

**National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
Pyramid Lake Paiute Tribe
Pyramid Lake Paiute: Natukwena Nagwesenoo Project**

Summary

The Pyramid Lake Paiute Tribe (Tribe) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to deploy a fiber optic middle mile network on the 477,000-acre Pyramid Lake Indian Reservation (PLIR) in western Nevada. The network will span 84 miles, including 40 miles of new middle mile fiber; 4 miles of new lateral fiber to community anchor institutions (CAIs); and 40 miles of existing dark fiber between the PLIR boundary and Reno, Nevada. All new fiber will be buried, with the exception of two crossings of the Truckee River. The river crossings will be completed by attaching fiber to existing bridges. The planned fiber route follows existing highway rights-of-way (ROWs), PLIR roads, and an old railroad bed owned by the Tribe. All lateral extensions will be constructed along Tribe-owned roads or parking areas. Two network node buildings will be constructed on developed Tribal land in Wadsworth and Sutcliffe, NV. A total of 29 CAIs on the PLIR will be connected to the network, including the regional health service center, the Wadsworth grade school, the regional youth treatment center, and the only adult higher education center on reservation land. Based on a Paiute phrase that means “to weave information,” the planned network is referred to as the Pyramid Lake Paiute: Natukwena Nagwesenoo Project (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to the Tribe through BTOP, as part of the American Recovery and Reinvestment Act (ARRA). The funding must be obligated and the Project completed within three years. This timeline will comply with the laws and regulations governing the use of this ARRA grant funding.

BTOP supports the deployment of broadband infrastructure in unserved and underserved areas of the United States and its Territories. As a condition of receiving BTOP grant funding, recipients must comply with all relevant Federal legislation, including the National Environmental Policy Act of 1969 (NEPA). Specifically, NEPA limits the types of actions that the grantee can initiate prior to completing required environmental reviews. Some actions may be categorically excluded from further NEPA analyses based on the specific types and scope of work to be conducted. For projects that are not categorically excluded from further environmental review, the grant recipient must prepare an Environmental Assessment (EA) that meets the requirements of NEPA. After a sufficiency review, NTIA may adopt the EA, use it as the basis for finding that the project will not have a significant impact on the environment, and issue a finding of no significant impact (FONSI). Following such a finding, the BTOP grant recipient may then begin construction or other activities identified in the EA as the preferred alternative, in accordance with any special protocols or identified environmental protection measures.

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The Tribe completed an EA for this Project in September 2011. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

The Project includes:

- Installing approximately 40 miles of buried fiber optic cable by trenching within existing Nevada Department of Transportation (NDOT) ROWs, along Tribe-owned roads, and within an old railroad bed owned by the Tribe;
- Completing two crossings of the Truckee River by attaching fiber and conduit to two existing bridges;
- Splicing into and lighting 40 miles of existing dark fiber between an existing telecommunications building in Reno and the PLIR boundary on Interstate 80 in Wadsworth;
- Erecting two new network node buildings on developed Tribal property in Wadsworth and Sutcliffe; and
- Installing a combined total of 4 miles of trenched fiber optic cable laterals along PLIR roads, across paved/unpaved parking lots, and through undisturbed soil immediately surrounding building access points to reach 29 targeted CAI locations.

Based on a review of the analysis in the EA, NTIA has determined that the Project, implemented in accordance with the preferred alternative, and incorporating best management practices (BMPs) and protective measures identified in the EA, will not result in any significant environmental impacts. Therefore, the preparation of an EIS is not required. The basis for this determination is described in this FONSI.

Additional information and copies of the Executive Summary of the EA and FONSI are available to all interested persons and the public through the BTOP website (www2.ntia.doc.gov/) and the following contact:

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Purpose and Need

The purpose of this Project is to provide broadband internet access throughout the PLIR, which is currently underserved with respect to broadband internet access. Currently, broadband

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services are only available to the Tribal government, and that access is limited by low data transfer speeds. Internet access for other users on the PLIR, and in the associated communities of Nixon, Wadsworth, and Sutcliffe, is unreliable and inadequate for effective data transfer, storage, communications, and other applications. Infrastructure to be installed under this Project will provide reliable internet access opportunities to 500 unserved homes, 50 public safety offices, and 10 community service centers. Additionally, the Project will enhance long-distance education through the Tribal Higher Education Program. The network will also provide improved and reliable access to online tools for telemedicine, public safety, and emergency response services throughout the PLIR.

