

3.5.2 To address potential off-reservation impacts associated with migratory birds and other birds of prey, the Tribe shall carry out the following measures prior to construction of Phases I and II of the Proposed Project:

a. Prior to any Phase I or II construction or ground disturbance within 500 feet of potential habitat for birds of prey and migratory birds during the nesting season (between March 1 and September 15), a qualified biologist will conduct a preconstruction bird survey for nesting sites within 500 feet of construction activities. The preconstruction bird survey shall be conducted within 14 days prior to commencement of construction activities. The biologist will document and submit the results of the preconstruction survey in a letter to CDFW and the Tribe within 30

days following the survey. The letter shall include: a description of the methodology used during the survey, including dates of field visits, the names of survey personnel, a list of references cited and persons contacted; and a map showing the location(s) of any bird nests observed on the project site. If no active nests are identified during the preconstruction survey, then no further mitigation is required so long as construction commences within 14 days of the preconstruction survey. If construction does not commence within 14 days of the preconstruction survey or construction halts for more than 14 days, an additional nesting survey will be required.

b. If any active nests are identified during the preconstruction survey within the vicinity of the development footprint of either phase of the Proposed Project, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist shall continue to conduct weekly monitoring until construction activities are no longer occurring within the vicinity of the established buffer or until the biologist determines that the nestlings have successfully fledged. The biologist will delimit the buffer zone with construction tape or pin flags within 250 feet of any active migratory bird nest or within 500 feet of any active raptor nest until the end of the breeding season or until the young have successfully fledged. Guidance from CDFW will be requested if establishing a 250-foot or 500-foot buffer zone is impractical. The biologist shall have the authority to stop any work within the vicinity of the active nests if the nestlings appear to be disturbed. Work shall be halted until the biologist determines that the nestlings are no longer in distress. A letter report shall be submitted to CDFW and the Tribe within 30 days following the final monitoring date.

Significance after Mitigation

Less than significant.

Impact

3.5.2 The Proposed Project would not have a substantial adverse effect on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.

Construction or operation of both phases of the Proposed Project would not occur on or adjacent to any riparian habitats or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. No off-reservation riparian habitats or other sensitive vegetation communities would be impacted by construction or operation of either phase of the Proposed Project. No impact would occur.

Impact

3.5.3 The Proposed Project could potentially have a substantial adverse effect on potentially jurisdictional waters of the U.S., as defined by Section 404 of the CWA, during both phases of the Proposed Project.

The USACE will consider the Proposed Project in its entirety during permitting. Through direct removal, filling, hydrological interruption, or other means, full build-out of the Proposed Project would impact approximately 0.05 acres of the manmade drainage on the fee parcel, which has the potential to be a jurisdictional water of the U.S., as defined by Section 404 of the CWA. A preliminary delineation should be submitted to the USACE to determine whether the manmade drainage is a potentially jurisdictional feature, subject to Section 404 of the CWA. Should the USACE determine that the manmade drainage is jurisdictional, implementation of the Proposed Project would require obtaining a Section 404 permit from the USACE. Through adherence to the conditions of the permit prior to commencement of construction activities of either phase, impacts to waters of the U.S. would be less than significant with mitigation; therefore, the following mitigation measure is proposed.

Mitigation Measure

3.5.3 If the USACE determines that the waterways to be impacted are jurisdictional, the Tribe shall submit an application for a CWA Section 404 permit. In addition, a CWA Section 401 water quality certification through the North Coast Regional Water Quality Control Board shall be obtained. The Tribe shall comply with all mitigation measures identified in the Section 404 permit and Section 401 certification, which may include, but would not be limited to, the following:

a. Avoidance buffers shall be established around the edges of any drainage features, as identified by a qualified biologist, in the vicinity of and outside of the construction area. Temporary orange construction fencing shall be installed prior to the commencement of any earthmoving activities and shall remain in place until all construction activities in the vicinity have been completed;
b. Construction activities near any USACE jurisdictional features shall be conducted during the dry season to minimize impacts related to erosion, water quality, and aquatic resources; and
c. Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials associated with construction activities into jurisdictional features. A contaminant program shall be developed and implemented in the event of release of hazardous materials. This may be incorporated into the Storm Water Pollution Prevention Plans (SWPPPs) to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the

terms of the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.

Significance after Mitigation

Less than significant.

Impact

3.5.4 The Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The implementation of Phases I and II of the Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors or impede the use of native wildlife nursery sites. Impacts would be less than significant.

Impact

3.5.5 The Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

No Habitat Conservation Plans/Natural Community Conservation Plans, or other approved local, regional, or State habitat conservation plans have been adopted that are applicable to either phase of the Proposed Project. No biological resources protected by the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan would be impacted as a result of construction or operation of either phase of the Proposed Project. No impact would occur.

3.6 GEOLOGY AND SOILS

This section describes off-reservation environment associated with geological features, discusses impacts of the Proposed Project on off-reservation geology and soils, and presents mitigation measures to reduce significant off-reservation impacts.

3.6.1 REGULATORY SETTING

FEDERAL

National Earthquake Hazards Reduction Program

The Earthquake Hazards Reduction Act of 1977 (Public Law 95-124, 42 U.S.C. 7701 et. seq.), as amended in 2004 (Public Laws 101614, 105-47, 106-503, and 108-360 in 2004), established the National Earthquake Hazards Reduction Program. This program was designed to "develop effective measures for earthquake hazards reduction and …improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines" (FEMA, 2004).

STATE AND LOCAL

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active and potentially active faults in California. The California Geological Survey (CGS) defines an "active" fault as one that exhibits evidence of activity during the Holocene period (the last 11,000± years). Faults that exhibit evidence of Quaternary activity (within the last 1.6 million years) are considered to be "potentially active." The purpose of the Alquist-Priolo Act is to regulate development on or near fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces. Fault zones defined by the Alquist-Priolo Act are areas around active faults, averaging approximately one-quarter miles wide, within which cities and counties having jurisdiction must regulate certain development projects (CGS, 2007).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was enacted in 1991 to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within the portions of the these zones over which they have jurisdiction. Before a development permit is granted by a city, county, or other local permitting agency for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures must be incorporated into the project design. Ground shaking probability maps have been developed in conjunction with the United States (U.S.) Geological Survey (USGS) for all of California.

California Building Code

The California Building Standards Commission, an independent commission within the State of California, produces the California Building Code (CBC) as part of Title 24, Part 2 of the California Code of Regulations. These building codes serve as the basis for the design and construction of buildings in California. The CBC incorporates by reference the International Building Code with necessary California amendments. The CBC includes minimum standards for designing structures to withstand earthquakes. It also requires that constructors identify soil and geologic conditions at the site. If conditions are found that may interfere with the stability of the building, the CBC includes specific building requirements for accommodating those conditions. The Draft Tribal-State Gaming Compact (Compact) requires that the construction of the Proposed Project meet or exceed the requirements of the CBC, including those relating to earthquake design features and soil and geologic conditions.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation geology and soils resources are as follows:

PH.5.A. The City may require a soils report, prepared by a licensed soils engineer, for development projects within areas of identified soils limitations. Soils reports shall evaluate shrink/swell and liquefaction potential of sites and recommend measures to minimize unstable soil hazards.

PH.5.B. Before construction of buildings three (3) stories or higher, probing for underground caverns shall be conducted.

PH.5.C. Public buildings and areas of mass assembly will be constructed so as to meet seismic safety standards. Owners of existing buildings are encouraged to pursue structural improvements to remedy seismic related hazards.

3.6.2 ENVIRONMENTAL SETTING

TOPOGRAPHY

The Proposed Project footprint is located at the base of hilly terrain characterized by moderate to shallow east to west sloping topography. The hills are the northern extension of the northwest trending Kilgor Hills located on the west side of the Shasta Valley. The 50 acres that constitute the fee parcel consist of sloped lands with relatively flat land along the western central portion of the parcel; slope inclinations range from approximately two to seven degrees. The 10-acre portion of the trust parcel that constitutes the project site is the moderately steep western slope of a ridge separating the site from the existing Karuk housing development; slope inclinations range from approximately 5 to 20 degrees. Elevations within the

project site range from 2,675 feet above mean sea level (amsl) to 2,825 feet amsl. Local outcrops of rock are present in the slope at and east of (above) the Proposed Project footprint (**Appendix E**).

GEOLOGIC SETTING

Regional Geological Setting

The project site is located at the margin between the Klamath Mountains and Cascade Range geologic/geomorphic provinces of California. The Klamath Mountains province extends from the northern end of the California Coast Ranges north into Oregon. It is bounded to the east by the Cascade Range province, to the south by the Coast Ranges and Great Valley provinces, to the west by the Pacific Ocean, and to the north by the Coast Ranges of Oregon. It is estimated that the province encompasses approximately 11,800 square miles in area (Irwin, 1966). The Klamath Mountains province is predominately composed of pre-Paleozoic and Paleozoic sedimentary, volcanic, intrusive, and metamorphic rocks that have been locally intruded by Mesozoic-age rocks (Hinds, 1952). Rock materials within this province have been accreted during tectonic processes into four differing terrains or differing ages (Irwin, 1966). Those terrains range in age from Jurassic to Ordovician (**Appendix E**).

The Cascade Range province extends from the northern end of the Sierra Nevada north to the Canadian border. In the project site vicinity, the Cascade Range province is bounded to the west by the Klamath Mountain province, to the east by the Modoc Plateau province, to the south by the Sierra Nevada province, and to the north by the Cascade Range extending through Oregon and Washington (**Appendix E**). The Cascade Range province consists of a north-northwest-trending, relatively linear belt of active and dormant strata and shield volcanoes. The regional geologic conditions are dominated by andesitic, rhyolitic, and basaltic volcanic rocks mantled with surficial deposits consisting of pyroclastic rocks, lahar deposits, alluvium, and local lacustrine sediments (Hinds, 1952; **Appendix E**).

Local Geological Setting

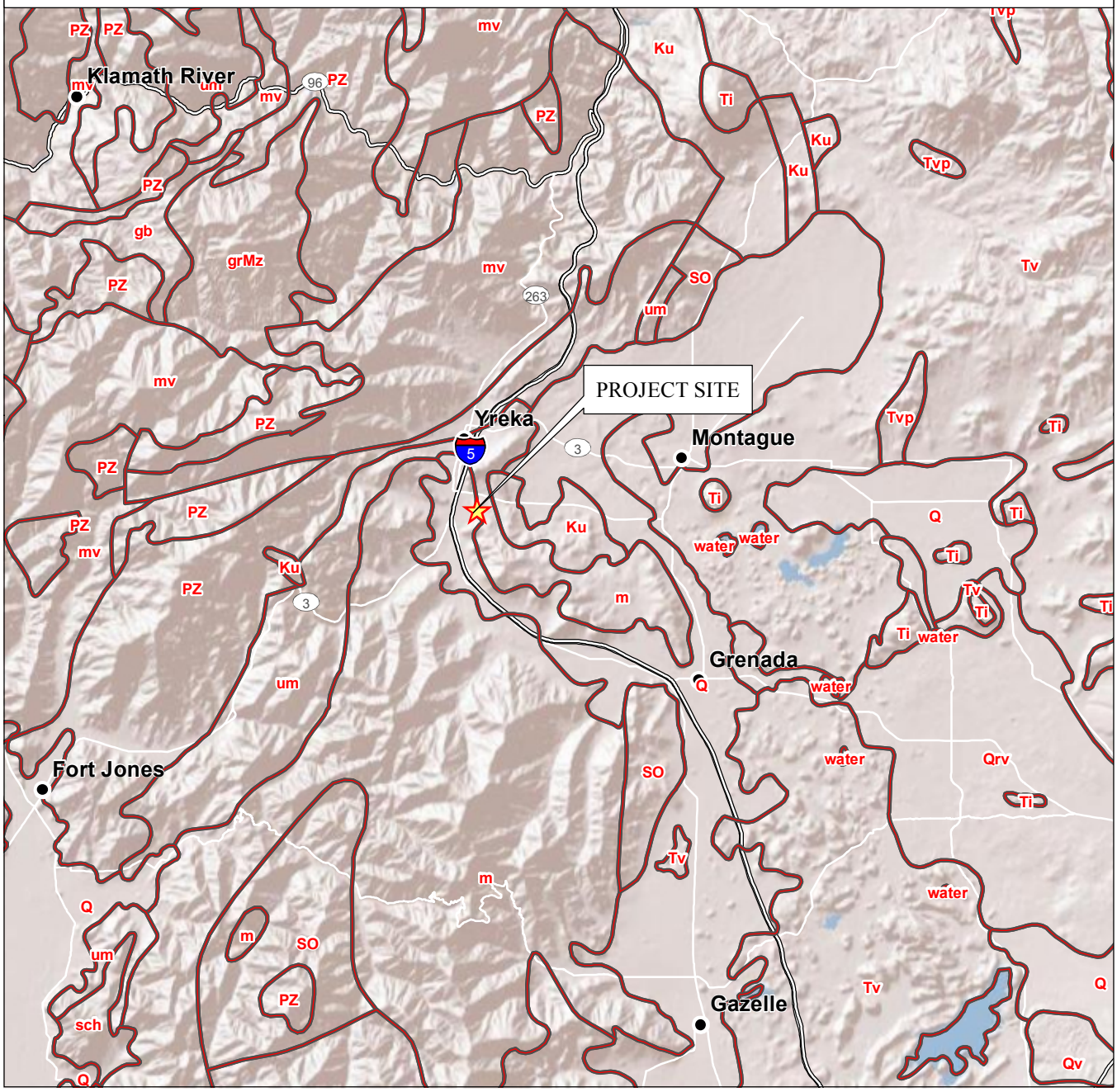
Based on mapping by Irwin (2009), the project site is located in the Eastern Klamath Terrane of the Klamath Mountains. The Eastern Klamath Terrane consists of Ordovician- to Silurian-age sedimentary, metasedimentary, metamorphic, and intrusive rocks (Irwin, 2009). The project site is situated on border of Pilocene to Holocene and Early Proterozoic to Cretaceous aged geology (**Figure 3.6-1**).

The site is underlain by colluvium, older alluvium, and the Schulmeyer Gulch Formation (Hotz, 1977; Nilsen, 1993). As noted in **Appendix E**, most of the Proposed Project footprint has been mapped as being underlain by the member of the Schulmeyer Gulch Formation having predominately phyllitic siltstone, which is a metamorphosed siltstone. Within that member are discontinuous lenses of chert and quartzite (Hotz, 1977); these materials are not prone to cavern development. A limestone member of the Schulmeyer Gulch Formation has been mapped at the south end of the Phase II footprint (**Appendix E)**.

Overlying the Schulmeyer Gulch Formation are colluvial soils, which include topsoil and sediments that have largely been accumulated on and at the base of the slope. In addition, alluvial soils have been

REGIONAL GEOLOGY TYPES

Geology Type Boundaries	PZ - Devonian to Jurassic	Ti - Tertiary	m - Early Proterozoic to Cretaceous
C - Mississippian to Early Permian	PZ - Ordovician(?) to Devonian(?)	Tr - Middle to Late Triassic	mv - Paleozoic(?) to Mesozoic(?)
D - Devonian	Pzv - Devonian and Permian	Tv - Tertiary (2-24 Ma)	sch - Devonian
Ec - Eocene	Q - Pliocene to Holocene	Tvp - Tertiary (2-24 Ma)	sch - Jurassic(?)
J - Devonian to Late Jurassic	Qg - Pleistocene	gb - Ordovician	um - Late Proterozoic(?) to Early Jurassic
Ku - late Early to Late Cretaceous	Qrv - Holocene	gb - Triassic to Cretaceous	um - Ordovician
Mzv - Late Permian(?) to Jurassic	Qv - Quaternary	grMz - Jurassic to early Cretaceous	water - Holocene
Oc - Oligocene to Miocene	Qv? - Quaternary	grMz - Permian	
P - Early Permian	SO - Ordovician to Early Devonian	ls - Paleozoic to Mesozoic	



SOURCE: California Geological Survey, 2005; AES, 2013

Figure 3.6-1
Regional Geology

mapped along the western margin of the Proposed Project footprint, in areas predominately flat and within the former and/or active flood plain of Yreka Creek.

To verify the results of previously conducted regional mapping efforts, the localized geologic conditions exposed at the ground surface on the trust and fee parcels were mapped as a component of the Preliminary Geotechnical Report for the Proposed Project (**Appendix E**). The localized mapping was generally consistent with the regional geological mapping efforts. Resistant quartzite outcrops were observed along the southern portion of the ridge that borders the trust parcel. The primary differences between the localized and regional mapping efforts are the locations of mapped alluvial soils, relatively thick colluviums, and artificial fill materials, which were not previously identified during the regional mapping efforts. In addition, limestone identified during regional mapping efforts was not observed during the localized mapping on the trust or fee parcels (**Appendix E**).

Soils

Soils in the vicinity of the project site contain approximately one-third Dumps, consisting mostly of waste rock from dredging operations, and two-thirds Duzel-Jilson-Facey complex (Baker Environmental 2000; NRCS, 2013; **Appendix E**). The Dumps series consists of smoothed or uneven accumulations or piles of waste rock and general refuse; given the unknown nature of the parent material, the Natural Resource Conservation Service (NRCS) does not provide details as to the permeability, runoff potential, erosion hazard, or shrink-swell characteristics. The Duzel-Jilson-Facey complex has a parent material of weathered metamorphic rock and is considered well-drained. Slopes on the Duzel-Jilson-Facey complex range from 15 to 50 percent. Erosion factors indicate a low to moderate risk of susceptibility (NRCS, 2013). Linear extensibility, which corresponds to a soil's shrink-swell potential, is rated low for the first 10 inches of soil depth, but the rating changes to moderate after 10 inches of depth in some areas. Plasticity Indices values ranging from approximately 3 to 13 are present within the soils on the project site; soils within that range have a very low expansion potential (Day, 1999; **Appendix E**).

In 1997, a series of test pits were excavated on the northernmost 10 acres of the trust parcel and on parcels directly adjacent to the southeastern border of the 50 acre fee parcel. The excavation was performed in order to evaluate the subsurface conditions to depths that had the potential to influence structural development (Arrowhead, 1998). Undocumented fill, topsoil, colluvium, and bedrock were recovered in the excavation. The fill, comprised of red-brown clay-sand with gravel and cobbles, was observed at a maximum depth of nine feet and potentially placed there during the development of the Yreka Estates subdivision to the east of the project site. Natural topsoil was observed within a majority of the test pits at depths ranging from approximately one to two feet below the ground surface. The topsoil developed over the phyllitic sedimentary bedrock was typically composed of dark red clayey silt. Several of the test pits underlain by the phyllitic metamorphic rock and sedimentary materials were accompanied by a thin layer of colluvium. The colluviums consisted of medium red clayey sand to silty sand which contained gravel and cobbles. Metasedimentary bedrock of the Shulmeyer Gulch sequence was encountered underlying the surficial soil types (fill, topsoil, and colluviums). The phyllitic bedrock is

susceptible to weathering processes and was readily excavated at a depth of 8 to 14 feet (Arrowhead, 1998).

Seismicity

Regional Faults

Several fault lines are present in the vicinity of the project site, including the Greenhorn Fault, located north of the City, and the Soap Creek Ridge Fault, located southwest of the City; however, none of these faults have shown any activity in the last 1.6 million years (CGS, 2010; **Appendix E**). No active faults are known to pass through the project site (Jennings, 1994; Hart and Bryant, 1997). However, a number of potentially active and active faults are located in the region of the project site (**Figure 3.6-2**). **Table 3.6-1** presents regional fault locations within 50 miles of the project site. The closest mapped potentially active fault is the Yellow Butte fault, located approximately 20 miles southeast of the project site. The closest active fault is the Cedar Mountain-Mahogany Mountain fault system located approximately 36 miles east of the site.

TABLE 3.6-1
REGIONAL FAULTS

Fault name	Fault Activity Rating[1]	Distance from project site (miles)	Upper Bound Earthquake (M_W)
Yellow Butte	PA	20.1	5.5 (estimated)
Cedar Mountain-Mahogany Mountain	A	36.5	6.9

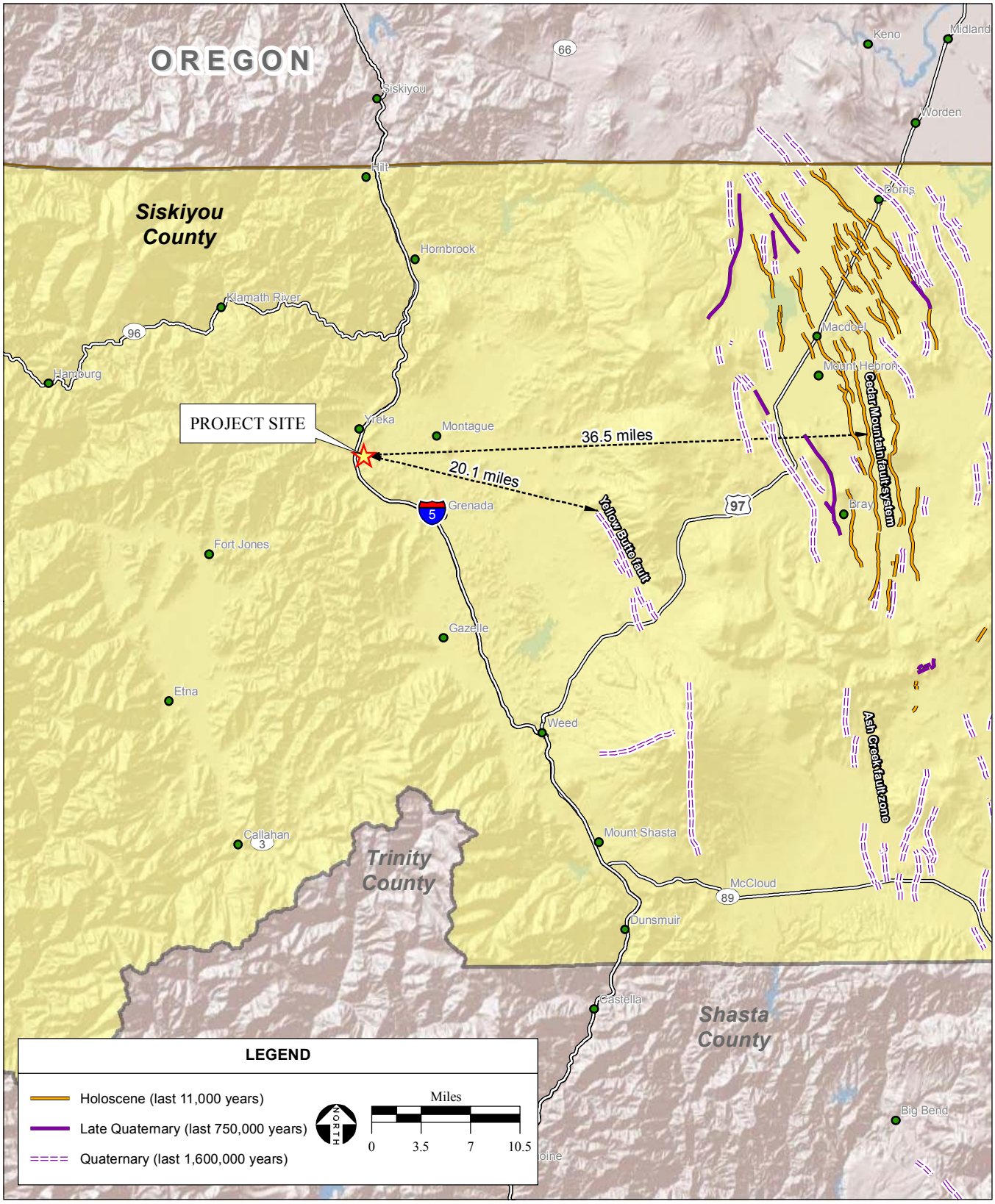
NOTES: [1]A = Active, PA = Potentially active
M_W = moment magnitude
SOURCE: Blake, 2000; **Appendix E**

Surface Fault Rupture

Surface fault rupture typically occurs on or within close proximity to the causative fault. It is defined as displacement at the earth's surface resulting from fault movement associated with an earthquake. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Future faulting is generally expected along different strands of the same fault. There are no Alquist-Priolo Earthquake Fault Rupture Hazard Zones mapped in Siskiyou County (County) (CGS, 2007).

Ground Shaking Intensity

While the magnitude is a measure of the energy released in an earthquake, intensity is a measure of the ground shaking effects at a particular location. Shaking intensity can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The Modified Mercalli (MM) intensity scale (**Table 3.6-2**) is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total). MM intensities ranging from IV to X could cause moderate to significant structural damage.



SOURCE: USGS Earthquake Hazards Program, 7/26/2010; California Geological Survey, 2005; AES, 2013

Figure 3.6-2
Regional Faults

TABLE 3.6-2
MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration[a]
I.	Not felt except by a very few persons under especially favorable circumstances.	< 0.0015*g*
II.	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.	< 0.0015*g*
III.	Felt quite noticeably indoors, especially on upper floors of buildings, but many persons do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibration similar to a passing of a truck. Duration estimated.	< 0.0015*g*
IV.	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably.	0.015*g*-0.02*g*
V.	Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	0.03*g*-0.04*g*
VI.	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.	0.06*g*-0.07*g*
VII.	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.	0.10*g*-0.15*g*
VIII.	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motorcars disturbed.	0.25*g*-0.30*g*
IX.	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.50*g*-0.55*g*
X.	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 0.60*g*
XI.	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 0.60*g*
XII.	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 0.60*g*

NOTE: [a] *g* is gravity = 980 centimeters per second squared.
SOURCE: Bolt, 1988.

The USGS creates models of seismic hazard based on the physical and mechanical properties of the Earth's crust. Based on these models, the USGS determines the peak horizontal ground acceleration, the

fastest measured change in speed for a particle at ground level. When there is an earthquake, the forces caused by the shaking are measured as percent *g*, when *g* is the acceleration due to gravity, or 9.8 meters/second (USGS, 2004). The project site is within an area with a 10 percent chance that, in a 50-year period, an earthquake will create peak ground acceleration of between 0.10*g* and 0.20*g* (CGS, 2013). This corresponds to an approximate MM intensity rating between VII and VIII (**Table 3.6-2**). A deterministic estimate of peak horizontal ground accelerations for the project site was conducted using attenuation relations from Boore et al. (1997) and the computer program EQFAULT (Blake, 2000). Deterministic ground motion data are presented in **Appendix E**. Based on these evaluations, the project site could be subjected to horizontal ground accelerations of at least 0.24*g*. The causative fault that is responsible for that peak horizontal ground acceleration is a Cascadia Subduction Zone event, located approximately 78 miles west of the project site (**Appendix E**).

A probabilistic evaluation of horizontal strong ground motion that could affect the project site was conducted using attenuation evaluation methods provided by the USGS (USGS, 2013a). Probabilistic ground motion data are presented in **Appendix E**. Based on these evaluations, the project site could be subjected to peak horizontal ground accelerations of 0.19*g* (**Appendix E**).

Generally, seismicity in the Klamath Mountain province is associated with compressional forces between the Pacific and North American tectonic plates. Seismic activity in the Cascade Ranges province is related to low volcanic activity. Due to the very few active faults and the distance to recent earthquake activity, the County has a low potential for occurrence of earthquakes. The Siskiyou County General Plan Seismic and Safety Element (1980) states that over a 120-year period, only 9 or 10 earthquakes capable of "considerable damage" have occurred. There have been no deaths connected to this earthquake activity and only minor building damage has occurred. In the City limits, there has been no earthquake damage reported. However, the Uniform Building Code designates the City in Seismic Zone 3, defined as an area of potentially major damage from earthquakes corresponding to intensity VII on the MM intensity rating scale (**Table 3.6-2**).

Liquefaction

Soil liquefaction is a temporary condition wherein saturated granular soils near the ground surface experience a substantial loss of strength during a seismic event. Liquefaction transforms the soil condition to a liquefied state as a result of increased soil pore water pressure, which is the water pressure between soil particles. Liquefaction can occur if three factors are present: strong seismic shaking, loose sand or silty soils (especially fine-grained sands), and saturation from shallow or perched groundwater. Liquefaction potential has been found to be greatest where the groundwater is within a depth of 50 feet or less, and submerged loose, fine sands occur within that depth. Ground acceleration and duration of shaking increases liquefaction potential, whereas larger grain size, clay content, and gravel content decreases liquefaction potential.

The development footprint on the trust parcel for the Proposed Project would be situated on rock materials of the Schulmeyer Gulch Formation (Plate 3 of **Appendix E**). The development footprint on the fee parcel for the Proposed Project is situated on relatively thin, fine-grained colluvial soils that, in turn, rest on the Schulmeyer Gulch Formation. While these soils have sufficient fines content, there is a general absence of shallow groundwater in the vicinity of the project site and therefore a low risk of liquefaction (**Appendix E**).

Landslides

Landslides constitute a major geologic hazard because they occur in all 50 states, cause an average of $1 to $2 billion in damages per year, and result in more than 25 fatalities on average each year. They can seriously damage highways and structures that support fisheries, tourism, timber harvesting, mining, and energy production. Landslides commonly occur in conjunction with other major natural disasters such as earthquakes and floods (USGS, 2013b). Landslides occur when the weight on a slope exceeds the static force that retains that slope. Over-steepened slopes are the primary cause for landslides, although the point at which a slope becomes too steep is based on a number of factors, including saturation by snowmelt or heavy rains; earthquakes of magnitude 4.0 and greater; volcanic eruptions; and excess weight from accumulation of rain or snow, stockpiling of rock or ore, waste piles, or man-made structures. Erosion is a major factor contributing to creation of over-steepened slopes.

The project site is moderately inclined to gently sloping. Geologic mapping of the area has not noted any evidence of landsliding on the trust or fee parcels (Hotz, 1977; Nilsen, 1993). Observations made at the site and a review of aerial photographs did not identify geomorphic features that would be indicative of past or incipient slope failures (**Appendix E**). Accordingly, natural landslides pose a low risk to the Proposed Project.

3.6.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section VI of the Checklist (**Appendix A**) and have been used in this section to evaluate the potential off-reservation impacts of the Proposed Project on geology and soils. An impact is considered significant if it would:

- Expose off-reservation people or structures to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
- Expose off-reservation people or structures to substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking;
- Expose off-reservation people or structures to substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction;

- Expose off-reservation people or structures to substantial adverse effects, including the risk of loss, injury, or death involving landslides; or
- Result in substantial off-reservation soil erosion or the loss of topsoil.

METHODOLOGY

Off-reservation impacts of Phases I and II of the Proposed Project with respect to geology and soils were analyzed based on existing soil types and topography of the Proposed Project site and its vicinity, proximity of the Proposed Project to known faults, and estimates of how the Proposed Project would affect existing off-reservation geology and soils.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact
3.6.1 The Proposed Project would not expose off-reservation people or structures to substantial adverse effects caused by rupture of a known earthquake fault or other strong seismic ground shaking.

