

4. Project Description

Siskiyou Telephone Company (Siskiyou Telephone) proposes to construct the Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project (Proposed Project), which would provide telephone and broadband service capability to residences in the area between Clear Creek and Ti Bar in Siskiyou County, California. Fiber optic broadband facility cable would be constructed within a conduit for approximately 17 miles within or adjacent to State Highway 96 (see Figure 4-1). The project would be constructed under a grant from the California Advanced Service Grant Program, as funded by the California Public Utilities Commission (CPUC) to Siskiyou Telephone.

4.1 Project Title

Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project

4.2 Lead Agency Name and Address

California Public Utilities Commission
Energy Division
505 Van Ness Avenue, 3rd Floor
San Francisco, California 94102

4.3 Lead Agency Contact Person and Phone Number

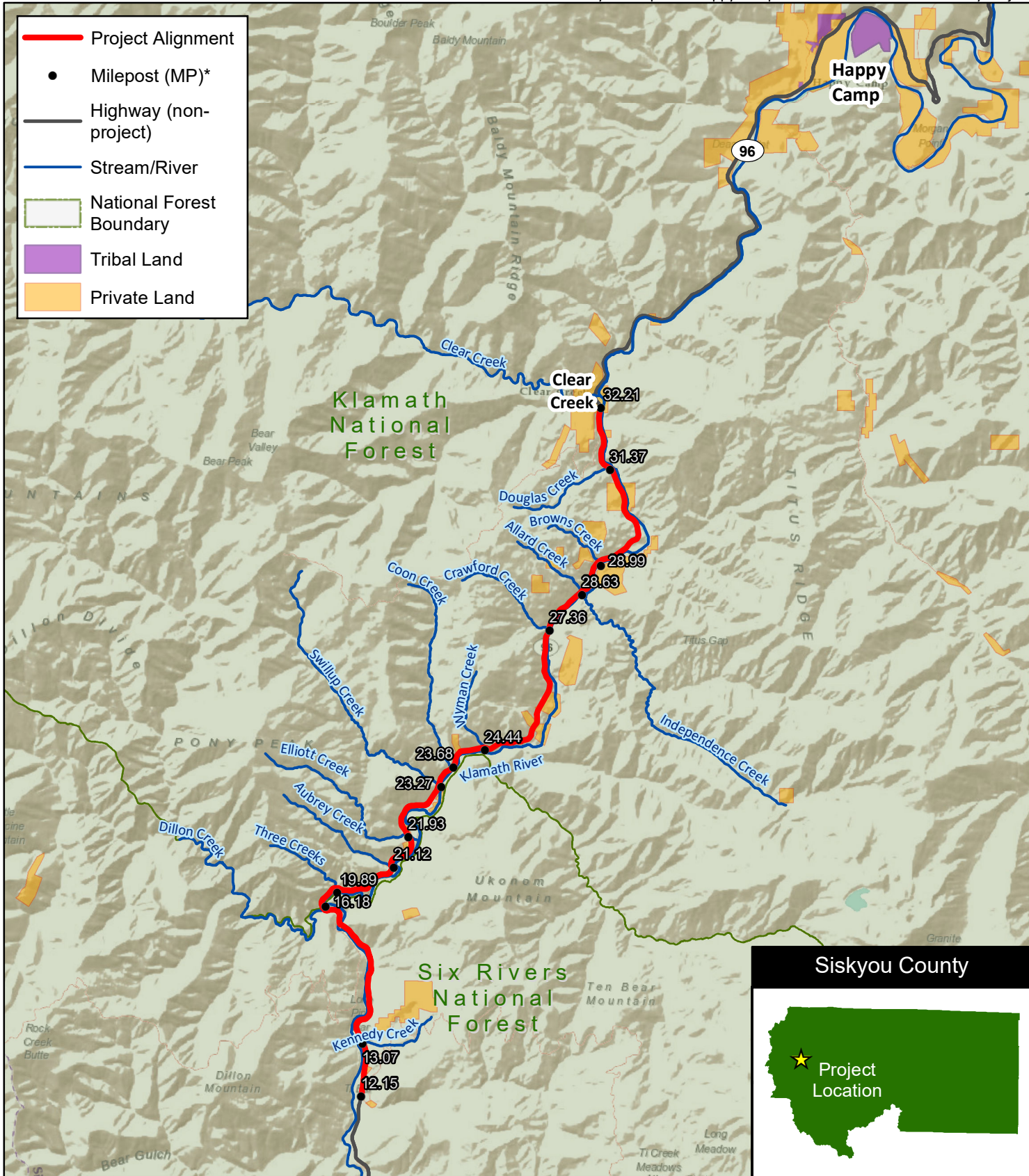
Jensen Uchida, Project Manager
Energy Division
Phone: (415) 703-5484
E-mail: Jensen.Uchida@cpuc.ca.gov

4.4 Project Location

The project site is located in Siskiyou County, approximately 70 miles west-southwest of Yreka, California. The project site begins at Milepost (MP) 12.15 on State Highway 96 and proceeds northeast approximately 16.72 miles (88,282 feet) to MP 32.21 (note: a 3-mile error in state milepost markers occurs between MP 16.38 and MP 19.64). State Highway 96 is located in both the Klamath National Forest and Six Rivers National Forest. Specifically, the project site is located in the following 7.5-minute U.S. Geological Survey (USGS) quadrangles: Dillon Mountain, Ukonom Mountain and Clear Creek. The project site is within the following legal descriptions:

- T13N; R6E; Section 8
- T14N; R6E; Sections 2, 5, 9, and 11 and continues into Sections 14, 15, 21, 22, 28, and 33
- T15N; R7E; Section 18 and follows State Highway 96 into Sections 17, 20, 29, 30, and 31
- T15N; R6E; Section 36

The entire project is confined within the California Department of Transportation (Caltrans) maintenance right-of-way (ROW) in or adjacent to State Highway 96. The Project would include ten minor creek crossings: Douglas Creek, Browns Creek, Allard Creek, Crawford Creek, Wyman Creek, Coon Creek, Elliot Creek, Aubrey Creek, Three Creeks, and Kennedy Creek (see Figure 4-1 and Figures A-1 through A-10 in Appendix A, respectively). The cable would be hung on the bridges across Dillion Creek and Swillup Creek.



