

**National Telecommunications and Information Administration  
Broadband Technology Opportunities Program  
Finding of No Significant Impact  
Citizen's Telephone Cooperative  
New River Valley Regional Open Access Network Project**

**Summary**

Citizen's Telephone Cooperative (Citizens) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install approximately 186 miles of new fiber, construct two telecommunication equipment huts, and install network equipment in 17 existing buildings. While the new network will be a hybrid of aerial and buried fiber, most of the fiber will be installed underground by direct bury or directional boring within existing rights-of-way (ROWS). A portion of the fiber will be installed aerially on new and existing poles. The new fiber network will provide middle mile service to critical community facilities, including public schools, industrial authority properties, medical facilities, state and local emergency services, and higher education facilities. The proposed action passes through seven counties in southwest Virginia, and is referred to as the New River Valley Regional Open Access Network (NRV-ROAN) Project (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to Citizens, 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.

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

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The Project includes:

- Installing a hybrid broadband network of aerial and buried fiber, with associated hand holes and pedestals, in existing ROWs throughout seven Virginia counties;
- Installing approximately 30 miles of fiber aerially by attaching to new and existing poles;
- Installing approximately 156 miles of buried fiber by direct bury or directional boring;
- Attaching fiber to bridges within existing conduit, where possible;
- Installing network equipment inside 17 existing buildings throughout the Project area; and
- Constructing two telecommunication equipment huts in previously disturbed areas along the Project route.

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/](http://www2.ntia.doc.gov/)) and the following contact:

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### **Purpose and Need**

The current high-speed broadband providers in southwest Virginia do not have adequate bandwidth to meet the demands of businesses and individuals in the area. The Project area is currently underserved by open-access, middle mile fiber; the proposed route is currently unserved and lacks existing continuous fiber routes. The purpose of the Project is to expand existing open-access fiber into unserved and underserved communities within seven counties in Virginia. The new fiber network will provide service to critical community facilities, including public schools, industrial authority properties, medical facilities, state and local emergency

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services, and higher education facilities. The Project also may stimulate further demand for broadband through economic growth and job creation. Without the new middle mile fiber, affordable broadband options at the needed bandwidth would not be available to many businesses and residents in the area.

**Project Description**

Citizens will install approximately 186 miles of new fiber, construct two prefabricated telecommunication equipment huts, and install network equipment at 17 building locations. The new network will provide middle mile service to critical community facilities throughout seven counties in southwest Virginia. The majority of the fiber network will be buried via direct bury or directional boring, while the remaining portion of the route will be installed aerially on new and existing poles. Construction will take place in previously disturbed areas, primarily within existing public ROWs. In addition, the Project will construct two new prefabricated telecommunication huts in previously disturbed areas along the Project route.

Approximately 156 miles of the route fiber will be installed underground, in existing ROWs, by direct bury or directional boring. The majority of the fiber route will be installed 30-inches underground in existing ROWs, by direct bury. This method uses heavy equipment excavators or hand digging to create the trench and backfill with excavated soil. Fiber optic cable will be installed across streams and rivers either by burying the cable over existing culverts within the shoulders of existing ROWs, using directional boring techniques, or hanging the cable on new or existing poles or bridges. Directional boring will be used to avoid selected sensitive ecological resources, such as wetlands, streams, rivers, or threatened/endangered species habitat, and construction-limited areas, such as driveways and roadways. The directional boring method involves excavating pits at the cable entry and exit points, drilling a horizontal cable pathway between the points, installing conduit, pulling the cable back through the conduit, and backfilling the pits. Bore pits, measuring approximately 3 feet by 18 inches, will be dug at both access points along the route to access the fiber.

Hand holes and pedestals will also be installed along the fiber route. Pedestals will be stake mounted and installed 6 to 8 inches below grade. During pedestal installation, a hole is excavated wide enough to install the pedestal at the desired grade below ground. Once the pedestal is mounted, the excavated area is backfilled as needed. Hand holes will be used where above ground pedestals are not desired. A hole approximately 6 inches deeper than the depth of the hand hole is excavated with approximately 6 inches of gravel or crushed rock added at the bottom of the hole for drainage. The hand hole will be installed so that the top of the enclosure is flush with the soil surface, and the hole is filled with the excavated soil. The disturbed area will be re-sodded and/or reseeded as necessary.