There are no seismically active regions in close proximity to the project site, and no Alquist-Priolo Fault-Rupture Hazard Zones are mapped in the County. Additionally, as discussed in **Section 2.4**, both Phases I and II of the Proposed Project would be built in accordance with the Compact, which requires that construction meet or exceed the requirements of the CBC, including those relating to earthquake design features and soil and geological conditions. Therefore, the implementation of Phases I and II of the Proposed Project would not increase the exposure of off-reservation people or structures to adverse effects in the event of fault rupture or ground shaking. Any impact to off-reservation people or structures attributable to rupture of a known earthquake fault or other strong seismic ground shaking that would occur as a result of the Proposed Project would be less than significant.

Impact
3.6.2 The Proposed Project would not expose off-reservation people or structures to substantial adverse effects involving seismic-related ground failure, including liquefaction.

Schulmeyer Gulch Formation rock materials, which comprise a portion of the fee parcel, are not prone to liquefaction or lateral spreading. The fine-grained colluvial soils on the fee parcel rest on the Schulmeyer Gulch Formation and have a general absence of shallow groundwater such that the likelihood of liquefaction occurring within the soil is low. Liquefaction poses a low risk to the facilities to be constructed during Phases I and II of the Proposed Project, and any impact to off-reservation people or structures attributable to seismic-related ground failure as a result of the Proposed Project would be less than significant.

Impact

3.6.3 The Proposed Project would not expose off-reservation people or structures to substantial adverse effects involving landslides.

As discussed in **Section 3.6.2**, historical records and geologic mapping of the area as well as field observations did not identify evidence of past or incipient slope failures or landslides. Natural landslides therefore pose a low risk to development of Phases I and II of the Proposed Project.

Phase I of the Proposed Project entails significant grading of the trust parcel, including a 35-foot high engineered fill slope on the west side of the Phase I footprint and a 70-foot high cut slope on the east side of the Phase I footprint. The preliminary grading plan in Attachment B of **Appendix C** indicates the approximate limits of excavation and grading for the project site. Although the structures would be developed on trust land, improper grading and construction could contribute to the risk of landslides. Several project design features, as detailed in **Section 2.4**, have been included to minimize the risk associated with landslides. The preliminary grading plan was developed in accordance with the grading requirements in the 2010 CBC. Cut and fill slopes would be developed with 2:1 max slopes. Benches 6 feet in width would be incorporated into slopes where the heights of the slopes exceed 30 feet vertically. All benches would require surfaced drainage swales to collect stormwater from the slopes and direct it to appropriate storm drainage facilities. Additionally, the top of the cut slope would require a surfaced swale to direct stormwater from above the cut slope away from the face of the cut slope. With the design features, any impact to off-reservation people or structures attributable to landslides as a result of construction and operation of the Proposed Project would be less than significant.

Grading on the fee parcel during Phase I would be minimal (**Appendix C**). The City grading permit required for the fee parcel would include requirements to reduce the potential for landslides during construction and operation of the Proposed Project.

The majority of grading for the Proposed Project would be completed during Phase I, and grading on both parcels during Phase II would be minimal thereby minimizing the potential for landslides. Grading on the fee parcel during Phase II would require a City grading permit that would further reduce the potential for landslides. The impact would be less than significant.

Impact

3.6.4 The Proposed Project could result in substantial off-reservation soil erosion or the loss of topsoil.

Construction of Phases I and II of the Proposed Project would involve earth-moving activities, such as grading, excavation, and stockpiling of soil. As discussed in **Section 2.4**, it is anticipated that project site earthwork would be near balanced as excavated soil would be utilized as

engineered fill within the development footprint of Phases I and II of the Proposed Project. However, the majority of grading and earthmoving activities would be conducted during construction of Phase I of the Proposed Project, and excess soil excavated during Phase I would be stockpiled on the fee parcel until construction begins of Phase II of the Proposed Project. The excess soil excavated during Phase I would be used as engineered fill for the development of the parking lot area on the fee parcel during Phase II.

Ground disturbing activities during construction of Phases I and II of the Proposed Project would create the potential for off-reservation impacts related to erosion by exposing soils to erosion via stormwater. In addition, the stockpile of excess soil excavated during Phase I that would be stored on the fee parcel until construction of Phase II commences has the potential for off-reservation impacts related to erosion as the stockpile could also be exposed to erosion via stormwater. Substantial erosion or loss of top soil on the fee parcel would constitute an impact to off-reservation resources. Erosion from the trust and/or fee parcels could result in soils being transported off the project site and thereby cause an impact to off-reservation resources.

The City grading permit required for the fee parcel during Phases I and II would include provisions to reduce soil erosion or the loss of top soil, thereby reducing off-reservation impacts.

Moreover, the regulatory requirements associated with water quality discussed in **Section 3.8** would also mitigate impacts associated with soil erosion. For tribal projects on land held in trust by the federal government, the Tribe must apply for coverage under the U.S. Environmental Protection Agency's (USEPA's) Stormwater General National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities. In addition, for development on the fee parcel, the Tribe must comply with the requirements of the State Water Resources Control Board (SWRCB) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ). Both the federal and State permits require the Tribe develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which shall include Best Management Practices (BMPs) that will be implemented during construction and operation of Phases I and II of the Proposed Project to address pollution associated with stormwater runoff. To address the potential impacts associated with stormwater induced erosion, the following mitigation is proposed.

Mitigation Measure

3.6.1 The SWPPPs to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of both the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities shall include, but are not limited to, the following BMPs:

a) If excavation occurs during the rainy season, stormwater runoff from the construction area shall be regulated through a stormwater management/erosion control plan that shall include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as the temporary silt basins. Sediment basins/traps shall be located and operated to minimize the amount of off-reservation sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location on site, away from concentrated flows, or removed to an approved disposal site.
b) Temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be provided until perennial revegetation or landscaping is established to minimize discharge of sediment into nearby waterways.
c) No disturbed surfaces shall be left without erosion control measures in place during the spring and winter months.
d) Erosion protection shall be provided on all cut-and-fill slopes and stockpiled soils. Revegetation shall be facilitated by mulching, hydroseeding, or other methods and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season.

Significance After Mitigation

Less than significant.

3.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes off-reservation environment associated with hazards (e.g. wildland fires) and hazardous materials, discusses the off-reservation impacts of the Proposed Project, and presents mitigations measures to reduce significant off-reservation impacts.

3.7.1 REGULATORY SETTING

DEFINITION OF HAZARDOUS MATERIAL

For the purposes of the off-reservation environmental impact analysis within this section, a material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as:

> "A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed" (22 CCR Section 66260.10).

FEDERAL

United States Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) administers numerous laws, regulations, and statutes pertaining to human health and the environment at the federal level.

Resource Conservation and Recovery Act

The USEPA regulates the land disposal of certain hazardous materials through the Resource Conservation and Recovery Act (RCRA). The RCRA authorizes the USEPA to control hazardous waste from generation to disposal and provides a framework for managing non-hazardous wastes. The 1984 amendments to RCRA, known as the "Federal Hazardous and Solid Waste Amendments" (HSWA), require phasing out land disposal of hazardous waste. As amended in 1986, RCRA addresses potential problems associated with underground tanks storing petroleum and other hazardous substances (USEPA, 2012).

Under RCRA, the USEPA regulates the activities of hazardous waste generators, transporters, and handlers (any individual who treats, stores, and/or disposes of a designated hazardous waste). The RCRA further requires the tracking of hazardous waste from its generation to its final disposal through a process often referred to as "cradle-to-grave" regulation. This "cradle-to-grave" regulation requires detailed documentation and record keeping for hazardous waste generators, transporters, and/or handlers in order

to ensure proper accountability for violations of applicable regulations. Hazardous waste generators are divided into three categories of generators based upon hazardous waste generation rates: Conditionally Exempt Small Quantity Generators (CESQGs), Small Quantity Generators (SQGs), and Large Quantity Generators (LQGs). Each type of generator is subject to different regulations due to differences in the amount of hazardous waste generated.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 (TSCA) provides the USEPA with authority to implement reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures (USEPA, 2013). Certain substances such as food, drugs, cosmetics and pesticides are generally excluded from TSCA. TSCA addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, imposed a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases (or threatened releases) of hazardous substances that may endanger public health or the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous substances sites, provided for liability of persons responsible for releases of hazardous substances at these sites, and established a trust fund to provide for cleanup of these sites when no responsible party could be identified. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986 (USEPA, 2011).

Healthy Forests Restoration Act of 2003

The Healthy Forests Restoration Act, codified in Chapter 84 of the United States Code (USC), was passed after the devastating fire season in 2002 burned 7 million acres nationwide, including a large portion of Siskiyou County in the multi-state Biscuit Fire (White House, 2003). Subchapter I authorized the implementation of hazardous fuel reduction programs on federal lands near “at risk communities” in wildland urban interface areas. These at risk communities must develop community wildfire protection plans which identify and prioritize areas for hazardous fuel reduction and recommend methods of treatment of federal lands which will maximize the protection of at risk communities and infrastructure. The City of Yreka (City) is a part of the Mount Shasta Area Community Wildfire Protection Plan.

STATE AND LOCAL

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was created in 1991 to better coordinate state environmental programs, reduce administrative duplication, and address the most significant off-reservation environmental and health risks. Cal/EPA unifies the state's environmental authority under a single cabinet-level agency. Cal/EPA also implements federal regulations delegated to the state level by the USEPA. Cal/EPA oversees the following agencies: California Air Resources Board (CARB),

California Integrated Waste Management Board (CIWMB), Department of Pesticide Regulation (DPR), State Water Resources Control Board (SWRCB), California Department of Toxic Substances Control (DTSC), and Office of Emergency Services (OES).

The DTSC regulates the off-reservation generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the State Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

California Health and Safety Code

Division 20, Chapter 6.95 of the California Health and Safety Code requires off-reservation businesses that generate, store, or transport hazardous materials to prepare and maintain a Hazardous Materials Business Plan (HMBP). The DTSC delegates enforcement of the HMBP requirements to local environmental health departments. These requirements do not apply to the trust land on which the Proposed Project would be located, but would apply to the land owned in fee.

Hazardous Waste Control Act

The Hazardous Waste Control Act (HWCA) of 1972 established the basis for the California Hazardous Waste Control Program within the California Department of Public Health (CDPH). Included in the HWCA are definitions for what is considered to be a "hazardous waste," the definition of "hazardous," and what is required for appropriate handling, processing, and disposal of hazardous and extremely hazardous waste in areas over which the state has jurisdiction in a manner that protects the public, livestock, and wildlife. The HWCA also established a tracking system for the off-reservation handling and transportation of hazardous waste from the point of waste generation to the point of ultimate disposition, as well as a system of fees to cover the costs of operating the hazardous waste management program. The HWCA is California's implementation of the federal RCRA "cradle-to-grave tracking" requirement. The USEPA used several components of the HWCA when CERCLA was first introduced in 1980. The primary State entity that oversees the cradle-to-grave regulations is the DTSC.

California Department of Fire and Forestry (CAL FIRE)

Fire Hazard Severity Zones (FHSZ) are areas mapped by California Department of Forestry and Fire Protection (CAL FIRE) in accordance with Public Resources Code 4201-4204. The zones are intended to provide guidance for building standards, property development and sales, and maintenance of properties at an appropriate level to the severity of the hazard. The factors used in determining the zones include vegetation, topography, weather, degree that tall trees and brush is burned, and the production and transportation of embers.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in

fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to the off-reservation hazardous materials and wildfire conditions as described in the Checklist are as follows:

PH.1.A. The City shall continue to participate in emergency preparedness planning with Siskiyou County.

PH.3.A. Maintain current levels of service for fire protection by continuing to require development projects to provide for and/or fund fire protection facilities, personnel, operations, and maintenance.

PH.6.B. Continue to coordinate hazardous waste management programs consistent with the Siskiyou County Household Hazardous Waste Element (HHWE) and the Siskiyou County Emergency Operations Plan (EOP).

PH.6.C. All permits for new projects or major additions to existing uses located on sites identified by the State as having or containing likely hazardous substances or materials shall be reviewed by the Siskiyou County Health Department for compliance with applicable State and local regulations.

PH.6.D. The transport of all hazardous substances and materials shall not be permitted on local streets and highways without the approval of the applicable State agency having permit issuing authority for such material transportation.

PH.6.E. Any use or manufacture of hazardous substances within one-quarter mile of any existing or proposed school, shall only be permitted when authorized by a conditional use permit, with ample assurances that the students will not be placed in a hazardous environment.

PH.6.F. As a means to address possible wildfire hazards on all discretionary projects on the periphery of the City, such applications shall be submitted to the California Department of Forestry for recommendations and suggested mitigation measures to be added to project approvals.

PH.6.G. All permits for new projects or major additions to existing uses that have the potential for using or containing hazardous substances or materials shall be reviewed by the Siskiyou County Health Department for compliance with applicable State and local regulations.

3.7.2 ENVIRONMENTAL SETTING

OBSERVED SITE CONDITIONS

No significant hazardous materials or conditions were identified in the Phase I Environmental Site Assessment (ESA) completed for the trust (APN 062-061-040) and fee (APN 062-051-380) properties. For the trust parcel, a Phase I ESA was completed in 1996 concluding that no recognized environmental

conditions were present on or adjacent to the trust parcel that would inhibit development on the property. For the parcel held in fee, a Phase I ESA was completed in 2000 and verified by the Bureau of Indian Affairs in 2008. The 2008 verification included an updated records search for potential hazardous material release events in the vicinity of the trust and fee parcels. Lumber was processed and treated between 1952 and the early 1980's on land adjacent to the western boundary of the fee parcel, and milled and treated lumber was stored on the fee parcel. It was determined that no residue from treated lumber is present at the project site, and the area in which wood treatment operations occurred is down gradient of the project site (Baker Environmental, 2000).

SURROUNDING PROPERTIES

Environmental Data Resources, Inc. (EDR) conducted a regulatory agency database search (**Appendix G**), on April 22, 2008 for records of known storage tank sites and hazardous materials generation, storage, or contamination on or near the project site. EDR uses a geographical information system to plot locations of past and current hazardous materials uses or releases. Databases were searched for sites and listings up to one mile from a point roughly equivalent to the center of the project site. The complete list of reviewed databases is provided in the EDR report. Analytical Environmental Services (AES) reviewed the database report to determine if any hazardous materials releases have occurred on the project site and adjacent properties that would affect surface and subsurface conditions on the project site. In addition, a review of the SWRCB's GeoTracker database was performed on August 2, 2013 by AES.

The EDR database search located three sites within the one-mile search radius. The City of Yreka Department of Public Works operates a medium-volume Transfer Station approximately 0.41 miles north of the project site at 2420 Oberlin Road. The Transfer Station site is listed on the HAZNET database and the Waste Management Unit Database (WMUDS). Organic residues, inorganic solid waste, waste oil, and solid waste are transferred here. This facility is a Category B solid waste disposal facility with waste that is primarily nonhazardous, solid, semisold, or liquid waste (i.e. garbage, trash, refuse, paper, construction waste, manure, vegetable solids) (**Appendix G**). This site is not listed on the SWRCB's GeoTracker database (SWRCB, 2013).

The second cluster of sites in the EDR report are multiple database records identified as Nor-Cal Products Company, located at 1512 South Oregon Street approximately 0.74 mile northwest of the project site. Solvent contamination was observed of soils and groundwater in the area, and cleanup of the site was initiated in 1988 (**Appendix G**). According to the SWRCB's GeoTracker database, the site was listed as closed in 2009, following an assessment of the site by the North Coast Regional Water Quality Control Board (RWQCB).

A total of 12 sites were identified within a 1-mile radius of the project site in the GeoTracker database (SWRCB, 2013). However, all but one of these sites were listed as cleanup complete, closed cases on the database. Only the Siskiyou County Service Station, located approximately 0.62 mile east of the project site, is still listed as an open case for potential gasoline contamination. However, six groundwater wells

have undergone annual monitoring, and as of March 6, 2013, the site is eligible for closure pending a final site inspection (SWRCB, 2013).

Sensitive Receptors

Schools are considered sensitive receptors in relation to the emissions and handling of hazardous materials. The closest school is the Karuk Tribal Headstart, located approximately 1,000 feet east and up-gradient of the project site within the Tribe's off-reservation Yreka Housing Development.

WILDLAND FIRE HAZARDS

The project site is located in a Local Responsibility Area (LRA). The southern third of the project site is located in a very high fire hazard severity zone (VHFHSZ), while the northern portion of the project site is designated as a non-VHFHSZ (CAL FIRE, 2007). The City of Yreka Code of Ordinances Title 11, Chapter 11.10.040 enforces the provisions of the California Building Code (CBC) in all very high fire hazard severity zones. The area just off-reservation to the south is designated as VHFHSZ within a State Responsibility Area (SRA). The CBC states that all new structures located in any FHSZ within the SRA are required to be constructed in accordance with CBC §701A.3.2. This section provides minimum standards for building materials and material assemblies and establishes standards for a reasonable level of exterior wildfire exposure protection for buildings (Society of American Foresters, 2004).

CAL FIRE would provide wildland fire services to the off-reservation area to the south of project site, as it is located in a State Responsibility Area that has a high wildfire threat (CAL FIRE, 2007). The nearest CAL FIRE station is the Yreka Station located approximately 0.7 mile southwest of the project site, but it is only staffed during the fire season. The nearest CAL FIRE station that is open year-round is the Hornbrook Station approximately 12.5 miles north of the project site (CAL FIRE, 2013). The City of Yreka Volunteer Fire Department would provide fire services to the incorporated areas to the west, north, and east of the project site. Fire service jurisdictions that may be physically affected by the Proposed Project are discussed in **Section 3.10**.

3.7.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by the Checklist (**Appendix A**) and have therefore been used in this section to evaluate the potential off-reservation impacts of Phases I and II of the Proposed Project with respect to off-reservation hazards and hazardous materials. An impact is considered significant if it would:

- Create a significant hazard to the off-reservation public or the off-reservation environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the off-reservation public or the off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed off-reservation school; or
- Expose off-reservation people or structures to a significant risk of loss, injury, or death involving wildland fires.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.7.1 The Proposed Project could create a hazard to the off-reservation public and/or off-reservation environment through routine transport, use, or disposal of hazardous materials.

Construction

During construction of both phases of the Proposed Project, limited quantities of miscellaneous hazardous substances such as fuels, solvents, oils, and paint would be used and stored at the project site. All materials deemed hazardous which are anticipated to be used during construction are standard materials typically found on a construction site. Contractors could use temporary bulk above-ground storage tanks (ASTs) as well as storage sheds or trailers for fueling and maintenance purposes. As with any liquid and solid, the handling and transfer from one container to another has the potential for an accidental release. If properly used, stored, and disposed of, these materials would not be a hazard to the off-reservation public or the off-reservation environment. However, if these materials are not properly used, stored, or disposed of, spills or leaks could pose a hazard to the off-reservation public and to the off-reservation environment. The presence of hazardous materials on the project site during construction could create a significant off-reservation impact if spilled in such a way as to move off-reservation or if stormwater runoff transported hazardous materials off-reservation.

The regulatory requirements associated with water quality discussed in **Section 3.8** would also mitigate impacts associated with hazardous materials used during construction. For projects on trust land disturbing an area greater than one acre, the Tribe must apply for coverage under the USEPA's Stormwater General National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities. In addition, for development on the fee parcel disturbing an area greater than one acre, the Tribe must comply with the requirements of the SWRCB General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ). Both the federal and State permits require the Tribe develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which shall include Best Management Practices (BMPs) that will be implemented during construction and operation of Phases I and II of the Proposed Project to address pollution associated with stormwater runoff. To address the potential impacts associated with the off-site movement of hazardous materials, the following mitigation is proposed.

Mitigation Measure

3.7.1 The SWPPPs to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of both the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities shall include, but are not limited to, the following BMPs:

a) Hazardous materials such as fuels and solvents used in the construction of Phases I and II of the Proposed Project shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents shall be contained in an area of impervious surface with containment capacity equal to the volume of materials stored.
b) A stockpile of spill cleanup materials shall be readily available at the project site. Construction workers shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities.
c) Equipment used in the construction of Phases I and II shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants.

Significance After Mitigation

Less than significant.

Operation

The types and quantities of hazardous materials stored and handled on the project site would be similar to those at surrounding commercial facilities and may include cleaning supplies, fertilizers, and fuel for maintenance vehicles. A propane tank would be located on site with capacity to supply both phases of the Proposed Project. The Tribe would adhere to typical safety guidelines and standards when storing and using potentially hazardous materials. Operation of the Proposed Project would result in a less than significant impact to the off-reservation public and/or environment through routine transport, use, or disposal of hazardous materials.

Impact

3.7.2 The Proposed Project could create a significant hazard to the off-reservation public and/or the off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction or operation of the Proposed Project.

Construction

As described in **Impact 3.7.1** above, limited quantities of miscellaneous hazardous substances such as fuels, solvents, oils, and paint would be transported to, used on, and stored at the project site during construction of Phases I and II of the Proposed Project. If properly used, stored, and disposed of, these materials would not be a hazard to the off-reservation public or the off-reservation environment. The presence of hazardous materials on the project site during construction could create a significant off-reservation impact if spilled in such a way as to flow off-reservation or if transported off-reservation via stormwater runoff. **Mitigation Measure 3.7.1**, discussed above, would reduce impacts to a less than significant level.

Significance After Mitigation

Less than significant.

Operation

As described in **Impact 3.7.1** above, the Tribe would adhere to typical standards and guidelines when storing and handling potentially hazardous materials on the project site, which includes promptly and adequately addressing any accidental spills or releases. Operation of both phases of the Proposed Project would therefore result in a less than significant impact associated with hazards to the off-reservation public and/or off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact
3.7.3 The Proposed Project has the potential to emit hazardous emissions or involve the handling of hazardous materials within one quarter-mile of an existing or proposed off-reservation school.

The nearest off-reservation school is approximately 0.2 mile east of the project site. The Proposed Project would not emit hazardous emissions during construction or operation and the school is located on the other side of the ridge from the project site. The types and quantities of hazardous materials stored and handled on the project site would be similar to those at the school. With the implementation of the required SWPPPs with BMPs included as **Mitigation Measures 3.6.1** and **3.7.1**, impacts associated with hazardous materials handling under Phase I and Phase II would be less than significant.

Significance After Mitigation

Less than significant.

Impact

3.7.4 The Proposed Project would expose off-reservation people or structures to a significant risk of loss, injury, or death involving wildland fires during construction, but not operation, of the Proposed Project.

Construction

The equipment used during construction of Phase I and Phase II may create sparks, which could ignite dry grass or vegetation that could spread to the vegetated areas surrounding the project site, leading to off-reservation wildfires. During construction, the use of power tools and acetylene torches may also increase the risk of fire hazard. This risk, similar to that found at other construction sites, is considered potentially significant, and the following mitigation measure is proposed.

Mitigation Measure

3.7.2 During Phases I and II, construction personnel shall follow written standard operating procedures (SOPs) for servicing and operating construction equipment and vehicles to reduce the potential for wildland fires. These SOPs shall address equipment use and the storage and use of hazardous materials during construction of the Proposed Project. The SOPs shall include the following where feasible and when reasonable:

a) Refueling shall be conducted only with approved pumps, hoses, and nozzles;
b) Catch-pans shall be placed under equipment to catch potential spills during servicing;
c) All disconnected hoses shall be placed in containers to collect residual fuel from the hose;
d) Vehicle engines shall be shut down during refueling;
e) No smoking, open flames, or welding shall be allowed in refueling or service areas;
f) Service trucks shall be provided with fire extinguishers;
g) Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak;
h) Any construction equipment that normally includes a spark arrester shall be equipped with an arrestor in good working order; and
i) All hazardous materials transported to or from the project site shall be done in accordance with applicable State and federal regulations as required based on quantity and class of materials.

Significance After Mitigation

Less than significant.

Operation

Operation of both Phase I and Phase II would not involve any activities that could generate wildfire hazards to off-reservation lands and thereby constitutes a less than significant impact. Operation of the Proposed Project includes the risk for structural fires; refer to **Section 3.10** for a discussion of the impacts on off-reservation fire services.

3.8 WATER RESOURCES

This section describes existing off-reservation water resources, evaluates potential off-reservation impacts of the Proposed Project on such resources, and presents mitigation measures to reduce significant off-reservation impacts.

3.8.1 REGULATORY SETTING

FEDERAL

Clean Water Act

The Clean Water Act (CWA) (33 USC §1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The United States (U.S.) Environmental Protection Agency (USEPA) is the administrative agency under the CWA. Important sections of the CWA are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Section 303(d) requires states to identify impaired off-reservation water bodies, rank these impaired bodies based on severity of contamination and uses for the waters, and develop water quality management strategies, usually in the form of total maximum daily loads (TMDLs) for the contaminant(s) of concern.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the U.S., to obtain certification from the USEPA for on-trust land activities, or from the State for off-reservation activities, that the discharge will comply with other provisions of the CWA.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the U.S. Each NPDES permit contains limits on concentrations of pollutants discharged to surface waters to prevent degradation of water quality and protect beneficial uses.

Anti-degradation Policy

Federal policy (Code of Federal Regulations [CFR], Title 40, Part 131.6) specifies that each state must develop, adopt, and retain an anti-degradation policy to protect the minimum level of surface water quality necessary to support existing uses. Each state must also develop procedures to implement the anti-degradation policy through water quality management processes. Each state anti-degradation policy must include implementation methods consistent with the provisions outlined in 40 CFR §131.12. In Indian Country, these issues are addressed by the USEPA.

NPDES Permitting Program

All facilities discharging pollutants from point-sources into waters of the U.S. must obtain a discharge permit under the NPDES program. In 1990, an amendment to the CWA directed the NPDES permitting program to address non-point source pollution from construction activities. Construction activities are defined as earth-moving activities including clearing, grading, excavation, and stockpiling. Construction projects disturbing one or more acres of soil must be covered under the NPDES general permitting process. For tribal projects on land held in trust by the federal government, the tribe proposing the project must apply for coverage under the USEPA's Stormwater General NPDES Permit for Construction Activities.

Project proponents are required to submit to the USEPA a complete Notice of Intent (NOI) to comply with the permit. A complete NOI package consists of an NOI form, site map, and fee. The USEPA's Stormwater General NPDES Permit for Construction Activities also requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP contains a site map showing the construction site perimeter, existing and proposed buildings, lots and roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the site. The SWPPP must list Best Management Practices (BMPs) that will be implemented during construction and operation to address stormwater runoff rates and quality. BMPs include the following categories:

- Site Planning Considerations, such as preservation of existing vegetation;
- Vegetation Stabilization through methods such as seeding and planting;
- Physical Stabilization through use of dust control and stabilization measures;
- Diversion of Runoff by utilizing earth dikes and temporary drains and swales;
- Velocity Reduction through measures such as slope roughening/terracing; and
- Sediment Trapping/Filtering through use of silt fences, straw bales and sand bag filters, and sediment traps and basins.

Safe Drinking Water Act

Minimum national drinking water standards are established through the 1974 Safe Drinking Water Act (amended in 1986 and 1996). Guidelines for groundwater protection are also issued through this act, as the CWA only applies to surface waters of the U.S. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. The USEPA regulates these types of contaminants through the development of national primary and secondary Maximum Contaminant Levels (MCLs) for drinking water.

Disaster Relief Act

The Disaster Relief Act of 1974, as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, created the Federal Emergency Management Agency (FEMA), which is

responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers (USACE) studies. FEMA is also responsible for distributing Flood Insurance Rate Maps (FIRMs), which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including 100-year floodplains. A 100-year flood event is defined as a flood event which has a one percent chance of occurring in any given year.

FEMA allows non-residential development in a floodplain; however, construction activities are restricted within the flood hazard areas, depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in the CFR, Title 44, Part 60.3 (c)(10). Cumulative development is restricted from increasing the water surface elevation of the base flood by more than one foot within the floodplain. These standards are implemented off-reservation at the state level through construction codes and local ordinances applicable to residential and non-residential structure improvements.

TRIBAL

Water Quality Control Plan

The Karuk Tribe's (Tribe's) Department of Natural Resources (DNR) is responsible for protecting the environmental resources on Tribal trust lands and administering the Tribe's Water Pollution Control Program (WPCP). The WPCP is authorized by Section 106 of the CWA and fulfills the Tribe's duty under the anti-degradation provisions of the CWA. Under the WPCP, the DNR has developed the Karuk Tribe Water Quality Program (KTWQP), which sets water quality standards and establishes monitoring plans for assessing the water quality of the tributaries to and the main stem of the Klamath River. The Tribe has been monitoring daily water quality conditions in tributaries to the Klamath River since 1998 and the main stem Klamath River since 2000 (Karuk, 2001). The portion of trust land within the project site does not contain any tributaries to the Klamath; however, stormwater runoff from the project site drains to Yreka Creek, which eventually flows to the Klamath River.

STATE AND LOCAL

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) provides the basis for off-reservation surface water and groundwater quality regulation within California. This act established the authority of the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The SWRCB administers water rights, water pollution control, and water quality functions throughout the State, while the RWQCBs conduct planning, permitting, and enforcement activities within designated regions. The Porter Cologne Act (§13242) requires that a TMDL program of implementation be developed in the Regional Water Quality Control Plans (refer to the following *RWQCB's Anti-degradation Policy* section) for off-reservation water bodies listed under Section 303 of the CWA that describes how water quality objectives will be attained. At a minimum, this would require a description of the nature of actions which are necessary to achieve those

objectives, including recommendations for appropriate action by any off-reservation entity, public or private; a time schedule for the actions to be taken; and a description of surveillance to be undertaken to determine compliance with the objectives. For the Proposed Project, enforcement of the objectives is through the NPDES permitting program (refer to the following section *NPDES Program - Construction Activity*).

Anti-degradation Policy

The Porter Cologne Act requires the State, through the SWRCB and the RWQCBs, to designate beneficial uses of off-reservation surface waters and groundwater and to specify water quality objectives designed to protect those off-reservation uses. These water quality objectives are presented in the *Regional Water Quality Control Plans* (basin plans). Basin plans are developed and periodically reviewed to fulfill the State's requirements of the anti-degradation policy of the CWA. These basin plans designate beneficial uses within California's major off-reservation rivers and groundwater basins, and establish water quality objectives for waters under state jurisdiction located in each region. The beneficial uses identified within each basin plan describe the qualities and services that are derived from a water body. In turn, water quality objectives are intended to protect and support the continued viability of beneficial uses.

North Coast Regional Water Quality Control Plan

The North Coast Water Quality Control Plan (Basin Plan), in compliance with the CWA and the Porter-Cologne Water Quality Act, implements laws on non-tribal lands for point and nonpoint sources of pollution to the Klamath River and its tributaries (i.e. Yreka Creek) in Siskiyou County (County). The Basin Plan establishes water quality objectives, standards, and implementation programs to meet State objectives and to protect the beneficial uses of water in the Klamath River Basin.

NPDES Program - Construction Activity

The North Coast Regional Water Quality Control Board (NCRWQCB) will require that all aspects of the Proposed Project conducted on the fee parcel comply with the provisions established by the State's NPDES Program. The State's NPDES Program regulates municipal and industrial stormwater discharges under the requirements of the CWA. California is authorized to implement a State stormwater discharge permitting program, with the SWRCB as the permitting agency.

