National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
Virgin Islands Next Generation Network
Comprehensive Community Infrastructure Program

Summary

The Virgin Islands Next Generation Network (viNGN) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install 244 miles of fiber optic cable, acquire rights to 3,720 miles of undersea cable between Florida and Puerto Rico, and connect 325 community anchor institutions (CAIs). Installation of the fiber optic cable will create a core-ring fiber-optic system in underground conduit on the islands of St. Thomas, St. John, and St. Croix with aerial service to outlying areas. The territory-wide middle mile network will connect the CAIs with reliable high-speed internet services. Establishing an Indefeasible Right of Use (IRU) agreement for the existing undersea cable will strengthen the U.S. Virgin Island's (USVI) external broadband connections. The proposed action is referred to as the Comprehensive Community Infrastructure Program (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to the viNGN 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 is driven by the laws and regulations governing the use of this ARRA grant funding.

BTOP supports the installation 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.

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

The Project includes:

- Installing 244 miles of fiber to form a new network and deliver broadband service between 10 megabits per second (Mbps) and 10 Gigabits per second (Gbps) to anchor institutions and local internet service providers;

- Installing new underground conduit and fiber-optic cable in existing public roadways and rights-of-way (ROWs) (22 miles on St. Thomas and 20 miles on St. Croix);
- Installing fiber optic cable in existing conduit owned by the Virgin Islands Water and Power Authority (VIWAPA);
- Installing 202 miles of fiber optic cable aerially on existing utility poles;
- Constructing 38 fiber network access points consisting of enclosures approximately 10 feet by 12 feet, and by utilizing some existing structures;
- Acquiring use rights to 3,720 miles of undersea cable between Florida and Puerto Rico; and
- Providing direct connections to as many as 325 anchor institutions, including 42 public safety entities, 92 K-12 schools (NTIA Broadband Fact Sheet 2010), 7 libraries, 4 colleges, 19 healthcare facilities, and 123 government buildings and centers.

Based on a review of the analysis in the EA, NTIA has determined that the Project, implemented in accordance with the preferred alternative, in compliance with the executed Programmatic Agreement (PA) and Memorandum of Agreement (MOA) addressing historic and cultural resources, 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 next-generation network broadband access to the U.S. Virgin Islands (USVI) by installing fiber optic broadband infrastructure to every anchor tenant in a manner that protects the network from major storm and hurricane damage. The Project is needed to correct access and security deficiencies of the existing USVI broadband system. The need for the project is further defined by the lack of dependability of the existing network during

major storm events. As documented by the United Nations Department of Economic and Social Affairs, it is estimated that only about 30,000 of the 109,750 inhabitants of the USVI were internet users in 2010, which is a penetration rate of 27.3 percent, compared with the U.S. mainland penetration rate of 77.3 percent. Also, much of the existing system is dependent on copper wire infrastructure, with internet speeds from 20 Kbps to 1.5 Mbps. Both dial-up and wire-line broadband are dependent on the local telephone company infrastructure, which degrades or is interrupted during storms and heavy rains. The Project will provide reliable high-speed broadband to the USVI, thereby providing the infrastructure to promote wider use.

Project Description

The viNGN will install a high-speed fiber network to the islands of St. Thomas, St. John, and St. Croix, creating a territory-wide middle-mile network and connecting community anchor institutions with reliable high-speed internet services. The project also will strengthen the USVI's external broadband connections through an IRU for undersea communication cables between Florida and Puerto Rico. Because the undersea cables already exist, no new undersea construction will be required as part of this project.

The terrestrial portion of the viNGN network will consist of two fiber optic "rings" on each island. The ring feature allows for separate routing of signals to two separate primary Ethernet switches. This provides redundancy and minimizes service disruptions to customers in case of a break in the fiber optic cable. On St. Thomas and St. Croix, these rings will be within an underground conduit system that houses and protects portions of the fiber optic and electrical cables. The underground conduits will provide protection from hurricane and other potential storm related damage. Laterals to neighborhoods on St. Thomas and St. Croix will be by either underground conduit or aboveground aerial installation. The routes on St. John will be all aerial, similar to the neighborhood distribution on St. Thomas and St. Croix.