Source: CalTrans 2014, US Forest Service 2017

*Note: A 3-mile error in state milepost markers occurs between MP 16.38 and MP 19.64.

Figure 4-1

Project Route

4.5 Project Sponsor's Name and Address

Carl Eastlick
Siskiyou Telephone
PO Box 157
Etna, CA 96027
(530) 467-6000

4.6 General Plan Designation

The Proposed Project is located within Siskiyou County. The Siskiyou County Planning Department is responsible for land use and planning in Siskiyou County and on Siskiyou County ROW easements within the National Forests. State Highway 96 is classified as Public Lands by Siskiyou County Planning Department.

4.7 Zoning

The Siskiyou County Planning Department has zoned federal and private land in the Klamath and Six Rivers National Forests as Rural Residential Agricultural. Therefore, the majority of the land surrounding the Proposed Project is zoned Rural Residential Agricultural with a 40-acre minimum parcel size (R-R-B-40), with a small portion zoned R-R-B-5 (5-acre minimum) (Siskiyou Telephone, 2016).

Also, the Proposed Project is located in the Klamath National Forest Management Area 17, zoned as General Forest by USFS. USFS manages federal lands within the project area as General Forest for activities including timber harvest, forage for recreation, and mining (Siskiyou Telephone, 2016).

4.8 Surrounding Land Uses and Setting

Land in the Project area is under the jurisdiction of USFS or privately owned. State Highway 96, maintained by the California Department of Transportation (Caltrans), generally runs north to south through Siskiyou County. The Project alignment is located beside the eastern bank of the Klamath River and is bordered by steep slopes in every direction.

Existing land uses adjacent to the Project area are primarily private residences and forest. In addition to private residences, uses within the forested areas include logging, fuels management (including prescribed burning), dredging operations, and recreation associated with a National Forest, such as hiking, fishing, and camping.

4.9 Project Overview

The Proposed Project is partly funded by the California Advance Services Fund (CASF). On December 20, 2007, in Decision 07-12-054 established the CASF program to provide grants that support projects that will: (a) provide broadband services to areas currently without broadband access, and (b) build out facilities in underserved areas, if funds are still available. CPUC Resolution T-17539 approved funding in the amount of \$3,645,085 from the CASF for the Proposed Project. The proposed \$3,595,071 funding for the fiber middle-mile link will improve network reliability to the larger region by completing a critical segment of fiber link. The proposed \$50,014 funding is for constructing last-mile connections to 10 unserved households.

4.9.1 Project Objectives

Siskiyou Telephone has identified the fundamental objectives of the Proposed Project as follow:

- Provide reliable telephone and broadband service capability to existing and future residences between the Clear Creek and Ti Bar areas; and
- Complete a continuous fiber optic route between Interstate 5 and U.S. Highway 101.

4.9.2 Purpose and Need

As stated above, the purpose of the Proposed Project is to provide reliable telephone and broadband service capability to existing and future residences in the area between Clear Creek and Ti Bar and remote areas of Siskiyou County. A secondary purpose of installing the fiber optic broadband facility cable underground is to minimize cost and environmental disturbances. By encasing the fiber optic broadband facility cable in buried conduit instead of direct-buried copper or fiber optic cable, the future need to replace damaged or deteriorated copper or fiber optic cable is minimized. As a general practice, Siskiyou Telephone intends to eliminate the need to disturb ground every 5 to 10 years to replace deteriorated or outsized facilities by placing conduits instead of direct-buried copper or fiber optic cable. Environmental hazards, such as fires and downed trees, would not affect underground cable components.

The existing telephone system consists of a fiber optic cable from Fort Jones to Happy Camp to Benjamin Creek, and a fiber optic cable from Somes Bar to Ti Bar (see Figure 4-2). All fiber optic lines are placed in underground conduit systems. Siskiyou Telephone has backup generators at its Fort Jones, Happy Camp, and Somes Bar central offices. The Proposed Project would also complete a continuous fiber optic broadband facility route between Interstate 5 and U.S. Highway 101 on the coast, which would allow for the provision of a geographically diverse route. The project would incorporate the use of a self-healing fiber optic ring, allowing for service to be fed from either direction, which would protect the services and provide an enhancement to the safety for the region.

