State of Arizona-Counties Communication Network (SACCNet)
Critical Middle Mile Project

Summary

GovNET, Inc. (GovNET) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to construct a middle mile wireless (microwave telecommunications) network throughout the State of Arizona. The backbone of the network will consist of five interconnected native internet protocol (IP) wireless broadband rings containing 54 backbone hub sites. The hub sites generally will be equipped with a new, purchased, or leased microwave tower with multiple microwave antennas. The new network will also include 268 infill node sites to serve as interconnection points, arranged around the hub sites, for a total of 322 network sites. GovNET also would establish a Network Operations Center (NOC) in Scottsdale, Arizona, in an existing facility consisting of an office building, a warehouse, and a hanger. The new network will extend wireless broadband access to approximately 270 community anchor institutions (CAIs). The proposed action will provide broadband connectivity across Arizona and is referred to as the State of Arizona-Counties Communication Network (SACCNet) Critical Middle Mile Project (Project).

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

GovNET completed an EA for this Project in October 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 wireless broadband network across Arizona on private and tribal land, and within
 Federal land managed by the U.S. Department of Agriculture Forest Service (USDA-FS);
 Arizona State Land Department (ASLD); and U.S. Department of Interior (DOI) National
 Park Service (NPS), Bureau of Land Management (BLM), and Cabeza Prieta National
 Wildlife Refuge (NWR);
- Establishing 54 backbone hub sites, including:
 - ➤ Establishing one (1) new tower at each of two (2) new telecommunication sites (Benson 180 foot tower, Dateland 120 foot tower) and connecting them to the network;
 - > Installing a 180-foot access road to the new Benson telecommunication tower site;
 - ➤ Constructing 16 new free-standing towers ranging in height from 60 to 180 feet on existing telecommunication sites, including a tower foundation for each new tower;
 - > Replacing free-standing towers at three (3) existing telecommunication sites located on USDA-FS land;
 - Leasing eight (8) existing towers from the USDA-FS, BLM, and ASLD;
 - > Constructing two (2) non-guyed, self-supporting, 100-foot tall monopole towers on existing telecommunication sites on private land;
 - ➤ Providing backup propane generators for the 2 new telecommunication sites, 16 new free-standing towers, 3 replaced free-standing towers, 8 leased tower sites, and 2 new monopole towers within new equipment buildings;
 - Placing new antenna equipment on 15 existing towers and the roof tops of 8 existing buildings;
 - Adding structural reinforcement at up to 15 of the backbone existing tower collocation sites; and
 - > Connecting new towers and collocation equipment to the existing power grid, and installing wind turbines for the existing Chevelon site.
- Establishing 268 infill node sites, including:
 - > Constructing 12 non-guyed, self-supporting, 100-foot tall monopole towers on existing telecommunication sites, including connections to the existing power grid;
 - ➤ Placing new antenna equipment on 14 existing towers, 4 poles, and 238 existing buildings.
- Establishing a NOC in Scottsdale, Arizona, comprised of an existing facility:
 - > Office building: will be used for a "help desk" for CAIs
 - Warehouse: will be used to store communications equipment and provide space to fabricate equipment buildings for later installation at backbone sites
 - > Hanger: will house a helicopter to expedite any required repairs during operations

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

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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 the Project is to establish a broadband network that will provide secure connections for first responders and medical facilities, and to bring affordable broadband service to unserved and underserved communities across Arizona. The Project will provide secure, interoperable first responder emergency communications between Federal, state, county, and local agencies; allow for cost-effective broadband services to last-mile providers in unserved and underserved areas; provide connectivity between CAIs, including educational facilities and county and state agencies; and improve health information exchange by providing secure medical communications between facilities, such as hospitals and clinics. The network is also designed to carry Federal information and therefore, must meet Federal security requirements. The Project will serve 268 CAIs, including schools, libraries, health care facilities, public safety facilities, state and county agencies, and other anchor institutions.

Project Description

GovNET will build a middle mile wireless (microwave telecommunications) network throughout the State of Arizona. The backbone of the network will consist of five interconnected native IP wireless microwave broadband rings containing 54 backbone hub sites. Forty-six (46) of the new backbone hub sites will be equipped with a new, purchased, leased, or existing microwave tower with multiple antennas. The remaining eight (8) backbone hub sites will be equipped with rooftop-mounted, non-penetrating antennas. An additional 268 node sites will be arranged around the backbone hub sites to serve as interconnection points, providing broadband

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connectivity across Arizona. Installation activities at the node sites will include placing new antenna equipment on 14 existing towers, 4 poles, and 238 existing buildings. The network will provide enhanced broadband service delivery to 268 CAIs in the Project area, but will not provide any end user equipment. Table 1-1 summarizes the construction to occur under this Project at the 54 backbone hub sites and 268 node sites.