The total length of new underground conduit will be 22 miles for St. Thomas and 20 miles for St. Croix. There is no new conduit proposed for St. John. Nearly all conduit will be installed within existing public roadways and ROW. New pulling manholes will be required on the new conduit spaced every few hundred feet depending upon vertical and horizontal alignment of the conduit.

To traverse paved properties such as roads and driveways, a carbide-tipped saw (or similar) will be used to cut a 2-ft path. The pavement will be removed and a trench excavated to about three feet by backhoe or similar earthmoving equipment. PVC conduit will be placed at the bottom of the trench. Conduit will be bedded in sand, crushed stone, or concrete as selected by the designer. The remainder of the trench will be backfilled with compacted soil and the pavement replaced to match the original surface. During construction, silt fences will be installed along the roadside along the route, downslope of the excavation and at all crossings of streams, guts, and other drainage ways.

In addition to installation of new conduits, existing conduit in VIWAPA duct banks will be used for portions of the route where spare conduits are available. New communications manholes will be constructed adjacent to existing electrical manholes in a few locations along these existing duct routes. The new manholes will be approximately 5 x 5x 5 feet. This infrastructure development also will occur within existing roads and public ROWs.

The aerial portions of the Project will be on existing utility poles and consist of 202 miles of new fiber optic cable. All cable on St. John, and portions on St. Croix and St. Thomas, will be aerial. The aerial segments on St. Croix and St. Thomas will connect from the belowground fiber optic "rings" to outlying neighborhoods. This installation is classified as "standard" aerial conductor construction. It has assumed that a minimum amount of "make-ready" activity will be required to adjust the positions of other conductors on the poles. Make-ready work will be confined to existing poles and will be all above ground. There are few isolated instances when the vertical space available on an existing pole is too restricted and a new replacement pole is needed. In these instances, a replacement pole will be set next to the existing pole, the aerial conductors transferred over by line workers, and the existing pole cut off at ground level. The new pole will be set by auguring a new vertical hole in the ground. Silt fencing will be installed downslope of the pole location and excess soil removed.

The viNGN also will construct 38 network access points and switches. Most switches and access points will be housed within newly constructed structures, but some will use existing buildings. For example, new network access points and switches will be installed in the existing AT&T Wire Center on St. Thomas. New structures will be in protected enclosures with security provided by either chain link fencing or screening walls. The size and configuration of these enclosures will vary depending upon the physical characteristics of the available property, but each will be approximately 10 feet by 12 feet. At some sites, a parking space will be constructed for service vehicle access. All enclosures will be weather resistant and house equipment cabinets. Independent service providers may also mount similar cabinets within the enclosures to service their customers. If back-up power is not readily available at the proposed access point location, it will be provided by batteries augmented with small self-contained generators. The access-point power requirements are small and will only require small generation units similar to small residential units. Equipment enclosures will be architecturally sensitive and compatible with adjacent structures.

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 Aerial and Buried Fiber Installation (Preferred Alternative). As noted in the Project Description, this effort will include installation of approximately 244 miles of fiber optic cable, connecting approximately 325 CAIs on St. Thomas, St. Croix, and St. John. The new network

also will use 3,720 miles of existing undersea fiber (through IRU agreements) to offer speeds between 10 Mbps and 10 Gbps. No new undersea cable will be installed. New underground conduit and fiber optic cable will be installed in existing public roadways and ROWs (22 miles on St. Thomas, 20 miles on St. Croix), as well as in existing conduit owned by the VIWAPA. Approximately 202 miles of fiber optic cable will be installed aerially on existing utility poles. Approximately 38 network access points will be constructed, consisting of enclosures approximately 10 feet by 12 feet, and by utilizing some existing structures.