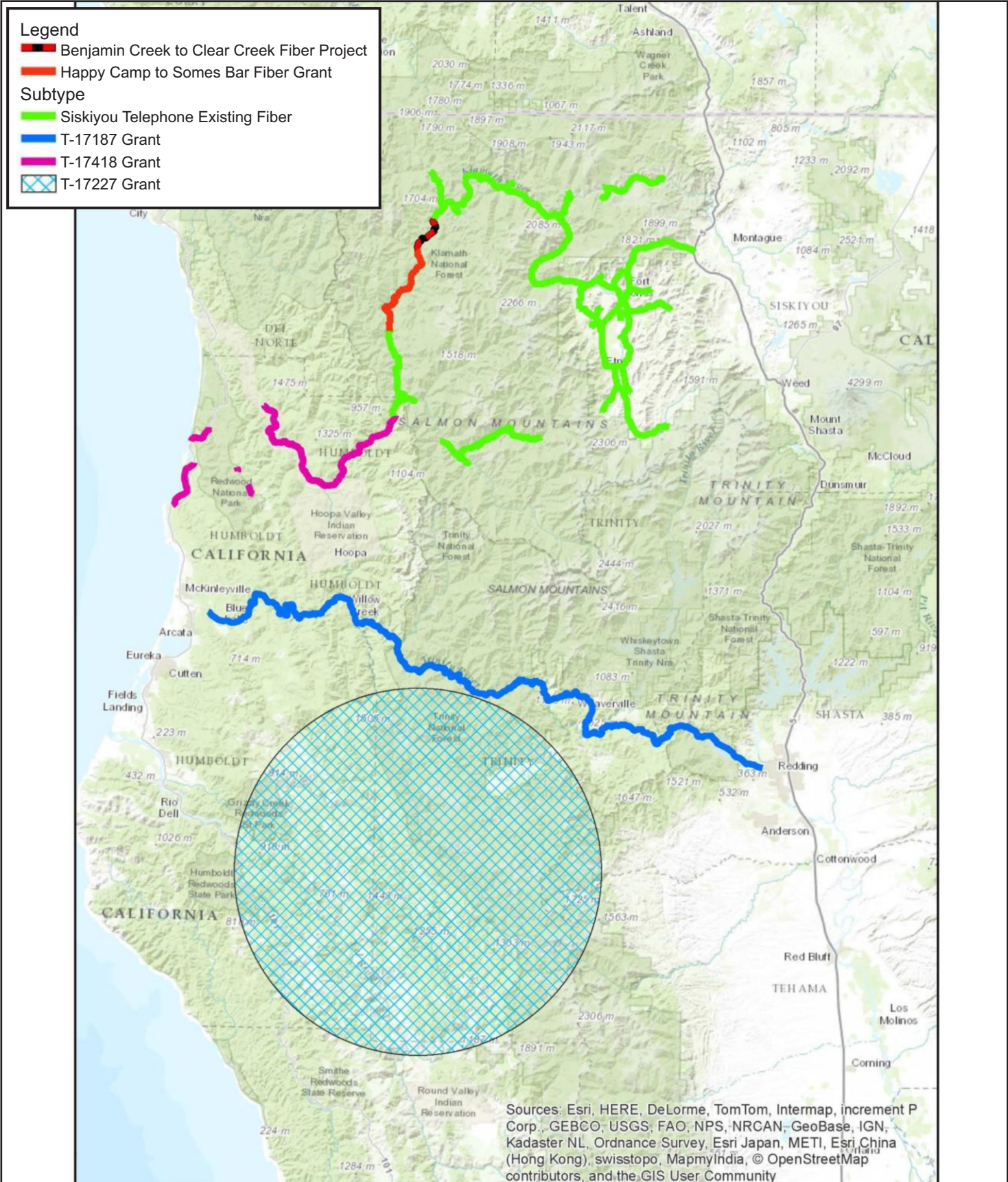
This project is needed because residents currently have minimal effective use of cell phones, satellite, or radio due to the mountainous and remote location; and currently, there are no land-based telephone or broadband services. The nearest amenities and emergency service providers are located approximately 70 miles northeast, in the town of Yreka. The absence of services in the event of an emergency, such as an accident or fire in the area, is a concern to local residents. Telephone and broadband service is required to provide reliable communication capability for the safety of residents in the area.

4.10 Project Components

The Proposed Project consists of two components: fiber optic broadband facility cable and utility box installation. The locations of the project components are shown in detail on in Appendix B. The project would consist of all new construction because no existing project components are located in the project area.

4.10.1 Fiber Optic Broadband Facility Cable

An estimated 88,282 feet of underground fiber optic broadband facility cable, including drops to subscribers, are proposed to be installed in conduit along the cable alignment. The telephone service cable would be made of fiber optic service line that would be placed in a 1.5-inch high-density polyethylene conduit. The fiber optic broadband facility cable would be installed using both directional boring and trenching.



Legend

- █ Benjamin Creek to Clear Creek Fiber Project
- █ Happy Camp to Somes Bar Fiber Grant
- Subtype**
- █ Siskiyou Telephone Existing Fiber
- █ T-17187 Grant
- █ T-17418 Grant
- T-17227 Grant

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Source: xx, 2015.



Figure 4-2
NW California CASF Grant Projects

Trenching would only occur where the shoulder width can accommodate the operation without damaging the road surface or shoulder, and where boring cannot be done. In general, the cable would be installed in the far side of the road from the Klamath River, except for short segments where there is not adequate space in the shoulder.

4.10.2 Utility Boxes

Forty concrete hand hole utility boxes are proposed to be installed as access points for subscriber drop, splice points, and grounding locations (see diagram in Figure 4-3). The opening of the hand hole boxes would be at ground surface elevation and would be approximately 6 feet 7 inches long by 3 feet 1 inch wide by 4 feet deep with a traffic-rated lid. Boxes would be placed along the fiber optic broadband facility cable route at 2,500-foot minimum spacing to provide rural utilities service grounding. Additional boxes would also be placed as needed along the route to provide access points for each residential subscriber, or fiber optic line splices.

Locations along the cable alignment could require digging out of the rocky bank to create a clearing large enough that the box can be opened and closed easily. In areas where digging the bank would be required, the bank would be less than 5 feet high. If needed, a rock retaining wall would be built around the cutout to support any loose impediments such as rocks and debris that might fall on the box or into the roadway.

4.10.3 Right-of-Way Requirements

The Proposed Project would be constructed within and adjacent to State Highway 96 ROW in Siskiyou County, which is maintained by Caltrans. A minimum construction access width of 10 feet would be required for trench or plow excavation. All construction equipment would remain within existing roadways or road shoulders.