The Tribe must comply with the requirements of the most recent version of the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit (Order No. 2009-0009-DWQ) on fee lands. This permit regulates discharges from construction sites that disturb one acre or more of total land area. By law, all stormwater discharges associated with construction activity on fee lands where clearing, grading, and excavation results in soil disturbance must comply with the provisions of this NPDES permit. The permitting process requires the development and implementation of an effective SWPPP. The project applicant must submit a NOI to the SWRCB to be

covered by a NPDES permit and prepare the SWPPP prior to the beginning of construction. The SWPPP must include BMPs to reduce pollutants and any more stringent controls necessary to meet water quality standards. Dischargers must also comply with water quality objectives as defined in the Basin Plan. If Basin Plan objectives are exceeded, corrective measures would be required.

California Water Code

The California Water Code (Water Code) designates the California Department of Public Health (CDPH) as the lead agency responsible for developing uniform statewide recycling criteria for each type of off-reservation use of treated wastewater for the protection of public health. The CDPH and the RWQCBs are directed under the Water Code to regulate off-reservation treated wastewater production and use. The CDPH has jurisdiction over the off-reservation production of treated wastewater and the enforcement of California Code of Regulations (CCR) Title 22 for treated wastewater criteria. The RWQCB is responsible for issuing treated wastewater use requirements (including discharge prohibitions and monitoring and reporting programs) and user requirements associated with the implementation of off-reservation treated wastewater projects.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in fee by the Tribe. Policies in the General Plan that are relevant to off-reservation surface waters and groundwater hydrology, water quality, and flooding as described in the Checklist are as follows:

CO.6.B. Require applicants for new development projects to identify specific measures for minimizing project-related erosion and resulting siltation of drainage channels. Where such action may result in significant erosion or siltation in channels of the Yreka Creek drainage basin, such erosion control measures must be consistent with National Marine Fisheries Service conservation and minimization requirements as a means to minimize impacts on Coho salmon.

CO.6.G. Promote the use of water conserving landscape strategies, such as drip irrigation and drought tolerant plantings.

PH.2.B. New development shall not be approved in areas which are subject to flooding without prior review and approval of plans for improvements which provide a minimum flood protection level equal to the 100-year storm event.

PH.2.C. Development of structures must be in compliance with FEMA standards. All 100-year flood hazards must be completely mitigated through proper design.

3.8.2 ENVIRONMENTAL SETTING

Heavy winter precipitation, typical of northern California, provides the majority of surface water in the County. Over the past 100 years, the Western Regional Climate Center (WRCC) reported that average annual precipitation in the City is 18.52 inches, and the average annual snowfall in the City is 18.2 inches (WRCC, 2013). Rain and snowmelt percolate into soils and drain into adjacent stream channels across the County, which helps recharge surface and groundwater supplies. Groundwater aquifers drain water into streams, rivers, and lakes of the County during the drier spring and summers months, as snow melts in the mountains.

Within the County, there are 15 watersheds contained within 2 drainage basins, the Klamath River Basin and the Sacramento River Basin. The project site is situated at the border of the Upper and Middle Yreka Creek planning watersheds (pws) contained within the Shasta Valley hydrological subarea (hsa) of the Klamath River Basin Hydrologic Unit (HU) (HUD 18010207) (**Figure 3.8-1**). The Klamath River Basin covers an area of approximately 10,830 square miles within northern California that covers all of Del Norte County, and major portions of Humboldt, Trinity, Siskiyou and Modoc counties. The Shasta Valley hsa is primarily within the Cascade Range province. The valley floor elevation is about 2,500 to 3,000 feet, and surrounding mountains range up to 14,162 feet (Mt. Shasta). According to the NCRWQCB, annual precipitation ranges from below 15 inches in the valley to over 60 inches in the mountains (NCRWQCB, 2011).

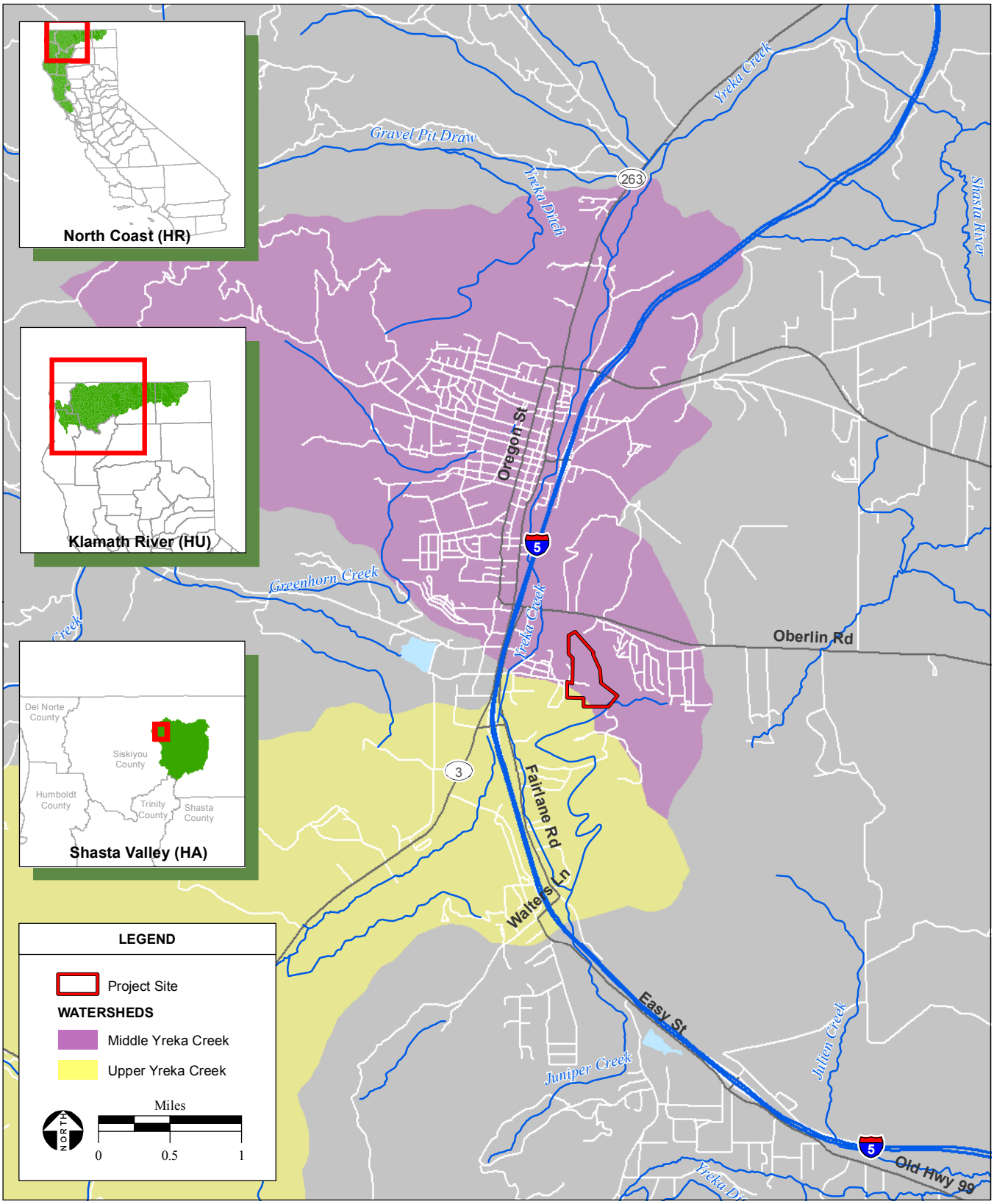
The major surface water body in the vicinity of the project site is Yreka Creek, located approximately 1,000 feet to the west of the project site. Yreka Creek flows generally south to north and confluences with Shasta River approximately three miles northeast of the City. The Shasta River flows into the Klamath River and eventually to the Pacific Ocean.

SURFACE WATER

Surface Water Use

Primary surface water use in the County includes agricultural and domestic water supply, rafting and kayaking, and recreational fishing. Sport fishing for salmon and steelhead are permitted during August and September on the Klamath River. The timing of the steelhead and salmon run is determined by the breakthrough of the sand accumulation at the mouth of the Klamath River.

Historically, the Greenhorn Dam and Reservoir was a significant source of water for the City. However, the quantity of water available during drought conditions was not adequate (Yreka, 2013b). The City now obtains the majority of its water from Fall Creek for which it has an appropriative water right permit (Permit 15379 Application 22551) for withdrawal of 9.7 million gallons per day (mgd) (Yreka, 2013b). In 2003, the City reported winter usage of 1.0 mgd and summer usage increasing to a maximum of 6.0 mgd (Yreka, 2003). In 2011, the City used 571.1 million gallons (an average of 1.56 mgd); the City was projected to use 646.1 million gallons in 2012 (an average of 1.77 mgd) (PACE, 2013).



SOURCE: California Interagency Watershed Map of 1999; AES, 2013

Figure 3.8-1

Yreka Creek Watersheds

Site Drainage

The project site generally slopes to the west. At present, stormwater runoff flows across the unimproved property and into existing drainage ditches and swales and eventually to Yreka Creek in the flat below. There is an existing drainage ditch that runs northwesterly, bisecting the fee parcel. Upslope stormwater is collected by the ditch and transported northwesterly until it exits the property in the ditch. The ditch then continues to the flat below into a series of drainage ditches, inlets, and pipes. The old railroad grade has several cross drains in place that carry stormwater to the west of the tracks. Slopes below the ditch are collected via an earthen berm that runs north to south and collects storm runoff between the ditch and the berm. Storm drainage from the trust portion of the property runs westerly toward the drainage ways on the flat below, however these flows are not concentrated into one exit point as are the flows from the fee parcel. Percolation of native materials onsite is relatively slow for disposal of stormwater runoff.

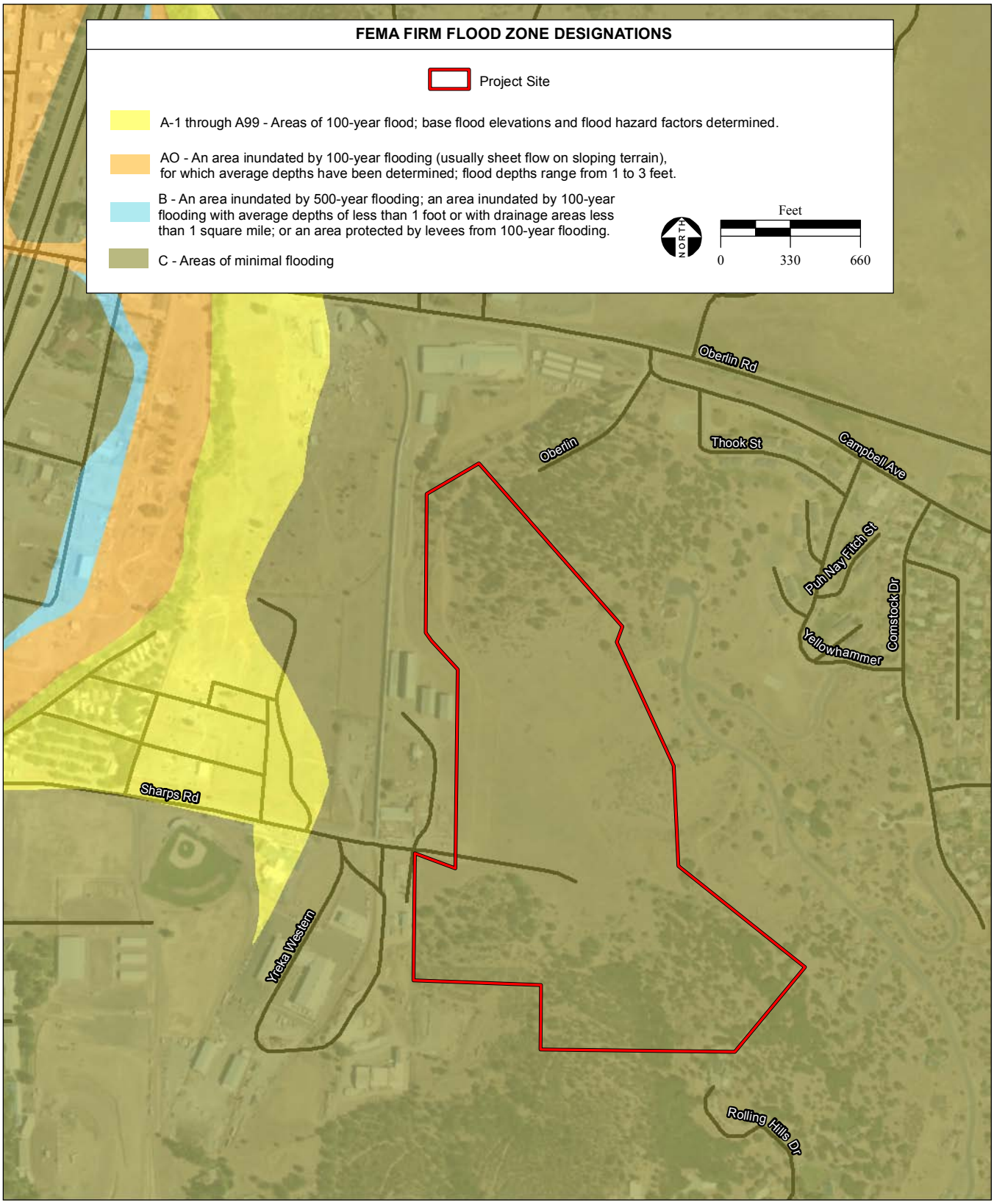
Flooding

The potential for flooding to occur during both a 100-year and 500-year event exists along Yreka Creek, Greenhorn Creek, and Humbug Gulch in the City, according to the FEMA FIRM (**Figure 3.8-2**). Localized flooding also occurs in the City on Main Street, Miner Street and Broadway during periods of intense rain. The Greenhorn Dam Reservoir, located south of the City on Greenhorn Creek which is a tributary to Yreka Creek, does not pose a significant threat to the City. The Greenhorn Dam Reservoir is a Class C earth-fill dam; any breakage would result in seepage rather than a complete collapse, and Yreka Creek could accommodate the flow as there is a small volume of water impounded. The dams on the Klamath River are located over 20 miles from the City with intervening topography and therefore do not present a flood risk (Yreka, 2003). The project site is not located with a 100-year and 500-year event flood plain (**Figure 3.8-2**).

GROUNDWATER

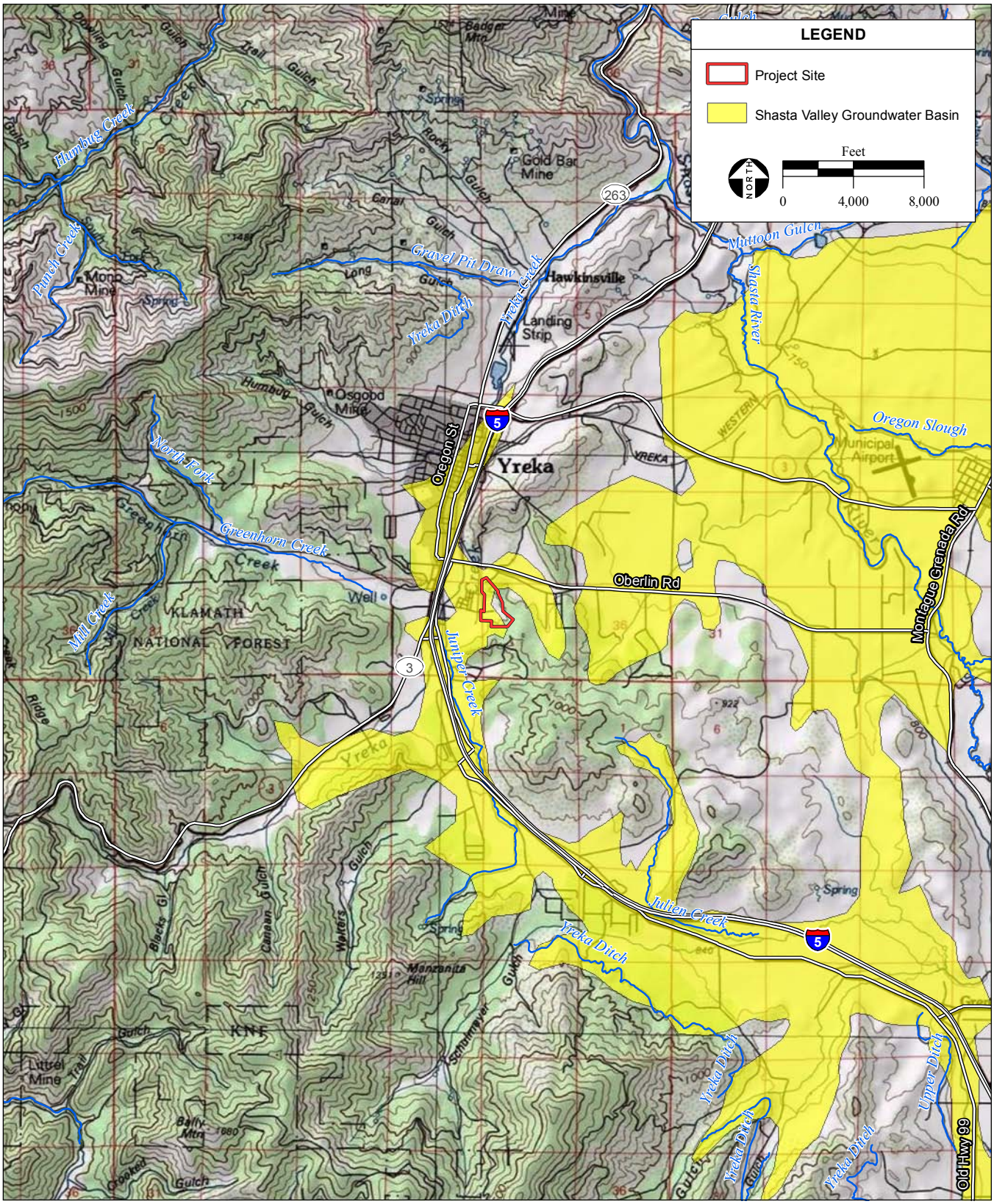
The project site is located within the Shasta Valley Groundwater Basin, which has been delineated by the contact of alluvial fill with the surrounding hard rock of the Cascade Mountains (**Figure 3.8-3**). Accordingly, some of the wells within the basin produce water from the alluvium, while many produce water from the fractured volcanic rock.

The depth to groundwater beneath the project site is unknown. Groundwater was not encountered in explorations advanced by Arrowhead (1998) or Kleinfelder (1989) (**Appendix E**). Arrowhead (1998) projected that groundwater would be at a depth of at least 100 feet beneath ground surface elevations but did not reference information to support that conjecture. A search of the California Department of Water Resources Water Library was performed and found no nearby wells that are being monitored by the State for groundwater levels. A search of the State Water Quality Control Board's (SWQCB's) Geotracker database (**Appendix E**) found two studies located within about 0.5 mile of the site.



SOURCE: USDA NAIP Aerial Photograph, 6/2009; FEMA FIRM & LOMC updated 2004; AES, 2013

Figure 3.8-2
FEMA Flood Zones



SOURCE: "Yreka, CA" USGS 100k Topographic Quadrangle, Humboldt Baseline & Meridian; AES, 2013

Figure 3.8-3
Groundwater Basin

In the first study, groundwater was encountered at a site about 2,000 feet west of the project site and proximal to Yreka Creek (L&A, 2005; L&A, 2011). At that location, groundwater was encountered at depths of less than 10 feet. In the second study, groundwater was encountered at depths of less than 11 feet at a site located about 1,000 feet north of the proposed casino location (BRE, 2010). For both study sites, the groundwater was measured in a geologically different environment compared to the project location. Both of those studies were situated on alluvial soils in close proximity to Yreka Creek or an unnamed drainage along Oberlin Road. The project site is situated predominately on Ordovician-age rock materials that are locally covered with colluvium. Thus, groundwater is anticipated to be significantly deeper than 10 feet beneath the site; however, that depth cannot be confirmed (**Appendix E**).

The primary source of City water is Fall Creek; however, the City maintains an emergency well capable of pumping 1.0 mgd of groundwater (Yreka, 2012).

WATER QUALITY

Surface Water Quality

In 1998, the SWRCB, in compliance with the federal CWA Section 303(d), prepared a list of impaired water bodies in the State of California (SWRCB, 2011). The list includes a description of contaminants or "stressors" affecting the water body. In the case of surface water bodies, the list also includes a priority schedule for the development of TMDLs. In January 2005, the Oregon Department of Environmental Quality, the NCRWQCB, and the USEPA, Regions IX and X, signed a Memorandum of Agreement (MOA) setting a deadline of March 2006 for public release of a complete TMDL package for the Klamath River. The TMDL for temperature, dissolved oxygen, nutrients, and microcystin impairments was adopted in September 2010. The Klamath River HU, Shasta Valley hsa is currently 303(d) listed for organic enrichment/low dissolved oxygen and water temperature (SWRCB, 2011); the project site is within this area. The degraded water quality is the result of a combination of agricultural tailwater and stormwater runoff, dairy operations, hydromodifications, flow regulation and modification, habitat modification, dam construction, removal of riparian vegetation, drainage and filling of wetlands, and some municipal point source dry and/or wet weather discharge (SWRCB, 2011).

Wastewater Treatment

The City wastewater treatment plant (WWTP) treats and disposes of domestic and industrial wastewater within the City; there are no current violations against the City's facility (NCRWQCB, 2009). The facility is designed to accommodate up to 1.3 mgd (Yreka, 2003). The City WWTP consists of secondary treatment by activated sludge, clarification, aerobic sludge digestion, and chlorine disinfection. Treated water is disposed of via subsurface drip irrigation to a 31-acre field; during high inflow (storm) events, four percolation ponds are available for excess volume. The ponds and leach field are located adjacent to Yreka Creek, within a few feet of the creek elevation (NCRWQCB, 2006).

Groundwater Quality

Groundwater within the City is of generally sufficient quality for public use, but is less desirable than surface water. Groundwater in the basin is characterized as magnesium bicarbonate and calcium bicarbonate type water. Total dissolved solids range from 131 to 1,240 mg/L, averaging 406 mg/L (DWR, 2004).

3.8.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section VIII of the Checklist (**Appendix A**) and have been used in this section to evaluate the potential off-reservation impacts of Phases I and II of the Proposed Project on off-reservation hydrological resources and water quality. Such an impact is considered significant if it would:

- Violate any water quality standards or waste discharge requirements off-reservation;
- Substantially deplete off-reservation groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding off-reservation;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff off-reservation;
- Place within a 100-year flood hazard area structures, which would impede or redirect off-reservation flood flows; or
- Expose off-reservation people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

METHODOLOGY

The following impact analysis identifies off-reservation surface water, groundwater, water quality, and flooding issues that would potentially be affected or created by the construction and operation of either phase of the Proposed Project. The impact analysis compares existing conditions to foreseeable changes to these off-reservation conditions that would likely result from implementation of Phases I and II of the Proposed Project.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.8.1 Construction and operation of Phases I and II of the Proposed Project has the potential to violate water quality standards or waste discharge requirements off-reservation.

Construction

As discussed in **Section 3.6**, construction of Phases I and II of the Proposed Project would involve earth-moving activities, such as grading, excavation, and stockpiling of soil, and soils could be exposed to erosion by stormwater. Soil erosion via stormwater has the potential to contribute sediment to surface waters. In addition, as discussed in **Section 3.7**, the equipment and materials used during construction on the project site have the potential to generate pollutants, such as particulate matter, fuels, solvents, oils, and paint, either through normal operation (e.g. vehicle exhaust) or accidental release. Stormwater could transport these pollutants off site to surface waters and groundwater. Stormwater from the project site drains to Yreka Creek and ultimately to the Klamath River, and elevated concentrations of sediments and pollutants may violate the water quality standards of these water bodies.

The City grading permit required for the fee parcel during Phases I and II would include provisions to reduce soil erosion via stormwater, thereby reducing off-reservation impacts.

Moreover, because construction of Phases I and II of the Proposed Project would occur on trust and fee land, the federal and State regulatory requirements for water quality discussed above in **Section 3.8.1** are both applicable. **Mitigation Measures 3.6.1** and **3.7.1** are proposed to ensure the required SWPPPs would include BMPs that will reduce the impact of Phases I and II of the Proposed Project on water quality. In addition, the following mitigation measure is proposed:

Mitigation Measure

3.8.1 The SWPPPs to be developed by the Tribe for Phases I and II of the Proposed Project to comply with the terms of both the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities shall include, but are not limited to, the following BMP:

Erosion control measures shall be consistent with National Marine Fisheries Service conservation and minimization requirements as a means to minimize impacts on Coho salmon in the Yreka Creek drainage basin.

Significance After Mitigation

Less than significant.

Operation

As discussed in **Section 2.4**, the Tribe proposes to connect to and utilize City wastewater services, including the WWTP. The contents and quality of wastewater produced by Phases I and II of the Proposed Project would be consistent with contents and quality of wastewater produced at other commercial facilities served by the City's WWTP, and therefore no changes or modifications to the City's NPDES permit would be required. Implementation of **Mitigation Measure 3.10.2**, discussed in **Section 3.10**, would ensure City wastewater facilities adequately treat wastewater from Phases I and II of the Proposed Project, and wastewater therefore poses no threat to water quality.

Additionally, operation of Phases I and II of the Proposed Project would result in vehicular traffic on the project site, which could introduce pollutants such as fuels, motor oil, and heavy metals to parking lot areas. Other urban pollutants related to operation of a commercial facility, such as landscape fertilizers, trace metals, and sediments, could also accumulate on the project site. Stormwater runoff from the newly constructed impervious surfaces has the potential to transport these pollutants off site to surface waters and/or groundwater, which would contribute to concentrations in water bodies and thereby violate water quality standards.

As discussed in **Section 2.4**, on-site stormwater detention facilities would be installed during Phase I and expanded during Phase II to accommodate stormwater runoff associated with a 25-year storm event from the impervious surfaces developed during Phases I and II. All drainage infrastructure and associated facilities, including pipes, curbs, inlets and swales, would be sized for a 10 year, 24 hour storm event. Discharge from the detention facilities, located under the parking lot structures on the trust parcel, would be directed to the existing drainage ditch that bisects the fee parcel and would eventually drain to Yreka Creek. The incorporation of stormwater detention facilities on site would allow time for settling, which would reduce the pollutants suspended in the stormwater and thereby reduce the off-site movement of pollutants to Yreka Creek. To further reduce potential impacts associated with polluted runoff and reduce the potential for discharge to violate or contribute to violations of water quality standards, the following mitigation measure is proposed:

Mitigation Measure

3.8.2 The use of a rain garden type filter shall be included into the design of the storm drainage facility to ensure that stormwater is filtered for pollutants and sediments deposited prior to entry into Yreka Creek.

Significance After Mitigation

Less than significant.

Impact

3.8.2 The Proposed Project would not substantially deplete off-reservation groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local ground water table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Construction

Phase I of the Proposed Project would result in approximately 9 acres of newly developed impervious surfaces, including the casino building and parking lot areas, and the full build-out in Phase II would result in approximately 14 acres of newly developed impervious surfaces. Despite this, development of Phases I and II of the Proposed Project would not substantially interfere with recharge of the groundwater basin. The off-reservation area within the groundwater basin has very limited areas of development and impervious surfaces. The loss of the approximately 14 acres associated with development of Phases I and II of the Proposed Project is not considered a substantial loss from the overall recharge area of the off-reservation groundwater basin. Additionally, the Tribe has no plans to develop the remaining approximately 46 acres of the project site. Furthermore, the project design includes stormwater detention facilities (refer to **Section 2.4)** that would increase retention time of stormwater runoff from impervious surfaces, thereby allowing for some percolation and subsequent groundwater recharge. Implementation of Phases I and II of the Proposed Project would result in a less than significant impact to the overall groundwater recharge area of the basin.

Operation

Potable water for all aspects of the Proposed Project would be obtained from the City water supply, for which surface water is the primary source. The City has the capacity to supply Phases I and II of the Proposed Project under its water right permit (further discussion, including mitigation, in **Section 3.10**); therefore groundwater is not anticipated as a supply source. Operation of Phases I and II of the Proposed Project would not substantially deplete off-reservation groundwater supplies.

Impact

3.8.3 Construction and operation of the Proposed Project would substantially alter the existing drainage pattern of the site in a manner which could result in substantial erosion or siltation off-site. Construction of the Proposed Project would not result in the alteration in a course of a stream or river.

Construction of Phases I and II of the Proposed Project would involve earth moving, grading, and excavation activities, which has the potential to result in substantial erosion or siltation off site as

a result of stormwater runoff. These aspects are discussed in detail above under **Impact 3.8.1**. To reduce off-site erosion and siltation to a less than significant level, **Mitigation Measures 3.6.1**, **3.7.1**, **3.8.1**, and **3.8.2** are proposed.

Significance After Mitigation

Less than significant.

Impact

3.8.4 Construction of the Proposed Project would substantially alter the existing drainage pattern of the site and substantially increase the rate and amount of surface runoff in a manner which could result in flooding off-site. Construction of the Proposed Project would not result in the alteration in a course of a stream or river.

As discussed above, development of Phases I and II of the Proposed Project would substantially increase impervious surfaces. However, the facilities would be constructed such that all storm drainage would be retained on site in stormwater detention facilities with capacity to retain stormwater from a 25-year storm event. All drainage infrastructure and associated facilities, including pipes, curbs, inlets and swales, would be sized for a 10 year, 24 hour storm event. Increased retention time on site would subsequently increase stormwater percolation. In addition, the infrastructure would allow for a controlled flow to Yreka Creek, therefore resulting in minimal, if any, consequential off-site flooding and a less than significant impact would occur.

Impact

3.8.5 The Proposed Project may create or contribute runoff water which would exceed the capacity of existing stormwater drainage systems and may provide substantial additional sources of polluted runoff off-reservation.

As discussed above, impervious surfaces would create additional runoff that could carry pollutants. The stormwater detention facilities included as part of the project design and the implementation of **Mitigation Measure 3.8.2** would allow for retention and filtration of stormwater runoff on site, which includes allowing for a controlled flow to Yreka Creek. The volume of water contributed from Phases I and II of the Proposed Project to existing stormwater drainage systems compared to the volume of water contributed from the unimproved project site would not be significantly greater and would not provide additional sources of polluted runoff off-reservation.

Significance after Mitigation

Less than significant.

Impact

3.8.6 The Proposed Project would not place any structure within a 100-year flood hazard area, and therefore would not impede or redirect off-reservation flood flows.

The project site is not within a 100-year floodplain as depicted in **Figure 3.8-2**. Phases I and II of the Proposed Project would not result in any development within a FEMA-defined 100-year floodplain. Therefore, off-reservation flood flows would not be impeded or redirected as a result of implementation of Phases I and II of the Proposed Project. No impact would occur.

Impact

3.8.7 The Proposed Project would not expose off-reservation people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a dam or levee.