No Action Alternative. No action was also considered. Under the No Action Alternative, fiber optic cable would not be installed, and existing deficiencies in service would remain. The No Action Alternative would not meet the purpose and need for the Project. However, the EA examined this alternative as the baseline for evaluating impacts related to other alternatives being considered.

All Aerial Alternative. This alternative would not use underground conduit except where conduit is already available, which is approximately 10% of the system core rings on the islands of St. Thomas and St. Croix. St. John would not have below ground conduit sections in either the Preferred Alternative or the All Aerial Alternate. The route of the rings and locations of access points would be the same for both the Preferred Alternate and the All Aerial Alternate. The core ring on St. Thomas is 22 miles and the ring on St. Croix is 20 miles in length. Without the use of conduits, the system would use existing utility poles that are located along roadways. There may be a few isolated instances when existing poles are deteriorated or when the vertical space available on an existing pole is too restricted and a new replacement pole is needed. In these instances, a replacement pole will be set next to the existing pole, the aerial conductors transferred over by line workers, and the existing pole cut off at ground level. The new pole will be set by auguring a new vertical hole in the ground. Silt fencing will be installed down-slope of the pole location and excess soil.

Alternatives Considered But Not Carried Forward. The viNGN considered an all-wireless alternative that would replace all fiber optic cable with radio towers and microwave radios to provide wireless broadband. This alternative would require construction of new radio towers ranging from 40 to 400 feet above ground level (AGL). Six-foot microwave dishes would be installed on the towers (four per tower), and huts with radio gear and diesel generators would be installed at the base of each tower. This alternative was excluded from consideration prior to analysis, as it would not meet the need of providing high-speed broadband service to underserved area, requires significant ground disturbance, and causes visual impacts. In addition, microwave radio technology is not as reliable as fiber optics and would likely drive future, redundant wired projects on existing utility poles.

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

(including greenhouse gases [GHG]), 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. Cumulative impacts were also evaluated.

Noise

The Proposed Action will result in minor short-term, localized noise impacts due to construction activities. Construction activities such as saw cutting of pavement, trenching, and backfilling will cause localized increases in noise that may temporarily affect residential and commercial areas. Hearing protection will be used to ensure that there are no adverse impacts to workers exposed to noise emissions. Temporary and intermittent increases in noise levels due to construction will be similar to noise levels that currently result from regular maintenance activities and from reconstruction of existing roads and utilities. After construction is completed, noise levels will return to current background levels and there will be no long-term impacts. Based on this evaluation, the Project is not expected to have significant adverse impacts on noise.

Air Quality

Construction along the Project route will result in temporary and short-term impacts on air quality from construction-related emissions, including some particulate matter emissions, sulfur compounds, volatile petroleum products (glues, solvents, replacement pavement), and internal combustion engine exhaust. Heavy equipment exhaust will temporarily increase levels of air pollution associated with diesel combustion and possible dust emissions will affect the immediate Project area where trenching and new pole installation is required. It is estimated that approximately 4,784 metric tons of equivalent CO2 emissions will result from the Project (GHG impacts). This estimate is well below the Council on Environmental Quality's (CEQ) presumptive effects threshold of 25,000 metric tons of CO2. Fugitive dust emissions will also result from soil disturbance from trenching in unpaved ROWs and from vehicles in staging areas. The amounts of fugitive dust will vary daily depending upon weather and soil conditions. To minimize air quality impacts, the viNGN will limit construction vehicle movements to the ROWs, designated staging areas, and public roads. BMPs will be used to minimize fugitive dust resulting from construction areas. Given the temporary nature of fiber installation, and the limited extent of impacts during operation, this Project is not expected to have significant impacts on air quality.