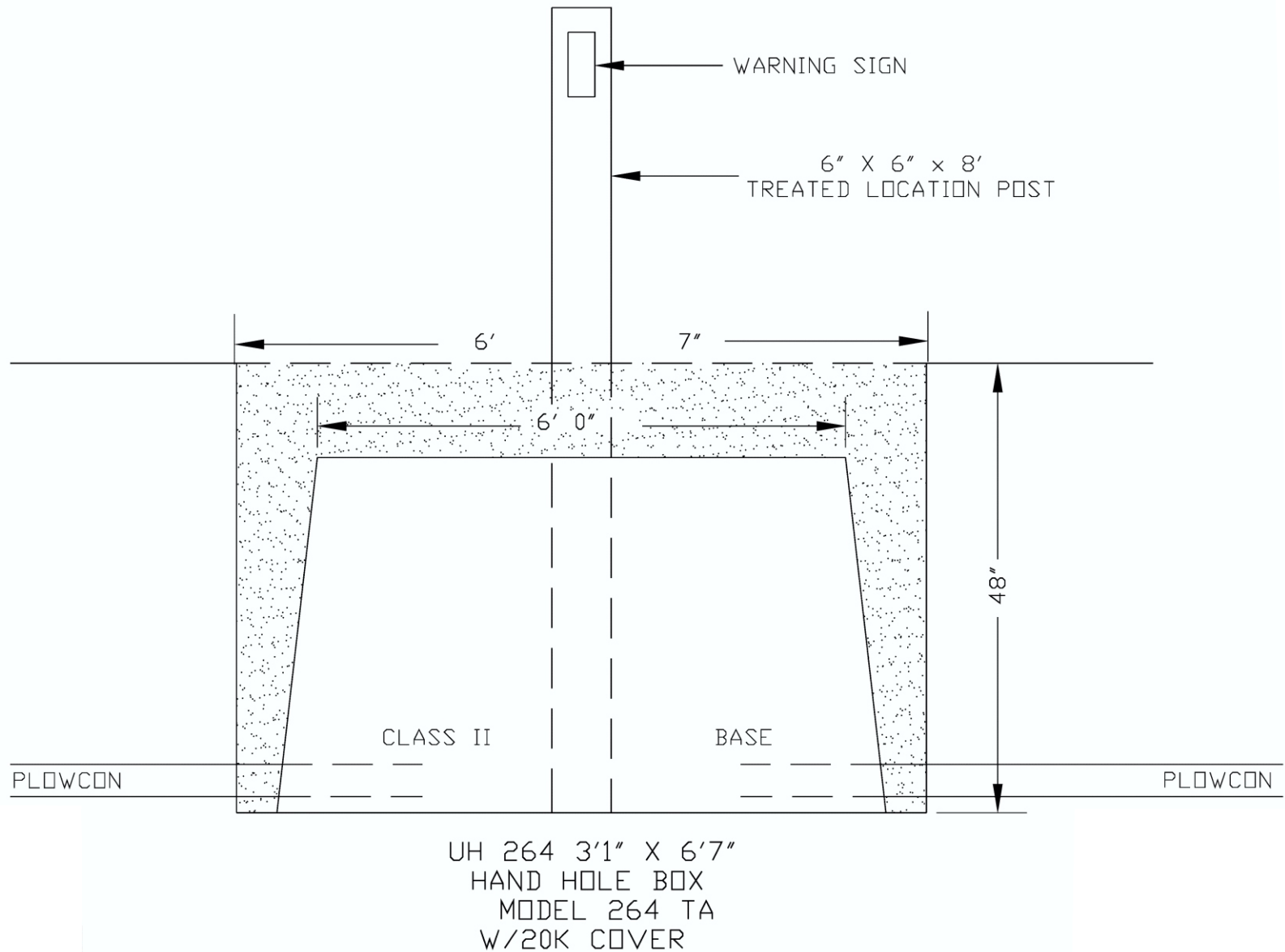
4.11 Project Construction

4.11.1 Underground Cable Installation

Fiber optic broadband facility cable would be installed using both directional boring and trenching. The majority of the Project would be constructed using horizontal (hard-rock) directional boring techniques. Several culverts would be crossed while constructing the project. If a culvert has a minimum of 4 feet of ground cover, Siskiyou Telephone would trench directly over the culvert. If the culvert had less than 4 feet of ground cover, Siskiyou Telephone would tunnel under the culvert at a minimum depth of 6 feet below the bottom of the culvert invert.

The telephone service cable would be made of fiber optic service line that would be placed in a 1.5-inch high-density polyethylene conduit. Once the conduit is placed the contractor would use a special fiber blowing machine. This requires an air compressor and the fiber is actually blown in riding on this air. Conduit may be routed around a culvert if space allows on the shoulder of the roadway.

Trenching. Trenching would only occur where the shoulder width can accommodate the operation without damaging the road surface or shoulder, and where boring cannot be done. Trenching would be conducted to a width of approximately 1.5 feet and a depth of approximately 4 feet within the road or road shoulder to provide room for the conduit. After the cable and conduit are installed, the trench would be filled with Class II base rock, compacted, and repaved (if necessary) to restore the roadway and road shoulders to preconstruction conditions.



Source: Siskiyou Telephone, 2004.

Figure 4-3
Typical Utility Box

Horizontal Directional Boring. Horizontal directional drilling (HDD) is a highly specialized boring technique that would likely be used to install the cable in areas where there are known state- or federally listed species or habitat including jurisdictional waters. HDD is trenchless method of conduit installation using a surface-launched drilling rig that installs the conduit via a pre-drilled, arc-like bore hole. The HDD process would utilize an entry bore pit and an exit bore pit to contain the drilling mud, each approximately 3 feet in width by 9 feet in length. The initial trenching for each bore pit would be monitored by a Tribal Monitor. The trench spoils would then be hauled to a temporary staging area to be hauled away to Happy Camp. The bore pit would then be backfilled with Class II Base Rock at the end of each day until bore completed. The bore pit would then be secured with Base Rock until actual splicing of conduit is completed.

HDD would be performed using the least amount of pressure to minimize the chance of a frac-out, the unintentional return of drilling fluids to the surface during HDD. The entire bore route would be monitored to catch any frac-out fluids that might appear in the road shoulder.

4.11.2 Material Storage and Equipment Staging Areas

Siskiyou Telephone has made an agreement with a disposal site located in Happy Camp on State Highway 96 for disposal of stockpiles and temporarily storing equipment (Happy Camp disposal site). Because of the long distance to haul bore spoils, a mud cleaner would be used onsite, and the majority of the mud would be recycled back into the bore machine.