Project Description

Under this Project, the Tribe will deploy a fiber-optic network spanning 84 miles in west central Nevada. To bring broadband service to the PLIR, the Tribe will splice into and light 40 miles of existing dark fiber that runs between the Reservation boundary on Interstate 80 in Wadsworth and an existing telecommunications building in downtown Reno. No construction is required to implement this portion of the Project; all work to access this portion of the route will be conducted with existing telecommunications buildings.

Within the boundaries of the PLIR, the Tribe will install 40 miles of middle mile fiber and 4 aggregate miles of fiber laterals to connect 29 CAIs to the new network. With the exception of two river crossings, the entire length of fiber will be installed via trenching within existing NDOT and Tribal ROWs and an old Tribe-owned railroad bed. All lateral extensions will be installed in Tribe-owned roads, parking areas, or unpaved but developed property immediately surrounding CAI buildings. A cable plow will be used to excavate a trench approximately 15 inches wide, bury the cable at an approximate depth of 36 inches, and backfill the trench in one pass. Where the planned fiber path crosses pavement, the Tribe's contractors will use a concrete saw to remove a 24-inch wide section to allow for trenching and fiber placement. The pavement excavation will then be packed with road base and repaired with concrete. Appropriately spaced splice points will also be installed along the fiber route to allow for future expansion. Fiber and conduit will also be attached to existing bridges over the Truckee River along Highways 40 and 446.

Two network node buildings will be erected as part of this Project. Both node sites will be equipped with a 12-foot by 20-foot prefabricated hut, situated on concrete pads. Minor vegetation clearing may be conducted, and fencing will be erected around each hut to enclose an area approximately 40 feet by 40 feet. One node will be erected just off Highway 447, approximately one mile north of the intersection of Highways 40 and 447 in Wadsworth. This location is situated on Tribal property in the vicinity of several CAIs, including Wadsworth grade school. The second node building will be erected on Tribal property in a parking lot outside the Fisheries Administration building on Lakeside Drive in Sutcliffe. Electrical service is available in existing buildings surrounding the planned node locations and will be provided to

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the new node buildings. Emergency generators will also be installed at the node buildings to provide power during electrical outages.

Alternatives

The EA includes an analysis of the alternatives for implementing the Project to meet the purpose and need. NTIA also requires that an EA include a discussion of the no action alternative. The following summarizes the alternatives analyzed in the EA.

Alternative 1 – Underground Fiber Network Build (Preferred Alternative). This alternative will involve installing approximately 40 miles of buried fiber optic cable by trenching within existing NDOT and Tribal ROWs and an old railroad bed; attaching fiber and conduit to two existing bridges across the Truckee River; splicing into and lighting 40 miles of existing dark fiber between Reno and the PLIR boundary; erecting two network node buildings on Tribal property in Wadsworth and Sutcliffe; and installing a total of 4 miles of trenched fiber laterals to existing buildings at 29 CAIs on PLIR.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in the Project area. Under the no action alternative, the new network would not be constructed and the existing dark fiber between Reno and Wadsworth would remain unlit. PLIR would lack adequate broadband infrastructure for communications, public safety, emergency response, business, education, telemedicine, and governmental applications. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives being considered.

Alternatives Considered But Not Carried Forward. The Tribe considered installing aerial construction to expand broadband on the PLIR. However, this option was determined to be infeasible because of its susceptibility to severe weather, including icing that can break the cable or poles and cause network outages. Alternative routes were not considered due to the lack of access roads to potential sites and lack of electrical infrastructure in portions of the PLIR, which would greatly increase the costs and make Project construction economically and environmentally infeasible. Accordingly, these options were eliminated from detailed analysis in the EA. Wireless broadband options were not considered in the EA.