Geology and Soils

The Preferred Alternative will have minor impacts on the soils of the islands. All trenching activities will occur within existing roads and public ROWs. Consequently, the installation of new conduit will not impact any rare soils and will also not disturb any soils, which are not already impacted by development. Soils in the existing roads and public ROWs will, however, be subjected to excavation, mixing, and replacement. Minimal soil disturbance also will occur with the installation of the access points. The access points will be secured enclosures, which will be approximately 10 feet by 12 feet. These will generally be located directly along

roadsides and in developed areas. There are only two locations — one in St. Thomas and one in St. Croix — which will require the clearing of pioneering vegetation to construct an access point. Soils will be stabilized and reused on-site in order to minimize erosion and prevent sedimentation. Soils in the USVI are a valuable resource and will be protected and reused whenever practicable. Any remaining soils will be stock piled and stabilized with pneumatic tackifiers and will be managed by placing them away from steep slopes, guts, or areas subject to flooding or high erosion potential. They will be surrounded by silt fencing to ensure that sedimentation will not impact the surrounding area.

Shallow soils at certain points along the proposed routes will necessitate rock excavation for the installation of the core ring of the conduit. On St. Thomas, approximately one third of the conduit trenches will be in rock, and on St. Croix, less than 10% of the conduit trenches will be installed in rock. It has been anticipated that much of the rock will be weathered and that much of the rock removal can be accomplished by a machine, such as a hoe ram, without blasting. Based on these analyses, the Project is not expected to have any significant adverse impacts on geology and soils.

Water Resources

The Project will cause minor impacts to water resources. Conduit will be installed in the existing roadways and ROWs; therefore, the new conduit, and any existing conduit, will not disturb any existing potable water services. Placement of the conduit within the roadways also will avoid impacts to freshwater resources. Where the conduit crosses existing guts, it will continue to follow the roadway, will be placed in the cover material of the roadway, will be hung from the bridge if the structure is suitable for the installation of conduit, or will be installed under the gut and the bridge by direct drilling to cause minimal disturbance. Wetlands will likely be present at these locations (at or in the vicinity of the guts). Wetlands will also be encountered where infrastructure conditions are inadequate for installation of conduit over a bridge or culvert, or if there are other concerns, such as historic values or flood concerns, which preclude attachment. In these instances, direct drilling may be necessary to install the ducts under the gut and the bridge or culvert structure. Guts considered of high concern will not be encountered and therefore will not be impacted. According to the Federal Emergency Management Agency (FEMA) flood insurance maps, some portions of the conduit routes will be located within designated flood zones, especially those associated with the gut crossings. However, installation and construction will not impact flood storage capacity. Placement of the conduit within ROWs and roadways will minimize any impacts on flood zones. There are no water resources (guts, wetlands, etc.) at the locations of the access points; therefore, construction of the access points will have no impacts on water resources. None of the access points will be located below the 100-year floodplain elevation or within the coastline velocity zones (coastal high hazard areas). Based on this analysis, it is not anticipated that the Project will result in significant impacts to water resources.

Biological Resources

Project-related impacts to biological resources are expected to be minimal. Temporary impacts to wildlife are expected during construction, but will cease once construction is completed. The locations of the access points offer marginal wildlife habitat value, primarily wildlife cover, and are not important for wildlife habitat functions as they are located along roadways. The new access points may provide additional cover spaces for species, which are common to urbanized areas of the islands. Species such as black rat (Rattus rattus), which inhabit small sheltered areas, may use the areas and will not be impacted or displaced by the installation of the access points. Other species, such as the mongoose, travel over larger areas and the installation of structures will increase possible food sources by providing potential small overhangs and small shelter spaces for smaller mammals and lizards, which use such development as habitat areas.