Any remaining refuse would be hauled to a temporary stockpile location and then hauled to the Happy Camp site for final disposal. Trench spoils would be temporarily stockpiled in the larger turnouts along the alignment and hauled out weekly. In the event of inclement weather, stockpiles would be covered to prevent runoff.

Two primary sites for temporary gravel and trench spoils storage are adjacent to State Highway 96 between MP 34.78 and MP 34.59 and between MP 13.21 and MP 13.32. Numerous turnouts along the route would be used as temporary day parking for transportation vehicles while crews work onsite.

All construction equipment, the trencher, backhoes, and plows would remain onsite throughout construction, parked in the same turnouts with safety cones around them so they are visible to traffic. All construction equipment would be parked so that through-traffic would not be impeded on the roadways after hours. The transportation vehicles would leave with the crews and return when work resumed.

4.11.3 Work Areas

Work areas in the project site consist of State Highway 96, which is approximately 32 feet wide. Flaggers would control traffic encountered during construction activities. Traffic delays might be as long as 10 to 15 minutes. In the case of an emergency, or if an emergency vehicle needed to pass, the equipment would move immediately, to maintain emergency vehicle access. One full, 16-foot-wide lane would be available for emergency traffic at all times.

Conduits would be laid out alongside the construction route each morning so that additional vehicles would not impede traffic during construction. Dump trucks would haul trench spoils to the Siskiyou Telephone gravel site turnouts as needed and bring loads of Class II base rock back to the Project site to be used for backfill to meet Caltrans compaction specifications. Additional trucks would then reload trench spoils and haul them to the Happy Camp disposal site for final disposal.

4.11.4 Use and Disposal of Excavated Material

Excavated material from State Highway 96 that meets Caltrans specifications would be used to backfill the trench. Remaining materials that do not meet Caltrans specifications would be removed from the site and transported to the nearest temporary stockpile location, to be reloaded and hauled to the Happy Camp disposal site. Class II base rock would be used to fill the remainder of the trench. After the Class II base rock is placed in the trench, it would be compacted in 1-foot lifts with a mechanical tamper, and the top 1 foot would be compacted with 20,000 pounds of force to meet Caltrans requirements. Caltrans currently requires 95 percent minimum compaction of materials placed in trenches in its roadways.

The excavated materials from the Proposed Project would amount to approximately 4,933 cubic yards. Excess trenched materials that are not used to backfill the trench would be disposed of at the Happy Camp disposal site.

4.11.5 Vegetation Clearance

Vegetation would not need to be cleared during construction of the project because all activities would be conducted within the existing roadway or on the shoulder of the road. The roads are used daily by residents and other traffic; thus, there is minimal vegetation along the highway due to normal operation.

4.11.6 Stream Crossings

The project alignment would require ten minor stream crossings: Douglas Creek, Browns Creek, Allard Creek, Crawford Creek, Wyman Creek, Coon Creek, Elliot Creek, Aubrey Creek, Three Creeks, and Kennedy Creek. The stream crossings would be directionally bored a minimum of 30 feet below the streambed if water is present and 18 feet below the streambed if dry. No standing trees would be removed or trimmed. The cable would be hung on the bridges across Dillion Creek and Swillup Creek.

4.11.7 Water Use

In addition to drilling operation, water would be used to wet down the work area, including materials such as backfill and other construction components as needed to minimize offsite transport of dust. Water use during construction would be approximately 14,000 gallons a day for the drilling operation as well as approximately 6,000 gallons a day for road surface cooling and gravel wetting for compaction. Water would be purchased and hauled to the work areas from the Happy Camp Community Service District in Happy Camp.

Portable toilets would be used by construction personnel and would be pumped and cleaned weekly by a licensed provider.

4.11.8 Erosion and Sediment Control and Pollution Prevention during Construction

Without implementation of best management practices (BMP) to address erosion and sediment control, sediment could be released into waters as a result of construction activities. Construction of the Proposed Project would occur during the dry season (April through October), thereby minimizing the potential for erosion and sediment transport. Siskiyou Telephone would have the contractor prepare a Storm Water Pollution Prevention Plan (SWPPP) that outlines BMPs that would be implemented to address erosion and sediment control, including placement of sediment controls at culvert crossings, such as gravel bags with filter fabric, silt fence, or coir rolls. Materials from the trenching activities would be removed from the site

and would be protected from erosion, and new material would be brought in to backfill the trench; therefore, erosion and sedimentation would be minimized.

The project would be constructed during the dry season (April through mid-October), and a water truck would be onsite to wet down the work area, including materials such as backfill and other construction components as needed to minimize offsite transport of dust.

During construction activities, the trench along the fiber optic broadband facility cable alignment would be backfilled and compacted daily. The surfaces of Caltrans roadways would be restored daily to pre-project condition. Roadway conditions could be better than existing conditions by grading the road surface following daily construction activities.

The following materials are anticipated to be used during construction:

- **Diesel Fuel**, approximately 460 gallons per day. The bore rigs (4) would use approximately 240 gallons of fuel per day, the support vehicles would use approximately 220 gallons per day. This diesel fuel would be stored on the individual personnel vehicles used to bring workers, materials and fuels to the job daily. The vehicle with storage tanks would not remain on the job site overnight but would be parked at Siskiyou Telephone's materials storage yard in Happy Camp. Construction vehicles would be fueled up on road shoulders with a hazard spill mat in place to avoid leaks. All other work vehicles would be fueled up in Happy Camp at local fuel pumps.
- **Bentonite Bore Powder**. The individual bags of bentonite are stored on the Mix Truck used for each drill machine and would remain in powder form until used. Each Mix Truck would have approximately 2,000 gallon capacity of mixed fluid to be used when drilling. These would be filled twice a day with water from a 2,500 gallon water truck hauling water from Happy Camp, where it is purchased from the Happy Camp Community Service District. The 2,500-gallon water truck would fill up in Happy Camp at least 8 times daily to keep all of the Mix Trucks full and also to wet down the stockpiles of gravel along the job route.
- **Used Bore Grindings**. These grindings would be flushed out of the bore tube by pumping bentonite into the drill from the Mix Truck. The waste would then be vacuumed into a 600 gallon vac-trailer and disposed of in Happy Camp at the approved disposal location. There would be at least 4 vac-trailers hauling spoils off of job as needed, normally a minimum of 8 trips per day.