For 52 of the 54 backbone hub sites, construction will occur within previously disturbed areas located on tribal and private lands, and within Federal land managed by the BLM, USDA-FS, NPS, ASLD, and Cabeza Prieta NWR. The remaining 2 backbone sites (Dateland, Benson) will be located on new, undisturbed sites in rural areas. The majority of the backbone collocation and tower sites will be located in remote, unpopulated areas. The 2 new backbone monopoles will be installed at municipal water tank facilities. Installation of wireless equipment at the interconnecting node sites and the 8 backbone roof mount collocation sites will occur in or adjacent to urban areas.

GovNET will install 7 new towers and add wireless equipment on 11 collocation sites located on private land. GovNET will also install 5 new towers and 2 collocation sites on ASLD property. USDA-FS manages 10 of the proposed collocation sites, as well as 4 parcels on which GovNET is proposing construction. On three of these sites, GovNET plans to install 1 replacement tower. On the fourth site, GovNET is proposing to build 1 new 180-foot tower. As defined by the Project, 6 new towers and 3 collocation sites are proposed on BLM land and 2 collocation sites will be located on tribal land. The NPS manages land for 2 collocation sites, and a single collocation site is managed by the NWR. GovNET is continuing to work with the USDA-FS, BLM, NPS, ASLD, and Cabeza Prieta NWR to determine the appropriate permits and approvals required to construct and operate the proposed Project within their jurisdictions.

GovNET will construct a 120-foot free-standing tower and a 180-foot free-standing tower at the new Dateland and Benson telecommunication sites, respectively. At 14 existing telecommunication sites, GovNET intends to build a new, free-standing tower ranging in height from 60 to 180 feet. At the Seneca and Porter sites, GovNET will replace an existing 60-foot tower with a 100-foot and a 120-foot tower, respectively. The remaining 100-foot tower at Devil's Head will be replaced by a new tower of the same height. Ground disturbance for the new and replacement towers will be approximately 50 feet by 50 feet, and the tower footprint will be either a monolithic slab or pier design measuring approximately 28 feet by 28 feet. Access to the new Benson tower site will require construction of an access road extending approximately 180 feet from an existing paved road. Existing access roads will be used for the new Dateland tower site, as well as the existing telecommunication sites.

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Table 1-1

Proposed Installation	Network	Proposed	Dimensions	Supporting	Current	Landowner
	Site	Structure	·	Infrastructure	Land Use	
			120 feet high;	• Tower foundation		
New telecommunication	Backbone	Free-	2,500 sq. ft. ground	 Equipment but 		
site (Datoland)	hub site	standing	disturbance	Backup propane	Undeveloped	Private land
(Daverana)		10 W CI		generator	-	
				 Propane tank 		
				 Tower foundation 		
				• 2 to 27 new antennas		
New telecommunication	;	Free-	180 feet high:	 Equipment hut 		
site	Backbone hub site	standing	2,500 sq. ft. ground	Backup propane generator	Undeveloped	ASLD
(Benson)		tower	disturbance	Propane tank		
				• 180-foot long access		
				ioad		
New towers (16)				•		Private land
(Shaw Butte-2, White				Tower foundation		(c)
Jank, Jowers Mt., McCloud Autron Gotz				 2 to 2 / new antennas Equipment but 		ASLD
Peak, Chevelon, Mule,	Backbone	Free-	60 to 180 feet high;	 Equipment int. Backup propane 	Existing	(4)
Dragoon, Red Mt.,	hub site	tower	disturbance	generator Propage tank	sites	USDA-FS
Cabin, Smith Peak, White				Wind turbines at		(1)
Mtn., Cerro Montoso)				Chevelon site		BLM
						(9)

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Proposed Installation	Network Site	Proposed Structure	Dimensions	Supporting Infrastructure	Current Land Use	Landowner
Replacement towers (3) (Devil's Head, Porter, Seneca)	Backbone hub site	Free- standing tower	100 to 120-feet high; 2,500 sq. ft. ground disturbance	 2 to 27 new antennas Equipment hut Backup propane generator Propane tank 	Existing telecomm. sites; (2) existing 60-foot towers; (1) existing 100-foot tower	USDA-FS
Wireless infrastructure on 8 leased towers (Juniper, Summit, Mormon, Signal,	Backbone hub site	n/a	n/a	 New antennas Equipment hut Backup propane 	Existing telecomm.	ASLD (1) USDA-FS (6)
Strawberry, Kelvin, Mount Lemmon, Jacobs Lake)	-			Propane tank		BLM (1)
Monopole towers (2) (Holbrook Tank, Payson)	Backbone hub site	Self- supporting, non-guyed monopole tower	100-feet high; 300 sq. ft. ground disturbance	 Equipment hut Backup propane generator Propane tank 	Existing telecomm.	Private land
Wireless infrastructure on 15 existing towers (Hopi, Desert, Jacks, Mingus Mt., Greens Peak, Ord, Klondyke, Keystone,	Backbone hub site	n/a	n/a	New antennas Structural reinforcement	Existing telecomm.	Private land (3) USDA-FS (4)
Sacaton, Childs, Telegraph Pass, Minugs Tanks,						BLM (2)