Phases I and II of the Proposed Project would not result in any development within a FEMA-defined 100-year or 500-year floodplain, and no flood control dams or levees are located within the vicinity of the project site. Therefore, development of Phases I and II of the Proposed Project would not expose off-reservation people or structures to significant risk of loss, injury, or death involving flooding as a result of the failure of a dam or levee. No impact would occur.

3.9 NOISE

This section describes existing off-reservation noise setting, evaluates potential off-reservation impacts of the Proposed Project on such settings, and presents mitigation measures to reduce significant off-reservation impacts.

3.9.1 REGULATORY SETTING

FEDERAL

Federal regulations establish noise limits for medium and heavy trucks (defined as a vehicle weighing more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations, Part 205, Subpart B. The federal truck pass-by noise standard is 80 decibels (dB) at 15 meters (approximately 50 feet) from the vehicle pathway centerline. Federal regulations governing truck manufacturing implement these controls.

The Federal Highway Administration (FHWA) provides construction noise level thresholds in its 2006 Construction Noise Handbook, which are provided in **Table 3.9-1**.

TABLE 3.9-1
FEDERAL CONSTRUCTION NOISE THRESHOLDS

Noise Receptor Locations and Land-Uses	Daytime (7 am - 6 pm)	Evening (6 pm - 10 pm)	Nightime (10 pm - 7 am)
	dBA, Leq[1]		
Noise-Sensitive Locations: (residences, Institutions, Hotels, etc.)	78 or Baseline + 5 (whichever is louder)	Baseline + 5	Baseline + 5>(if Baseline < 70) or Baseline + 3 (if Baseline > 70)
Commercial Areas: (Businesses, Offices, Stores, etc.)	83 or Baseline + 5	None	None
Industrial Areas: (factories, Plants, etc.)	88 or Baseline + 5	None	None

[1] Leq threshold based on L10 thresholds, Leq threshold were empirically determined (FHWA, 2006).
Source: FHWA Construction Noise Handbook, 2006.

The FHWA establishes Noise Abatement Criteria (NAC) for various land uses that have been categorized based upon activity. Land uses are categorized on the basis of their sensitivity to noise as indicated in **Table 3.9-2**. The FHWA NAC is based on peak traffic hour noise levels. Sensitive receptors with the potential to be impacted by Phases I and II of the Proposed Project include residential land uses located west and east of the project site; thus, Category B 67 A-weighted decibels (dBA), Equivalent Continuous Sound Level (Leq) noise standard would apply.

TABLE 3.9-2
FEDERAL NOISE ABATEMENT CRITERIA
HOURLY A-WEIGHTED SOUND LEVEL DECIBELS[1]

Activity Category	Activity Criteria[2] Leq (h) dBA[3]	Evaluation Location	Activity Category Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[4]	67	Exterior	Residential.
C[4]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[4]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, shipyards, utilities (water resources, water treatment, electricity), and warehousing.
G	--	--	Undeveloped lands that are not permitted.

[1] Either Leq(h) may be used on a project.
[2] Hourly A-weighted sound level, decibels (dBA).
[3] The leq() and l10(h) Activity Criteria values are for impacts determination only and are not design standards for noise abatement measures.
[4] Includes undeveloped lands permitted for this activity category.
Source: FHWA, 2010b.

STATE AND LOCAL

The State has established noise insulation standards for new off-reservation multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an off-reservation interior day-night average noise level (Ldn) standard of 45 dB in any habitable room. They require an acoustical analysis demonstrating how off-reservation dwelling units have been designed to meet this interior standard where such units are proposed in off-reservation areas subject to noise levels greater than Ldn 60 dB.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation noise are as follows:

Traffic Noise Sources

Policy 1: The interior and exterior noise level standards for noise-sensitive areas of new uses affected by traffic or railroad noise sources in the City of Yreka are shown [in Table 5-4 of the General Plan].

Policy 2: Where the noise level standards of [Table 5-4 of the General Plan] are predicted to be exceeded at new uses proposed within the City of Yreka which are affected by traffic or railroad noise, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the [Table 5-4 of the General Plan] standards.

Policy 3: Assessment of traffic noise impacts within the City of Yreka should be based on projections of traffic volumes commensurate with cumulative buildout of the City of Yreka.

Non-Transportation Noise Sources

Policy 6: The interior and exterior noise level standards for noise-sensitive areas of new uses affected by non-transportation noise sources in the City of Yreka are shown by [Table 5-5 of the General Plan].

Policy 7: The [Table 5-5 of the General Plan] standards are applied to both new noise-sensitive land uses and new noise generating uses, with the responsibility for noise mitigation placed on the new use. For example, if a developer proposed construction of a new apartment complex near an existing industry, the developer would be responsible for including appropriate noise mitigation in the project design to achieve compliance with the [Table 5-5 of the General Plan] standards at the apartments. Conversely, if a new industry was proposed near an existing apartment complex, the industry would be responsible for including appropriate noise mitigation in the project design to achieve compliance with the [Table 5-5 of the General Plan] standards at the existing apartment building.

Policy 8: Where the noise level standards of [Table 5-5 of the General Plan] are predicted to be exceeded at new uses proposed within the City of Yreka which are affected by or include non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the [Table 5-5 of the General Plan] standards.

Construction Noise

Policy 9: Noise associated with construction activities shall be exempt from the noise standards cited in [Table 5-5 of the General Plan].

Policy 10: Construction activities shall be limited to the hours of 7 a.m. to 5 p.m. unless an exemption is received from the City to cover special circumstances.

Policy 11: All internal combustion engines used in conjunction with construction activities shall be muffled according to the equipment manufacturers' requirements.

3.9.2 ENVIRONMENTAL SETTING

CHARACTERISTICS OF ENVIRONMENTAL NOISE

Acoustical Background and Terminology

Noise is often defined as unwanted sound. Pressure variations occurring frequently enough (at least 20 times per second) for the human ear to detect are called sounds. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, called hertz (Hz).

The perceived loudness of sounds depends upon many factors, including sound pressure level and frequency. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable. The decibel (dB) scale measures sound levels using the hearing threshold (20 micropascals of pressure) as the point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum (20 hertz to 20,000 Hz). As a result, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz to better represent the human ear's sensitivity to mid-range frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard method of frequency de-emphasis and is typically applied to community noise measurements. In practice, the level of a sound source is measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. All of the noise levels reported herein are A-weighted unless otherwise stated. **Table 3.9-3** shows the most commonly used noise descriptors.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. **Table 3.9-4** shows examples of noise sources that correspond to various sound levels. The noise levels presented in **Table 3.9-4** are representative of measured noise at a given instant. These levels rarely persist consistently over a long period of time, and community noise levels vary continuously due to the contributing sound sources of

the ambient noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources such as aircraft flyovers, moving vehicles, sirens, etc., which are typically readily identifiable to an individual. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to characterize a community noise environment and evaluate cumulative noise impacts.

TABLE 3.9-3
DEFINITION OF ACCOUSTICAL TERMS

Terms	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter)
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	Sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network, which de-emphasizes very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after adding 5 decibels to measurements taken in the evening (7 to 10 pm) and 10 decibels to measurements taken between 10 pm and 7am.
Day/Night Noise Level, Ldn	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: FHWA, 2010a.

TABLE 3.9-4
TYPICAL A-WEIGHTED SOUND LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
Rural daytime		Large business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: Caltrans, 2009.

Nighttime ambient noise levels are typically lower than daytime ambient noise levels. For this reason, and because of the potential for sleep disturbance, people tend to be more sensitive to increased noise levels at night than during the day, and increases in nighttime noise have a far greater impact on the community noise environment than increases in daytime noise.

Effects of Noise on People

The effects of noise on people can be divided into three categories:

1. Subjective effects of annoyance, nuisance, dissatisfaction;
2. Interference with activities such as speech, sleep, and learning; and
3. Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the third category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Generally, most noise is generated by transportation systems, primarily motor vehicles, aircraft, and railroads. Poor urban planning may also give rise to noise pollution, since juxtaposing industrial and residential land uses, for example, often adversely affects the residential acoustic environment. Prominent sources of indoor noise are office equipment, factory machinery, appliances, power tools, lighting hum, and audio entertainment systems. An important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment (or ambient noise) to which one has adapted. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur (Caltrans, 2009):

- Under controlled conditions in an acoustics laboratory, the trained healthy human ear is able to discern changes in sound levels of 1 dBA;
- Outside such controlled conditions, the trained ear can detect changes of 2 dBA in normal environmental noise;
- It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of 3 dBA;
- A change in level of 5 dBA is a readily perceptible increase in noise level; and
- A 10-dBA change is recognized as twice as loud as the original source.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. Noise levels are measured on a logarithmic scale instead of a linear scale. On a logarithmic scale, the sum of two noise sources of equal loudness is 3 dBA greater than the noise generated by only one of the noise sources (e.g., a noise source of 60 dBA plus another noise source of 60 dBA generate a composite noise level of 63 dBA). To apply this formula to a specific noise source, in areas where existing levels are dominated by traffic, a doubling in traffic volume will increase ambient noise levels by 3 dBA. Similarly, a doubling in heavy equipment use, such as the use of two pieces of equipment where one formerly was used, would also increase ambient noise levels by 3 dBA. A 3 dBA increase is the smallest change in noise level detectable to the average person. A change in ambient sound of 5 dBA can begin to create concern. A change in sound of 7 to 10 dBA typically elicits extreme concern.

Noise Attenuation

Stationary "point" sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 dBA to 7.5 dBA per doubling of distance from the source, depending upon environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or

manufactured, etc.). Widely distributed noises, such as a large industrial facility spread over many acres or a street with moving vehicles (a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dBA per doubling distance from the source (also dependent upon environmental conditions) (Caltrans, 2009). Noise from large construction sites (with heavy equipment moving dirt and trucks entering and exiting the site daily) would have characteristics of both "point" and "line" sources, so attenuation would generally range between 4.5 and 7.5 dBA per doubling of distance.

Vibration

The effects of groundborne vibrations typically cause only a nuisance to people, but damage to buildings may occur at extreme vibration levels. Although groundborne vibration can be felt outdoors, it is typically an annoyance only indoors, where the associated effects of the building shaking can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Peak particle velocity (PPV) is often used to measure vibration. PPV is the maximum instantaneous peak (inches per second) of the vibration signal. Scientific studies have shown that human responses to vibration vary by the source of vibration, which is either continuous or transient. Continuous sources of vibration include construction, while transient sources include truck movements. Generally, the thresholds of perception and annoyance are higher for transient sources than for continuous sources. Structural damage can occur when PPV values are 0.5 inches per second or greater. Annoyance can occur at levels as low as 0.1 inches per second and become strongly perceptible at approximately 0.9 inches per second (Caltrans, 2004). **Table 3.9-5** shows PPV vibration levels caused by representative construction equipment, as published by the Federal Transit Administration.

TABLE 3.9-5
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (inches/second)
Large bulldozer	0.089
Excavator	0.089
Scraper	0.089
Loaded trucks	0.076
Small bulldozer	0.003

SOURCE: U.S DOT, 2006.

EXISTING NOISE LEVELS AND SOURCES

The off-reservation area surrounding the project site is primarily commercial land to the north and west, with scattered residential land uses to the west of the project site. The project site is located in close proximity to Interstate 5 (I-5). Traffic on I-5 is the primary source of off-reservation noise in the area. The noise environment at and in the immediate vicinity of the project site is influenced by residential

noise, commercial noise, and noise from the surface roads and surface parking areas. The traffic volumes on I-5 between the southern City limits to the Fairground exit (I-5 off-ramp at Moonlit Oak Avenue) are 15,000 average vehicle trips per day with a distance to 65 dBA, Ldn at 404 feet (Yreka, 2003).

There are no known existing sources of vibrations in the vicinity of the project site.

SENSITIVE NOISE RECEPTORS

Some land uses are considered more sensitive to ambient noise levels than others, sensitivity being a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. Residential, hospital, and school land uses are generally more sensitive to noise than commercial and industrial land uses.

The project vicinity is characterized by very low-density residential uses; most of these uses are located to the east and west of the project site. The nearest sensitive receptor, not located within Tribal property, is the Waiiaka Trailer Haven Recreational Vehicle (RV) Park located approximately 1,500 feet west of the project site. The nearest school (Karuk Tribal Headstart) is located approximately 1,000 feet east of the project site. The nearest hospital (Fairchild Medical Center) is located approximately 0.75 mile northwest of the project site.

Although not considered sensitive receptors, the General Plan includes noise standards for playgrounds/parks, office buildings, commercial buildings, and industries. Along Sharps Road, there are some office, commercial, and industrial facilities located within approximately 700 feet of the project site. A baseball diamond is located approximately 1,300 feet from the project site.

3.9.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section XI of the Checklist (**Appendix A**) and have been used in this section to evaluate the potential off-reservation environmental impacts of the Proposed Project on off-reservation sensitive noise receptors. Such an impact is considered significant if it would result in:

- Exposure of off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of off-reservation persons to excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the off-reservation vicinity of the project site; or
- A substantial temporary or periodic increase in ambient noise levels in the off-reservation vicinity of the project site.

METHODOLOGY

Noise

Construction noise levels from construction equipment were estimated using the California Department of Transportation (Caltrans) Guidelines. To determine noise impacts due to construction of the Proposed Project, project-related construction noise levels on the trust parcel were compared to the FHWA construction significance levels provided in **Table 3.9-1**, and project-related construction noise levels on the fee parcel were compared to the General Plan policies.

Off-reservation traffic volumes related to the Proposed Project found in the Traffic Impact Analysis (**Appendix E**) were compared to existing off-reservation traffic volumes (refer to **Section 3.9.2**, *Existing Noise Levels and Sources*). Increases in the ambient noise level due to stationary sources (heating, ventilation, and air conditioning [HVAC]; parking lot noise; and delivery truck noise) were estimated using known noise levels from comparable project and comparing those noise levels to the applicable significance thresholds.

Vibration

Off-reservation vibration noise levels for construction and operation of the Proposed Project were determined using Caltrans guidelines (Caltrans, 2004). Those vibration noise levels were then compared to significance thresholds.

SIGNIFICANCE THRESHOLDS

Construction-related noise sources on the trust parcel would be considered significant if construction-related noise sources increases the ambient noise level above 78 dBA, Leq in the vicinity of the project site according to the FHWA (refer to **Table 3.9-1**). Construction activities on the fee parcel are exempt from the noise standards pursuant to General Plan Noise Policy 9 (Yreka, 2003).

Operational noise from the trust parcel is considered a significant impact if a project-related noise source increases the ambient noise level above 67 dBA, Leq according to the FHWA NAC (refer to **Table 3.9-2**). Operational noise from the fee parcel is considered a significant impact if a project-related noise exceeded the compliance standards put forth in Table 5-5 of the General Plan.

For this analysis, excessive groundborne vibrations are defined as those that are equal to or exceed 0.5 PPV at the nearest off-reservation non-residential structure and exceed 0.1 PPV at the nearest off-reservation residence (Caltrans, 2004). Therefore, an off-reservation impact is considered potentially significant if construction or operation of either phase of the Proposed Project would result in an increase of 0.5 PPV at the nearest off-reservation non-residential structure or 0.1 PPV at the nearest off-reservation residence.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.9.1 The Proposed Project has the potential to expose off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Construction

Pursuant to Noise Policy 9 of the General Plan, construction on the fee parcel would be exempt from noise standards put forth in Table 5-5 of the General Plan (Yreka, 2003). However, construction on the fee parcel would result in a significant noise impact if construction occurred outside of the timeframe specified in the General Plan (Noise Policy 10) or if the contractor does not have appropriate equipment (Noise Policy 11). **Mitigation Measure 3.9.1** is proposed below and would reduce this impact to a less than significant level.

Construction on the trust parcel has the potential to expose off-reservation persons to noise levels in excess of the FHWA noise standards. Typical construction noise levels are presented in **Table 3.9-6**, and **Table 3.9-7** presents the noise levels generated by certain types of construction equipment. The nearest off-reservation noise receptor to construction activities for Phases I and II of the Proposed Project would be the Karuk Tribal Head Start, which is located approximately 1,000 feet east of the project site. Based on the topography between the project site and the nearest sensitive receptor, a noise attenuation value of 3.0 dBA, Leq per doubling of the distance was used in this noise analysis (Caltrans, 2009). Using noise levels listed in **Tables 3.9-6** and **3.9-7** (estimated using a conservative reference distance of 800 feet), the maximum noise level at the Karuk Tribal Headstart during construction of either phases of the Proposed Project would be 64 dBA, Leq.

TABLE 3.9-6
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA, L_{max} at 800 feet)
Excavation	87
Foundations	85
Building	87
Finishing	89
Paving	85

Source: Caltrans, 2009

TABLE 3.9-7
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Noise Level (dB at 800 feet) (dBA, L_{max})
Bulldozers	63
Excavator	61
Heavy Trucks	64
Vacuum Street Sweeper	56
Pneumatic Tools	61
Concrete Pump Truck	58
Backhoe	61
Paver	61

Source: Caltrans, 2009.

Construction noise associated with the construction of the Phase I and Phase II would therefore be less than the FHWA noise threshold of 78.0 dBA, Leq. In addition, with the implementation of **Mitigation Measure 3.9.1** proposed below, construction noise would be further reduced below the FHWA threshold, and the construction of both development phases would not cause a substantial temporary increase in ambient noise levels in the off-reservation vicinity of the project site. **Mitigation Measure 3.9.1** would ensure construction on the trust parcel is compliant with FHWA standards as well as standards of the General Plan, even though the General Plan standards are not applicable to trust land.

Mitigation Measure

3.9.1 The following measures are recommended to minimize the effects of noise from construction of the Proposed Project:

a) Through contractual obligation, standard outdoor construction activities for the Proposed Project will be conducted between 7:00 A.M. and 5:00 P.M, except when a special exemption is needed. The Tribe shall obtain an exemption from the City to cover special circumstances to conduct construction activities outside of that timeframe on the fee parcel.

b) Through contractual obligation, the Tribe shall limit standard outdoor construction activities for the Proposed Project on the trust parcel to between 7:00 A.M. and 5:00 P.M., to the extent feasible and reasonable except when a special exemption is needed.

c) To further address the impact of construction of the Proposed Project, the Tribe shall, through contractual requirement, implement the following:

1) Construction crews shall utilize the best available noise control techniques, i.e. mufflers per the equipment manufacturers' requirements for all internal combustion engines, equipment redesign, intake silencers, ducts, engine enclosures and noise attenuating shields or shrouds on all equipment and trucks.

This mitigation measure would reduce off-reservation noise from heavy equipment use.

2) Construction crews shall only use impact tools that are hydraulically or electrically powered, use exhaust mufflers on compressed air exhaust, use external jackets on tools, and use drills instead of impact equipment and other quieter procedures when feasible. This mitigation measure would reduce off-reservation noise from impact tools and hand-held compressed air tools.

3) Construction crews shall place stationary construction equipment as far from off-reservation sensitive noise receptors as possible. This mitigation measure would reduce or eliminate off-reservation noise from stationary construction equipment.

Significance After Mitigation

Less than significant.

Operational Traffic Noise

The level of off-reservation traffic noise depends on three factors: l) the volume of the off-reservation traffic, 2) the speed of the off-reservation traffic, and 3) the number of trucks in the flow of the off-reservation traffic. It is not anticipated that vehicle speed in the vicinity of the project site and the mix of trucks in the traffic would change as a result of Phase I or Phase II development. However, the off-reservation traffic volumes would increase with development of Phases I and II of the Proposed Project.

The primary source of noise in the project area is generated by traffic on I-5 approximately 700 feet from nearby sensitive noise receptors along Sharps Road. Due to the existing ambient noise levels of existing traffic along I-5 and the distributed number of Proposed Project traffic volumes along the feeder roads (Fairlane Road, Oberlin Road, and Moonlit Oaks), the analysis of traffic related noise impacts includes a worst case scenario along Sharps Road when compared to the minimal traffic volumes and rural characteristics of Sharps Road.

As the only site access roadway, the operation of the Proposed Project would add 85 peak hour trips (869 daily trips) under Phase I and 159 peak hour trips (1,689 daily trips) under Phase II to Sharps Road (**Appendix E**). The General Plan noise survey provided a conservative estimate for City areas not located within the I-5 noise corridor at 55 dBA (Yreka, 2003). Phase I and Phase II development would more than double and quadruple, respectively, the traffic volume on Sharps Road. This increase in project related traffic along Sharps Road is anticipated to result in a 3 dBA Leq increase under Phase I and a 7.4 dBA Leq increase in the ambient noise level at approximately 50 feet from the roadway under Phase II. Therefore, the anticipated noise level at

noise receptors at approximately 50 feet from the roadway with the increase in Proposed Project traffic would be 62.4 dBA, Leq at full build-out.

Traffic noise associated with the Proposed Project would be related to use of both the trust and fee parcels; therefore the FHWA and General Plan standards are applicable. The nearest sensitive receptor is the Waiiaka Trailer Haven RV Park located approximately 50 feet from Sharps Road. The FHWA NAC noise threshold is 67 dBA, Leq for sensitive receptors; traffic noise from operation of Phases I and II of the Proposed Project would therefore not result in a significant impact.

The General Plan specifies traffic noise level standards for new developments affected by existing traffic in the City (General Plan Noise Policy 1) and specifies non-transportation noise level standards for new noise generating uses such as the Proposed Project (General Plan Noise Policy 7) (Yreka, 2003). However, the General Plan does not specify traffic noise level standards for additional traffic noise generated by new noise generating uses such as the Proposed Project. Therefore, no local noise ordinances or standards are applicable.

Regardless, traffic from operation of either phase of the Proposed Project would result in a noise level of 62.4 dBA, Leq at approximately 50 feet from Sharps Road, which is the worst case scenario. This noise level would be within the traffic noise level standards for new developments affected by existing traffic in the City (General Plan Noise Policy 1), which specifies a maximum outdoor Ldn level of 65 dBA for transient lodging, office buildings, commercial buildings, and industry and a maximum outdoor Ldn level of 70 dBA for parks/playgrounds. For traffic noise, Ldn and peak hour Leq are estimated to be approximately similar (Yreka, 2003). The Waiiaka Trailer Haven RV Park (transient lodging), a baseball diamond (playground/park), and some office, commercial, and industrial facilities are all located approximately 50 feet from Sharps Road, at which distance the noise level would be 62.4 dBA, Leq during operation of the Proposed Project. Operational traffic noise attributable to Phases I and II of the Proposed Project would result in a less than significant impact.

On-Site Operational Noise

Potential operational noise sources included with both Phases I and II would include operation of heating, ventilation, and air conditioning (HVAC) equipment, loading/unloading activities at delivery areas, and vehicles entering and exiting the project site (on-site traffic) on the trust parcel. On the fee parcel, potential operational noise sources include vehicles entering and exiting the project site (on-site traffic).

Commercial uses would bring the possibility of noise due to operation of roof-mounted air handling units associated with building HVAC equipment, noise from loading docks, and the parking lot. The noise levels produced by HVAC systems vary with the capacities of the units, as

well as with individual unit design. In this case, HVAC systems on commercial buildings would be located at higher elevations than the residences, so that roof-mounted HVAC equipment has the potential to be heard at nearby sensitive noise receptors. However, given the distance to the nearest sensitive noise receptor (1,000 feet), noise from roof mounted HVAC equipment would not be audible. Therefore, the HVAC noise emitted from development under both Phase I and Phase II of the Proposed Project on the trust parcel would result in a less than significant impact associated with the ambient noise environment.

Idling trucks at the loading dock on the trust parcel have the potential to emit noise of 80 dBA, Leq at 50 feet from the source (Caltrans, 2009). The proposed loading docks will be located on the east side of the development footprint approximately 1,000 feet from the nearest sensitive noise receptor located to the east. Due to the location of the loading dock in relationship to the nearest sensitive receptor, an attenuation value of 24.0 dBA is appropriate at a distance of 1,000 feet. Therefore the existing ambient level at the nearest sensitive noise receptor (55 dBA, Leq) is not anticipated to change with the addition of idling trucks on the project site, and the loading dock noise anticipated under Phase I and Phase II of the Proposed Project would result in a less than significant impact associated with the ambient noise environment.

Parking lot noise on the trust and fee parcels would be mainly due to slow moving and idling vehicles, opening and closing doors, and conversation. The noise level in parking lots and structures is dominated by slow moving vehicles; therefore, the ambient noise level in a parking lot on the trust or fee parcel would be approximately 60 dBA, Leq at 50 feet from the source. This is less than the FHWA NAC of 67 dBA, Leq for the trust parcel (Caltrans, 2009). Industrial facilities are located adjacent to the fee parcel parking lot; therefore the noise of approximately 60 dBA, Leq would also be less than the General Plan (Noise Policy 7) requirement of 65 dBA, Leq. At 400 feet, noise from the parking lot would be 51 dBA, Leq based on a noise attenuation value of 3.0 dBA, Leq per doubling of the distance (Caltrans, 2009). Beyond the industrial land uses, the nearest noise receptors are office and commercial buildings located approximately 600 feet or farther from the fee parcel parking lot; the noise standard for these facilities is 55 dBA, Leq per Noise Policy 7 of the General Plan. Therefore, parking lot noise from operation of Phases I or II of the Proposed Project would result in a less than significant impact associated with the ambient noise environment.

Impact

3.9.2 The Proposed Project would not expose off-reservation persons to excessive groundborne vibration or groundborne noise levels.

Construction

Construction activities proposed under Phase I and Phase II of the Proposed Project would consist of using earthmoving equipment shown in **Table 3.9-5**. Generally, excessive vibration is only an

issue when construction requiring the use of equipment with high vibration levels (i.e., compactors, large dozers, etc.) occurs within 25 to 100 feet of an existing structure. Several medium-sized dozers, compactors, scrapers, and other equipment would be used during construction of the Proposed Project. No pile driving or high vibration level equipment would be used during construction. The nearest off-reservation non-tribal noise receptor is the Karuk Tribal Head Start, approximately 1,000 feet from the location of the nearest site of construction activities for the Proposed Project. **Table 3.9-8** provides estimated construction vibration levels at a conservative 800 feet. The predicted PPV levels for construction activities on the project site are below the significance thresholds of 0.5 PPV for non-residential structures and 0.1 PPV for off-reservation residences. This would be a less than significant impact.

TABLE 3.9-8
PREDICTED PPV AT 25 AND 800 FEET FROM CONSTRUCTION

Equipment	Reference PPV (inches/second) at 25 feet	PPV (inches/second) at 800 feet
Large bulldozer	0.019	0.000148
Excavator	0.019	0.000148
Scraper	0.019	0.000148
Loaded trucks	0.016	0.000125
Small bulldozer	0.001	0.000078

Note: PPV was predicted using the equation PPVpredicted = PPVref *(Dref/Dsource)^1.4.
Source: Caltrans, 2004.

Operation

Off-reservation loaded trucks and buses traveling to and from the project site during operation would be the only source of off-reservation vibrations from the operation of the Proposed Project. Operational vibration sources are anticipated to be similar between Phase I and Phase II. Bus usage on I-5 generated by the Proposed Project would increase due to the gaming space and hotel that are components of the Proposed Project. Pass-by of buses and loaded trucks may occur as close as 25 feet (the approximate closest distance of any residence along Sharps Road) to sensitive noise receptors. Vibrations from buses and loaded trucks can be 0.008 PPV at a distance of 125 feet, or 0.076 PPV at the nearest off-reservation sensitive noise receptor (25 feet), which is below the PPV vibration significance criterion of 0.1 PPV and 0.5 PPV. Therefore, the additional bus and loaded truck traffic serving the Proposed Project would not expose off-reservation noise receptors to excessive groundborne vibration or groundborne noise levels. This would be a less than significant impact.

Impact

3.9.3 The Proposed Project would not result in a substantial permanent increase in the ambient noise level in the off-reservation vicinity of the Proposed Project.

Noise associated with operation of either phase of the Proposed Project is discussed above in Impact **3.9.1**. The noise generation associated with the implementation of Phases I and II of the Proposed Project does not constitute a substantial permanent increase in the ambient noise level in the off-reservation vicinity of the Proposed Project. The impact of operational noise would be less than significant.

Impact

3.9.4 During construction, the Proposed Project could result in a substantial temporary increase in ambient noise levels in the off-reservation vicinity of the Proposed Project.

Noise associated with construction of either phase of the Proposed Project is discussed above in Impact **3.9.1**. The noise generation associated with the construction of Phases I and II of the Proposed Project does not constitute a substantial temporary increase in the ambient noise level in the off-reservation vicinity of the Proposed Project. With implementation of the proposed **Mitigation Measure 3.9.1**, the impact of construction noise would be reduced to a less than significant level.

Significance After Mitigation

Less than significant.

3.10 PUBLIC SERVICES AND UTILITIES AND SERVICE SYSTEMS

This section describes existing off-reservation public services and public utilities, evaluates potential off-reservation impacts of the Proposed Project on these services and utilities, and presents mitigation measures to reduce significant off-reservation impacts.

3.10.1 REGULATORY SETTING

FEDERAL

Resource Conservation and Recovery Act, Title II, Subtitle D

The Resource Conservation and Recovery Act of 1976 (RCRA), which amended the Solid Waste Disposal Act of 1965, created the framework for municipal solid waste regulations in addition to the hazardous waste regulations described in **Section 3.7.1**. Specifically, under Title II Subtitle D, tribes, states, and local agencies are responsible for planning, permitting, and regulating non-hazardous waste.

Public Law 83-280

Public Law 83-280, commonly referred to as Public Law 280 or PL 280, was enacted in 1953 to address the lack of law enforcement services in Indian Country. Prior to its enactment, the Federal Government had exclusive authority over Indian affairs on trust land. Public Law 280 delegated civil regulatory authority to six mandatory states, including California.

STATE AND LOCAL

California Integrated Waste Management Act

The management of off-reservation non-hazardous solid waste in California is mandated by State law and guided by policies at the State and local levels. In 1989, the State of California enacted Assembly Bill (AB) 939, the California Integrated Waste Management Act. As a result of AB 939, all off-reservation local jurisdictions, cities, and counties were required to divert 50 percent of their total waste stream from landfill disposal by the year 2000. Indian Country is not included in local waste diversion statistics.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City of Yreka (City). The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation public services and utilities as described in the Checklist are as follows:

Fire

PH.3.B. Require all new development projects to design public facility improvements to ensure that water volume and hydrant spacing are adequate to support efficient and effective fire suppression.

PH.3.E. Enforce the requirements of Public Resources Code Sections 4290 and 4291 on all development projects. This includes, but is not limited to, the following:

- Maintain roofs of structures free of vegetative growth.
- Remove any portion of trees growing within ten (10) feet of chimney/stove pipe outlets.
- Maintain screens over chimney/stovepipe outlets or other devices that burn any solid or liquid fuel.

Public Facilities

PF.1.A. All infrastructure costs necessary to serve new development projects shall be borne by the new development unless the City determines other means are available, or beneficial to the City.

PF.1.B. Concurrent with development approvals, all public utilities, street, right of way, and easements must be identified and may be offered for public dedication.