The Applicant Proposed Measures (APMs) in Table 4-3 include measures to reduce the potential for and provide containment in the event of an accidental release of the materials discussed above that would be used during construction.

4.11.9 Site Clean-up and Roadway Restoration

The roadways including shoulders that would be impacted by the Proposed Project are presently all asphalt or gravel surface, so there would be two types of road surface to be restored at the completion of construction. The road shoulder work in areas of dirt or rock roadway surface would be repaired using Class II Base Rock compacted in 12 inch lifts with a mechanical compactor. This would require 95% compaction.

The second surface would be in asphalt and would require 12 inches of Class II Base Rock over the conduits and 36 inches of 2 sack concrete slurry, providing 100 % compaction. This finished surface would then be ground out to a depth of 3 inches and this would then be replaced with 3 inches of hot Asphalt Mix.

4.11.10 Construction Personnel and Equipment

Approximately 15 workers would be involved in trenching, boring, and installing conduit and fiber optic broadband facility cable for the Proposed Project, plus four personnel would be used for traffic control. The four traffic control personnel would enable two crews to work in separate locations along the cable alignment.

All of the construction personnel would stay at various RV locations in Happy Camp, as they would be long-term personnel hired by Siskiyou Telephone’s contractor.

Table 4-1 lists the construction activities, personnel, and equipment required for the Proposed Project. There would be up to 30 round-trip vehicle trips estimated per day between the project site and Happy Camp. Not all of the vehicles listed in Table 4-1 would be used every day and some may be temporarily parked on private property along the route.

In general, at the start of each construction day, four mix trucks (used with drill rigs) and six 1-ton service vehicles hauling fuel and personnel would travel to job site and then return to Happy Camp at the end of the day. Three ¾-ton pickups would haul the Supervisor, Foreman and Inspector to/from the job site from Happy Camp, and would move between crews as needed during the day. A water truck would also make a minimum of eight trips per day between the project area and Happy Camp to provide water for the bore rigs and trenching operation. There would be two 10-yard dump trucks on the job as needed, one of which would be used within the daily work zone and the other would haul trench spoils back to Happy Camp for disposal. Finally, two 2-ton trucks would make six trips per day to pull the loaded vac trailers out for disposal.

Table 4-1. Construction Workforce and Equipment

Activity	Personnel Required	Equipment Required
Trenching	7 to 10	<ul style="list-style-type: none"> • 3 backhoes • 3 dump trucks
Conduit Placement	12 to 15	<ul style="list-style-type: none"> • 2 pickup trucks • 2 three-reel trailers • 5 drill rigs • 5 vac trailers/with trucks • 2 cleaners
Backfill	6 to 8	<ul style="list-style-type: none"> • 1 excavator (compactor) • 3 mechanical tampers • 3 backhoes • 1 water truck • 2 dump trucks
Cable Placement	4 to 8	<ul style="list-style-type: none"> • 1 backhoe • 1 reel dolly • 2 fiber machines • 2 air compressors • 2 pickup trucks • 2 (2-ton) reel trucks
Inspection	2	<ul style="list-style-type: none"> • 2 pickup trucks
Traffic Control	4	<ul style="list-style-type: none"> • 2 work trucks
Spoils Removal	2	<ul style="list-style-type: none"> • 1 transfer truck

Source: Siskiyou Telephone, 2016.

4.11.11 Construction Schedule

Due to winter weather conditions, the project area has a short construction period. Before the rainy season begins, construction sites must be restored and protected for winter, by mid-October. Because construction of the Proposed Project can only occur during the dry season (April through October), it is anticipated that installation of the entire fiber optic broadband facility cable would be over a 2-year period (up to 6 months per year). The total duration of construction is estimated to last 195 days.

4.12 Operations and Maintenance

After the cable has been installed, and service has been initiated to local residents, it is anticipated that minimal operation or maintenance of the project components would be required. Operation would generally involve accessing utility boxes for maintenance purposes.

Siskiyou Telephone maintains a single Installer Repairman for the Happy Camp area. This individual would be dispatched as needed to perform testing on the actual fiber. This individual is within an hour drive of these facilities at most time. Should damage occur to the fiber and conduits, Siskiyou Telephone maintains a 4-man construction crew out of their main office in Etna, CA. This crew would only be dispatched in the case of an emergency repair. Once these facilities are placed and barring an emergency, there is not any planned maintenance to be done on the fiber or the conduits.

4.13 Other Permits and Approvals

CPUC Resolution T-17539 stipulates that prior to receiving funds from the CASF grant, the proponent is required to provide a Proponent's Environmental Assessment (PEA) and the CPUC must complete CEQA review. Therefore, Siskiyou Telephone prepared and submitted a PEA as part of its application for a Permit to Construct (PTC). The CPUC has exclusive authority to approve or deny Siskiyou Telephone's application; however, various permits from other agencies may also need to be obtained by Siskiyou Telephone for the Proposed Project. If the CPUC issues a PTC, it would provide overall project approval and certify compliance of the project with CEQA. In addition to the PTC, Table 4-2 summarizes the permits from other federal, State, and local agencies that may be needed for the project.