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Proposed Installation	Network Site	Proposed Structure	Dimensions	Supporting Infrastructure	Current Land Use	Landowner
Sedon Airport, Bill Williams, Nogales EOC)						Tribal (2)
						NWR (1)
						ASLD (1)
						NPS (2)
Wireless infrastructure on 8 rooftop mounts (3030 N 3" ^d , 3300 N						
Central, NOC-7835 E. McClain, Cox MSC,	Backbone hub site	n/a	n/a	New antennas	Existing. sites	Private land
Phoenix One, 1501, University of Arizona, 1510)						
		Self- supporting,	100-feet high; 300		Existing	
Monopole towers (12)	Node sites	non-guyed monopole tower	disturbance	Equipment hut	telecomm. sites	Node sites
Wireless infrastructure on 14 existing towers 238	Node sites	1/2	s/u	New antennac	Hwieting eitee	Node sites
rooftop mounts and 4 poles		3	3	TOW WINDINGS	LAISHINE, SILVS	באונה סוונה

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Each new and replacement tower will be equipped with 2 to 27 new antennas, ranging in diameter from 6 to 15 feet. Power supply to each new or replaced tower will be provided by existing aerial drops and/or buried lines, with the exception of the Chevelon site that will use wind turbines. At the Chevelon site, GovNET will install up to four vertical axis helical wind turbines, measuring approximately 7 feet tall and 3 feet wide, on the existing 60-foot tower. The actual number of turbines required will depend on the final electrical load determined by GovNET engineers. The private landowner of the Chevelon site has approved the use of up to 0.5 acres for this facility, including the installation of solar and/or wind generators. Tower compounds will be enclosed by typical security fencing, when necessary. Soil disturbance for each tower site will include the excavation for tower foundations and installation for prefabricated equipment buildings, measuring 12 feet by 28 feet, located underneath the tower. Backup propane generators and propane tanks will be installed within equipment buildings.

The remaining 14 monopole tower sites will each be equipped with a self-supporting, non-guyed monopole tower that is 100-feet above ground level (AGL). For the 2 backbone monopole sites, prefabricated equipment buildings, measuring 12 feet by 28 feet, will be located underneath each tower. Backup propane generators and propane tanks will be installed within equipment buildings. For the interconnection node monopole sites, GovNET will install an equipment cabinet either directly on the monopole or on a 14-foot by 21-foot concrete slab. Power supply to each new tower (free-standing and monopole towers) will be provided by existing aerial drops or buried lines. Soil disturbance at each monopole tower site will include the excavation for tower foundations and installation of the concrete slab.

Additionally, new wireless equipment will be installed on 37 existing and leased towers, 4 poles, and 246 existing buildings, for both backbone hub and interconnection node sites, in accordance with applicable Federal Communications Commission (FCC) and industry guidelines and regulations. Antenna collocations on existing buildings will involve attaching microwave antennas to rooftops using roof mounts. Cable connections for existing buildings, including primary electric power, will be installed within the associated building structure, where possible. GovNET will also use existing power sources for the remainder of the collocation sites.

GovNET will install backup propane generators and propane tanks within the new equipment building at the 8 leased tower backbone hub collocation sites. Approximately 300 square feet of ground disturbance will occur during site preparation. Existing backup generators will be used for the remaining 15 backbone tower collocation sites. New communication electronics will be installed in existing equipment buildings and structural reinforcement will be added at up to 15 backbone tower collocation sites. These activities, however, will not result in any ground disturbance at these sites. Antenna installation for remaining node sites will not require ground disturbance.

The existing towers to be used by the Project are registered with the FCC Antenna Structure Registration database and meet the criteria for collocation of antennas on towers constructed

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after March 16, 2001, as identified in the *Nationwide Programmatic Agreement (NPA)* for the Collocation of Wireless Antennas. GovNET is in the process of filing FCC Form 620 for new telecommunication towers and FCC Form 621 to record the collocation of additional licensed band services on these existing towers and will follow the procedures outlined in the NPA for all relevant portions of the Project.