PF.1.D. Prior to approval of new development projects, applicants shall specify project-related demand for sewer, water, and electrical services and project approval shall be granted only after capacity to provide required services is confirmed by the City.

Schools

PF.2.B. Support the School Districts' efforts to mitigate significant impacts of new projects on school facilities, consistent with State law.

Water Supply

PF.3.A. Ensure that water volume throughout the City is sufficient for emergency response and fire suppression demands.

PF.3.B. Establish and collect appropriate development impact fees to finance new wells, pumps, mains, oversizing mains, treatment, storage and other water system improvements as needed to serve new development. Review and revise, as necessary, development fees for water service to ensure that fees are adequate and appropriate.

PF.3.C. Prior to final project approval, the source of sufficient water supply to serve the domestic and fire protection needs of the project shall be verified as required by the City.

PF.3.D. To the extent possible, new water systems shall be looped with dead-end water service lines.

Wastewater Collection and Treatment

PF4.A. Require that when a sewer line is within 600 feet of a septic tank, any new development must connect to the City sewer system.

Storm Drainage System

PF.5.A. Restrict development in areas where significant drainage and flooding problems are known to exist until adequate drainage and/or flood control facilities can be provided.

PF.5.B. New development shall provide flood retention facilities to avoid increasing peak storm runoff in drainage channels.

PF.5.C. Work with the Regional Water Quality Control Board (RWQCB) to resolve drainage and flooding issues which result from discharging stormwater into Yreka Creek.

PF.5.D. Prepare a Drainage Master Plan which:

- Identifies National Pollutant Discharge Elimination System (NPDES) measures to treat stormwater prior to being discharged.
- Identifies improvements to provide protection for a 100-year storm event.
- Establishes storm drainage standards for underground conduits within all new development in the City.
- Proposes guidelines for short-term and longterm storm drainage detention basins, including basin design and maintenance strategies.
- Establishes requirements for building pad elevations in relation to curb elevations.

PF.5.E. Establish, adopt and collect appropriate drainage impact fees to be charged for new development to fund drainage facilities described in the City Drainage Master Plan.

PF.5.G. To the extent feasible, all natural drainages should be protected and may be incorporated into the City drainage system. Vegetation along the drainages should be managed effectively to allow as much of the vegetation as possible to remain as habitat and filtration, while not impeding the drainage's role in preventing localized flooding.

Solid Waste Collection and Disposal

PF.6.A. Continue with efforts to achieve waste stream reduction goals established by the Integrated Solid Waste Management Act of 1989, and established by the 1997 Countywide Source Reduction and Recycling Element.

3.10.2 ENVIRONMENTAL SETTING

FIRE PROTECTION

As reported in the General Plan, the most likely fire threats related to the Proposed Project would be structural fires, urban conflagration (multiple simultaneous structural fires), and wildland and vegetation fires occurring along the perimeter of the City. The southern third of the project site is located in a Very High Fire Hazard Severity Zone (VHFHSZ), while the northern portion of the project site is designated as

a non-VHFHSZ (CAL FIRE, 2007). No unique or significant fire hazards exist in the rural/urban interface between the City and surrounding open spaces. The City has a reliable and adequate water supply and water pressure from its fire hydrants, with pressures ranging from 70 to 140 pounds per square inch (psi), which helped the City earn an excellent rating of 4 with the Insurance Services Office, Inc. (ISO). The City also maintains five storage tanks for firefighting purposes (Yreka, 2003).

The project site is within the Local Responsibility Area (LRA) of the Yreka Volunteer Fire Department (Yreka FD), located at 401 West Miner Street in the City. The Yreka FD is currently staffed by 29 volunteers, and equipment includes three Type 1 engines, one Type 3 engine, one Truck Company with a 75 foot aerial ladder, one Rescue Company, and one additional engine (Jones, 2013; McKee, 2013). Response time to the project site is estimated to be 10 minutes. The Yreka FD responded to 1,392 calls in 2012 and, as of the end of July 2013, has responded to approximately 900 calls during 2013; in general, approximately 80 percent are medical emergencies and 20 percent are fires. The increasing amount of calls for medical emergencies is the Yreka FD's biggest concern. The Yreka FD reports that staffing and equipment are currently adequate (Jones, 2013).

The project site is located in an area that receives automatic mutual assistance from the California Department of Forestry and Fire Protection (CAL FIRE) station located at 1809 Fairlane Road in the City, which is less than a mile from the project site. Response time from this station to the project site is estimated to be four minutes. However, the CAL FIRE station is only staffed five to six months out of the year during the spring, summer, and fall months. When staffed, there is a 17-member crew, which includes 1 Battalion Chief, 3 captains, 3 engineers, and 10 fire fighters (Tidwell, 2013). During peak season, which runs from July until the end of fire season, at least six staff are in the station at all times (Laws, 2013). The station has two Type 3 engines and one fire dozer (Tidwell, 2013). During months when the CAL FIRE Yreka station is not staffed, the Yreka FD would receive assistance from the CAL FIRE Hornbrook station, located approximately 15 miles north of the City, or the CAL FIRE Weed station, located approximately 30 miles south of the City.

POLICE AND LAW ENFORCEMENT

The Yreka Police Department (Yreka PD) provides police protection and law enforcement services in the City. The Yreka PD station is located approximately 1.5 miles from the project site on 412 West Miner Street. The Yreka PD is comprised of 14 sworn employees, which includes 1 Chief of Police, 1 Lieutenant, 3 sergeants, and 9 officers (Bowles, 2013a). Of the nine officers, one serves as a detective and one is assigned to the Narcotics Task Force (Bowles, 2013b). Fifteen additional, non-sworn employees work at the police department, including one animal control officer, two administrative and records assistants, eight dispatchers (four full time and four part time), and four volunteers (Bowles, 2013a).

The Yreka PD is currently under-staffed and operating from an inadequate station building (Siskiyou Design Group Inc., 2012; Bowles, 2013b). The Yreka PD normally operates with 16 sworn employees,

but, due to the economic downturn in recent years, the Yreka City Council limited funding to the Yreka PD such that only 14 sworn employees can be afforded as of the end of July 2013. In addition, the Yreka PD station is located in a 100-year-old building that presents numerous challenges for operation, such as insufficient capacity for personnel and equipment, poor design and layout which contributes to an inefficient and insecure work environment, and safety and accessibility concerns stemming from hazardous materials and the lack of compliance with the Americans with Disabilities Act (ADA) and California Building Code (CBC) regulations (Siskiyou Design Group Inc., 2012). Equipment at the Yreka PD is adequate, but future laws and normal wear-and-tear will require the Yreka PD obtain additional equipment to maintain service levels, such as new radio systems and new patrol cars. To address these issues, the Yreka PD is pursing various State and federal grants for new equipment as well as working with the Yreka City Council to secure a different location for the station building. The lack of staffing is the biggest challenge facing the Yreka PD; currently, sworn employees are working overtime to offset the lack of staff, and the Yreka PD is moving forward with converting its reporting to an electrionic system to reduce paperwork, thereby increasing the hours current staff are available for patrol and field work (Bowles, 2013b).

EMERGENCY MEDICAL

The Fairchild Medical Center, located approximately 0.75 mile northwest of the project site, provides primary and emergency care services for the City. Mount Shasta Ambulance Service, a private company, is the primary emergency medical transport provider in the area. As discussed above, the Yreka FD staff also responds to medical emergencies (Jones, 2013).

SCHOOLS

Several schools are within a mile of the project site. The closest schools are the Karuk Tribal Head Start, located approximately 800 feet east of the project site within the Tribe's off-reservation Yreka Housing Development, and the J. Everett Bar Court School, which provides education to juveniles within the correctional system and is located approximately 1,700 feet south of the project site. On the opposite (west) side of Interstate 5 (I-5), the Shasta Head Start Child Development, the Mattole Valley Charter School, the Yreka Adventists Christian School the College of the Siskiyous, Yreka High School, Union Elementary School, and Jackson Street Elementary School are all located within 1.0 mile of the project site.

WATER SUPPLY

The City provides municipal water service to areas within the City limits, including the areas surrounding the project site. The City obtains its water supply from the Fall Creek Pumping Station located near Copco Lake. Water is filtered and chlorinated at the source and is transported 23 miles to the City via a 24-inch diameter pipe, where it is filtered again at the Fall Creek Treatment Plant just north of the City. The water system is almost entirely gravity-fed with five existing storage tanks. Most of the system is looped, and adequate pressure is available through much of the City (Yreka, 2003). The City's water right (Permit 15379, application 22551) allows withdrawal of 9.7 million gallons per day (mgd) (Yreka,

2013b), and the City's water system is capable of 10.5 mgd (Tully and Young, 2011; **Appendix H**). In 2003, the City reported winter usage of 1.0 mgd and summer usage increasing to a maximum of 6.0 mgd (Yreka, 2003). In 2011, the City used 571.1 million gallons (an average of 1.56 mgd); the City was projected to use 646.1 million gallons in 2012 (an average of 1.77 mgd) (PACE, 2013).

The City also has an emergency water source referred to as the North Well, which is located along Yreka Creek near Montague Road approximately two miles north of the project site. This well is on emergency standby and is capable of producing approximately 1.0 mgd. This source meets drinking water standards as set by the California Department of Public Health (CDPH), but is not as desirable as Fall Creek (Tully and Young, 2011; Yreka, 2012).

WASTEWATER TREATMENT

The City provides sewer service within City limits, including in areas surrounding the project site. The North Coast Regional Water Quality Control Board (NCRWQCB) indicates that the City wastewater treatment facility, located at 856 North Main Street, has no current violations (NCRWQCB, 2009). The facility is designed to accommodate up to 1.3 mgd and is adequate for the current population of the City as the maximum dry weather flow into the plant is approximately 0.9 mgd (Yreka, 2003; **Appendix H**). The City wastewater treatment plant consists of secondary treatment by activated sludge, clarification, aerobic sludge digestion, and chlorine disinfection. Treated water is disposed of via subsurface drip irrigation to a 31-acre field; during high inflow (storm) events, four percolation ponds are available for excess volume. The ponds and leach field are located adjacent to Yreka Creek, within a few feet of the creek elevation (NCRWQCB, 2006). The City is in the process of increasing capacity to allow for future growth (Yreka, 2013a).

STORMWATER FACILITIES

As the property is unimproved, stormwater drainage infrastructure is minimal on the project site. Runoff flows across the project site and finds its way into existing drainage ditches and swales and eventually to Yreka Creek in the flat below. There is an existing drainage ditch that runs northwesterly bisecting the 50-acre fee parcel. The ditch then continues to the flat below into a series of drainage ditches, inlets, and pipes. The old railroad grade has several cross drains in place that carry stormwater to the west of the tracks. Slopes below the ditch are collected via an earthen berm that runs north to south and collects storm runoff between the ditch and the berm. Storm drainage from the 10-acre trust parcel runs westerly toward the drainage ways on the flat below; however, these flows are not concentrated into one exit point as are the flows from the fee parcel.

SOLID WASTE MANAGEMENT

The City co-owns and operates the Yreka Transfer Station, which is a solid waste landfill and transfer station located southeast of the City off of Oberlin Road, approximately 1.7 miles east of the project site (Yreka, 2003). The landfill currently has a remaining capacity of 3,924,000 cubic yards. It is permitted for a maximum capacity of 5,854,000 cubic yards, and its estimated closure date is January 1, 2065

(CalRecycle, 2013a). The Yreka Transfer Station is permitted for a maximum allowable daily through-put of approximately 100 tons/day; as of the end of July 2013, approximately 60 tons/day pass through the Yreka Transfer Station (Palletier, 2013). Some of the solid waste from the Yreka Transfer Station is transferred to the Anderson Landfill, Inc. in Shasta County, which reported in 2008 a remaining capacity of 11,914,025 cubic yards of its maximum permitted capacity of 16,840,000 cubic yards (CalRecycle, 2013c). Solid waste collection in the City is provided by the Yreka Transfer Company.

CRIMINAL JUSTICE SYSTEM

Siskiyou County (County) provides a criminal justice system to enforce State and local laws that control crime, maintain social order, and sanction those that violate the laws with penalties. These County departments include the District Attorney, County Superior Court, Public Defender, Probation Department, County Jail, and other court services.

The County District Attorney's Office (Criminal Division) is located in the County Courthouse at 311 Fourth Street in the City. Twenty-three employees staff the office, which includes the District Attorney, the Assistant District Attorney, six Staff Attorneys, one Office Coordinator, one Assistant Public Administrator, one Victim Services Coordinator, two Victim Advocates, one Chief Investigator, three Investigators, and six Secretaries. The District Attorney's Office established "Vertical Prosecution" teams who receive specialized training to insure a more professional, successful, and victim supported prosecution; these teams include Domestic Violence, Child Abuse, Violence Against Women, and Statutory Rape (Siskiyou County Online, 2013c).

The County Superior Court includes divisions for civil, family law, and criminal/traffic law. Branches are located in the cities of Dorris, Weed, and Yreka and the census-designated place of Happy Camp (Siskiyou County Superior Court, 2001).

The County Probation Department consists of 16 officers (Siskiyou County Online, 2013d). The County maintains the Siskiyou County Jail, located at 315 S. Oregon Street in the City of Yreka, with capacity for 107 inmates (Siskiyou County Sherriff's Department, 2009). The County also operates the Charlie Byrd Youth Correction Center, located at 269 Sharps Rd in the City of Yreka, with capacity for 40 juveniles (Siskiyou County Online, 2013d).

3.10.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Sections XIII and XVI of the Checklist (**Appendix A**) and have therefore been used in this section to evaluate the potential off-reservation environmental impacts of Phase I and Phase II development described in those sections of the Checklist. Impacts to off-reservation park facilities are included in Section XIII of the Checklist; however, for the purposes of this Draft TEIR, such impacts are addressed (along with other off-reservation recreation impacts) in **Section 3.3**. An impact is considered significant under Sections XIII and XVI of the Checklist if it would:

- Result in substantial adverse physical off-reservation impacts associated with the provision of new or physically altered off-reservation governmental facilities, the construction of which could cause significant off-reservation environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, or other off-reservation public facilities;
- Exceed off-reservation wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects;
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects; or
- Result in a determination by an off-reservation wastewater treatment provider (if applicable), which serves or may serve the Proposed Project that it has inadequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments.

METHODOLOGY

For the purposes of this Draft TEIR, the term "other public facilities" as used in Section XIII of the Checklist is assumed to include solid waste facilities. The impact analysis in this section compares the existing conditions described above to the foreseeable increase in demands on off-reservation public services and utilities attributable to Phases I and II of the Proposed Project. If the Proposed Project results in increased demands for off-reservation public services and utilities, which may require construction of new or alteration of existing governmental facilities to accommodate that increased demand, the potential for significant off-reservation environmental impacts associated with any such construction or alteration is addressed.

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.10.1 The Proposed Project would generate a demand for fire protection services; however, this demand would not require the construction of new or expanded facilities and thereby would not cause significant off-reservation environmental impacts.

Construction

Construction of Phases I and II of the Proposed Project would introduce additional potential sources of fire to the project site that could result in the need for fire-fighting services. During construction, equipment and vehicles may come in contact with vegetation, which could spark and ignite, leading to fires requiring responses from qualified fire protection services. In

addition, medical emergencies could result from construction related-accidents, which could result in a response from fire protection services. Strict fire and personnel safety requirements and standards, typical of the industry, would be included in the construction contractor's contract with the Tribe. Construction would be temporary and is anticipated to occur over 11 months for Phase I and over 1 year (12 months) for Phase II; there would be a period of no construction between completion of Phase I construction and initiation of Phase II construction. The Yreka FD reports that equipment and staff are adequate, and the property tax paid by the Tribe for the fee parcel that constitutes a large portion of the project site currently supports City operations and facilities. Construction of Phases I and II of the Proposed Project would not require expansion of fire protection service facilities, and the impact would therefore be less than significant.

Operation

In accordance with the Draft Tribal-State Gaming Compact (Compact), the casino (Phase I), casino expansion and hotel (Phase II), and all other aspects of the Proposed Project would be constructed to meet or exceed the requirements of the California Building Code (CBC) and the Public Safety Code, including codes for fire and safety. Fire protection features, including sprinkler systems and fire-resistant construction, would be incorporated into the design of the Proposed Project. These measures would reduce the risk of a large structural fire on the project site. As discussed in **Section 3.10.2**, the Yreka FD reports that staffing and equipment are adequate. The property tax paid by the Tribe for the fee parcel currently supports fire protection operations and would continue under the Proposed Project; therefore a less than significant impact would occur.

Impact

3.10.2 The Proposed Project would generate a demand for police protection services that may require additional staff to maintain service level standards, which could cause significant off-reservation environmental impacts.

Under Public Law 280, the State of California and other local law enforcement agencies have enforcement authority over criminal activities on tribal land. The casino (Phase I) and casino expansion and hotel (Phase II) would operate as 24-hour establishments. The Proposed Project would increase demands on local law enforcement from increased traffic and visitors to facilities on the project site. Increased calls for service to law enforcement agencies could decrease area response times as well as further strain the already under-staffed Yreka PD.

The Tribe will negotiate compensation with the City for police protection services to be provided for both phases of the Proposed Project as required by the Compact. The Tribe will determine via consultation with the Yreka PD and the City a fair and equitable amount of compensation for Yreka PD's services. These negotiations, including a time frame for reviewing Tribal compensation for law enforcement services, shall be contained in the IGA between the Tribe and

the City. The Tribe has initiated contact with the City regarding estimated project related law enforcement demands. However, due to the lack of existing agreements, a potentially significant impact to the Yreka PD could occur given the potential for an increase in Yreka PD calls for service during operation and extended hours of operation at the gaming facility. To reduce potential impacts to a less than significant level, the following mitigation measure is proposed:

Mitigation Measure

3.10.1 During IGA negotiations, and prior to operation of Phase I, the Tribe shall enter into a service agreement to reimburse the Yreka PD for additional service demands caused by the operation of the Proposed Project. This service agreement shall include, but is not limited to, the following:

a) An agreement for compensation that is to be fair share payment for any additional staffing as the parties agree is needed to serve development of Phases I and II, allowing the City to maintain public services at existing levels as well as reduce potential off-reservation environmental impacts. Based on preliminary negotiations between the Tribe and the Yreka PD, this fair share payment may be equivalent to funding required for one full-time equivalent (FTE) police officer and one additional police vehicle.
b) The agreement shall be reviewed periodically by the Tribe and the City.

Significance after Mitigation

Less than significant.

Impact

3.10.3 The Proposed Project would not generate a significant increase in demand for educational services, and therefore would not require the construction of new or expanded school facilities to maintain service level standards.

An increase in school children is not expected as new employees for Phases I and II of the Proposed Project would already live either within the City, in nearby cites, or in surrounding, unincorporated areas of the County; refer to the discussion of population and housing in **Section 3.3** for further details. Therefore, the construction of new schools would not be necessary, and no associated significant off-reservation environmental impacts would occur.

Impact

3.10.4 The Proposed Project would not generate a significant increase in solid waste, and therefore would not require the construction of new or expanded solid waste facilities to maintain service level standards.

It is estimated that operation of Phase I of the Proposed Project would generate approximately 1,259 pounds (0.63 tons) of solid waste per day. Operation of Phase II of the Proposed Project is estimated to generate 884 pounds (0.44 tons) of solid waste per day, thereby resulting in 2,143 pounds (1.07 tons) of solid waste generated per day by operation of the Proposed Project at full build-out (CalRecycle, 2013b). As discussed in **Section 3.10.2**, the Yreka Transfer Station is permitted for a maximum through-put of 100 tons/day and currently processes about 60 tons/day; the increase in solid waste generated by both Phase I and Phase II of the Proposed Project would be negligible. A portion of the waste generated by the Proposed Project may be transferred to the Anderson Landfill. The Anderson Landfill reported 70 percent remaining capacity in 2008 (CalRecycle, 2013c), which is adequate for solid waste generated by Phases I and II of the Proposed Project. The construction of new solid waste facilities would not be required, and no associated significant off-reservation environmental impacts would occur.

Impact
3.10.5 The Proposed Project has the potential to increase demand for emergency medical services and could require the construction of new or expanded facilities, which could cause significant off-reservation environmental impacts, to maintain service level standards.

Medical services provided by Fairchild Medical Center and Mount Shasta Ambulance Service would be paid for by the individuals requiring the services. Any expanded facilities needed to accommodate additional services would be funded via persons utilizing the services and would be subject to the provisions of CEQA as well as local grading permits and special use permits, all of which would minimize significant off-reservation environmental impacts and thereby reduce the impact of the Proposed Project to less than significant.

The Yreka FD could be called upon to respond to medical emergencies at the project site thereby straining resources; the impact of the Proposed Project on fire protection services is discussed under **Impact 3.10.1**.

Impact
3.10.6 The Proposed Project could generate wastewater that would exceed the capacity of City wastewater facilities.

As discussed in **Section 2.4**, the Tribe proposes to connect to the City sewer system. Wastewater needs for the Proposed Project are estimated as follows:

- Phase I average daily flow: 26,000 gpd;
- Phase I peak day flow: 52,000 gpd
- Full build-out average daily flow: 33,000 gpd; and
- Full build-out peak day flow: 66,000 gpd (**Appendix H**).

In accordance with General Plan Program PF 1.D, which requires applicants to specify project-related demand for sewer, water, and electrical services to allow the City to confirm available capacity to provide the required services, the Tribe submitted a letter on June 12, 2013 to the City Director of Public Works presenting the Proposed Project's utility demand and requesting the associated capacity analysis. To date, no response has been received from the City.

As discussed in **Section 3.10.2**, the City wastewater treatment plant is designed to accommodate up to 1.3 mgd and current maximum dry weather flow into the plant is approximately 0.9 mgd (Yreka, 2003); therefore, the City wastewater treatment plant has the capacity to serve both phases of the Proposed Project. The Water and Wastewater Technical Study prepared for the Proposed Project also determined the City has adequate available wastewater treatment plant and sewer capacity to serve both phases of the Proposed Project (**Appendix H**). Additionally, as discussed above in **Section 3.10.2**, there are no current violations against the City's wastewater treatment plant. The contents and quality of wastewater produced by either phase of the Proposed Project would be consistent with contents and quality of wastewater currently treated by the City's facilities, and therefore no changes or modifications to the City's NPDES permit would be required.

The Tribe will pay all fees associated with connection to City services on the same terms as any other commercial development within the City limits. If upgrades, expansions, and/or new wastewater facilities, including the conveyance system, are needed to treat wastewater from the Proposed Project consistent with the requirements of the NCRWQCB such projects and any associated additional compensation from the Tribe would be addressed in the IGA. However, due to the lack of existing agreements, a potentially significant impact to the City wastewater treatment system could occur. To reduce potential impacts to a less than significant level, **Mitigation Measure 3.10.2** is included below.

Significance after Mitigation

Less than significant.

Impact

3.10.7 The development of the Proposed Project may result in the need for new, upgraded, or expanded water or wastewater treatment facilities, the construction of which could cause significant off-reservation environmental effects.

As discussed in **Section 2.4**, the Tribe proposes to connect to the City water supply and City sewer system. Wastewater needs for the Proposed Project are discussed above under **Impact 3.10.6**. Water supply needs for the Proposed Project are estimated as follows:

- Phase I estimated average annual demand: 30,000 gallons per day (gpd);

- Phase I fire flow and storage requirements: 1,500 gallons per minute (gpm) at a 2 hour duration which equates to 180,000 gallons of storage;
- Full build-out estimated average annual demand: 40,000 gpd; and
- Full build-out fire flow and storage requirements: 1,500 gpm at a 4 hour duration which equates to 360,000 gallons of storage (**Appendix H**).

As stated above, the City has not replied to the Tribe's request for the water and wastewater capacity analysis as required by the General Plan Program PF 1.D. The Water and Wastewater Technical Study prepared for the Proposed Project determined the City has adequate water supply available to serve both phases of the Proposed Project (**Appendix H**). As discussed in **Section 3.10.2**, the City reported a maximum of 6.0 mgd of use in 2003 (Yreka, 2003), and the City used 571.1 million gallons (an average of 1.56 mgd) in 2011 and was projected to use 646.1 million gallons in 2012 (an average of 1.77 mgd) (PACE, 2013). Therefore, the City water system, which has the capacity of 10.5 mgd, has the capacity to service Phases I and II of the Proposed Project without any new, upgraded, or expanded facilities.

As discussed under **Impact 3.10.6**, the Tribe shall pay all fees associated with connection to City services consistent with any other commercial development within the City limits. The connection to the City water system would be made to either the existing 10-inch diameter water main located at the east terminus of Sharps Road or the existing 8-inch diameter water main located along Aspuun Road. Existing water storage facilities would be used or water storage would be developed on the trust parcel. The connection to existing City sewer mains would be made at the existing eight-inch diameter sewer mains located either at the east terminus of Sharps Road or along Oberlin Road. There are no current violations against the City's wastewater treatment plant, and no changes or modifications to the City's NPDES permit would be required to treat wastewater from the Proposed Project. If upgrades, expansions, and/or new water facilities are needed to service the Proposed Project, such projects would be subject to the provisions of CEQA as well as local grading permits and special use permits, all of which would minimize significant off-reservation environmental impacts. Details regarding any required projects and any associated compensation from the Tribe would be addressed in the IGA, thereby reducing the impact of the Proposed Project to less than significant. However, due to the lack of existing agreements, a potentially significant impact to the City water and City sewer could occur. To reduce potential impacts to a less than significant level, **Mitigation Measure 3.10.2** is proposed:

Mitigation Measure

3.10.2 The Proposed Project shall utilize City water and wastewater services. During IGA negotiations, and prior to operation of Phase I, the Tribe shall enter into a service agreement to reimburse the City for any new, upgraded, or expanded water or wastewater

treatment facilities needed due to operation of the Proposed Project. This service agreement shall include, but is not limited, to the following:

An agreement for compensation that is to be fair share payments for new, upgraded, or expanded water supply and wastewater conveyance facilities as necessary to serve development of Phases I and II, including development of appropriately sized infrastructure to meet Proposed Project flows. Such improvements shall be sized to maintain existing public services at existing levels.

Significance After Mitigation

Less than significant.

Impact

3.10.8 The Proposed Project would not require the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects.

The Proposed Project would involve construction of impervious surfaces that would generate additional stormwater runoff and would require expanded stormwater drainage facilities. As discussed in **Section 2.4**, Phase I and Phase II facilities are designed such that all stormwater would be retained on site in stormwater detention facilities. Infrastructure included with the stormwater detention facilities would allow for a controlled flow to the existing drainage ditch and eventual discharge to Yreka Creek. These design features would alleviate the need for new or expanded stormwater drainage facilities off-reservation and the impact of both phases of the Proposed Project is less than significant.

Impact

3.10.9 The Proposed Project may result in a determination by the City that it has adequate capacity to serve the Proposed Project's projected demand in addition to the City's existing commitments.

As discussed in **Section 2.4**, the Tribe proposes to connect to the City water supply and City sewer system. Wastewater needs for the Proposed Project are discussed above under **Impact 3.10.6**, and water supply needs for the Proposed Project are discussed above under **Impact 3.10.7**. There are no current violations against the City's wastewater treatment plant, and no changes or modifications to the City's NPDES permit would be required to treat wastewater from the Proposed Project. If upgrades, expansions, and/or new water facilities are needed to increase capacity to service both phases of the Proposed Project and the City's existing commitment, such projects and any associated compensation from the Tribe would be addressed in the IGA, thereby reducing the impact of the Proposed Project to less than significant. However, due to the lack of existing agreements, a potentially significant impact to the City wastewater treatment plant could

occur. To reduce potential impacts to a less than significant level, **Mitigation Measure 3.10.2**, above, is recommended.

Impact

3.10.10 The Proposed Project could affect the workload of the County criminal justice system; however, it would not result in the need for new or physically altered County facilities.

Operation of either phase of the Proposed Project could result in additional arrests and criminal cases, which would require additional criminal justice services. However, it is anticipated that any increase in the need for criminal justice services related to the Proposed Project would be minimal and would not result in the need for new or physically altered facilities or in any other significant impacts to these County services. The impact to off-reservation resources is less than significant.

3.11 TRANSPORTATION AND TRAFFIC

This section describes existing off-reservation transportation and traffic settings, evaluates potential off-reservation impacts of the Proposed Project on such settings, and presents mitigation measures to reduce significant off-reservation impacts.

3.11.1 REGULATORY SETTING

Regulation of the off-reservation roadway network in the vicinity of the Proposed Project falls under the jurisdiction of the California Department of Transportation (Caltrans) and the City of Yreka (City). Laws and regulations related to off-reservation transportation are described below.

STATE AND LOCAL

California Department of Transportation

Caltrans manages interregional transportation, including the management and construction of the California highway system. In addition, Caltrans is responsible for the permitting and regulation of state roadways. The area surrounding the Proposed Project is located in Caltrans District 2 and includes Interstate 5 (I-5) which fall under Caltrans' jurisdiction.

Caltrans requires temporary off-reservation traffic control planning "during any time the normal function of a roadway is suspended" as a result of construction activities that affect off-reservation roadways under Caltrans' jurisdiction (Caltrans, 2006). In addition, Caltrans requires that permits be obtained for off-reservation transportation of oversized loads, transportation of certain materials, and for construction-related traffic disturbances on such roadways.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City. The General Plan does not apply to trust land but does apply to land owned in fee by the Karuk Tribe (Tribe). Policies in the General Plan that are relevant to off-reservation transportation and traffic as described in the Checklist are as follows:

C1.2. To maintain a functional performance of roadways throughout the community at a Level of Service C or better.

C1.3. Accomplishment of on-going maintenance of roadways in an efficient and cost effective manner.

C1.4. Ensure that circulation improvements are adequate to serve transportation demands of new development within Yreka.

Program C1.4.A – New development projects shall dedicate adequate rights-of-way to allow for construction of roadways as designated within this element.

Program C1.4.D – New development shall provide adequate off-street parking spaces to accommodate parking demands generated by the use.

Program C1.4.F– New development shall provide improvements as needed to avoid creating significant traffic impacts on streets surrounding the proposed project. Traffic impacts are considered significant if they result in traffic that exceeds the "Environmental Capacity" of Average Daily Trips (ADT) as defined below: Local: Greater than 1,500 ADT; Collector: Greater than 2,500 ADT; Arterial: Greater than 5,000 ADT. Where existing traffic levels exceed the criteria above, an increase of greater than 10% over existing levels is considered a significant impact.

C1.5. Provide safe, convenient and attractive routes for pedestrians and bicyclists of all ages throughout Yreka.

Program C1.5.D – The City should ensure that the trail system provides connectivity between schools, shopping, housing and employment centers.

C1.7. Encourage and enhance public transit within Yreka.

Program C1.7.A – The City shall encourage the use of public transportation and will promote the expansion of such services within the community.

Program C1.7.D – When appropriate, the City shall incorporate transit facilities, such as bus turnout, into new roadways and reconstructed roadways.