Findings and Conclusions

The EA analyzed existing conditions and environmental consequences of the preferred alternative and the no action alternative in 11 major resource areas, including Noise, Air Quality, Geology and Soils, Water Resources, Biological Resources, Historic and Cultural Resources, Aesthetic and Visual Resources, Land Use and Recreation, Infrastructure, Socioeconomic Resources, and Human Health and Safety. Cumulative impacts were also evaluated.

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Noise

This Project will have short-term impacts on noise due to the use of heavy machinery such as plows or excavators. However, this noise will be restricted to the construction phase of the Project. Sensitive noise receptors along the Project route include Natchez Elementary School, Pyramid Lake Junior/Senior High School, the health clinic, the senior center, and residences. Most of these receptors are located at least 200 feet from the construction path. Moreover, because infrastructure installation will continually move along the planned fiber route, it is unlikely that construction noise will impact any sensitive receptors for more than two days. Use of the new infrastructure for data transmission will not alter ambient noise in the long-term. Emergency power generators located at each node will generate minor and intermittent noise during power outages and scheduled maintenance. Based on these assessments, no significant noise impacts are expected to occur as a result of this Project.

Air Quality

Operation of heavy equipment and vehicles for trenching and node building construction will result in emissions of air pollutants and fugitive dust. However, these air pollutant emissions will be limited to the construction period and are considered negligible in comparison to emissions currently experienced along roadway corridors adjacent to the Project ROWs. The Project will also result in short-term, minor increases in the use of fossil fuel and associated greenhouse (GHG) emissions during construction. However, considering the nature and scope of the installation, the Tribe estimates that Project-related GHG emissions will be well below the Council on Environmental Quality's presumptive effects threshold of 25,000 metric tons of carbon dioxide equivalent emissions from an action. Long-term operation of the network for data transmission will not result in ongoing air emissions, other than those associated with infrequent and short-term operation of emergency backup power generators. Based on these assessments, no significant impacts on air quality are expected.

Geology and Soils

Fiber optic infrastructure will be installed in existing ROWs and an old railroad bed. Soils in these areas are previously disturbed road base and fill. Native soils will be adversely affected only during installation of fiber laterals to buildings where an existing ROW is not available; large areas of native soil are not expected to be affected. Trenching and construction activities along small portions of the fiber route and at the node building locations may damage vegetation and surface gravel that anchor underlying native soils. However, the use of trenching for fiber installation will mitigate the need for topsoil stockpiles and minimize the opportunity for erosion. Sedimentation is not expected to be a problem because the Project will be constructed on previously disturbed road base and fill, with only small sections of native soils affected. In the long term, damage to surface soils and vegetation will recover, and no long term scarring will be visible. The new telecommunications huts will be installed on graded or paved sites in developed areas. Attachment of fiber to existing bridges will have no impact on soil or geology. Based on these assessments, no significant impacts on geology and soils are expected to occur as a result of this Project.

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Water Resources

The Project route does not cross floodplains, wetlands, or riparian zones. Furthermore, there are no designated Wild and Scenic Rivers in the vicinity of the PLIR. The planned Project does include two crossings of the Truckee River, but impacts on this water body will be minimized by hanging the fiber and conduit on existing bridges over the river. No coordination with the U.S. Army Corps of Engineers is required to implement the Project as planned. Sedimentation is not expected to be a problem, because soil erosion will be minimized through construction BMPs, the Project area is near only two surface water resources (e.g., Pyramid Lake and the Truckee River), and the area receives low precipitation. Nevertheless, because there is some potential for erosion and sedimentation, the Tribe will work with the United States Environmental Protection Agency to obtain a general construction permit under the National Pollutant Discharge Elimination System. In addition, the Tribe will develop a Project Sediment and Erosion Control Plan and Storm Water Pollution Prevention Plan, identifying appropriate BMPs to be implemented. Based on these determinations and planned BMPs, the Project will have no significant adverse impacts on water resources.