Table 4-2. Permits that May Be Required for the Proposed Project

Agency	Jurisdiction	Requirements
Federal/State/Local Agencies		
U.S. Forest Service	Special Use authorization	National Environmental Policy Act (NEPA) and a special use permit for construction
California Department of Fish and Game	Manage fish, wildlife, plant resources and habitats; California ESA, California Native Plant Protection Act, California Fish and Game Code Section 1601	Lake or Streambed Alteration 1601 Permit
California Department of Transportation	Highways and State-owned roadways	Encroachment Permit
California Office of Historic Preservation	Consultation (through CEQA review process)	Cultural resources management (if appropriate)

Table 4-2. Permits that May Be Required for the Proposed Project

Agency	Jurisdiction	Requirements
Regional Water Quality Control Board (RWQCB) – North Coast Region (Region 1)	National Pollution Discharge Elimination System, General Construction Storm Water Pollution Prevention Plan (SWPPP)	Submittal of Notice of Intent (NOI) to Regional Board to comply with terms of the general permit and preparation of SWPPP
Siskiyou County Air Pollution Control District (APCD)	Asbestos Airborne Toxic Control Measures (ATCM) for construction	Obtain approval of a dust mitigation plan for naturally-occurring asbestos

4.14 Applicant Proposed Measures

Siskiyou Telephone proposes to implement measures to ensure the Proposed Project would occur with minimal environmental impacts in a manner consistent with applicable rules and regulations. Siskiyou Telephone proposes to implement these measures during the design, construction, and operation of the Proposed Project in order to avoid or minimize potential environmental impacts.

Applicant Proposed Measures (APMs) listed in Table 4-3 are considered part of the Proposed Project and are considered in the evaluation of environmental impacts (see Section 5, Environmental Analysis and Mitigation). CPUC approval would be based upon Siskiyou Telephone adhering to the Proposed Project as described in this document, including this project description and the APMs, as well as any adopted mitigation measures identified by this Initial Study.

Table 4-3 details each APM by environmental issue area. In some cases, mitigation measures presented in Section 5 either expand upon or add detail to the APMs presented in Table 4-3 if necessary, to ensure that potential impacts would be reduced to less than significant levels.

Table 4-3. Applicant Proposed Measures (APMs)

APM Number	Issue Area
Air Quality	
APM AQ-1	To reduce fugitive emissions, construction of the proposed project would occur during the dry season (April through October). Water trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.
Biological Resources	
APM BIO-1	To minimize the likelihood of potential adverse effects on nesting birds and raptors, preconstruction nesting surveys would be conducted during the January 31 through August 31 bird nesting season. If active nests are observed prior to construction, a qualified biologist would be retained to monitor construction within 50 feet of the active nest for passerines or 300 feet for raptors.
APM BIO-2	To minimize the likelihood of potential adverse effects on wildlife near the 10 stream crossings, preconstruction wildlife surveys would be conducted. In addition, a qualified biologist would be retained to monitor construction during directional boring activities.
APM BIO-3	To minimize the potential for wildlife to become trapped in open trenches, each excavation would be securely backfilled or covered at the end of each work day. Only excavated onsite native materials would be used to backfill trenches. One side of each excavation would be ramped to allow wildlife egress in the unlikely event that entrapment occurs.
APM BIO-4	Construction access, and material laydown and staging would occur only on existing roads and previously disturbed sites.
APM BIO-5	To reduce the introduction and spread of noxious weeds, the project would use construction equipment that is currently being used near the project area in the Klamath National Forest and Six Rivers Forest. This equipment would not be used elsewhere prior to construction without proper decontamination procedures applied prior to deployment.

Table 4-3. Applicant Proposed Measures (APMs)

APM BIO-6	Spoils known to contain noxious weed propagules or that otherwise do not meet Caltrans backfill specifications would be removed and disposed of at a Caltrans-approved disposal site.
APM BIO-7	Temporary construction equipment sound levels would not exceed 90 dB.
APM BIO-8	The contractor shall prepare and implement a plan for monitoring drilling operations and addressing frac-out if it occurs. The plan shall include visual inspections along the bore path of the pipeline alignment during all drilling operations. Monitors shall also be stationed at appropriate distances upstream and downstream from the crossing point. All equipment required to contain and clean up a frac-out release shall be available at the work site.
APM BIO-9	To minimize risk of harming the Del Norte Salamander or red-legged frog (at Wyman Creek only), work shall be conducted during dry weather.

Cultural Resources

APM CUL-1	Prior to construction, workers would be provided with environmental awareness training to recognize potential archaeological or paleontological resources and identify and address any unearthed human remains during construction. If archaeological (or paleontological) materials are uncovered, construction activities and excavation should be conducted to avoid the resources. All construction work within 100 feet of the resource would be halted until a qualified archaeologist (or paleontologist) can assess the find. The archaeologist (or paleontologist) would assess the find and make any necessary recommendations, including any procedures to further investigate or mitigate impacts on the find as required by law, including CEQA Guidelines, Section 15126.4(b)(3)(C).
APM CUL-2	If during excavation or earth-moving activities the construction contractor identifies potential historic or archaeological resources, the county or local jurisdiction would be notified, and a professional archaeologist meeting the minimum qualifications in archaeology as set forth in the Secretary of the Interior's Standards and Guidelines would be contracted and dispatched to assess the nature and significance of the find in the following manner: <ul style="list-style-type: none"> ▪ All excavation and grading within 10 feet of the discovery area would cease immediately. The responding archaeologist may, after analyzing the discovery, authorize an alternate buffer around the materials to ensure adequate evaluation and protection of potential historic and archaeological resource(s) during continued construction operations. ▪ Additional evaluation of the historic and archaeological resource(s) would be conducted and significance of the materials determined. If the discovery is considered significant, the archaeologist would develop and implement a late-discovery mitigation strategy to minimize and avoid the impact, where appropriate.
APM CUL-3	If paleontological resources are discovered during earth-moving activities, the construction crew would immediately cease work near the find. In accordance with Society of Vertebrate Paleontology Guidelines, a qualified paleontologist would assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.
APM CUL-4	If human remains are encountered, Health and Safety Code Section 7050.5 states that no further disturbance would occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the county coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). With the permission of the landowner and his/her authorized representative, the MLD may inspect the site of the discovery. The MLD would complete the inspection within 48 hours of the notification by the Native American Heritage Commission. The MLD may make recommendations regarding the disposition of the remains.
APM CUL-5	Siskiyou Telephone and/or USFS would work with the Karuk Tribe to provide a tribal monitor to observe conditions during construction in specified areas of interest.