3.11.2 ENVIRONMENTAL SETTING

EXISTING OFF-RESERVATION ROADWAY NETWORK

Major off-reservation roadways in the vicinity of the Proposed Project include an interstate highway under the jurisdiction of Caltrans and various City roads. The following is a description of the off-reservation roadway network that provides access to the Proposed Project site.

Interstate 5 (I-5) is an interstate freeway that traverses in the north-south direction, providing connection to the north and south of the City and providing regional access to Oregon and Northern California. I-5 has two 12-foot travel lanes in each direction with 10-foot shoulders at the interchange in the vicinity of the project site. The speed limit along I-5 is posted at 65 miles per hour (mph).

Oberlin Road is an arterial road that traverses in the east-west direction, providing connection between Kegler Lane to the west and Montague Grenada Road to the east. Oberlin Road has two 12-foot travel lanes with 8-foot paved shoulders in the vicinity of the project site. The speed limit along Oberlin Road is posted at 35 mph in the vicinity of the project site.

Fairlane Road is a collector that begins at Oberlin Road and continues south into the County of Siskiyou (County) where it terminates at Running Bear Road. Fairlane Road has two 12-foot travel lanes with 10-foot paved shoulders in the vicinity of the project site; however, the facility lacks curbs, gutters, and sidewalks along portions of the road in the vicinity of the project site. The speed limit along Fairlane Road is posted at 45 mph.

Sharps Road is a local roadway, running in an east-west direction from Fairlane Road to the southwestern corner of the project site. Sharps Road has two 12-foot travel lanes with no paved shoulders in the vicinity of the project site. The speed limit along Sharps Road is unposted and the facility lacks curbs, gutters, and sidewalks along most of its length with the exception of a short segment 300 feet west of the project site.

Moonlit Oaks Avenue is an arterial/local roadway, running east-west from Campus Drive to the west to Fairlane Road to the east. Moonlit Oaks Avenue has two 15-foot travel lanes with 5-foot paved shoulders in the vicinity of the project area. The facility is the location of the northbound and southbound interchanges with I-5 that would provide intercity access to the project site. The speed limit along Moonlit Oaks Avenue is unposted and the facility lacks curbs, gutters, and sidewalks except on both approaches to the Moonlit Oaks Avenue and Main Street signalized intersection.

Site Access

Access to the project site would be obtained via the development of an internal roadway and roundabout at the eastern terminus of Sharps Road and a small paved extension of Sharps Road. An approximately 650-foot long north/south internal project roadway would be developed connecting the proposed Sharps Road roundabout with the proposed surface parking lot developed on the fee property.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths are dedicated paved trails separated from roadways, while bike lanes are lanes on roadways designated by striping, pavement legends, and signs. Bicycle routes are roadways that are designated for bicycle use, but do not provide dedicated or demarcated lanes for use. Fairlane Road is the only currently-designated bicycle route in the City, with Oberlin Road and Moonlit Oaks Avenue designated as bicycle routes in the General Plan. No Class II bicycle lanes are present in the immediate vicinity of the project site.

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. The area generally lacks curbs, gutters, and sidewalks with the exceptions noted in the roadway descriptions above.

EXISTING OPERATIONS

Existing off-reservation roadway operations in the vicinity of the Proposed Project were analyzed in the Traffic Impact Analysis (TIA) (**Appendix F**) in accordance with Caltrans' guidance document entitled *Guide for the Preparation of Traffic Impact Studies* and the General Plan (Yreka, 2003).

Study Roadway Intersections

Identification of the off-reservation roadway intersections to be included in the TIA was based on a series of scoping discussions with Caltrans and the City to determine which intersections would require analysis in this Draft TEIR. Seven study intersections were selected for analysis in the TIA.

Analysis Methodologies

The existing roadway traffic was established by collecting current (June 2013) vehicle counts at the study roadway intersections during the weekday PM hour-long time frame when traffic volumes are at their highest (peak hour). PM peak hour analysis was selected as casino developments typically generate worst-case scenario traffic volumes during the weekday PM peak hours. Intersection analysis methodology is based on the methodology of the *Highway Capacity Manual* (HCM) published by the Transportation Research Board of the National Academies (2000).

For the purpose of the TIA and this Draft TEIR, operating conditions experienced by drivers are described in terms of levels of service (LOS). LOS is a qualitative measure that includes factors such as speed, travel time, delay, freedom to maneuver, driving comfort, and convenience. LOS ratings are represented as letters ranging from A to F, whereby LOS A represents the best traffic flow driving conditions and LOS F represents the worst traffic flow driving conditions. The determination of roadway intersection and roadway segment LOS was utilized in the TIA to analyze peak hour operating conditions on the study roadway network. The LOS of each study intersection was compared to the corresponding jurisdictional agency's threshold for acceptable operating conditions at intersections or on roadways of a similar type.

Signal Warrants

Unsignalized intersections were evaluated using the Peak Hour Volume Warrant (Warrant 3) as described in the Caltrans Traffic Manual. Warrant 3 addresses peak hour traffic volume levels; if Warrant 3 is exceeded, it is presumed that the need for a traffic signal is warranted.

Study Intersection LOS

The LOS of an intersection is based on the acceptable average total delay (seconds/vehicle) experienced by drivers at that intersection as summarized in **Table 3.11-1**. Unsignalized intersections have the same acceptable delay range for the LOS A operating condition. The General Plan defines LOS C as the threshold for acceptable operation of roadways in the City.

TABLE 3.11-1
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Conditions	Average Delay (Sec/Vehicle)
A	No delay.	<10
B	Short delay	>10 - 15
C	Moderate delay	>15 - 25
D	Long Delay	>25 - 35
E	Very Long Delay.	>35 - 50
F	Volume Exceeds Capacity	>50

SOURCE: Kittelson & Associate, 2013 (**Appendix F**).

Study Intersection Operating Conditions

Table 3.11-2 identifies the existing weekday LOS operating conditions of the study intersections, along with the applicable jurisdictional standard for acceptable LOS. The results of the TIA analysis indicate that all of the study intersections in the existing condition are meeting the applicable City and Caltrans standards during weekday PM peak hour conditions.

TABLE 3.11-2
STUDY INTERSECTIONS EXISTING (2013) WEEKDAY PM PEAK CONDITIONS LEVELS OF SERVICE

No	Intersections	Traffic Control	Worst Movement	PM	
				LOS	Delay
1	South Main Street/Fort Jones Road & Oberlin Road	Signal	N/A	A	9.9
2	Fairlane Road & Oberline Road	TWSC	NBL	C	17.1
3	Campbell Avenue & Oberlin Road	TWSC	NBL	B	11.7
4	I-5 Southbound Ramps & Moonlit Oaks Avenue	TWSC	SBL	C	15.4
5	I-5 Northbound Ramps & Moonlit Oaks Avenue	TWSC	NBL	C	17.8
6	Fairlane Road & Moonlit Oaks Avenue	TWSC	EBL	B	12.2
7	Fairlane Road & Sharps Road	TWSC	WBL	B	10.8

N/A = not applicable.
NBL= Northbound Left
SBL= Southbound Left
EBL= Eastbound Left
WBL=Westbound Left
TWSC = Two-way Stop Controlled
SOURCE: Kittelson & Associates, 2013(**Appendix F**).

Signal Warrant- Existing Conditions

No study intersections were found to meet the peak hour signal warrant in the PM peak hour under existing conditions (**Appendix F**).

BASELINE CONDITIONS METHODOLOGY

Due to the planned Phase I development timeline in early 2014 and the lack of proposed off-site development within the project vicinity, to analyze the impacts of the Proposed Project on off-

reservation traffic, increases to the existing (2013) vehicle traffic counts for the study roadway network were used as "baseline conditions." Off-reservation traffic impacts attributable to the Proposed Project are then compared to the baseline conditions in **Section 3.11.3**.

3.11.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section XV of the Checklist (**Appendix A**) and have therefore been used in this section to evaluate the potential environmental impacts of the Proposed Project on off-reservation transportation and traffic. Such an impact is considered significant if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the off-reservation circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated off-reservation roads or highways;
- Substantially increase hazards to an off-reservation design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access for off-reservation responders.

The General Plan and Caltrans provide LOS significance criteria for study intersections. A significant impact would occur at an off-reservation study intersection if it would:

- Result in a City roadway or a City signalized intersection operating at an acceptable LOS (A, B, or C) to deteriorate to an unacceptable LOS (D, E, or F);
- Reduce the LOS on State highway facilities from the target LOS C to an unacceptable LOS D or E in Siskiyou County; or
- Project implementation would conflict with transit, pedestrian, and/or bicycle uses.

METHODOLOGY

Construction Impacts on Traffic

The construction activities proposed in Phase I and Phase II would include potential off-reservation traffic impacts related to construction worker trips to and from the project site, as well as importation and exportation of construction material and equipment. Anticipated construction equipment and construction worker trips are estimated to be similar between Phase I and Phase II of the Proposed Project. The principal activities expected to generate traffic during the construction of the two phases are:

- Delivery of construction materials to the site, including building materials such as wood, steel, and masonry;
- Construction worker trips to the site during different construction activities throughout construction of the Proposed Project; and
- Delivery of large construction vehicles to and from the Proposed Project site during different construction activities throughout construction of the Proposed Project.

Operation Impacts on Traffic

To determine the potential off-reservation impacts during operation, the number of additional vehicle trips that would be generated by the Proposed Project was added to the baseline conditions traffic levels for each study roadway intersection. Refer to **Appendix F** for further discussion regarding the methodology for this determination. The number of new vehicle trips generated by both phases of the Proposed Project, and the distribution of those trips on the off-reservation study roadway network, were estimated using methodologies outlined in Caltrans' *Guide for the Preparation of Traffic Impact Studies* and the HCM. Refer to **Appendix F** for further discussion regarding this methodology. The LOS of the study roadway intersections after the addition of the new trips generated by each phase were determined and then compared to the jurisdictional agencies' applicable LOS acceptability criteria.

Project Trip Generation

Table 3.11-3 identifies the weekday trip generation rates developed in the TIA, and **Table 3.11- 4** and **Table 3.11-5** identify the new weekday vehicle trips attributable to Phases I and II of the Proposed Project, respectively. The trip generation discussion and calculations for the Proposed Project are provided in the TIA (**Appendix F**). Proposed Project trip generation includes an internal capture rate of 100 percent for all internal, non-gaming related facilities.

TABLE 3.11-3
TRIP GENERATION RATES

Land Use	Daily Trip Rates	PM Peak Hour		
		Entering	Exiting	Total
Casino (per 1,000 sqft.)	61.20	2.74	3.21	5.95
Standard Hotel (per room) (ITE 310)	8.17	0.35	0.26	0.61
Casino Hotel (per room) (after applying 63.5% reduction)	2.98	0.13	0.09	0.22

sqft = square feet
Source: Kittelson & Associates, 2013 (**Appendix F**).

TABLE 3.11-4
PHASE I WEEKDAY NEW TRIPS GENERATED BY THE PROPOSED PROJECT

Land Use	Area	Daily Trips	PM Peak Hour		
	Sqft/Rooms		Entering	Exiting	Total
Casino (per 1,000 sqft)	14,200	869	39	46	85

sqft = square feet
Source: Kittelson & Associates, 2013 (**Appendix F**).

TABLE 3.11-5
PHASE II WEEKDAY NEW TRIPS GENERATED BY THE PROPOSED PROJECT

Land Use	Area	Daily Trips	PM Peak Hour		
	Sqft/Rooms		Entering	Exiting	Total
Casino (per 1,000 sqft)	23,700 sqft	1450	65	76	141
Casino Hotel (per room)	80 rooms	238	11	7	18
Total Trips		1689	76	83	159

sqft = square feet
Source: Kittelson & Associates, 2013 (**Appendix F**).

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.11.1 Construction worker trips and delivery of construction materials and equipment during construction of Phases I and II of the Proposed Project would increase off-reservation traffic. However, the associated increase in trips would not conflict with the applicable measures of effectiveness for the performance of the off-reservation circulation system nor would the associated increase in trips conflict with the applicable standards for off-reservation roads or highways.

Construction activity on the project site would generate different volumes of construction traffic during different stages of construction. For example, under both development phases, the delivery and removal of heavy equipment to the project site would occur periodically throughout the construction period, while construction worker trips would occur daily. It is estimated that construction of Phase I of the Proposed Project would take 11 months to complete, while site improvements anticipated under Phase II of the Proposed Project would take an additional 12 months to complete.

Given the proximity of the project site to I-5 and the sparse development along Fairlane Road and Sharps Road between the project site and I-5, construction trucks and worker vehicles would have a direct route to and from the project site. Construction traffic would be dispersed throughout the day with worker trips occurring prior to the AM and PM peak hours

and material delivery trucks occurring after the AM peak hour and prior to the PM peak hour. Because construction traffic generally occurs during off-peak hours and the short-term increase in traffic volumes on surrounding roadways/intersections; construction of Phase I and Phase II of the Proposed Project is not expected to create any safety, capacity, or LOS issues. Construction traffic would not be substantial in relation to the existing traffic load and capacity of the street system and would not cause an exceedance of the General Plan's or Caltrans' LOS standards; therefore construction traffic would have a less than significant impact.

Impact

3.11.2 Under Proposed Project conditions, operation of the Proposed Project (Phase I and Phase II) would generate new vehicle trips. However, these additional trips would not conflict with the applicable measures of effectiveness for the performance of the off-reservation circulation system nor would the associated increase in trips conflict with the applicable standards for off-reservation roads or highways.

Phase I Intersection Operating Conditions

As shown in **Table 3.11-6**, all of the study intersections would continue to operate under acceptable LOS condition under the Phase I Proposed Project Condition. A less than significant impact would occur as a result of the operation of Phase I of the Proposed Project.

Phase II Intersection Operating Conditions

As shown in **Table 3.11-7**, all of the study intersections would continue to operate under acceptable LOS condition under the Phase II Proposed Project Condition. A less than significant impact would occur as a result of the operation of Phase II of the Proposed Project.

TABLE 3.11-6
STUDY INTERSECTIONS LEVELS OF SERVICE:
PROPOSED PROJECT PHASE I CONDITION

No	Intersections	Traffic Control	Criteria	Worst Movement	PM Peak	
					LOS	Delay
1	South Main Street/Fort Jones Road & Oberlin Road	Signal	C	-	A	9.9
2	Fairlane Road & Oberline Road	TWSC	C	NBL	C	17.7
3	Campbell Avenue & Oberlin Road	TWSC	C	NBL	B	11.8
4	I-5 Southbound Ramps & Moonlit Oaks Avenue	TWSC	C	SBL	C	16.5
5	I-5 Northbound Ramps & Moonlit Oaks Avenue	TWSC	C	NBL	C	19.3
6	Fairlane Road & Moonlit Oaks Avenue	TWSC	C	EBL	B	13.2
7	Fairlane Road & Sharps Road	TWSC	C	WBL	B	11.6

N/A = not applicable
NBL= Northbound Left SBL= Southbound Left
EBL= Eastbound Left WBL=Westbound Left
TWSC = Two-way Stop Controlled
SOURCE: Kittelson & Associates, 2013 (**Appendix F**).

TABLE 3.11-7
STUDY INTERSECTIONS LEVELS OF SERVICE:
PROPOSED PROJECT PHASE II CONDITION

No	Intersections	Traffic Control	Criteria	Worst Movement	PM Peak	
					LOS	Delay
1	South Main Street/Fort Jones Road & Oberlin Road	Signal	C	-	A	10.0
2	Fairlane Road & Oberline Road	TWSC	C	NBL	C	18.1
3	Campbell Avenue & Oberlin Road	TWSC	C	NBL	B	11.8
4	I-5 Southbound Ramps & Moonlit Oaks Avenue	TWSC	C	SBL	C	17.8
5	I-5 Northbound Ramps & Moonlit Oaks Avenue	TWSC	C	NBL	C	21.0
6	Fairlane Road & Moonlit Oaks Avenue	TWSC	C	EBL	B	14.2
7	Fairlane Road & Sharps Road	TWSC	C	WBL	B	12.4

N/A = not applicable
NBL= Northbound Left SBL= Southbound Left
EBL= Eastbound Left WBL=Westbound Left
TWSC = Two-way Stop Controlled
SOURCE: Kittelson & Associates, 2013 (**Appendix F**).

Signal Warrants

No study intersections were found to meet the peak hour signal warrant in the PM peak hour (Warrant #3) under Phases I or II of the Proposed Project.

Impact

3.11.3 Operation of Phase I and Phase II of the Proposed Project would result in the addition of new vehicle trips along the area roadway network. This increase would not substantially increase hazards to an off-reservation design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Phase I of the Proposed Project includes the construction of an approximately 650 foot long access roadway and connecting the proposed surface parking lot with Sharps Road. The roadway design features proposed under the Proposed Project include the development of a roundabout feature and a paved extension of Sharps Road to the southwest. All site access and off-reservation roadway improvements would be required to be developed pursuant to existing City standards, which would result in a less than significant impact under both phases of development.

Impact

3.11.4 Operation of Phase I and Phase II would result in additional vehicle trips along the study roadway network but would not adversely impact the existing performance of the off-reservation pedestrian and bicycle facilities, which are a part of the circulation system.

Implementation of Phase I and Phase II of the Proposed Project is not expected to generate a large number of new pedestrian trips along public roads in the area; therefore, it is not

expected to adversely impact the existing or future pedestrian system in the vicinity of the project site and would not significantly impact any pedestrian improvements planned for the area. Neither phase of development would generate a substantial increase in bicycling activity and would not impact the existing or planned bicycle system in the vicinity of the project site. Outside of a small section of Sharps Road, no existing pedestrian facilities are located in the vicinity of the Proposed Project.

The General Plan does not identify additional bicycle or pedestrian improvements in the vicinity of the Proposed Project. The Proposed Project is not projected to generate an increase in bicycling activity or pedestrian trips. Therefore, development of the Proposed Project would have a less than significant impact on existing or planned off-reservation bicycle or pedestrian facilities.

Impact

3.11.5 Operation of the Proposed Project would not result in inadequate emergency access for off-reservation responders.

As noted above, implementation of Phase I and Phase II of the Proposed Project would not result in the lowering of LOS at any study area intersection. Accordingly, emergency vehicles would not be hindered from travelling to and entering the project site and impacts to off-reservation emergency responders would be less than significant.

3.12 CULTURAL RESOURCES

This section describes existing off-reservation cultural resources, evaluates potential off-reservation impacts of the Proposed Project on such resources, and presents mitigation measures to reduce significant off-reservation impacts.

3.12.1 REGULATORY SETTING

FEDERAL

Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) as amended, and its implementing regulations found at 36 CFR Part 800, require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting actions.

The significance of the resources must be evaluated using established criteria outlined at 36 CFR 60.4, as described below. If a resource is determined to be a historic property, Section 106 of the NHPA requires that effects of the Proposed Project on the resource be determined. A historic property is defined as:

> *…any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property…(NHPA Sec. 301[5])*

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 CFR 800.5. An impact is considered significant when prehistoric or historic archaeological sites, structures, or objects that are listed, or eligible for listing, in the National Register of Historic Places (NRHP) are subjected to the following:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property that causes its deterioration; and
- Transfer, lease, or sale of the property.

If it is determined that a historic property will be adversely affected by implementation of a proposed project, prudent and feasible measures to avoid or reduce adverse impacts must be taken. The State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on these measures prior to project implementation.

TRIBAL

In 1992, the NHPA was amended to allow Indian tribes treatment as a state concerning cultural resources on tribal lands. The responsibilities can include identifying and maintaining inventories of culturally significant properties, nominating properties for inclusion on national and tribal registers of historic places, and conducting Section 106 reviews of federal agency projects on tribal lands. This includes designating Tribal Historic Preservation Officers (THPO) with whom federal agencies are required to consult in lieu of the SHPO for undertakings occurring on or affecting historic properties on tribal lands. The Karuk Tribe (Tribe) has elected to assume these responsibilities and has elected to incorporate THPO into the Tribal government operations.

STATE AND LOCAL

California Environmental Quality Act

California Environmental Quality Act (CEQA) requires that, for projects financed by, or requiring the discretionary approval of public agencies in California, the effects that a project has on historical and unique archaeological resources must be considered (Public Resources Code [PRC] Section 21083.2). The development of the parking lots on the fee parcel during Phases I and II of the Proposed Project would require a Special Use Permit from the City of Yreka (City), which would be subject to the provisions of CEQA.

"Historical resources" are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance (PRC Section 50201). A cultural resource is a "historical resource" and therefore significant under CEQA. The 2013 CEQA Guidelines (Section 15064.5) define four cases in which a property may qualify as a significant historical resource for the purposes of CEQA review:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC §5024.1, Title 14 CCR, Section 4850 et seq.).

2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant.

3. The lead agency determines the historical resource to be significant as supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (CRHR) (PRC §5024.1, Title 14 CCR, Section 4852) including the following:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in prehistory or history.

4. A lead agency determines that the resource may be an historical resource as defined in PRC sections 5020.1(j) or 5024.1.

In addition, the resource must retain sufficient integrity to convey its historic character and importance. Integrity is evaluated in relation to location, design, setting, materials, workmanship, feeling, and association.

Unless they exhibit exceptional qualities, isolated artifacts are not considered historical resources. Exceptional qualities may include being the only known, the oldest specimen, or the best example of its type.

A Lead Agency must first evaluate an archaeological site to determine whether it meets the criteria for listing on the CRHR. If so, potential adverse effects to it must be considered.

Paleontological resources must also be considered under CEQA. Following precedents set by the federal government, they are often classified with cultural resources because of their antiquity and scientific interest. Appendix G of the CEQA Guidelines, Cultural Resources, requires a determination of whether a project would directly or indirectly destroy a unique paleontological resource or site or a unique geological feature. If so, potential adverse impacts to the resource must be considered.

City of Yreka General Plan

The City of Yreka General Plan (General Plan) adopted in 2003 is the guiding document for development in the City. The General Plan does not apply to trust land but does apply to land owned in fee by the Tribe. Policies in the General Plan that are relevant to off-reservation cultural and paleontological resources as described in the Checklist are as follows:

LU.12.A. An archaeological record search shall be required on all discretionary projects, on land not previously developed or approved for a parcel map or subdivision. This record shall be supplied by the applicant, to determine if there is the potential for archaeological resources on the project site. If the record search determines there is a high probability of such resources, an on-site investigation shall occur by a professional approved by the City.

LU.12.B. If during the course of disturbance of a project site human remains are discovered, construction shall stop immediately and such find reported to the County Coroner. Work on the site with the potential for disturbing such remains shall not occur until authorized by the Coroner.

LU.12.C. The exterior modification or demolition of any building located outside of the Historic District which was constructed prior to 1910, shall not occur until it has been determined that such modification or demolition will not cause any significant impact to a historic resources.

3.12.2 ENVIRONMENTAL SETTING

CULTURAL RESOURCES

Prehistoric Context

Archaeologists have divided northernmost California into two regions for the purpose of archaeological description: the North Coastal Region and Northeastern California (Jones and Klar, 2007a; Jones and Klar, 2007b; Moratto, 1984). The Yreka area, occupied during the historic period by Hokan-speaking peoples, is located west of the Cascades and within the Northeastern region. Historically, relations were primarily with groups in the North Coastal Region. Relatively little prehistoric archaeological work has been conducted in the Yreka area, and there is no published cultural chronology. The following basic chronology is based on the synthesized archaeological record for the two regions.

Early Holocene (c. 8000 to 5000 B.C.)

Relatively cool weather and greater moisture broadly characterize the period. The widespread Paleoindian/Borax Lake pattern is represented in the region by large wide-stemmed points, some with fluting, which in other contexts date back as far as 13,000 years ago. During the Early Holocene, people appear to have followed a "forager" approach to subsistence and settlement, with frequent residential moves by the entire group and little emphasis placed on storage (Hildebrandt, 2007). The earliest radiocarbon date in the State comes from a hearth at a rock shelter site (CA-SIS-218) located near the shore of Tule Lake. Dated at 11,490 B.C., the occupation represents a small lakeshore focused group with an economy focused on taking fish and waterfowl (Jones and Klar, 2007a; Jones and Klar, 2007b). Although a small number of milling stones have been associated with this pattern, seed grinding does not seem to have been a prominent subsistence activity.

Middle Holocene (c. 5000 to 2000 B.C.)

The middle Holocene is generally characterized by increased aridity. At Klamath Lake, leaf-shaped and large (Northern) side-notched projectile points are present in the early Middle Holocene, with large corner-notched (Elko) dart points, coming in at approximately 3000 B.C., revealing the continued importance of large game hunting. At CA-SHA-475 on Squaw Creek above Lake Shasta, milling stones appear approximately 5000 B.C. and increase strikingly until around 2000 B.C., after which they decline

sharply. Archaeological evidence from this time period indicates a high degree of residential mobility (Moratto, 1984; Hildebrandt, 2007).

Late Holocene (post-c. 2000 B.C.)

Somewhat cooler temperatures and increased precipitation characterize the Late Holocene, although dramatic fluctuations are recorded (e.g., Jones et al., 1999). There is an increase in the number of large corner-notched Elko points for use on atlatl darts. Smaller corner-notched and stemmed points resembling the Rose Spring series of the Great Basin and styled for use with the bow and arrow proliferate between A.D. 1 and A.D. 1000. The Gunther Pattern or Shasta Complex, defined by the widespread presence of Gunther Barbed projectile points, pestles and hopper mortars, and shell beads appears at approximately A.D. 500. A high degree of sedentism is apparent in the later Gunther Pattern, especially along the northern coast, where canoes were used to obtain offshore sea mammals and marine fish. In the inland riverine areas, plank houses and evidence of salmon exploitation are present.

Ethnographic Context

According to an 1851 unratified treaty between the United States and the Upper Klamath, Shasta, and Scott's River Tribes of Indians, the project area lies within the lands identified therein for the signatory tribes. Early twentieth century anthropologists described the treaty territory as spanning the California-Oregon border, with settlements loosely grouped into divisions (Silver, 1978). One of the divisions was in Shasta Valley.

In Shasta Valley, villages were usually located at the edge of the valley where a stream came down from the mountains. Rectangular winter houses, which were occupied by one or more families, measured approximately 16 by 20 feet, had floors excavated into the ground to a depth of approximately 3 feet with a fire pit in the center, and had steeply sloping roofs, board end walls, and dirt sidewalls. Large villages had an assembly house, which was similar in construction to the winter houses, but was larger and dug more deeply into the ground. Large villages also had a men's sweathouse. Less substantial bark houses were used at seasonal camps during the fall acorn-gathering season, and brush shelters were occupied during spring and summer. Each village had a well-recognized territory, and large villages had a headman who advised his people and settled disputes. The dead were buried, but cremation was practiced when someone died far from home, and their ashes were carried home. Individuals' personal possessions were burned or buried with them. Each family had a burial plot (Silver, 1978).

Animal foods included deer meat, which was a staple; bear; small mammals and birds; salmon; trout; suckers; eels; crawfish; turtles; mussels; grasshoppers; and crickets. Important plant foods were acorns, a staple; other nuts; seeds; bulbs; roots; greens; and berries. Acorns were pounded using a pestle in a mortar and leached or buried in mud and then boiled whole. Bread or mush was made from the prepared acorns and other seeds. Land management included burning to produce better seed and tobacco crops, and scattering wild seeds to increase production.

The Upper Klamath Indians traded extensively down the Klamath with their neighbors, receiving dentalia for nose and neck pendants, strung-shell necklaces, belts, and expensive dresses; salt or seaweed; baskets; acorns; canoes; and dried smoked fish. These things were traded for obsidian, buckskins, and sugar-pine nuts (Kroeber, 1925). Trade among the various tribes of the river included pine nuts and salmon from the Klamath group and antelope meat (Silver, 1978).

The Karuk place name for Yreka is *kahtíšraam* (Bright, 1957). The Karuk have had a significant historical relationship to the Yreka area since before federal record keeping for the area began (Hay and Shyloski, 2012). Historian Stephen Dow Beckham has compiled documentation demonstrating that a sizeable population of Tribal members have lived and worked in the Yreka area during the historic era. Historically, the Karuk Tribe has consisted of the communities at Happy Camp, Orleans, and Siskiyou (Yreka). Of particular relevance to the Yreka connection, the Bureau of Indian Affairs made payments to schools throughout Siskiyou County for the enrollment of Karuk children during the 1920s (Hay and Shyloski, 2012). Karuk tribal members recall attending Tribal council meetings in Yreka at least as far back as the early 1950s, and interviews conducted by Beckham documented current Tribal members who were born in Yreka as far back as 1932, attended schools there, and took local jobs after returning from World War II or the Korean War. The Karuk Tribal Housing Development was constructed with Department of Housing and Urban Development assistance approximately 20 years ago on the parcel adjacent to the east of the Proposed Project.

The indigenous people of Shasta Valley had a rich culture, including ceremonies, myths, and healing practices, which are described in several ethnographies. The above brief sketch focuses on aspects of their material culture that might assist in predicting and assessing the types of archaeological evidence that could be present at the project site.

Historic Context

The Spanish and later Mexican influences that were felt so strongly in the southern half of California beginning in 1769 did not intrude in any significant way into northernmost California. Trappers beginning in the late 1820s, settlers moving south from the Willamette Valley in Oregon beginning in the 1840s, military and topographic survey expeditions in the 1840s and 1850s, and gold seekers from the 1840s until around 1860 were the foreigners who first ventured into California's northern reaches.

A gold strike was made at Yreka Flats in 1851, and 2,000 men converged on the area in less than six weeks. Miner's cabins sprung up for three miles along Yreka Creek, and a town called Shasta Butte City was laid out the same year. To avoid confusion with the older Shasta City in Shasta County, the town name was soon changed to Yreka, a phoneticized version of Wy-e-ka (Gibbs, 1972), the native name for Mount Shasta. The flood of foreigners into the region beginning in 1851 had a decimating effect on the aboriginal population, as hunting grounds, fisheries, and gathering locales were overrun, and disease and violence took their tolls. In 1852, Siskiyou County was established, and Yreka was designated the county seat. Incorporated as a town in 1857, Yreka became an important trading, financial, and business center

for the region. By the late 1850s, two roads with stage service between Sacramento and Oregon passed through the town. A boomtown population of approximately 5,000 during the gold rush declined to around 1,300 after 1860 and rebounded to approximately 1,500 in the 1880s. Lumbering became the basis of the economy, and the town's success continued to rely on its strategic position at the crossroads of major trade routes prior to the coming of the railroad. The Central Pacific Railroad was constructed through Siskiyou County in 1887, bypassing Yreka by eight miles. Not to be left behind, by 1889, Yreka had built the short line Yreka Railroad (later called the Yreka Western Railroad) to connect at Montague, a station on the Central Pacific Railroad. Like many early towns, Chinese communities were established in the Yreka area. The first, known as Main Street Chinatown, developed in the 1850s, and the second, located around Center Street, emerged in the late 1880s. Both Chinatowns had disappeared by 1930. Yreka grew into a significant municipality during the twentieth century. The Yreka Historic District was established in 1972 (HARD Townsites Team, 2007; Hoover et al., 2002).