Biological Resources

Two federally listed endangered and threatened species occur in the Project area: the Cui-ui (*Chasmistes cujus*) and the Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*). In a letter dated May 25, 2011, the U.S. Fish and Wildlife Service (USFWS) Pacific Southwest Regional Office concurred with the Tribe's determination that implementation of the Project is unlikely to adversely affect these species. Furthermore, the USFWS indicates that no critical habitat has been designated for either species. On August 8, 2011, a letter was sent to USFWS clarifying the potential impacts to migratory birds, providing mitigations measure, and requesting confirmation that the use these mitigation measures would adequately prevent any impact on migratory birds. The letter to USFWS specifically noted that route does not cross any known migratory bird habitat or nesting grounds, most of the route is in previously disturbed areas and along existing roads, and the disturbance incurred through trenching activities will be temporary as one mile of trench will be completed per day, the likelihood of impacting migratory birds or other avian wildlife is minimal. Despite these facts, the Tribe proposed following mitigations activities: (1) during construction, the Tribe's Environmental Director or a designee would clear the construction route within seven (7) days ahead of disturbance on the ground to account for any nests or activities of migratory birds, for their protection. ; (2) upon request, a full report by our Environmental Director or his designee of the findings during the clearance procedure will be made available; and (3) if any nests discovered would be avoided or the nest will remain intact and undisturbed until the nest is abandoned. In letter dated August 25, 2011, the USFWS also concluded that Project-related impacts on migratory birds will be negligible, provided that the Tribe implements the above mentioned minimization measures.

The Tribe also consulted with the Nevada Natural Heritage Program (NHP) on this Project. In a letter dated March 23, 2011, the NHP identified one Nevada Bureau of Land Management and

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United States Forest Service Sensitive Species in the Project area: the California floater (*Anodonta californiensis*) which can be found in the Truckee River. The NHP indicated that this species “should be considered if disturbances are anticipated in the area.” Because fiber will be installed aerially over the Truckee River, the Tribe does not anticipate any significant impacts on the Truckee River or sensitive species therein.

Based on these assessments, no significant adverse impacts on biological resources are anticipated to result from Project implementation.

Historic and Cultural Resources

NTIA initiated formal consultation with the Nevada State Historic Preservation Office (SHPO) on October 14, 2010. On January 5, 2011, the SHPO indicated that a number of previous archaeological resources have been recorded in the immediate vicinity of the Project area. In that letter, the SHPO also recommended that the Tribe conduct a Class III archaeological survey of the Project’s area of potential effect (APE). In early August 2011, a Cultural Resources Inventory was submitted to the SHPO that identified, documented, and evaluated 23 cultural resources (19 historic sites and 4 prehistoric sites) for eligibility with regard to the National Register of Historic Places (NRHP). The Cultural Resources Inventory Report concluded that none of the 19 historic sites were eligible for inclusion on the NRHP. Additionally, three of the prehistoric sites were not eligible for the NRHP. The fourth site, identified as RV3 a large prehistoric habitation site with 56 artifacts and buried deposits, was eligible under the NRHP. However, based on its review of the report, NTIA determined the project would have No Adverse Effect on Historic Properties provided that the fiber construction remains 35 meters from Site RV3; remains restricted to non-contributing proportions of the Fernley Lassen Railway (RV10); restricts vibration in Wadsworth as described in the report to avoid historic buildings; employs tribal archaeological monitors during construction; and follows outlined measures for inadvertent discovery. Following its review and determination, on August 1, 2011, NTIA sent a letter to Nevada SHPO requesting review and concurrence with the no effect determination. On September 2, 2011, Nevada concurred, via letter, with NTIA that that 23 of the sites were not eligible for NRHP and the Project will have no adverse impact on site RV3, as long as avoidance measures described in NTIA’s letter are followed by the Tribe.

On October 22, 2010, NTIA notified eight Native American Tribal representatives, including the Museum Collections Manager of the Pyramid Lake Paiute Tribe, of the Project through the Federal Communication Commission’s Tower Construction Notification System (TCNS). On January 5, 2011, the Fallon Paiute-Shoshone Tribe indicated that they have no interest in this Project. However, they requested notification in the event that cultural resources are inadvertently discovered during Project implementation. No formal response has been received from the remaining seven Tribes. Consequently, if construction-related ground-disturbing activities uncover cultural materials (i.e., structural remains, historic artifacts, or prehistoric artifacts), the Tribe will stop all work in the area and immediately notify other interested Tribes, the SHPO, and NTIA. If ground-disturbing activities uncover human remains, the Tribe will

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immediately stop all work in the area, secure the area around the discovery, and notify the relevant law enforcement personnel (e.g., local police or county coroner) and NTIA.