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Approximately 30 miles of aerial installation will be used in previously disturbed areas where underground installation is not feasible and/or when existing poles can accommodate the new fiber optic cable. This method involves attaching a cable to the poles and lashing the new fiber cable to the strand. Some poles may need to be installed, replaced, or reinforced by an additional anchor. Twenty-five new poles will be installed to cross streams/streams, railroads, and an interstate highway due to the lack of existing poles along the project route. Although currently no utility poles are proposed to be replaced, field conditions of the existing poles may necessitate replacement. For new and replacement poles (if found to be necessary due to field conditions), a hole approximately 12 inches wide and 5 feet deep is drilled. The base of the pole is then inserted and the excavated soil is compacted back into the hole to stabilize the pole. During anchor installation, a hole approximately 8 inches wide by 4 feet deep is drilled. The anchor is placed in the bottom of hole and expanded, and the hole is filled with the excavated soil. Any area that is disturbed will be reseeded and straw will be used to prevent erosion. For some stream crossings, the fiber optic cable will be routed through existing conduit currently attached to bridges.

Citizens will install network equipment in 17 existing buildings, including elementary and high schools, colleges, hospitals, the New River Valley Regional Jail, and the New River Valley Airport. The equipment for these buildings will be placed within an existing room inside each facility. Fiber will be brought into these buildings using existing cable pathways.

Citizens will also construct two new prefabricated concrete equipment huts in previously disturbed areas along the Project route. The building structures will measure 14 feet wide by 20 feet long by 9 feet high. Each of the two hut sites will be secured to a concrete slab, measuring 2,500 square feet, which will require minimal excavation and grading. The new huts will be located at the Pulaski County Corporate Park and in the back yard of a residence at 735 Peppers Ferry Road in Christiansburg. The house located at 735 Peppers Ferry Road was purchased by Citizens in April 2011 in order to place the equipment hut in close proximity to the intersection of Route 460 and Peppers Ferry Road.

### **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.

*Hybrid Underground and Aerial Fiber (Preferred Alternative).* The Project involves installing 186 miles of new fiber, constructing two telecommunication equipment huts, and installing network equipment in 17 existing buildings. The network will provide middle mile service to

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critical community facilities. The new fiber optic cable will be installed aerially on new and existing pole lines, attached to bridges, and buried via direct bury and directional boring.

*Aerial Alternative.* In contrast to the Preferred Alternative, this alternative would install the entire fiber route aerially on new and existing utility poles. Because of the limited availability of existing poles, many new poles would need to be installed along the route. Therefore, this alternative would be substantially more expensive due to the cost of improving and expanding existing utility pole infrastructure. Additionally, installing new poles would be time-consuming and require that Citizens obtain easements from private property owners along the route. After evaluation against the Preferred Alternative, it was determined that the all aerial alternative does not satisfactorily meet the purpose and need of this Project.

*All-Buried (Underground) Alternative.* In contrast to the Preferred Alternative, fiber lines would not be hung from existing poles or bridge structures, and the entire route would be buried. Water resources would be crossed using directional boring, and additional permitting and consultation may be required for sensitive habitats (e.g., wetlands and stream crossings). After evaluation against the Preferred Alternative, the all buried alternative was eliminated due to increased cost and construction time, and substantially greater environmental impacts along the route.

*No Action Alternative.* No action was also considered. This alternative represents conditions as they currently exist in these seven rural counties. Under the no action alternative, new fiber infrastructure would not be constructed. The communities would continue to be unserved or underserved with respect to broadband internet access. Additionally, broadband services would not be provided to critical community facilities in the Project area. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives being considered.

*Alternatives Considered But Not Carried Forward.* Citizens considered an all-wireless telecommunications network. However, wireless technology is not a viable alternative because of the inability to provide the capacity or speed to fully meet the purpose and need of this Project. In addition, a wireless broadband network is not feasible at long distances due to the mountainous terrain in the Project area. Citizens also considered using satellite broadband. However, while satellite broadband is available in the region, there is no feasible way to increase the capacity of the service to meet the needs of local governments, schools, anchor institutions, businesses, and residents. Citizens also considered using existing copper infrastructure because in many parts of the region, old copper infrastructure is widely available for use. Ultimately, the alternative of using existing copper infrastructure was eliminated due to the extremely limited capacity of copper infrastructure to carry data.