The Project will have minor impacts on vegetation. Although the majority of the construction will be conducted within previously disturbed or developed areas, some vegetation will be affected through removal or compaction by machinery. On St. Thomas, the core ring will be located in roadways with most of the access points placed in developed or disturbed areas. One access point on St. Thomas (STT-AP-7) will be located on the disturbed edge of semi-deciduous forest next to the intersection of Routes 40 and 39. The forested area is immediately adjacent to the road and is located between the road and a residential development. Some vegetation at this location will be removed to construct the access point. However, the impacts are expected to be short-term and minor, as the vegetation will re-establish itself within several months. On St. John, all fiber optic installation will occur aerially, and therefore, there will be no impact to vegetation on that island. On St. Croix, mitigation actions will be conducted in some segments of the route to minimize vegetation impact. On the western side of St. Croix, the conduit will be installed under Hams Bluff Road instead of the ROW, because the western side of the road is adjacent to the shoreline and the beach, and the eastern side has forest that includes large native trees. Similarly, Centerline Road/Queen Mary Highway is lined with old Mahogany trees that will be avoided by installing the conduit in the roadway. Four of the eighteen locations where fiber optic access points are proposed on St. Croix are naturally vegetated. All of these are roadside sites on existing or former agricultural land currently occupied by crops or by early successional species that have recently colonized these areas.

The Project will have no impact to threatened or endangered species. On the eastern end of St. Thomas, the endangered Tree Boa (*Epicrates monensis granti*) is known to occur. It is not anticipated that snakes will be encountered during the line installation because Tree Boas prefer a closed tree canopy. Pole lines typically follow roads and open ROWs, which have been cleared to avoid impacts of trees on the lines, thus interrupting the tree canopy. However since some minor trimming will likely be needed to install new cable and to keep the lines clear of vegetation there is a very small potential that workers may encounter Tree Boa. Special care will be taken to ensure the protection of the snake when the cable is installed on the aerial poles in eastern St. Thomas. Workers will receive training to identify and properly handle snakes if and when they are encountered. The U.S. Fish and Wildlife Service (USFWS) was contacted regarding the installation of broadband service through an area of St. Thomas, which is known to

be the primary habitat of the Virgin Islands Tree Boa. The USFWS stated in a letter dated January 21, 2011, that they concurred with the findings that there will be no impact to the Tree Boa and further, that there was no objection to the project. The National Marine Fisheries Service also was contacted, but at this time, a response has not been received. Since the project will not be occurring near tidal waters or within tidal waters, viNGN concluded that there will be no impact on marine species which may be listed as threatened or endangered.

Based on these assessments and implementation of specified BMPs, it does not appear that the Project will have significant adverse impacts on biological resources.

Historic and Cultural Resources

On January 21, 2011, the viNGN entered into a Memorandum of Agreement (MOA) with the Department of Planning and Natural Resources and Virgin Island State Historic Preservation Officer (VISHPO), and the Division of Archaeology and Historic Preservation and VISHPO. The MOA stipulated that viNGN, through its consultants, will complete the ongoing Phase I Archaeological Survey as specified in the Cultural Resources Management Plan included in the Preliminary Phase I Archaeological Survey Report (prepared by Soltec International Inc. on behalf of The Maquire Group, Inc., and approved by the VISHPO). The MOA further stipulated that if potentially significant cultural resources are identified with the Area of Potential Effects (APE), the viNGN will complete a Phase II Archaeological Testing and Evaluation Study to determine whether the resources of concern meet criteria of eligibility to the National Register of Historic Places (NRHP). The MOA also stipulated that if NRHP listed or eligible sites are identified, viNGN will commission additional studies to avoid and preserve the listed or eligible cultural resources and mitigate adverse effects through the implementation of Phase III Archaeological Data Recovery Studies. The MOA also stipulated that viNGN and The Maquire Group, Inc. will pay the curation costs and the VISHPO may perform routine or special site visits to verify compliance with the terms of the MOA.

On March 7, 2011, viNGN, the VISHPO, and NTIA entered into a Programmatic Agreement (PA), which further defined the necessary stipulations to identify and mitigate impacts on cultural resources ,which could occur from the Project. The PA establishes a review protocol for the studies required under the MOA, and states that viNGN will seek VISHPO concurrence on the results of archaeological investigations of specific project segments in accordance with the terms of the MOA, and will submit evidence of VISHPO concurrence to NTIA for review and approval before initiating construction on the segment. The PA further stipulates that NTIA shall ensure that the terms of the PA are executed prior to the start of any phase of construction of the Project. The PA also establishes professional standards; defines authorization of construction as a responsibility of NTIA; and provides specifications for confidentiality, a protocol for the inadvertent discovery of archaeological sites or human remains, dispute resolution, terms of the agreement, amendments, termination, points of contact, and administrative provisions.