PALEONTOLOGICAL RESOURCES

Paleontological resources are physical remnants of ancient life, most frequently fossilized bones and teeth, shells, leaves, and wood. They are associated directly with specific geological formations, all of which are sedimentary in origin.

The project site is mapped as Quaternary Alluvium (Hotz, 1977; Hotz, 1978), which is a sedimentary formation. The formation mapped within Shasta Valley may be of glacio-fluvial origin, laid down by meltwater streams from glaciers in the high parts of the Klamath Mountains and on the slopes of Mount Shasta (Hotz, 1977).

Quaternary Alluvium is a general category. Quaternary period deposits generally consist of two components: the upper younger deposits, which are relatively shallow, and the older Pleistocene deposits, which may have great depth. Quaternary Younger Alluvium dates to the Holocene (Recent) epoch between 11,000 years ago and the present and generally has a low level of sensitivity, although there are rare important finds. Quaternary Older Alluvium was laid down during the Pleistocene epoch between 1.8 million and 11,000 years ago and is considered to have a high level of sensitivity for fossils.

3.12.3 IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The following criteria are established by Section I of the Checklist and have therefore been used in this section to evaluate the potential off-reservation impacts of the Proposed Project with respect to off-reservation cultural resource impacts. An impact is considered significant if it would:

- Cause a substantial adverse change in the significance of an off-reservation historical or archaeological resource;

- Directly or indirectly destroy a unique off-reservation paleontological resource or site or unique off-reservation geologic feature; or
- Disturb any off-reservation human remains, including those interred outside of formal cemeteries.

METHODOLOGY AND FINDINGS

The evaluations of potential impacts to off-reservation cultural and paleontological resources are described below.

Cultural Resources

Cultural Resources Records Search

A Cultural Resources Records Search was performed at the Northeast Center of the California Historical Resources Information System on August 12, 2013. The records search area encompassed the entire project site (both trust and fee parcels) and a 0.25 mile radius around it. No prehistoric or historic period resources are recorded within the project site itself nor is there any record of previous field studies in this area. Within the 0.25 mile radius, one historic period resource was identified: the Yreka Road/South Immigrant Trail to Yreka (CA-SIS-1728H). This wagon road is described as approximately 73 miles long, with parallel wheel treads preserved in a number of areas. There is no record that the portion of the mapped road near the project site has been field verified.

Within one mile of the project site, two archaeological sites are recorded: a campsite, which may have prehistoric and historic components and a proto-historic site containing house pits and historic refuse. Four other historic period sites are recorded within the one-mile radius: the Yreka Ranger Unit Headquarters, the Yreka Service Center (Civilian Conservation Corps era), and two refuse deposits. The project site is located within the Yreka historic gold district. Based on old survey records and field notes, the Oregon-California Trails Association identified several locations along Yreka Creek to the northwest of the project site as “area dredged for gold” (Office of National Historic Trails Preservation, 1994).

Two cultural resource surveys are documented within 0.25 mile of the project site. Northeast of the project site, a 22-acre survey did not locate any cultural resources (Jensen, 1987). Likewise, no cultural resources were encountered during a survey of approximately 10 acres to the west of the project site (Furry, 2003).

Several lists of historic resources were also consulted and did not identify listed resources on or in the immediate area of the project. These include the National Register of Historic Places-Listed Properties and Determined Eligible Properties (2012), the California Register of Historical Resources (2012), the list of California Points of Historical Interest (2012), the California Inventory of Historic Resources (1976), the California Historical Landmarks list (2012), and the Directory of Properties in the Historic Property Data Files for Siskiyou County (2012).

In addition to the records search, other sources were consulted. A search of the Bureau of Land Management General Land Office records did not identify any federal land patents within the immediate area of the project site.

Several historic United States (U.S.) Geological Survey (USGS) maps were also reviewed. The California Shasta 60-minute Sheets from 1886 and 1894 show a schematic grid pattern over the town of Yreka and a road (which has since been designated the Yreka Immigrant Trail) traveling in a north-south direction approximately 0.5 mile west of the project site. Although the Yreka Railroad had been constructed by 1889, it does not appear on the 1894 map. The 1939 30-minute Yreka Quadrangle shows no structures on or in the immediate vicinity of the project site and shows the Yreka Western Railroad alignment between Montague and Yreka ending at the edge of the Yreka town center. The 1954 Yreka 15-minute Quadrangle shows considerably greater detail. The Yreka Western Railroad tracks now extend south from Yreka to a terminus less than 0.25 mile southwest of the project site, and Sharps Road stretches between Highway 99 (now Interstate 5) and the railroad tracks. A few buildings or structures are depicted a short distance west of the project site, but it is not possible to determine what they are. The 1981 7.5-minute Yreka Quadrangle shows the railroad tracks in their same location but terminating at a larger building than on the 1954 map. It also shows two burners, one just east of the terminal building and one a short distance west of the project site. Based on a recent field examination, both burners are still present.

Field Investigation

An environmental specialist walked the off-reservation project area in a series of north-south oriented transects spaced at approximately 15 meter intervals. The project area is generally level and has been subjected to grading impacts throughout. At the time of the survey, several mobile homes occupied the site and vegetation had been recently brushed. Ground visibility was excellent. No cultural resources were noted during the course of the survey.

Paleontological Resources

A search was made of the University of California Museum of Paleontology's online database on August 14, 2013 to identify paleontological resources from the Yreka area. The database search indicates that no fossils have been recorded in or near the project site.

A total of 91 fossils have been recovered from other parts of Siskiyou County. Five fossil localities in Siskiyou County are in Quaternary Alluvium deposits, which is the geological formation mapped for the project site area. From these five localities, all of which date to the Pleistocene epoch, several Rancholabrean Age (240,000-11,000 years before present) specimens are identified: *Euceratherium collinum* (scrub-ox), *Camelops hesternus* (western camel), *Mammut americanum* (American mastodon), *Mammuthus* sp. (mammoth), and Cyprinidae (minnow family).

OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Impact

3.12.1 The Proposed Project would not cause a substantial adverse change in the significance of a known off-reservation historical or archaeological resource; however, the Proposed Project has the potential to impact unknown resources.

No off-reservation historical or archaeological resources are known to exist near areas where ground disturbance would take place. Nor would construction or use of the proposed parking lots under Phases I and II of the Proposed Project introduce any visual, atmospheric, or noise elements with the potential to diminish a resources' integrity. Therefore, no impact is anticipated.

However, there remains the unlikely possibility that subsurface archaeological resources could be exposed during project construction. **Mitigation Measure 3.12.1** is provided to reduce potential impacts to previously unknown cultural resources.

Mitigation Measure

3.12.1 In the event of any discovery of historical, archaeological, or paleontological resources during construction, the Tribe shall assure that all work within 50 feet of the find shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, can assess its significance. The Karuk Tribal Historic Preservation Office shall also be contacted. If any archaeological find is determined to be important by the archaeologist, or paleontologist as appropriate, the Tribe's representatives shall meet with the designated expert to determine the appropriate course of action, including the development of a treatment plan, if necessary.

Important cultural or paleontological materials recovered shall be subject to scientific analysis, culturally sensitive treatment, and disposition and/or professional curation, as appropriate. The professional archaeologist or paleontologist shall prepare a report according to current professional standards.

Significance After Mitigation

Less than significant.

Impact

3.12.2 The Proposed Project would not directly or indirectly destroy a known unique off-reservation paleontological resource or site or unique off-reservation geologic feature; however, the Proposed Project has the potential to impact unknown resources.

The Proposed Project would not involve any off-reservation ground disturbance during the construction of Phases I and II of the Proposed Project of a nature that would directly or

indirectly destroy a known off-reservation unique paleontological resource of a unique geologic feature. No impact would occur.

However, there remains the unlikely possibility that subsurface paleontological resources or geologic features could be exposed during project construction. **Mitigation Measure 3.12.1** is provided to reduce potential impacts to previously unknown cultural resources.

Significance After Mitigation

Less than significant.

Impact

3.12.3 The Proposed Project would not disturb any known off-reservation human remains, including those interred outside of formal cemeteries; however, the Proposed Project has the potential to impact unknown resources.

No off-reservation human remains, including those interred outside of formal cemeteries, are known to exist near areas proposed for ground disturbance on the fee parcel during construction of Phases I and II of the Proposed Project. Therefore no impacts would occur.

Nevertheless, there remains a highly unlikely possibility that human remains could be encountered during ground disturbing activities on the fee parcel. Additional mitigation is provided to reduce potential impacts to previously unknown human remains.

Mitigation Measure

3.12.2 If human remains are encountered, the Tribe shall comply with Section 15064.5(e)(1) of the State CEQA Guidelines and Section 5097.98 of the California Public Resources Code. All project-related ground disturbance within 100 feet of the find shall be halted until the Siskiyou County Coroner has been notified. The Karuk Tribal Historic Preservation Office shall also be contacted. If the remains are determined to be of Native American origin, the State Native American Heritage Commission shall be contacted within 24 hours and no further excavation or disturbance of the site shall occur until the process set forth in Section 5097.98 of the California Public Resources Code is implemented. Nor shall any project-related ground disturbance in the vicinity of the find resume until the process detailed in Section 15064.5(e) of the State CEQA Guidelines has been completed.

Significance After Mitigation

Less than significant.

3.13 POPULATION GROWTH-INDUCING AND CUMULATIVE OFF-RESERVATION ENVIRONMENTAL IMPACTS

This section describes potential off-reservation population growth-inducing and cumulative off-reservation environmental impacts of the Proposed Project, and analyzes the potential for the Proposed Project to result in substantial off-reservation population growth. This section also defines the environment in which cumulative off-reservation impacts might occur, evaluate whether the potential off-reservation impacts of the Proposed Project are cumulatively considerable, and presents mitigation measures to reduce significant off-reservation impacts.

3.13.1 POPULATION GROWTH-INDUCING OFF-RESERVATION IMPACTS OF THE PROPOSED PROJECT

Operation of Phase I of the Proposed Project is anticipated to generate approximately 350 new jobs, and operation of Phase II of the Proposed Project is anticipated to generate approximately 50 additional new jobs. The casino and hotel would also increase demands for supplies and services to support operations and cater to patrons; this would create a ripple effect that would bolster the local economy and generate additional jobs in the City of Yreka (City) and surrounding regional areas. These direct and indirect jobs could lead to indirect environmental impacts including traffic congestion and increased demand for public services and utilities.

Employees would be drawn from the Karuk Tribe (Tribe) and the City; other nearby cities such as Weed, Montague, and Mount Shasta; and surrounding unincorporated areas in Siskiyou County (County). As of July 2013, the unemployment rate of the City was 10.2 percent and the unemployment rate of the County was 11.5 percent (EDD, 2013; refer to **Section 3.3**). Given the number of unemployed individuals in the region, it is anticipated that persons living in the area could fill the direct and indirect jobs that would be created. This would reduce the need for individuals and families to relocate to the area to fill jobs and would reduce the potential growth-inducing and indirect environmental impacts.

The Proposed Project would connect to the City water system and City sewer (refer to **Section 3.10**). The Water and Wastewater Technical Study prepared for the Proposed Project determined that the City has adequate water supply, sewer capacity, and wastewater treatment plant (WWTP) capacity available to serve both phases of the Proposed Project (**Appendix H**). Additionally, as discussed above in **Section 3.10.3**, there are no current violations against the City's WWTP. The contents and quality of wastewater produced by either phase of the Proposed Project would be consistent with contents and quality of wastewater currently treated by the City's facilities, and therefore no changes or modifications to the City's NPDES permit would be required. Any new, expanded, or upgraded facilities, including associated support infrastructure, that would be developed to meet the needs of the Proposed Project would be specific to the casino and hotel and would therefore not induce additional development. As a result, growth-inducing and indirect impacts would be less than significant.

3.13.2 CUMULATIVE OFF-RESERVATION ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT

Cumulative off-reservation environmental impacts are those impacts which result from the incremental off-reservation environmental impacts of a proposed project when added to other past, present, and probable future projects. Even if the proposed project's individual off-reservation environmental impact is less than significant, the proposed project may have a "cumulatively considerable" impact once the proposed project's impacts are added to the impacts of other past, present, and probable future projects. The purpose of an analysis of cumulative effects is to ensure that the full range of off-reservation consequences of a proposed project is acknowledged. The issue of cumulative effects is addressed in Section XVII of the Off-Reservation Environmental Impact Analysis Checklist (Checklist) (**Appendix A**) that is included with the Draft Tribal-State Gaming Compact (Compact).

POTENTIALLY CUMULATIVE PROJECTS

The County is expected to grow at a moderate pace averaging 2.5 percent per every 5 years over the next 30 years (Department of Finance, 2013), whereas the City anticipates a 1 to 2 percent average annual growth in population per year through 2023 (Yreka, 2003). The City plans to provide adequate space for housing, jobs, and recreation to support the new residents (Yreka, 2003). Ongoing projects include the City's Wastewater System Improvements Project, which is nearing completion. Several projects along Yreka Creek and within the Yreka Creek Greenway, which primarily entail developing new and upgrading existing trails, recreational areas, and parking lots as well as increasing floodplain areas and habitat enhancement projects, are also ongoing. The City is considering constructing stormwater detention facilities within the Humbug Gulch watershed, which is located in the northwestern corner of the City limits. Any project that requires City approval is subject to the provisions of the California Environmental Quality Act (CEQA) as well as City permits, all of which would minimize significant environmental impacts of the projects.

OFF-RESERVATION IMPACT ANALYSIS

Significance Criterion

The criterion used in this section to evaluate the potential for cumulative off-reservation environmental impacts to result from the Proposed Project is whether the Proposed Project has off-reservation impacts that are individually limited but cumulatively considerable. Cumulatively considerable significance is determined using the same thresholds of significance presented in the previous sections for each resource but considering the impacts of the Proposed Project and past, present, and probable future projects in the year 2030.

Methodology

There are two basic methods for determining the cumulative environment in which the Proposed Project is to be considered. The first approach includes the use of adopted projections from an approved regional

planning document (i.e., the City of Yreka General Plan [General Plan]), while the second method includes considering past, present, and probable (future) projects. The cumulative off-reservation effects analysis in this section uses both methods, which have been combined to create a conservative cumulative off-reservation impact analysis for the Proposed Project. This cumulative analysis focuses on probable projects, as off-reservation environmental impacts associated with past and present projects are addressed throughout **Sections 3.2** through **3.12** and represent the existing environment to which off-reservation environmental impacts of the Proposed Project are compared in those sections. The criterion discussed above, which was adopted from the Compact's Checklist (**Appendix A**), has been applied to each of the resource areas addressed in **Sections 3.2** through **3.12**.

AESTHETICS

The Proposed Project would not contribute to a cumulative impact associated with an off-reservation scenic vista or damage to off-reservation scenic resources. Off-reservation properties in the vicinity of the project site consist of light industrial building and storage facilities along with some recreational facilities (i.e., the baseball field and Siskiyou County Fairgrounds). The proposed design is consistent with other local commercial facilities already existing along the Interstate 5 (I-5) corridor. Scenic resources on the fee lands portion of the project site are limited to a few trees, as portions of the parcel have previously been graded and/or disturbed, and their removal would not constitute a cumulative effect.

The Proposed Project would contribute to an increase in nighttime illumination in the area. The existing facilities in the vicinity of the project site and off-reservation neighboring properties currently have nighttime lighting. In addition, the Tribe would shield all exterior luminaires or provide cutoff luminaires per Section 132 (b) of the California Energy Code, contain interior lighting within each source, allow no more than 0.01 horizontal foot candles to escape 15 feet beyond the site boundary, and automatically control exterior lighting dusk to dawn to turn off or lower light levels. Furthermore, the project site is within an existing commercial corridor. The contribution from the Proposed Project would not result in a significant cumulative impact.

LAND USE, POPULATION AND HOUSING, AND RECREATION

Consistency with Off-Reservation Land Use Plans

While the General Plan does not apply to the Tribal trust land itself, it does apply to land use on Tribally owned fee land. The parking lot proposed to be developed on the fee parcel would remain consistent with the General Plan designation of Light Industrial (M-1). The casino and hotel would be built and operated adjacent to off-reservation lands designated for Industrial use as well as designated High Density and Low Density Residential under the General Plan. The adjacent residential lands are Tribally-owned lands, and it would be in the Tribe's best interest to reduce environmental impacts to those lands. Accordingly, there would be no cumulatively considerable impacts to off-reservation land use plans, policies, or regulations that would occur as a result of the Proposed Project.

Population Growth

As discussed above in **Section 3.13.1**, the Proposed Project would not induce substantial population growth in the City or surrounding areas. The majority of the new employees for the Proposed Project would likely be current residents of the City, surrounding cities, or surrounding unincorporated areas of the County (refer to **Section 3.3** for further discussion). Therefore, the Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation population growth.

Housing Availability

As discussed in **Section 3.3**, the City has sufficient housing units to accommodate any new employees for the Proposed Project as well as the nominal growth anticipated in the City. Therefore, under cumulative conditions, the Proposed Project would not result in cumulative considerable impacts with respect to off-reservation housing availability.

Parks and Recreation

As discussed in **Section 3.3**, it is not anticipated that the increase in patrons attributable to the Proposed Project would result in a significant increase in the deterioration of off-reservation recreational facilities. As discussed above, several recreational facility enhancement and expansion projects are ongoing in the City along Yreka Creek and in the Yreka Creek Greenway. As there are few areas designated for development within the Shasta Valley region, the off-reservation impact of the Proposed Project related to parks and recreation would not be cumulatively considerable.

AIR QUALITY

Criteria Air Pollutants

Operation of the Proposed Project would result in the generation of mobile emissions of criteria air pollutants (CAPs) from patron, employee, and delivery vehicles, as well as stationary source emissions from combustion of propane and other equipment. Urban Emissions 9.2.4, 2007 (URBEMIS) air quality model was used to estimate emissions in the year 2030. Emission estimates for the cumulative year 2030 are provided in **Table 3.13-1**, and URBMEIS output files are included in **Appendix D**. Increased gas mileage of trucks and vehicles in the future is accounted for in the URBMEIS air quality model; the increase in future vehicles' gas mileage is attributed to improved fuel efficiency technology and stricter federal and State regulations. These improvements are shown in lower operational emissions in the year 2030.

Neither the Tribe nor the Siskiyou County Air Pollution Control District (SCAPCD) has established air quality standards for development within each authoritative body's jurisdictional lands. Although implementation of the Proposed Project does not constitute a federal action, the *de minimis* standards of the Federal General Conformity provisions of the Federal Clean Air Act (CAA) are utilized to assess the potential for the Proposed Project to significantly impact off-reservation air quality. Long-term

operational emissions of the Proposed Project would not exceed the standards of the Federal General Conformity provisions of the CAA (**Table 3.13-1**).

TABLE 3.13-1
2030 OPERATION EMISSIONS – PROPOSED PROJECT

Sources	Criteria Pollutants					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	tons per year					
Stationary Source	0.09	0.13	0.39	0.00	0.00	0.00
Mobile Source	0.53	0.53	5.32	0.01	2.31	0.44
Total Emissions	**0.62**	**0.66**	**5.71**	**0.01**	**2.31**	**0.44**
Conformity de minimis Levels	*100*	*100*	*100*	*100*	*100*	*100*
Exceedance of de minimis Levels	*No*	*No*	*No*	*No*	*No*	*No*

SOURCE: URBEMIS, 2007.

Air pollution is largely a cumulative impact as past, present, and future development projects contribute to a region's air quality conditions on a cumulative basis. No single project is sufficient in size to be solely responsible for nonattainment of the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS). If a project's individual emissions contribute toward exceedance of the NAAQS or CAAQS, then the project's cumulative impact on air quality would be significant. In developing attainment designations for CAPs, the United States (U.S.) Environmental Protection Agency (USEPA) and California Air Resource Board (CARB) consider the region's past, present, and future emission levels.

As stated in **Section 3.4**, the project site and vicinity is in attainment or unclassified for all NAAQS and CAAQS CAPs. Air quality in the region is therefore not cumulatively impacted. In addition, implementation of **Mitigation Measure 3.4.1** would reduce the concentrations of diesel particulate matter (DPM) resulting from operation of the Proposed Project. The Proposed Project would have a less than significant cumulative impact to air quality.

Climate Change

Climate change is a global phenomenon attributable to the sum of all human activities and natural processes worldwide. As such, it is not analytically possible to link specific climate change phenomena to the Proposed Project. Accordingly, the Proposed Project's impact on climate change is most appropriately addressed in terms of the incremental contribution to a global cumulative impact. This approach is consistent with the view articulated in the following quote provided in the Intergovernmental Panel on Climate Change (IPCC) report (IPCC, 2007). According to the IPCC, "difficulties remain in attributing temperature on smaller than continental scales and over time scales of less than 50 years. Attribution at these scales, with limited exceptions, has not yet been established" (IPCC, 2007).

Carbon Dioxide Equivalence

To provide a comparative analysis between sources of greenhouse gases (GHGs), the carbon dioxide equivalent (CO_2e) of each GHG is assessed. CO_2e is a method by which emissions of individual GHGs are normalized in relation to heat-capturing abilities. As shown in **Table 3.13-2**, carbon dioxide (CO_2) is used as the baseline for GHG inventories and is given a CO_2e value of 1. Other significant GHGs are assigned a CO_2e ratio based on their ability to trap heat in comparison with that of CO_2. For example, methane (CH_4) has the ability to capture 21 times more heat than CO_2 and therefore is given a CO_2e value of 21. To calculate total GHG emissions for a source, estimated emissions for each GHG are multiplied by the corresponding CO_2e value, and the converted values are then summed for a total CO_2e emissions rate. Establishing a comparable total emissions rate provides a means for comparing emissions sources and presenting the relative overall effectiveness of emission reduction measures for reducing project contributions to global climate change.

TABLE 3.13-2
GREENHOUSE GAS CO_2 EQUIVALENT

Gas	CO_2e Value
CO_2	1
CH_4	21
N_2O	310
HFCs/PFCs[1]	6,500
SF_6[1]	23,900

Notes: CO2e =Carbon dioxide equivalent
[1] High-global warming potential pollutants
CH4 = methane, N2O = nitrous oxide
HFCs/PFCs = hydroflourocarbons/ perflourocarbons
SF6 = sulfur hexaflouride

Methodology and Emissions Estimate

URBEMIS was used to estimate area, construction, and mobile emissions. CH_4 and nitrous oxide (N_2O) emissions from mobile sources were estimated using emission factors from the Local Government Operations Protocols (LGOP) and converted to CO_2e (LGOP, 2008). Indirect emissions, which include electricity use, water conveyance, and wastewater treatment, were estimated using LGOP emission factors. GHG emissions associated with construction of the Proposed Project were amortized over 20 years; construction associated GHG would emit 155 metric tons (MT) of CO_2 per year and were added to operational emissions. **Table 3.13-3** estimates the Proposed Project's direct and indirect GHG emissions at 314 MT and 3,915 MT of CO_2e per year, respectively.

As discussed in **Section 3.4.1**, federal guidance on climate change provides that a threshold of 25,000 MT of GHG emissions per year may be a helpful guideline to assist lead agencies in making informed decisions on climate change impacts resulting from a project subject to NEPA. For the purposes of this analysis, the draft quantification and assessment threshold of 25,000 MT per year of CO_2e emissions as recommended by CEQ is utilized. Direct CO_2e emissions would be well below the threshold amount, as

would indirect emissions. Therefore, a less than significant cumulative climate change impact would occur with the implementation of the Proposed Project.

TABLE 3.13-3
PROPOSED PROJECT RELATED GHG EMISSIONS

Proposed Project	GHGs	CO_2e Emissions (ST)	Conversion Factor (ST/MT)	GHG Emissions in CO_2e (MT)
Direct				
Amortized Construction	CO_2	170	0.91	155
Area	CO_2	175	0.91	159
Indirect				314
Mobile	CO_2	1,956	0.91	1,780
Mobile	CH_4/N_2O	45	0.91	41
Electricity Usage[1]	CO_2e			1,589
Wastewater/ Water Conveyance[2]	CO_2e			168
Solid Waste[3]	CO_2e			337
Total Project-Related GHG Emissions				**4,229**

ST = short tons; MT = metric tons; CO_2e = carbon dioxide equivalent.
[1] Based on 2,500 megawatt hours of electricity use.
[2] Based on 24.09 million gallons of water per year.
[3] Based on 10 tons of solid waste per year.
SOURCE: URBEMIS, 2007; CARB et al., 2008.

BIOLOGICAL RESOURCES

As discussed in **Section 3.5**, the Proposed Project would have no impact on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS), and would not adversely impact any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The surrounding industrial land uses represent physical barriers to most wildlife movement, and no wildlife corridors were identified through the project site. The Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. No cumulative impacts would result.

The Proposed Project could potentially have a substantial adverse impact, either directly or through habitat modifications, on Shasta orthocarpus and migratory birds. In addition, the Proposed Project could potentially have a substantial adverse effect on potentially jurisdictional waters of the U.S., as defined by Section 404 of the Clean Water Act (CWA). With incorporation of **Mitigation Measures 3.5.1**, **3.5.2**, and **3.5.3** discussed in **Section 3.5**, impacts would be reduced to a less than significant level. Other regional development projects would implement site-specific mitigation measures in accordance with the

requirements of CEQA. Therefore, the Proposed Project would not result in cumulatively considerable impacts on off-reservation biological resources.

GEOLOGY AND SOILS

With incorporation of **Mitigation Measures 3.6.1** discussed in **Section 3.6**, impacts of the Proposed Project with respect to soil erosion would be reduced to a less than significant level. The Proposed Project would not expose people or structures to substantial adverse effects caused by seismic-related ground failure, including liquefaction; landslides; or rupture of a known earthquake fault or other strong seismic ground shaking.

The principal effects associated with regional development would be localized topographical changes and soil attrition. Topographic changes may be cumulatively significant if the topography contributes significantly to the environmental quality with respect to drainage, habitat, or other values. Soil loss could be cumulatively considerable if the Proposed Project alone would not result in significant loss of topsoil, but taken together with all other developments may result in significant depletion of available soils. Local permitting requirements for construction would address regional geotechnical and topographic conflicts, seismic hazards, and resource extraction availability. It is anticipated that approved developments will follow appropriate permitting procedures. In addition, other regional development projects would implement site-specific mitigation measures in accordance with the requirements of CEQA. There are currently no other foreseeable off-reservation projects in the immediate vicinity that would cause impacts that would combine with the impacts of the Proposed Project to create cumulatively considerable off-reservation impacts related to geology and soils. Therefore, the Proposed Project would not have a cumulatively considerable impact with respect to geology or soils.

HAZARDS AND HAZARDOUS MATERIALS

Construction

As described in **Section 3.7**, the Proposed Project, as with all development projects over one acre in size, would obtain coverage under and comply with National Pollution Discharge Elimination System (NPDES) general permits (federal and State) for construction activities. As part of the coverage requirements, Stormwater Pollution Prevention Plans (SWPPPs) for each phase of the Proposed Project would be developed and would include best management practices (BMPs) that reduce the likelihood of a hazardous material release during construction activities. Overall, with the implementation of **Mitigation Measures 3.6.1**, **3.7.1**, and **3.8.1**, the Proposed Project's incremental contribution to create a risk to human health and the environment would not be cumulatively considerable. Therefore, the Proposed Project would not result in cumulatively considerable off-reservation impacts with respect to hazardous materials.

Additionally, because impacts to fire-fighting services would be less than significant after implementation of **Mitigation Measure 3.7.2** (refer to **Section 3.7**), the Proposed Project would not result in cumulatively considerable impacts concerning wildland fires.

Operation

The Proposed Project would involve use and storage of small amounts of maintenance-related hazardous materials similar to those at surrounding commercial facilities, which may include cleaning supplies, fertilizers, and fuel for maintenance vehicles. The Tribe would adhere to typical safety guidelines and standards when using potentially hazardous materials. Operation of the Proposed Project would not result in a cumulatively considerable impact to the off-reservation public and/or environment through routine transport, use, or disposal of hazardous materials.

WATER RESOURCES

Drainage and Flooding

Cumulative effects to surface water may take place as a result of increased stormwater flows from additional impervious surfaces constructed within the area. Additional development in combination with the Proposed Project could result in cumulative adverse effects to floodplain management if structures were to impede floodways or raise flood elevations. As indicated in **Section 3.8**, construction and operation of the Proposed Project would cause a minimal increase in additional stormwater flows generated on site. With incorporation of the grading and drainage improvement provisions, the on-site stormwater retention facilities, and **Mitigation Measure 3.8.2**, and because there are no other foreseeable projects whose off-reservation drainage and flooding impacts could interact cumulatively with those of the Proposed Project, no significant cumulative off-reservation impact would occur. Moreover, the contribution of the Proposed Project to regionally cumulative drainage and flooding issues (if any) would not be cumulatively considerable. Overall, the Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation drainage and flooding.

Surface Water Quality

Construction

Concurrent construction of the Proposed Project and other projects identified above could result in temporary cumulative effects to water quality. Construction activities could result in erosion and sediment discharge to surface waters, potentially affecting water quality in downstream water bodies. In addition, construction equipment and materials have the potential to leak, thereby discharging oils, greases, and construction supplies into stormwater, potentially affecting both surface water and groundwater. Potential impacts associated with construction of the Proposed Project would be mitigated to less than significant levels via implementation of **Mitigation Measures 3.6.1**, **3.7.1**, and **3.8.1**. To mitigate potential adverse effects of other projects, off-reservation developments would be required to implement erosion control measures and construction BMPs via a site-specific SWPPP in compliance with the coverage under the NPDES permits as discussed above. With the requirements for the Proposed

Project and off-reservation projects to reduce water quality impacts from construction through permitting (NPDES) or regulatory (CALGreen Code) requirements, the Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation surface water quality as a result of construction activities.

Operation

The Tribe proposes to connect to and utilize City wastewater services, including the WWTP. The contents and quality of wastewater produced by Phases I and II of the Proposed Project would be consistent with contents and quality of wastewater produced at other commercial facilities served by the City's WWTP. With implementation of **Mitigation Measure 3.10.2**, discussed in **Section 3.10**, City wastewater facilities would adequately treat wastewater from Phases I and II of the Proposed Project, and wastewater from the Proposed Project would not constitute a cumulatively considerable impact to water quality.

Additionally, operation of Phases I and II of the Proposed Project could result in pollutants accumulating on site, such as fuels, motor oil, heavy metals, landscape fertilizers, and sediments. Stormwater runoff from the newly constructed impervious surfaces has the potential to transport these pollutants off site to surface waters and/or groundwater, which would contribute to concentrations in water bodies and thereby violate water quality standards. The stormwater detention facilities to be constructed on site and incorporation of **Mitigation Measure 3.8.2** would reduce the potential impacts associated with polluted runoff such that operation of the Proposed Project would not contribute to cumulatively considerable conditions.

Groundwater

Groundwater Quantity

Potable water for the Proposed Project would be obtained from the City water supply, for which surface water is the primary source and the available capacity is more than adequate for the Proposed Project and future growth in the City. Therefore, the Proposed Project would not result in significant cumulative impacts to groundwater quantity.