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**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, Infrastructure, Socioeconomic Resources, and Human Health and Safety.

***Noise***

This Project will have no impacts on noise during long-term operation. However, short-term increases in ambient noise levels are expected during the construction period. Noise created by machinery used during installation will be temporary and localized in nature. During construction, contractors will respect local noise ordinances with trucks and machinery producing a decibel level similar to or moderately above that of ambient traffic noise levels. Construction noise will only occur during daylight hours and will not be sustained in any one area at length. Based on these considerations, no significant impacts on or resulting from noise are expected to occur as a result of Project implementation.

***Air Quality***

Potential impacts on air quality will be slight during long-term operations. Implementation of the Project, however, will result in minimal short-term impacts on air quality resulting from construction activities. Fiber will be installed underground via direct bury or directional boring, and will result in minor disturbance of the ground surface, which could create fugitive dust. Negligible fugitive dust emissions will also be generated during construction of the two prefabricated huts. Citizens will follow the Virginia Administrative Code (VAC) 9 VAC 5-50-60 et seq., governing abatement of visible emissions and fugitive dust emissions. Citizens will implement BMPs to limit fugitive dust emissions, including applying water to suppress dust and washing construction vehicles and paved roadways immediately adjacent to the construction site. A short-term minor increase in the use of fossil fuel and associated greenhouse gas (GHG) emissions will occur as a result of Project construction, but the emissions will be below established thresholds. Based on these considerations, construction of the planned network is not expected to have significant adverse impacts on air quality.

***Geology and Soils***

Fiber optic cable will be installed aurally on new and existing pole lines, attached to bridges, and buried via direct bury and directional boring within existing ROWs. The Project's fiber route will be installed primarily underground using a cable plow. This method will produce a narrow, shallow slit or trench that creates minimal ground disturbance. Currently, no utility poles have been identified for replacement, but if deemed necessary, any replacements, as well as the 25 new poles, will disturb a limited amount of soil in the localized vicinity of each pole. Any

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excavated soil associated with pole installation will be used to stabilize the installed pole. Each new hut site will disturb 2,500 square feet of soil in previously disturbed areas.

Karst features also are located within the vicinity of the Project. Citizens coordinated with Virginia Department of Conservation and Recreation's (VDNR) Karst Protection Coordinator regarding potential karst features within the Project area, with the conclusion that it is unlikely that impacts to karst or groundwater would occur as long as applicable erosion control measures and BMPs are implemented. Citizens will implement appropriate BMPs to prevent sedimentation and erosion impacts in the Project area. In addition, the Natural Resources Conservation Service (NRCS) concluded there would be no impact on prime soils or farmlands for this Project. Consequently, the Project is not expected to result in significant adverse impacts on geology or soils.

***Water Resources***

Project construction activities are anticipated to have minimal impact to water resources. There are approximately 104 stream and/or river crossings, and 14 wetlands crossings, along the Project route. Fiber optic cable will be installed across streams and rivers either by burying the cable over existing culverts within the shoulders of existing ROWs, using directional boring, or hanging the cable on new or existing poles or bridges. No direct in-stream work will occur during this Project. Where applicable, Citizens will implement erosion and control measures provided by the Virginia Department of Conservation and Recreation, Virginia's Erosion and Sediment Control Program. BMPs will also be implemented to minimize wetlands impacts along the project route. These will include operation of machinery and construction vehicles outside of wetlands, and stockpiling material excavated from the trench for use as wetland seed and root stock in the excavated area.

Citizens has communicated with and is in consultation with the U.S. Army Corps of Engineers (USACE), Virginia Department of Environmental Quality (DEQ), and Virginia Marine Resource Commission (VMRC) regarding all planned water crossings. Citizens also is working to obtain applicable Section 404 permits for all river and stream crossings. In letters dated January 7 and February 4, 2011, the USACE Blue Ridge Field Office and West Central Field Office, respectively, stated that, based on information provided, no permits will be required for work crossing streams. Proposed stream crossings will be accomplished via directional boring, aerial inserts, or burying over existing culvert crossings within the shoulders of existing ROWs. No in-stream work is anticipated. The USACE recommended that Citizens contact the VMRC for aerial and/or directional bore stream crossing permits that may be required for this Project.