Under the requirements of the MOA and PA, the viNGN and its consultants continued the ongoing Phase I Archaeological Survey. The survey, currently in progress, has resulted in the identification of a number of cultural resources that have the potential of being affected by the proposed undertaking; however, design changes have been made and will continue to be made to avoid adverse impacts to such cultural resources. On St. Thomas, literature and records searches, as well as vehicular reconnaissance, have identified two potential cultural resources: (1) the Charlotte Amalie Historic District, and (2) potential prehistoric cultural resources. The studies performed to date indicate that no adverse impacts are anticipated for the Charlotte Amalie Historic District, as the fiber optic cable will be installed within existing conduit. In the event that new manholes are required within the district, testing will be performed as significant and potentially significant prehistoric and colonial archaeological contexts have been identified to be present within parts of the District, particularly between Market Square and the U.S. Post Office. A proposed access point (STT-AP-14) will be located in a parking lot to the east and in close to Fort Christian, the evaluation for potential adverse visual effects will be made in consultation with the VISHPO. The studies performed to date also indicate that the proposed trenching for the installation of new conduit or construction of the access points will not adversely impact prehistoric cultural resources however, as noted above the field studies for St. Thomas remain to be performed in accordance with the MOA and PA.

Installation of fiber optic cable on St. John will be entirely aerial. Of the four access points for St. John, two will be installed adjacent to existing modern buildings in Cruz Bay and on the grounds of the Myrah Keating Hospital, the assessments for these access points remain to be performed. The proposed access point location for Fish Bay will be located within a public housing development; this new location also remains to be assessed. The initially proposed Coral Bay access point (STJ-AP-4) was found to be contained within a prehistoric archaeological site. The design team has selected an alternate site that remains to be evaluated. In the event that poles need to be added or replaced within archaeologically sensitive locations, an archaeologist will monitor the earth change activities to ensure no impacts to resources.

The Phase I Archaeological Survey for St. Croix has resulted in the identification of three historic bridges along the proposed cable alignment, three prehistoric archaeological sites in close proximity to proposed trenching locations and one archaeological site at proposed STX-AP-12 (Cotton Valley). Additionally, the proposed trenching locations will pass in close proximity to historic structures and features. Installation of fiber optic cable within the Christiansted and Frederiksted Historic Districts will be made within existing conduits; no trenching will be required. In the event that manholes are required to be constructed, an archaeologist will monitor the construction activities to ensure no impacts to resources. The parts of the conduit that will require trenching excavation will pass near a number of historic plantation sites. These include Estates Northside (buildings and walls), Butler Bay (entrance columns, well and limekiln) and William (village structures, entrance monument and walls). This part of the island also contains numerous poles, which were damaged by hurricanes and may require replacement. In the event that new poles are installed in close proximity of these

and other sites identified during the ongoing study, an archaeologist will test the pole location or monitor the earth change activities to ensure no impacts to resources.

Three historic bridges have been identified to date; all are located along Route 63 (other bridges located along Queen Mary Highway are known, but remain to be assessed). Two historic bridges (Butler Bay and Estate William) are well preserved; the arched bridges are constructed of rubble masonry construction with a significant part of the construction materials consisting of cut coral block. The third bridge, located at Rainbow Beach along Route 63, has been extensively modified in modern times and does not appear to retain sufficient integrity to meet criteria of eligibility to the National Register of Historic Places. The Estates Butler Bay and William bridges are considered to be significant resources. Additional studies such as core borings of the modern bridge pavement will be performed to develop a design to avoid impacts onto the historic fabric of the bridges, to install conduit by boring under the bridge structures, or alternatively, to avoid the bridge and install the conduit away from and parallel to the bridges. These activities will result in no impacts.