Based on completed cultural resources reviews and consultations, the Project is not expected to have significant adverse impacts on historic or cultural resources.

Aesthetic and Visual Resources

Project implementation will result in short-term visual impacts during construction. These impacts are associated with the presence of construction equipment, storage of equipment and materials, and removal of vegetation. However, construction vehicle traffic and Project activity will move along the fiber route; thus, the viewshed from the Project site will not be permanently affected. Furthermore, no long-term impacts on this resource area are anticipated to result from fiber installed underground, as this infrastructure will not be visible. Lack of vegetation will be evident along the trenching route until the area is successfully reclaimed. The Project site is not designated as wilderness land, nor is it adjacent to any wilderness areas in the reservation. The node buildings will be located in developed areas of Sutcliffe and Wadsworth and situated among other buildings. The buildings will be painted brown or other neutral color to blend in with the surrounding natural landscape. During winter, these structures may be slightly visible if snow covers the ground. Based on these assessments, this Project will not significantly affect aesthetic or visual qualities in the region.

Land Use

The planned fiber installation does not conflict with the Tribe's designated land uses and management objectives for the PLIR. Most of the fiber route will be installed within ROWs managed by the NDOT or the Pyramid Lake Paiute Tribe Roads Department. NDOT has granted access to their ROWs in the past for other utility projects, and continued cooperation is expected. Land use in the planned node building locations will shift from parking to utility infrastructure, but the generally developed nature of these areas will not change. Based on these findings, no significant adverse impacts on land use are expected to result from Project implementation.

Infrastructure

The Project will enhance telecommunications infrastructure on the PLIR by adding 44 miles of broadband fiber optic cable and connecting 29 CAIs to the new network. The two node buildings and numerous handholes to be installed will also support future network expansion. This new infrastructure will improve the quality of living in an underserved community and improve land values as a Tribal asset. It is anticipated that existing roadways can adequately handle the types and volume of construction traffic required for this Project. It is also expected that connection of the node buildings to existing electricity infrastructure will not place excessive demands on the power grid. Overall, this Project is expected to have a positive impact on infrastructure in west central Nevada.

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Socioeconomic Resources

The Project will enhance broadband access among underserved users on the PLIR. This improved broadband access will result in socioeconomic benefits such as economic development and improvements to public safety, tourism, healthcare, education, and employment opportunities. No residents, minority, or low-income populations or businesses will be displaced as a result of Project implementation. Rather, these populations are expected to benefit from enhanced broadband access on the PLIR. Overall, this Project is expected to have a positive impact on socioeconomics in the planned service area.

Human Health and Safety

The Project is not expected to have any direct impacts on human health and safety during normal operation. However, human health and safety concerns may arise during construction, particularly when working in close proximity to traffic. The Project will be implemented by experienced contractors and trained personnel. General public and worker safety on the construction sites will require safe vehicle movement safety, personal protective equipment, and proper operation of safety equipment in strict adherence to company, Tribal, and Federal rules and regulations (including OSHA). The contractor will submit a Health and Safety Plan to the Tribe to ensure that Tribal response teams are equipped with all appropriate emergency information. Based on these considerations, significant adverse impacts on human health and safety are not expected. Conversely, improved telecommunications infrastructure may actually improve human health through telemedicine, and public safety through better emergency management communications.

Cumulative Impacts

The Tribe did not identify any significant cumulative impacts that will result from Project implementation. However, minor cumulative impacts may be associated with air emissions and noise due to other actions occurring on Tribal lands and surrounding non-tribal lands, in combination with the Project. There will be very little long-term cumulative disturbance of vegetation, and the total amount of vegetation to be removed for this Project is small compared to that present within the reservation and on surrounding lands. The Project is expected to act as a minor positive stimulus to the economy of the local area. No significant adverse cumulative impacts will result from concurrent implementation of these projects.

Decision

Based on the above analysis, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, identified BMPs, and protective measures, will not require additional mitigation. A separate mitigation plan is not required for the Project. The analyses indicate that the proposed action is not a major Federal action that will significantly affect the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

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