Two stream crossings are proposed along the New River and several along the Roanoke River, which is also designated as a Scenic River. The New River crossing on Route 11 will be accomplished through existing conduit along a bridge. The New River crossing on Route 114 will be aerial utilizing existing pole structures. All crossings of the Roanoke River will also be

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aerial utilizing existing pole structures, so no impacts are anticipated. A Joint Permit Application is currently underway with the VMRC, DEQ and the USACE for aerial and directional bore stream crossings.

There are no coastal management zones within the Project area. Therefore, no impacts to coastal management zones are anticipated. During construction, there may be a temporary, minor disturbance of floodplain areas, but no long-term impacts are anticipated. Citizens will avoid disturbance of floodplain areas by either installing the fiber underground through directional boring, aurally on new and existing poles, or within existing conduit along bridges. No new construction of equipment huts will occur in the floodplain areas.

Virginia Department of Transportation (VDOT) requires a minimum buried depth of 30 inches along the ROWs and 36 inches for road crossings and directional boring. DEQ identified 6 out of 498 wells within the seven counties as having a water table less than 4-feet deep. On March 24, 2011 the VDCR confirmed via email correspondence that the water table lies below the bottom of the proposed trenches for most of the Project area. The only exceptions include wetland areas and possibly following heavy precipitation events. VDCR also stated that the likelihood of construction activities having a significant impact on local aquifers is very low, especially if proper erosion and sediment control measures are implemented. Citizens has agreed to contact VDCR if a sinkhole collapse occurs or if a cave entrance is discovered during the project design or implementation. The majority of the buried fiber will be installed 30 inches below the surface and new utility poles will be placed in 5-foot holes. Therefore, no significant direct or indirect impacts to groundwater resources are anticipated. By avoiding construction in waterways, and implementing erosion and sediment control BMPs, Citizens will be able to construct the network with no significant adverse impacts on water resources.

***Biological Resources***

The preferred alternative may result in minor impacts on biological resources. Some disturbance to the ground surface will occur during construction activities, which will be limited to existing ROWs and previously disturbed areas. The installation of two prefabricated huts will disturb 2,500 square feet at each new site.

Citizens consulted with the U.S. Fish and Wildlife Service (USFWS) and VDCR regarding biological resources. In a letter dated November 26, 2010, the USFWS provided information on federally-listed or proposed, threatened or endangered species, or critical habitat known to occur in the Project area(s). Citizens identified two sites along the route, Progress Park in Wythe County and an I-81 access road in Pulaski County, as having potential suitable habitat for the smooth coneflower (*Echinacea laevigata*). In a follow up email to the USFWS, Citizens provided management measures to avoid or minimize impacts to these two smooth coneflower locations. In an email response dated March 3, 2011, the USFWS concurred that based on the proposed project design at these two locations, the Project will not likely adversely affect this

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species. Clarifying information was provided to the USFWS for proposed changes in route locations, new aerial and buried fiber segments, and the relocation of infrastructure. In a letter dated April 28, 2011, the USFWS confirmed that, based on the proposed changes provided by Citizens, the Project will not impact federally listed species or designated critical habitat. The USFWS also requested additional consultation if the Project plans change or if additional information of listed species or critical habitat becomes available.

The following avoidance measures will be implemented by Citizens along the project route. To avoid impacts to the smooth coneflower, manual labor, in lieu of heavy machinery, will be used to attach fiber on existing poles along 0.25 miles of potential habitat located on the Progress Park site. Citizens will also flag potential smooth coneflower habitat and require construction personnel to avoid these areas. To minimize potential impacts to the smooth coneflower along the I-81 access road, fiber optic cable will be directionally bored beneath these areas with 100 foot buffers on either end. Best management practices will be implemented along the Project to minimize potential erosion and sedimentation and avoid potential impacts to threatened and endangered species.

In a letter dated December 22, 2010, the VDCR provided information on listed rare, state threatened, or endangered species within the Project area. VDCR determined that there are records of one state-listed species, the smooth coneflower, and one species of concern, the hellbender salamander, along segments of the proposed fiber optic routes. In accordance with VDCR's recommendation, Citizens will implement avoidance and management measures, as stated above, and erosion and sedimentation controls to avoid or minimize impacts on these species. The VDCR also noted areas of stream conservation and aquatic biodiversity significance along the proposed route. Citizens will avoid impacts on such resources through project design -- by boring under or installing aerially on poles to such aquatic resources.