Three prehistoric sites have been identified in close proximity to the Route 63 conduit alignment on St. Croix. Based on field observations, it appears that the construction of this historic road and subsequent modern modifications likely resulted in adverse effects to any archaeological deposits that may have extended onto the existing road. Archaeological monitoring is recommended for these sections of the project.

The Project will have no adverse effect on significant or potentially significant cultural resources. For the most part, the excavation of trenches to lay new conduit will be performed along existing roads; construction and maintenance activities for these roads have likely resulted in the disturbance to archaeological contexts beneath the roads, if present. When significant or potentially significant cultural resources are found to be located within a close proximity to Project access points, the Project access points will be moved to a non-sensitive location in order to avoid any adverse effects on the identified cultural resource. An archaeologist will monitor construction activities in close proximity to significant or potentially significant cultural resources, as prescribed in the MOA and PA. Actions are prescribed to avoid impacts. The viNGN will continue to implement the archaeological studies on route segments, and present findings to the VISHPO and NTIA, in accordance with the MOA and PA. Based on these consultations, through implementation of SHPO stipulations, and through implementation of the requirements outlined in the MOA and PA, the Project will have no adverse effect on historic and cultural resources.

Aesthetic and Visual Resources

There will be no impact to the visual and aesthetic resources of the USVI. Access points consist of secured structures abutting existing structures, or are free standing at roadsides. Structures will be designed that are compatible with the surrounding buildings, particularly in historic districts. Landscaping and vegetative screening will be used in areas of historic or visual significance as appropriate. Some aerial lines will be necessary to avoid impacts on natural

environments through digging and installation of conduit, like those that will be installed in the Virgin Islands National Park on St. John. In this park, trenching will not take place to minimize ground disturbance within the park. Instead, aerial cable will be installed on existing utility poles and ROWs, and the addition of one more cable bundle will not change the overall appearance. The visual aesthetic of the park will not be impacted. Aerial installation of fiber optic cables in areas outside the core ring will occur only in areas where there are already communication and power cables mounted on utility poles. The addition of one more cable bundle on existing utility poles will not change the overall appearance of the island and will not adversely affect views and vistas. On St. Thomas, one access point (STT-AP-6) is proposed at a scenic overlook, but it will not impact views. Considering the full extent of the Project, there will be no significant adverse impacts to aesthetic and visual resources.

Land Use

The Project will have minor impacts on land use. The use of land at the locations of the new access points will change slightly, but these new structures will not displace surrounding land uses or activities, and will be mostly consistent with the land uses of adjacent land parcels. Five access points will be located on land that is now, or was formerly used, as agricultural land. However, none of these sites are within prime farmland, unique farmland, or farmland of statewide importance. Due to the small size of the access point enclosures, access point construction will result only in conversion of an insignificant area of farmland to non-farm uses. Aerial and conduit fiber routes will be placed in existing ROWs or along existing utility pole routes. Land uses adjacent to these routes will not experience adverse impacts or disruption in activities once installed. All proposed construction will conform to existing zoning. New economic activity that is anticipated through the implementation of the overall broadband initiative in the USVI may lead to new land development projects (discussed under cumulative impacts). Accordingly, this Project is not expected to have significant adverse impacts on land use.