Geology and Soils

APM GEO-1	Project construction activities would be performed in accordance with the soil erosion and water quality protection measures to be specified in the SWPPP (see Section 4.11.8 of this IS/MND) for the proposed project.
APM GEO-2	Project elements, such as excavating rock or soil for utility box installation, building minor retaining walls (less than 5 feet in height) to avoid sedimentation into roadways, and trenching, would be designed and implemented in accordance with industry standards, including established engineering and construction practices and methods.

Table 4-3. Applicant Proposed Measures (APMs)

Greenhouse Gas Emissions	
APM GHG-1	To the extent feasible, unnecessary construction vehicle and idling time would be minimized.
Hazards and Hazardous Materials	
APM HAZ-1	Refueling of equipment would occur at a minimum distance of 20 feet from all active waterways.
APM HAZ-2	A SWPPP would be in place prior to the start of construction activities to implement BMPs for spill and pollution prevention. The following BMPs would minimize the potential for accidental release of hazardous materials: <ul style="list-style-type: none"> ▪ Equipment would be maintained in good working order, and equipment containing hazardous materials would be inspected periodically for signs of spills or leakage. ▪ Spills that occur would be cleaned up immediately, and any contaminated soil would be containerized and properly disposed of. ▪ Spills that occur would be reported in accordance with applicable federal, state, and local requirements. ▪ Emergency phone numbers would be available onsite.
APM HAZ-3	Siskiyou Telephone would develop a fire management plan, in accordance with the modified special use permit from USFS that addresses construction activities for this project. The fire management plan would establish standards and practices that would minimize the risk of fire danger and, in the case of fire, provide for immediate suppression and notification. The fire management plan would address spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, and fire suppression equipment and training requirements. In addition, a water truck would be located onsite (for fugitive dust emission control) and could be used for fire suppression if needed.
Hydrology and Water Quality	
APM HYDRO-1	Disturbed areas would be restored to preconstruction conditions to avoid altering or increasing the rate or volume of surface runoff.
APM HYDRO-2	To comply with the LUP General Permit, Siskiyou Telephone would submit a Notice of Intent to the SWRCB and a Linear Construction Activity Notification to the RWQCB prior to construction. Siskiyou Telephone would also have the construction contractor prepare an SWPPP outlining BMPs for storm water erosion and sediment control, wind erosion control, source controls, and waste management. Siskiyou Telephone would ensure that SWPPP requirements are implemented and water quality standards are maintained. BMPs would be modified as necessary to ensure adequate erosion controls. The following are examples of BMPs: <ul style="list-style-type: none"> ▪ Dry-season (April through October) construction to minimize erosion and storm water sediment transport ▪ Use of silt fences or fiber rolls to prevent the migration of sediment offsite ▪ Application of water to disturbed areas during work or windy conditions to prevent dust and erosion ▪ Use of drip pans for mobile fueling
Land Use and Planning	
APM LU-1	Siskiyou Telephone would obtain permits to construct from USFS, Caltrans, and the CPUC.
Noise	
APM NOI-1	During construction of the proposed project, the following BMPs would be implemented to minimize noise impacts: <ul style="list-style-type: none"> ▪ Construction activity would be restricted to the hours between 7 a.m. and 7 p.m. on weekdays. Work on weekends would need to be coordinated with the Siskiyou County Planning Department as needed. ▪ All stationary noise-generating equipment would be located as far as possible from nearby noise-sensitive receptors. ▪ Construction equipment powered by gasoline or diesel engines would have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment would be allowed to have an un-muffled exhaust, as appropriate. ▪ The construction contractor would ensure that noise-generating mobile equipment and machinery are turned off when not in use.

Table 4-3. Applicant Proposed Measures (APMs)

Public Services	
APM PS-1	Construction schedules would be submitted to local emergency service providers for review and comment, and updated as necessary. In addition, fire extinguishers and shovels would be maintained onsite during periods of construction or site activity for immediate fire control, if needed.
Transportation and Traffic	
APM TRF-1	The use of traffic control measures would ensure that the effects on traffic would not create unsafe conditions. In addition, Siskiyou Telephone would inform residents in Happy Camp of construction activities and potential delays.
Utilities and Service Systems	
APM UTL-1	Solid waste generated in the project area during construction is anticipated to be minimal and would be transported offsite daily to the Happy Camp disposal site.

4.15 Alternatives

The project alignment is along State Highway 96, which is bordered by steep slopes on the west and the Klamath River on the east. The applicant has stated that the Proposed Project is the only feasible alternative to service subscribers in the area because of the remote location and steep terrain.

In addition, forest fires are prevalent in the remote areas of Siskiyou County, including the project area. Most recently, in summer 2014, fires burned west of nearby Happy Camp and in adjacent areas of the Klamath National Forest, east of the Klamath River, destroying both timber lands and homes located within the fire complex. Historically, Siskiyou Telephone has had a presence in the region for over 100 years. Many of its aerial facilities, such as transmission poles, have burned in forest fires or been damaged by other natural disasters (for example, heavy snow, lost in rockslides, or broken by falling trees in winter). Remote areas are inaccessible during the winter months for repair of damaged equipment. Therefore, the installation of overhead cable was considered by Siskiyou Telephone, but rejected because overhead lines would not meet the project’s purpose of providing reliable emergency communication service in the case of an environmental hazard, such as heavy snow, a fire, or downed trees. In addition, overhead lines would not meet the purpose of reducing maintenance costs.