Based on this analysis and implementation of the recommended protective measures, Citizens will be able to construct the network with no significant adverse impacts on biological resources.

***Historic and Cultural Resources***

Early in 2010, the New River Valley Development Corporation (NRVDC) contacted the Virginia Department of Historic Resources (State Historic Preservation Office [SHPO]) regarding the proposed Project. On February 12, 2010, the NRVDC provided additional Project information to the SHPO. In a response letter dated March 4, 2010, the SHPO determined, based on the information provided, that installing equipment in existing buildings older than 50 years of age will not diminish the significance of these structures. The SHPO also recommended the avoidance of three archaeological sites (44PU0018, 44PU0106, 44PU110). The SHPO also advised Citizens to contact the Salem District of Virginia Department of Transportation (VDOT) for information about these three archaeological sites and to obtain any necessary permits. The

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SHPO concluded their letter with a proposed finding of No Adverse Effect on historic properties provided that the following conditions are met:

1. Citizens will contact the Salem District VDOT archaeologist to discuss potential effects on archaeological sites within the ROW.
2. Citizens will work with a qualified archaeologist to develop a plan to ensure avoidance of the three identified archaeological sites (44PU0018, 44PU0106, 44PU110).
3. Citizens will provide the SHPO with a detailed description of how the identified sites will be avoided.
4. No project activity involving ground disturbance may occur until the SHPO has reviewed and approved the plan for avoidance.

On October 13, 2010, NTIA formally initiated consultation on behalf of Citizens with the SHPO. NTIA provided the SHPO with a full project description and associated maps for the Project area. Citizens also provided the SHPO with the appropriate *Project Review Application Form*. Following the initiation letter, Citizens engaged the New River Valley Planning District Commission (Commission) to analyze the archeological and architectural resources within the Project's area of potential effect (APE). A records check identified 39 archaeological sites within approximately 25 feet of the proposed Project area. Of these sites, only two are eligible for listing on the National Register of Historic Places (NRHP), 13 sites are not eligible, and the remaining 24 sites have not been evaluated for eligibility. The Project will also pass within approximately 25 feet of 172 identified architectural resources; thirty of the identified sites are eligible for listing, while 65 are not eligible for listing on the NRHP. The remaining 77 historical sites have not been evaluated for their eligibility.

On December 7, 2010, the Commission submitted a cultural resource evaluation to the SHPO. On January 10, 2011, Citizens notified the SHPO of a route change that could affect the SHPO's review of the submitted information, and also provided the SHPO with updated maps and resource information. In a response dated January 12, 2011, the SHPO recommended a finding of No Adverse Effect on historic properties for the proposed Project provided that a plan for avoidance of eligible and potentially eligible archaeological sites is implemented. The SHPO suggested a few changes to the avoidance plan and also provided additional information on property eligibility. The SHPO also concurred that the proposed equipment huts will not affect historic properties.

In March 2011, the Commission notified the SHPO of route changes to the Blacksburg Loop and the hut location in Christiansburg. In a letter dated March 22, 2011, the SHPO confirmed their finding of No Adverse Effect on historic properties, provided that the conditions outlined in their March 4, 2010 letter are met (as described above).

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In order to meet the requirements of the March 4, 2010 SHPO letter, as described above, Citizens consulted with the Salem District VDOT regarding potential cultural resources along the Project route. In an e-mail dated June 15, 2011, VDOT requested that in addition to the three identified archaeological sites, cemeteries 50 years of age or older located within VDOT ROW also be avoided. Citizens identified 17 cemetery sites along the Project route; however, 13 of these sites will be avoided and no further evaluation is required. Four of these 13 sites will be avoided by installing fiber on existing poles without any ground disturbance. Existing fiber will be utilized adjacent to 5 of the 13 cemetery sites, which will not require any ground disturbance. Citizens will bury fiber on the opposite side of the road from 3 of the 13 cemetery sites. An additional cemetery site will be avoided by burying the cable in the road median. The remaining four cemetery sites along the Project route were visited by a qualified archaeologist and included in the plan of avoidance. In an e-mail dated June 16, 2011, the SHPO confirmed that in visiting the sites, no permits are required as long as the visits constitute visual inspection only, and that if any digging or collection of artifacts is necessary, Citizens would have to obtain a state lands permit (which covers archaeological investigations on state-owned lands). In an email dated June 20, 2011, VDOT concurred with the planned approach for these 17 cemetery sites.