Infrastructure

The Project will have short-term minor impacts on roadways and traffic during the construction phase. There are several potential locations where traffic congestion could occur and where traffic management will be critical during Project construction. The proposed construction will necessitate lane closures, which will require traffic maintenance, schedule of construction activities to avoid periods of peak traffic volumes, selective use of detours, and coordination of separate segments to avoid compounding of traffic impacts by adjacent or multiple construction sites. Some traffic delays will occur due to the proposed construction but these can be mitigated by careful planning and judicious use of traffic control and maintenance techniques. The contractor will be required to provide a temporary traffic control plan for his operations so as to disrupt traffic as little as possible. There may be certain locations that, due to traffic volume or roadway geometry, cannot be safely occupied by the contractor without causing significant traffic disruption. In these instances, night work will be considered in conjunction with other site-specific factors (such as noise impacts). All traffic management plans will be approved by emergency first responders to be certain that the management procedures do not interfere with

emergency vehicle access. Police, fire, medical, and Department of Public Works (DPW) emergency personnel will be kept apprised of the traffic management plans, particularly detours, each day.

There will be no substantial impacts on telecommunications and electric services. The viNGN will use existing conduit, when available, thereby reducing the amount of required trenching. The aerial portions of the Project will be installed in the zones already allocated on utility poles for communications systems. Any outages or service interruptions during construction will be minimized and carefully scheduled. No new poles, guy anchors, or no other forms earth-disturbing construction is expected to be required to install the aerial portions of the system. Other buried utilities will not be impacted. The design of new conduits will consider existing sewer, water, and storm drainage piping systems. The design and construction will be accomplished to avoid and minimize impacts. Some temporary disruptions may occur, either due to planned service disruptions for relocations or due to inadvertent breaks. In those locations where new duct construction will occur in roadways adjacent to existing solid waste transfer stations, public access to transfer stations may be temporarily blocked, resulting in a short-term minor impact. These blockages will typically be for only a few hours, but in extreme instances (such as bedrock excavation), the interrupts might involve one to two days.

Overall, the Project will have no significant short-term adverse impacts on existing infrastructure, and will create beneficial long-term impacts through implementation of the new broadband infrastructure.

Socioeconomic Resources

The Project will have several positive effects on socioeconomics in the Virgin Islands. The Project will provide new and enhanced high-speed broadband access to residents, businesses, governmental agencies, medical providers, and educational organizations. The Project will provide high-speed communications that will support anticipated population and employment growth, job creation, and long-term economic opportunity. In addition, the Project is likely to stimulate local economies during the construction period, such as direct employment through immediate construction hiring. Accordingly, Project implementation will have short-term and long-term beneficial impacts on socioeconomic resources.

Human Health and Safety

The fiber optic line itself does not generate any known adverse health issues. Trained and qualified line workers will perform all work on utility poles. All installations will follow building and fire codes for safety, and all components will be appropriately rated for the application and properly installed. Based on these assessments, it appears that the Project will have no adverse impacts on human health and safety in the short-term. However, beneficial impacts should occur over the long-term through delivery of enhanced internet services to medical facilities and public safety organizations.

Cumulative Impacts

The Project will make possible the larger broadband initiative in the USVI that includes the viNGN Sustainable Broadband Adoption Program and the viNGN Public Computer Centers Program. The expansion of broadband will enable the growth of the local economy through development of new business ventures, web based businesses, call centers, and by enabling telecommuting. Additionally, the Project is expected to have indirect impacts and lead to future economic development projects. The stimulation of new job growth is expected, which can result in new construction and rehabilitation and reuse of existing buildings and infrastructure as existing business grow and new businesses open. Land zoned for these types of uses is concentrated in the more urban areas of the USVI where permitting requirements and development regulations will require best management practices to minimize adverse impacts. At this point, where new development will take place is unknown, but it is most likely to take place in or near the major urban centers where natural resource impacts will not be significant. On-going and anticipated transportation and roadway projects in the USVI have also been considered. The viNGN will be coordinated with these improvement projects to the maximum extent practicable. While the Project will not significantly change proposed transportation projects, the viNGN will enhance proposed roadway projects by incorporating new ductwork within existing and proposed projects. The cumulative impact will be minimized because construction will be coordinated with these projects and the conduit will be installed while the roadway is being reconstructed. Based on these considerations and analyses, cumulative impacts with other unrelated activities will not be significant.

Decision

Based on the analysis presented above, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, the signed PA and MOA, 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.

Issued:

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