Groundwater Quality

Implementation of **Mitigation Measures 3.6.1**, **3.7.1**, **3.8.1**, and **3.8.2** would reduce the impact of groundwater quality during construction and operation of the Proposed Project. There are no other foreseeable projects in the vicinity of the project site that would impact groundwater quality. Moreover, even if such projects are proposed in the future, they would be required to follow State and federal regulations. Therefore, the Proposed Project would not result in cumulatively considerable impacts with respect to off-reservation groundwater quality.

NOISE

The methodology used to determine off-reservation noise impacts from the Proposed Project under a cumulative scenario is the same as was used to determine noise off-reservation in **Section 3.9**.

Construction

With implementation of **Mitigation Measure 3.9.1**, the noise generated during construction of the Proposed Project would not exceed the Federal Highway Administration (FHWA) noise threshold or the General Plan noise threshold. As there are no other foreseeable commercial development projects in the vicinity of the project site that would be constructed at the same time, construction of the Proposed Project would not result in a cumulatively considerable impact to noise.

Operation

Vehicle traffic in the year 2030 related to the Proposed Project would not increase over Existing Plus Project Conditions (refer to **Section 3.11**). As discussed in **Section 3.9**, noise from traffic associated with the Proposed Project would not exceed the FHWA noise thresholds (67 dBA, Leq for sensitive receptors). The General Plan does not specify traffic noise level standards for additional traffic noise generated by new noise generating uses such as the Proposed Project. Therefore, traffic-related noise attributable to the Proposed Project is not considered cumulatively significant.

On-site noise generated by operation of the Proposed Project in the year 2030 would be similar to noise generated in the build-out year. As discussed in **Section 3.9,** on-site noise from the trust parcel would not exceed the FHWA Noise Abatement Criteria (NAC) significance thresholds of 67 dBA, Leq, at the nearest sensitive noise receptor. On-site noise from the fee parcel would also not exceed the General Plan (Noise Policy 7) noise threshold at nearby industrial facilities (65 dBA, Leq) or commercial offices (55 dBA, Leq). For other projects that may be developed in the future, the General Plan places the responsibility for noise mitigation on the new noise generating uses (Noise Policy 7). Therefore, operation of the Proposed Project would not result in cumulatively considerable impacts to the off-reservation noise environment.

PUBLIC SERVICES AND UTILITIES AND SERVICE SYSTEMS

Fire Protection

As stated in **Section 3.10**, the Yreka Volunteer Fire Department (Yreka FD) currently reports that staffing and equipment are adequate. The property tax paid by the Tribe for the fee parcel currently supports fire protection operations and would continue under the Proposed Project.

There are no other foreseeable projects in the City that would interact cumulatively with the Proposed Project with regards to fire protection services. Furthermore, any future project would be required to work with the City and Yreka FD to ensure adequate services, thereby addressing the potential for any cumulative effects.

Law Enforcement

The Proposed Project would increase demands on local law enforcement from increased traffic and visitors to facilities on the project site, which could decrease area response times and further strain the already under-staffed Yreka PD. As stated in **Section 3.10** and required by **Mitigation Measure 3.10.1**, the Tribe will negotiate compensation with the City for police protection services to be provided for both phases of the Proposed Project. This agreement, to be included in the IGA between the Tribe and the City, would ensure the Tribe contributes fair share payments to reduce cumulatively significant impacts to law enforcement services.

There are no other foreseeable projects in the City that would interact cumulatively with the Proposed Project with regards to law enforcement services. Furthermore, any future project would be required to work with the City and Yreka PD to ensure adequate services, thereby addressing the potential for any cumulative effects.

Public Water Facilities

The City water supply, sewer system, and WWTP have the capacity to serve the anticipated demands for the Proposed Project and nominal growth anticipated in the City. Improvements made to the water system and the construction of facilities added to the system are financed through water rates charged to customers and contributions paid by developers. With implementation of **Mitigation Measure 3.10.2**, compensation for use of public water facilities by the Proposed Project would be provided by the Tribe. Future projects would also be subject to fees associated with connection to City services, which would reduce those project's associated impacts. Therefore, the Proposed Project would result in a less than significant cumulative impact to off-reservation public water facilities.

Solid Waste Disposal

When considered cumulatively with waste from other past, current and probable projects, the amount of waste from the Proposed Project would not significantly decrease the ability of the Yreka Transfer Station and Anderson Landfill to provide service to existing and future customers. The Proposed Project would not have a cumulatively considerable impact with respect to solid waste disposal.

Emergency Medical

As discussed in **Section 3.10**, emergency medical services would be paid for by the individual requiring the services, and any expanded facilities needed to accommodate additional services would be funded via persons utilizing the services. Any new construction or expansion of facilities would be subject to the provisions of CEQA as well as local grading permits and special use permits, all of which would ensure no significant environmental impacts. With the anticipated planning requirements for off-reservation development and funding from individuals requiring services, implementation of the Proposed Project would result in a less than significant cumulative impact to emergency medical services and facilities.

Schools

As discussed in **Section 3.10**, an increase in school children is not expected as a result of the Proposed Project as new employees are anticipated to live either within the City, in nearby cites, or in the surrounding, unincorporated areas of the County. The Proposed Project would not have a cumulatively considerable impact with respect to public schools.

Criminal Justice System

As discussed in **Section 3.10**, the impact to the criminal justice system is anticipated to be less than significant. It is not anticipated that the need for criminal justice services would increase in the cumulative year 2030. In addition, there are no other reasonably foreseeable projects that would impact the criminal justice system. Therefore, the Proposed Project would not have a cumulatively considerable impact with respect to the criminal justice system.

TRANSPORTATION AND TRAFFIC

In the cumulative year 2030, the Proposed Project would result in the addition of vehicle traffic to the roadway network. This section incorporates the results of the Traffic Impact Analysis (TIA) (**Appendix E**) and describes the number of trips that would be generated by the Proposed Project in the year 2030 and any potential impacts that would occur to intersections within the study area.

Methodology

Cumulative year 2030 traffic forecasts for the study area were based on information obtained from discussions with the City and research into the Siskiyou County Regional Transportation Plan. Due to the lack of a travel demand model that covers growth in the City, historical traffic count data from the California Department of Transportation (Caltrans) was used to determine a historic growth rate in the vicinity of the project site. The historic average annual growth rate on I-5 between Miner Street and State Route 3 during the peak hour in both directions between 2001 and 2011 was calculated to be 0.41 percent. Baseline PM peak hour turning movement volumes at the study intersections were increased using this annual growth rate to estimate cumulative year 2030 traffic volumes (**Appendix E**). Traffic impacts resulting from the Proposed Project were analyzed using trip generation rates and trip distribution provided by in the TIA and discussed in **Section 3.11**.

2030 Cumulative Baseline Conditions

Intersection Operating Conditions

Level of service (LOS) operating conditions of the study roadway intersections under the 2030 Baseline Conditions (without project) were analyzed using the same methods as the analysis made for existing conditions (refer to **Section 3.11.2**). **Table 3.13-4** identifies the weekday PM peak hour LOS for study intersections in the 2030 Baseline Condition.

According to the results of the analysis, all study intersections continue to operate at an acceptable LOS during weekday PM peak hour conditions. Turning movements and traffic volumes for the cumulative 2030 Baseline Conditions are provided in the TIA (**Appendix E**).

TABLE 3.13-4
STUDY INTERSECTIONS BASELINE WITHOUT PROJECT (2030)
CUMULATIVE CONDITION LEVELS OF SERVICE

No	Intersections	Traffic Control	Worst Movement	PM	
				LOS	Delay
1	South Main Street/Fort Jones Road & Oberlin Road	Signal	N/A	B	10.4
2	Fairlane Road & Oberline Road	TWSC	NBL	C	19.3
3	Campbell Avenue & Oberlin Road	TWSC	NBL	B	12.7
4	I-5 Southbound Ramps & Moonlit Oaks Avenue	TWSC	SBL	C	17.5
5	I-5 Northbound Ramps & Moonlit Oaks Avenue	TWSC	NBL	C	20.7
6	Fairlane Road & Moonlit Oaks Avenue	TWSC	EBL	B	12.3
7	Fairlane Road & Sharps Road	TWSC	WBL	B	11.1

N/A = not applicable.
NBL= Northbound Left
SBL= Southbound Left
EBL= Eastbound Left
WBL=Westbound Left
TWSC = Two-way Stop Controlled
SOURCE: Kittelson & Associates, 2013(**Appendix E**).

Signal Warrants

The TIA provided a signal warrant analysis for 2030 Cumulative No Project conditions and found no study intersections met the peak hour signal warrant in the PM peak hour (Warrant #3).

2030 Cumulative Baseline Condition Plus Proposed Project

To assess the impacts of the Proposed Project on transportation facilities in the study area, the projected number of trips generated by the Proposed Project was added to the traffic volumes of the 2030 Cumulative Baseline Conditions.

Intersection Operating Conditions

Table 3.13-5 identifies the PM peak hour LOS for study roadway intersections in the 2030 With Project Condition. According to the results of the analysis, all study intersections continue to operate at an acceptable LOS with the inclusion of project-related vehicle trips, with the exception of the I-5 Northbound Ramps/Moonlit Oaks Avenue intersection. This degradation of LOS would be considered a significant impact. Mitigation is provided below to reduce this intersection impact to a less than significant level.

TABLE 3.13-5
STUDY INTERSECTIONS LEVELS OF SERVICE
CUMULATIVE (2030) WITH PROPOSED PROJECT CONDITION

No	Intersections	Traffic Control	Worst Movement	PM	
				LOS	Delay
1	South Main Street/Fort Jones Road & Oberlin Road	Signal	N/A	B	10.5
2	Fairlane Road & Oberline Road	TWSC	NBL	C	20.5
3	Campbell Avenue & Oberlin Road	TWSC	NBL	B	12.8
4	I-5 Southbound Ramps & Moonlit Oaks Avenue	TWSC	SBL	C	21.4
5	I-5 Northbound Ramps & Moonlit Oaks Avenue	TWSC	NBL	D	25.4
6	Fairlane Road & Moonlit Oaks Avenue	TWSC	EBL	B	14.2
7	Fairlane Road & Sharps Road	TWSC	WBL	B	12.7

N/A = not applicable.
NBL= Northbound Left
SBL= Southbound Left
EBL= Eastbound Left
WBL=Westbound Left
TWSC = Two-way Stop Controlled
SOURCE: Kittelson & Associates, 2013(**Appendix E**).

Signal Warrants

The signal warrant analysis for 2030 With Project Condition found no study intersections met the peak hour signal warrant in the PM peak hour (Warrant #3).

Bicycle, Pedestrian, and Safety Facilities

The Proposed Project in the cumulative year 2030 would not reduce bicycle or pedestrian transportation patterns. Bicycle and pedestrian trips related to the Proposed Project would not increase by 2030 over the build-out year. As stated in the Baseline Condition Plus Proposed Project, the Proposed Project is not expected to impact bicycle and pedestrian facilities; therefore, in the cumulative year the Proposed Project is not expected to impact bicycle and pedestrian facilities. Therefore, a less than significant cumulative impact would occur.

Mitigation Measure

3.13.1 In coordination with Caltrans and the City, the Tribe would provide fair-share funding improvements to the intersection of I-5 Northbound Ramps and Moonlit Oaks Avenue either through an IGA or by other means. Improvements necessary to obtain an acceptable LOS at this intersection may include either of the following:

1. Conversion of the intersection into a single-lane roundabout; or
2. Conversion of the intersection to a signalized intersection.

SIGNIFICANCE AFTER MITIGATION

Less than significant.

CULTURAL RESOURCES

With incorporation of **Mitigation Measures 3.12.1** and **3.12.2**, the Proposed Project would not have a cumulatively considerable impact on any known or unknown off-reservation cultural resources. Other regional development projects would implement site-specific mitigation measures in accordance with the requirements of CEQA to address cultural resources, thereby reducing the potential for cumulatively significant impacts.

SECTION 4.0

ALTERNATIVES

4.1 INTRODUCTION

The purpose of this section is to describe a range of reasonable alternatives to the Proposed Project in accordance with Section 11.8 of the Draft Tribal-State Gaming Compact (Compact) and to evaluate the off-reservation environmental impacts of each alternative in comparison to the Proposed Project. The two alternatives analyzed within this section are:

- Reduced-Intensity Alternative (RIA);
- No Action Alternative.

The comparative impacts of the three alternatives on the off-reservation environment are summarized in **Section 4.4** of this section.

4.2 REDUCED-INTENSITY ALTERNATIVE

4.2.1 DESCRIPTION OF ALTERNATIVE

The RIA would be similar to the Proposed Project except the casino, the Phase II casino expansion and hotel, and all associated facilities would be reduced to reflect approximately 75 percent of the Proposed Project. The number of parking spaces would be reduced to 542 spaces. Approximately 300 employees would be required to staff the smaller facilities. A comparison of the Proposed Project and the RIA is included in **Table 4-1**.

The RIA would achieve, albeit to a lesser extent, the Karuk Tribe's (Tribe's) objectives for the Proposed Project (**Section 2.2**). Potential off-reservation environmental impacts of the RIA are discussed below.

TABLE 4-1
COMPARISON OF ALTERNATIVES

Element	Proposed Project (Phases I and II)		Reduced Intensity Alternative	
	Approximate Square Feet	Rooms/Seats/ Devices	Approximate Square Feet	Rooms/Seats/ Devices
Gaming Section Subtotal	23,300	800 slots 16 tables	17,475	600 Slots 12 tables
Guest Support and Administration Offices	23,775		17,831	
Restaurant, Casino Bar, and Support Areas	9,442	220 seats	7,067	165 seats
Casino Subtotal	**56,497**		**42,373**	
Hotel	31,500	80 Rooms	23,625	60
Hotel Guest Amenities, Guest Support, and Administration Offices	16,500		12,375	
Hotel Subtotal	**48,000**		**36,000**	
Casino and Hotel Total	**104,497**		**78,373**	
Parking		723		542
Employees		400		300

4.2.2 ENVIRONMENTAL ANALYSIS

AESTHETICS

The impacts to aesthetics under the RIA would be similar to those of the Proposed Project. However, the proposed structure of the greatest height (the three-story hotel) would be reduced to a two-story facility under the RIA. In addition, the parking lots of the RIA would be smaller than the parking lots of the Proposed Project, thereby leaving more undeveloped, open space on the project site. Accordingly, implementation of the RIA would result in a less intensive visual impact than the Proposed Project. Implementation of the RIA would not result in significant off-reservation aesthetic impacts.

LAND USE, POPULATION AND HOUSING, AND RECREATION AND PARKS

The RIA would have a reduced footprint compared to the Proposed Project. As is the case with the Proposed Project, no significant off-reservation impacts related to land use, population and housing, and recreation and parks would result from development of the RIA. The RIA would not conflict with any off-reservation land use plans, policies, or regulations. There are no applicable habitat conservation plans or natural community conservation plans located in the vicinity of the project site.

The Proposed Project would not significantly induce population growth nor displace existing or require construction of new housing. Therefore the RIA, which would require fewer new employees, would result in a lower potential for impacts associated with off-reservation population growth and housing and would also have a less than significant impact. The RIA would constitute a recreational facility thereby increasing the recreational facilities serving the area and would not increase tourism to other recreational facilities to the extent that substantial physical deterioration of a facility would occur or be accelerated. Therefore, impacts from the RIA would be less than significant with respect to off-reservation land use, population and housing, and recreation and parks, and mitigation would not be required.

AIR QUALITY

Under the RIA, there would be less construction activity and fewer patrons traveling to the project site, as compared to the Proposed Project. As stated in **Section 3.4**, the Northeast Plateau Air Basin (NEPAB) is designated as unclassified or attainment by the United States (U.S.) Environmental Protection Agency (USEPA) for all criteria air pollutants (CAPs) under the Clean Air Act. Accordingly, there are no applicable significance levels. Therefore, the Proposed Project is assumed not to conflict with or obstruct implementation of an air quality plan, violate the national or California Ambient Air Quality Standards, or contribute to projected air quality violation as related to criteria pollution emissions. Likewise, the RIA would result is a less than significant impact to air quality.

Odors

Operation of the RIA would not include new facilities that would emit off-reservation odors, such as industrial or manufacturing facilities. A less than significant impact would occur.

Climate Change

As discussed is **Section 3.4**, climate change is a global phenomenon attributable to the sum of all human activities and natural processes, and off-reservation climate change impacts cannot be attributed to the RIA. Accordingly, the potential impacts of the RIA to climate change are most appropriately addressed in terms of the incremental contribution to a global cumulative impact. Refer below to *Cumulative Impacts* for the climate change impact discussion for the RIA.

BIOLOGICAL RESOURCES

The RIA's off-reservation impacts to biological resources would be similar to those of the Proposed Project. The RIA would not result in adverse effects to off-reservation habitats identified by State agencies or local regulatory plans, regulations, or policies. As with the Proposed Project, development of the RIA on the fee parcel has the potential to adversely impact Shasta orthocarpus and special-status and migratory nesting birds. **Mitigation Measures 3.5.1** and **3.5.2**, which specify pre-construction observational surveys and best management practices (BMPs) if the species are present, would be included with the RIA to reduce impacts to a less than significant level. Development of the RIA also has the potential to adversely impact jurisdictional waters of the U.S. if the man-made drainage on the fee parcel is identified as such; **Mitigation Measure 3.5.3** would be included with the RIA, and the Tribe would obtain a Section 404 permit and Section 401 certification. The RIA would not include any design elements that would interfere with the movement of native resident or migratory fish or wildlife species in the off-reservation vicinity of the RIA, nor would the RIA cause substantial adverse effects on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). The RIA would not conflict with the provisions of existing habitat conservation plans or natural community conservation plans, as none are applicable to the RIA project site.

GEOLOGY AND SOILS

The RIA would result in similar potential off-reservation geological and soil impacts as the Proposed Project; however, the impact would be to a lesser extent. Construction and operation of the RIA would not expose off-reservation people or structures to substantial adverse effects caused by fault rupture or seismic ground-failure. Therefore, no impact to off-reservation people or structures attributable to seismic-related ground failure, liquefaction, or landslides would occur as a result of the RIA. Development of the RIA would disturb greater than one acre of land on trust land and on fee land, which would therefore require that the Tribe develop a Storm Water Pollution Prevention Plans (SWPPP) per each phase of construction of the RIA to comply with the terms of both the USEPA's Stormwater General National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities and the State Water Resources Control Board's (SWRCB's) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Implementation of **Mitigation Measure 3.6.1** would be included with the RIA to reduce potential off-reservation impacts from erosion during construction activities to less than significant levels.

HAZARDS AND HAZARDOUS MATERIALS

Construction

Under the RIA, the off-reservation impacts associated with hazards and hazardous materials would be similar to those of the Proposed Project; the RIA would not introduce any new sources of hazards or hazardous substances during construction. Hazardous materials utilized during construction of the RIA, although possibly in smaller quantities, would be similar to those used for construction of the Proposed Project and may include gasoline, diesel fuel, motor oil, hydraulic fluid, cleaners, sealants, welding flux, various lubricants, paint, and paint thinner. As with the Proposed Project, if these materials are not properly used, stored, or disposed of during construction of the RIA, spills or leaks could pose a hazard to the off-reservation public and to the off-reservation environment. Although unlikely, the presence of hazardous materials on the RIA project site during construction could create a significant off-reservation impact if spilled in such a way as to move off-reservation or if stormwater runoff transported hazardous materials off-reservation. As with the Proposed Project, **Mitigation Measure 3.7.1** would be included with the RIA to ensure the SWPPPs developed by the Tribe for compliance with the federal and State regulations address the off-site movement of hazardous materials associated with stormwater runoff; this would reduce the impact to a less than significant level.

Similar to the Proposed Project, an off-reservation impact associated with wildland fires during the construction of the RIA is unlikely but possible. As with all construction projects, equipment may create sparks that could ignite dry grass or vegetation, and the use of power tools and acetylene torches may also increase the risk of fire hazard. The RIA, like the Proposed Project, would require the implementation of **Mitigation Measure 3.7.2** to reduce impacts related to wildland fires during construction to less than significant levels.

Operation

As with the Proposed Project, operation of the RIA would result in the storage of limited quantities of hazardous materials consistent with other commercial operations, such as cleaning supplies, fertilizers, and fuel for maintenance vehicles. The Tribe would adhere to typical safety guidelines and standards when using potentially hazardous materials. Like the Proposed Project, operation of the RIA would result in a less than significant impact to the off-reservation public and/or environment through routine transport, use, or disposal of hazardous materials.

Operation of the RIA would not involve any activities that could generate wildfire hazard to off-reservation lands. Operation of the RIA includes the risk for structural fires; refer to the *Public Services and Utilities* section below for a discussion of the impacts on off-reservation fire services.

WATER RESOURCES

Construction

The RIA would involve construction activities that would result in the alteration of the existing topography of the project site, although to a somewhat lesser extent than the Proposed Project. RIA construction would involve earth-moving, grading, and excavation activities on the trust and fee parcels. Construction-related issues associated with water resources for the RIA would be similar to those of the Proposed Project (**Section 3.8**) and would include altering the existing drainage pattern, the potential for erosion and off-site movement of pollutants via stormwater runoff, and the development of SWPPPs to comply with the USEPA's Stormwater General NPDES Permit for Construction Activities and the SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The RIA would be designed similar to the Proposed Project in that all stormwater drainage would be retained on site in stormwater detention facilities. Implementation of **Mitigation Measures 3.6.1**, **3.7.1**, **3.8.1**, and **3.8.2** would be required to reduce the RIA's construction-related impacts on hydrology and water quality to less than significant levels.

Operation

Development of the RIA, like the Proposed Project, would increase impervious surfaces on the project site, albeit to a slightly lesser extent than the Proposed Project. The RIA would be constructed such that all storm drainage would be retained on site in detention facilities, allowing time for settling of suspended pollutants and time for percolation, thereby increasing groundwater recharge. Implementation of **Mitigation Measure 3.8.2** would further reduce the off-site movement of pollutants via stormwater drainage. In addition, the infrastructure would allow for a controlled flow to Yreka Creek, therefore resulting in minimal, if any, consequential off-site flooding. Like the Proposed Project, the RIA would neither place structures within a 100-year flood hazard area nor expose off-reservation people or structures to flooding as a result of the failure of a dam or levee.

As with the Proposed Project, the RIA would utilize City water and sewer services, including the City wastewater treatment plant. Surface water is the primary source for the City water supply. The City has

sufficient capacity to supply the Proposed Project under its water right permit and, accordingly, has the capacity to supply the RIA. Groundwater is not anticipated as a supply source, and there would be no impacts to groundwater supply. **Mitigation Measure 3.10.3** would be included with the RIA to ensure City wastewater facilities adequately treat wastewater from the RIA; wastewater therefore poses no threat to water quality.

NOISE

Construction

Off-reservation noise impacts associated with construction of the RIA would be similar to, though slightly less than, construction-related noise impacts of the Proposed Project (refer to **Section 3.9**). Construction of the RIA would create temporary increases in off-reservation noise and vibrations. The nearest off-reservation sensitive receptor is the Waiiaka Trailer Haven Recreational Vehicle (RV) Park located approximately 1,500 feet west of the construction area for the RIA. The sensitive noise receptor has the potential to be subjected to noise levels higher than the existing ambient noise level during construction of the RIA. Implementation of **Mitigation Measure 3.9.1** would be included with the RIA to reduce construction-related off-reservation noise impacts to less than significant levels.

As with the Proposed Project, the predicted peak particle velocity (PPV) levels for construction of the RIA are below the significance thresholds for non-residential structures and off-reservation residences. This would be a less than significant impact.

Operation

Operation of the RIA would have similar potential off-reservation noise impacts compared to those listed for the Proposed Project, although to a lesser extent. Operation of the RIA, like the Proposed Project, would not expose off-reservation noise receptors to excessive groundborne vibration or groundborne noise levels. Conversely, operation of the RIA would lead to increased traffic volumes and subsequent increased noise levels due to additional motor vehicles. The RIA would also contribute non-traffic related noise due to operation, which would include heating, ventilation, and air conditioning (HVAC) equipment, loading/unloading activities at delivery areas, and parking lot noise that typically includes slow moving and idling vehicles, opening and closing doors, and conversation. However, neither traffic nor on-site operational noise would exceed the applicable noise limits, which include federal regulations for medium and heavy trucks, Federal Highway Administration (FHWA) Noise Abatement Criteria (NAC) (Category B, **Table 3.9-2**), and City of Yreka General Plan (General Plan) thresholds. Operation of the RIA would result in a less than significant impact to the off-reservation ambient noise level.

PUBLIC SERVICES AND UTILITIES

Construction

Similar to the Proposed Project, the RIA would not result in potential off-reservation public service or utility impacts during construction (refer to **Section 3.10**). Construction of the RIA would result in less intense impacts compared to the Proposed Project. Construction of the RIA would not significantly

impact other public services and utility facilities to the extent that new or expanded government facilities and utilities would be required.

Operation

The RIA would have similar impacts to public services and utilities as the Proposed Project. The RIA would require, but to a lesser extent, expanded fire, police/criminal justice, and emergency medical services, as well as solid waste, City water, and City sewer and wastewater treatment plant services. **Mitigation Measures 3.10.1** and **3.10.2** would be included with the RIA to reduce impacts to police services, City water supply, and City sewer and wastewater treatment plant facilities. Therefore, environmental impacts associated with public services and utilities would be reduced to less than significant levels.

TRANSPORTATION

The RIA would increase the number of motor vehicles utilizing the existing roadway network. However, the increased number of vehicles would be less compared to the Proposed Project. The Proposed Project would not cause an exceedance of the existing street capacity or an LOS standard during construction or operation; accordingly, neither would the RIA. In addition, the RIA would not result in an adverse impact to off-reservation pedestrian and bicycle facilities or inadequate emergency access for off-reservation responders.

Similar to the Proposed Project, the RIA would require construction of an approximately 650 foot long access roadway and connecting the proposed surface parking lot with Sharps Road. The roadway design features proposed under the RIA would include the development of a roundabout feature and a paved extension of Sharps Road to the southwest; as with the Proposed Project, this would not substantially increase hazards to an off-reservation design feature.

CULTURAL RESOURCES

No off-reservation historical or archaeological resources are known to exist near areas where ground disturbance for construction of the RIA would take place. However, there remains the unlikely possibility that subsurface archaeological resources or human remains could be exposed during construction of the RIA, similar to the Proposed Project. With the implementation of **Mitigation Measures 3.12.1** and **3.12.2**, the potential impacts to previously unknown cultural resources or human remains would be reduced to less than significant.

GROWTH-INDUCING IMPACTS

The potential for population growth-inducing impacts to occur as a result of the RIA would be reduced compared to the Proposed Project (refer to **Section 3.13**), since fewer employees would be hired for the RIA as compared to the Proposed Project. Given the availability of labor in the regional workforce as discussed in **Section 3.3**, it is anticipated there would be negligible migration of workers into Siskiyou County as a result of RIA hiring. Furthermore, any infrastructure improvements that would be required

for implementation of the RIA would not serve any areas other than the RIA, and therefore would not result in a population growth inducement potential.

CUMULATIVE IMPACTS

When considered in conjunction with other past, present, and probable development projects in the region, cumulative impacts would occur as a result of the RIA to a lesser degree than that are discussed for the Proposed Project (refer to **Section 3.13**). With a trip reduction of 25 percent compared to the Proposed Project, implementation of the RIA would not result in the cumulatively significant impact to the off-reservation roadway network identified under the Proposed Project. Impacts to the roadway network under the RIA would be less than significant. Direct and indirect carbon dioxide equivalent (CO_2e) emissions associated with the Proposed Project would be well below the Council on Environmental Quality (CEQ) reporting standard (refer to **Section 3.4**); accordingly, RIA direct and indirect CO_2e emissions would be even less. The RIA would have no cumulatively significant impacts on all resource areas and would not cause any cumulatively significant impacts on the off-reservation environment.

4.3 NO ACTION ALTERNATIVE

Under the No Action Alternative, the hotel and casino facilities would not be constructed. The areas proposed for development under the Proposed Project would remain undeveloped under near-term conditions under the No Action Alternative. Thus, under the near-term planning cycle, the No Action Alternative would not impact the off-reservation environment. Based on the location and land use designation surrounding the project site, it is anticipated that under the long-term planning cycle, the Tribe would develop the site. Under this alternative, it is anticipated environmental impacts similar to either the Proposed Project or RIA would be experienced, depending upon the project selected.

The project objectives listed in **Section 2.2** would not be met under the No Action Alternative. The No Action Alternative under the near-term planning cycle would not succeed in providing a sustainable, long-term economic base for the Tribe's government and for future generations and may result in negative socioeconomic impacts to the Tribe. Under the long-term planning cycle, Tribal development on the site may provide a lesser economic benefit; however, gaming provides the best available opportunity for economic development.

4.4 COMPARISON OF ALTERNATIVES

Table 4-2 identifies, for each environmental impact area analyzed in the Draft TEIR, whether the project alternatives would have greater, lesser, or similar impacts as compared with the Proposed Project. As stated in **Section 3.0**, there would be no significant and unavoidable impacts as a result of the Proposed Project, and each impact identified would be reduced to a less than significant level after mitigation.

For purposes of this Draft TEIR, the environmentally superior alternative is the alternative that meets the Tribe's objectives and would cause the least impact to the off-reservation natural and physical environment.

TABLE 4-2
COMPARISON OF POTENTIAL IMPACTS OF ALTERNATIVES
TO THOSE OF THE PROPOSED PROJECT

Environmental Resource Area	No Action Alternative	Reduced-Intensity Alternative
Aesthetics	Lesser	Lesser
Air Quality	Lesser	Lesser
Biological Resources	Lesser	Similar
Climate Change	Lesser	Lesser
Cultural	Lesser	Similar
Geology and Soils	Lesser	Similar
Hazards and Hazardous Materials	Lesser	Lesser
Hydrology and Water Quality	Lesser	Similar
Land Use	Lesser	Similar
Noise	Lesser	Similar
Public Services	Lesser	Similar
Transportation/Traffic	Lesser	Lesser

NOTE: "Lesser," Greater," and "Similar" are statements of comparison to the Proposed Project.

The No Action Alternative would avoid environmental effects that may occur under the Proposed Project or RIA, but would not achieve any of the project objectives listed in **Section 2.2**. The RIA is a scaled-down version of the Proposed Project, resulting in the development of a casino and hotel facility with 25 percent fewer gaming positions and hotel rooms. The RIA would result in slightly reduced off-reservation impacts as compared to the Proposed Project, but would not fully meet the Tribe's objectives to strength tribal government and fund the programs necessary to improve the long-term welfare and quality of life of Tribal members.

The Proposed Project meets all project objectives listed in **Section 2.2**. In addition, all potential environmental impacts of the Proposed Project are reduced to less than significant levels after mitigation, and no significant and unavoidable impacts have been identified. Therefore, the Proposed Project is the environmentally superior alternative.

SECTION 5.0

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SECTION 6.0

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