Citizens worked with a qualified archaeologist, Dr. Charles (Cliff) Boyd from Radford University, to analyze and develop a plan of avoidance for the three archaeological sites and four cemetery sites identified along the Project route. Upon reviewing the proposed Project near the three archaeological sites, Dr. Boyd determined that the fiber will be located in the median between the north and south lanes of Route 100 within previously disturbed areas. For the four cemetery sites, Dr. Boyd determined that the proposed fiber route will be located in the road median near Cemetery 1; the fiber will be installed in a VDOT ROW for Cemetery 2; and for Cemeteries 3 and 4 the proposed fiber route will be separated from the cemetery by a preexisting road. Based on this assessment, Dr. Boyd concluded that the proposed fiber route will not adversely affect any intact cultural or archaeological resources in these areas. A summary of this assessment, titled *An Evaluation of Potential Impacts of Broadband Line Construction by the New River Valley Planning District Commission*, was provided to the SHPO on June 27, 2011.

The SHPO responded in a letter dated June 27, 2011, that based upon the documentation provided in Dr. Boyd's assessment, Sites 44PU0018, 44PU0106, and 44PU0110 will not be affected by the proposed Project. The SHPO also agreed that Cemeteries 1, 3 and 4 will not be affected by the proposed Project. In addition, the SHPO requested the avoidance of the Rockford Church Cemetery (Cemetery 2), located on the same side of Brooklyn Road as the proposed route, by either installing the fiber aerially or moving the route to the opposite side of the road. The SHPO confirmed their finding of No Adverse Effect on historic properties, provided that the conditions outlined in their March 4, 2010 letter are met and the Rockford Church Cemetery is avoided. Citizens will avoid the Rockford Church Cemetery site by re-routing and burying the fiber along the opposite side of Brooklyn Road. Citizens provided additional mapping and documentation confirming the avoidance of this cemetery site to the

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SHPO, therefore meeting the stipulations set forth in the March 4, 2010 SHPO letter, as described above, and satisfying subsequent analyses required by VDOT. On June 27, 2011, VDOT indicated that they would waive their right to provide comments on the report to document the conclusions of the analyses, as long as Citizens employed the previously-agreed upon methodology to address the 17 cemeteries and that the SHPO review the findings. On June 28, 2011, the SHPO concurred with the avoidance plan and Dr. Boyd's final findings and recommendations. The SHPO also indicated that Citizens should implement the BMPs to address concerns about possible unmarked cemeteries in the ROW.

On October 22, 2010, NTIA notified seven Native American Tribes of the Project through the Federal Communication Commission's Tower Construction Notification System (TCNS). One Tribe indicated no interest in the Project, by providing no response within 30 days after the TCNS notification. Two Tribes responded (via TCNS) that they have no interest in the Project, but requested that the SHPO and the Tribe be notified in the event of unanticipated discoveries. Four other tribes requested additional information on the Project. Citizens provided additional information to these tribes, as requested. After review of the additional detail provided, the Eastern Band of Cherokee Indians requested additional information from Citizens, including the locations of the telecommunications huts, research documentation, and the SHPO consultation correspondence, which was provided to the Tribe on May 24, 2011. The Tribe responded on May 25, 2011, with a request for more information about 15 distinct sites and a request for a copy of the EA and avoidance plan, once available. Citizens provided the detailed site maps and information about the plan for avoidance on May 26, 2011, and followed up on June 28, 2011, with a copy of the draft EA and plan of avoidance for their review. The remaining three Tribes that requested and received additional information from Citizens have not responded as of June 28, 2011.

All construction will be restricted to previously disturbed areas. If Project construction activities uncover cultural materials (e.g., structural remains, historic artifacts, or prehistoric artifacts), Citizens will stop all construction work and will immediately notify interested Tribes, Nations, the SHPO, and NTIA. If earth-disturbing activities uncover human remains, all work will cease immediately, in accordance with the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) and relevant State statutes. The area around the discovery will be secured and appropriate law enforcement personnel and NTIA will be notified immediately.

Based on these consultations and guidance from the SHPO, the Project is not expected to have significant adverse impacts on historic and cultural resources.

***Aesthetic and Visual Resources***

The Project involves installing fiber optic cable by burying the cable underground in existing ROWs and aerially on new and existing poles, routing cable through existing conduits along bridges, and constructing two huts in previously disturbed areas. Fiber installation will have a

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short-term, minor, and temporary impact on aesthetic and visual resources due to the presence of construction equipment and limited soil disturbance. The new equipment hut proposed in Pulaski County will be located in an industrial/agricultural setting alongside trees lining Pepperell Way, a two lane road that dead-ends into an industrial park. The second equipment hut will be placed in the back yard of a residence at 735 Peppers Ferry Road in Christiansburg, which is owned by Citizens. This location was selected in order to place the equipment hut in close proximity to the intersection of Route 460 and Peppers Ferry Road. The hut's roof will be seen by passers-by, but the backyard slopes downward and the hut will not be fully visible from the road. A few nearby residences may see the new hut, but the size of the hut is similar to a large storage shed. The long term effects on aesthetics will be negligible and will not affect the overall character of the area. Accordingly, the Project is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

***Land Use***

The Project's fiber route will be installed underground in existing ROWs or attached to bridges, through existing conduit, at certain water crossings. There will be no change in the existing land use due to the aerial and underground fiber installation. The two telecommunication huts will be constructed in previously developed areas and will not change the current use of those properties. Citizens will obtain the necessary permits from the Virginia Department of Transportation to place the fiber optic cable within the roadway/highway ROW, and from all railroad companies whose rail lines will be crossed. Therefore, the Project will have no significant adverse impacts on land use.

***Infrastructure***

The Project will improve communications infrastructure and is expected to improve the transfer of information between CAIs, businesses, and individuals residing within the communities along the Project route. The Project's aerial fiber route will require 25 new utility poles along the route. Existing buried utilities will be identified, located, and avoided. Citizens will obtain the necessary local permits to place the fiber optic cable within the roadway/highway ROW. Overall, the Project will have a positive impact on infrastructure across seven counties in Virginia, and is not anticipated to result in significant adverse impacts on infrastructure.

***Socioeconomic Resources***

The Project will expand the region's existing fiber optic networks across the Appalachian Region and the New River Valley of Virginia. The project will create jobs, provide greater broadband access for educational institutions, and advance health care innovation in unserved and underserved areas. Additional benefits include affordable broadband access for local consumers and businesses. The Project will have positive impacts on socioeconomic resources, and is not anticipated to result in significant adverse impacts on socioeconomic resources.

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***Human Health and Safety***

Several hazardous waste sites have been identified near the project area. However, it is unlikely that hazardous wastes will be encountered during Project installation due to the shallow depth of the proposed project installation procedures and because construction will be completed within existing and previously disturbed ROWs. If contaminated soils are encountered, Citizens will discontinue work and notify local emergency services as well as local governments. BMPs for workplace safety will be implemented to protect workers and the public. Contractors will adhere to all federal, state, and local safety and health laws and regulations under the applicable Occupational Safety and Health Administration (OSHA) and Department of Transportation (DOT) guidelines to ensure compliance with proper safety and installation procedures. With implementation of these protection measures, the Project will not generate any significant adverse worker or traffic-related health or safety issues.

***Cumulative Impacts***

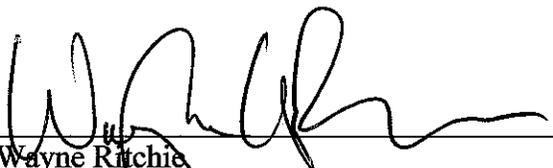
As described above, the Project will not have significant adverse impacts on any of the environmental resource areas evaluated in the EA. Citizens identified several other utility and construction projects in the area that are planned to take place during the duration of this project, including a large earth-moving project for the Wythe County Progress Park and water and sewer utility projects for the New River Valley Commerce Park in Pulaski County. Citizens determined that these projects, and other smaller projects in the region, will not increase the cumulative impacts to this project and will not create unanticipated issues. Citizens will coordinate with the local utilities and identified construction projects to avoid excessive disturbance to the soils, wildlife, and the overall environment during project implementation. As such, no cumulative impacts on the environment are anticipated.

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**Decision**

Based on the above analysis, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, identified BMPs, identified protective measures, and planned consultation studies, 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.

Issued:

  
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Wayne Ritchie  
Chief Administrative Officer  
Office of Telecommunications and Information Applications  
National Telecommunications and Information Administration

6/30/2011  
Date