Alternatives

The EA includes an analysis of the alternatives for implementing the Project to meet the purpose and need, specifically for 13 backbone hub sites located on USDA-FS managed land. NTIA also requires that an EA include a discussion of the no action alternative. The following summarizes the six (6) alternatives analyzed in the EA.

Wireless Network Installation (Alternative A – Preferred Alternative). The Project involves establishing 2 new telecommunication sites (including the towers, wireless infrastructure, equipment buildings, and an access road); constructing 30 new towers and replacing 3 towers at existing telecommunication sites (including the towers, wireless infrastructure, and equipment buildings); installing wireless network equipment on 37 existing and leased towers, 4 poles, and 246 existing buildings; and adding structural reinforcement at up to 15 backbone collocation existing towers sites. The network will provide broadband service to 268 CAIs. Under this alternative, GovNET will collocate new antenna equipment on 10 existing USDA-FS towers, and replace 3 existing towers on USDA-DS land.

Purchase and Use Existing Facilities for All 13 USDA-FS Managed Sites (Alternative B). Under Alternative B, GovNET would replace the existing towers at the 10 collocation USDA-FS sites included under the Preferred Alternative (Mirgus Mountain, Mormon, Greens Peak, Signal, Strawberry, Ord, Mt. Lemmon, Jacob Lake, and Bill Williams) rather than collocating new antennas on the existing towers. The proposed telecommunications network that would result from the implementation of Alternative B would have the same functionality as that from the Preferred Alternative. This alternative would be compatible with USDA-FS land management plans because it would utilize the footprint of an existing facility and would allow the expansion of future government collocation use.

Collocation on Existing Facilities for All 13 USDA-FS Managed Sites (Alternative C). Under Alternative C, GovNET would install antenna equipment rather than replace the existing towers at 3 USDA-FS sites included under the Preferred Alternative (Devil's Head, Porter, and Seneca). The proposed telecommunications network that would result from the implementation of Alternative C would have the same functionality as the Preferred Alternative. However, the functionality may be degraded as security may not meet National Institute of Standards and Technology (NIST), Federal Information Security and Management Act (FISMA), and the Office of Management and Budget (OMB) requirements. This lack of security may preclude the network from carrying sensitive Federal information. Alternative C may also limit network

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expansion opportunities and would not be able to guarantee the availability of space or structural load capacity for the future placement of additional equipment on each tower, since the tower would be controlled by a separate independent entity that may offer space to other users.

Construct New Towers at All 13 USDA-FS Managed Sites (Alternative D). GovNET would construct new towers and install equipment buildings at the 13 existing USDA-FS sites, rather than upgrade or replace existing tower facilities or add equipment to existing facilities (as presented in the Preferred Alternative). The proposed telecommunications network that would result from the implementation of Alternative D would have the same functionality as the Preferred Alternative.

Remove USDA-FS Managed Sites from the Network (Alternative E). Under this alternative, GovNET would not construct new towers or install any type of telecommunication facility or equipment on USDA-FS managed land. Alternative E would reduce the network's overall functionality compared to the Preferred Alternative and Alternatives B, C and D. In addition, this alternative would affect the network's ability to meet the purpose and need of the project by creating lost linkages between middle mile sites and preventing network connections to many anchor institutions, and possibly entire portions of the state.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in Arizona. Under the no action alternative, new wireless infrastructure would not be constructed. First responder communications would continue using the current vulnerable and non-interoperable systems in the state, affordable broadband services to unserved and underserved areas of the state would remain at their current limited levels, and anchor institutions and the health information exchange would continue to be limited by the telecommunications services that are currently available in the state. Additionally, broadband services would not be provided to CAIs 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. GovNET considered a hybrid microwave network that would include fiber-optic or copper-based connections in addition to wireless components. This alternative was rejected because it was cost-prohibitive due to the statewide nature of the project and the rugged terrain that would have had to be crossed in order to access and connect many of the remote node sites. This alternative also would cause more ground disturbance and environmental impact, would take longer to deploy, and would be less adaptable in the future than the other alternatives. Thus, the wireless network (Preferred Alternative) was determined to be the most cost-effective and practical solution for this statewide network.

Findings and Conclusions

The EA analyzed existing conditions and environmental consequences of the Preferred Alternative, Alternatives B-E, and the no action alternative in 11 major resource areas, including

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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 short-term and long-term impacts on noise. Equipment used during the construction period to excavate tower foundations, erect towers, and install antennas will cause short-term increases in ambient noise in the Project area. GovNET will comply with local and State noise ordinances to keep noise impacts to a minimum. GovNET will also ensure that construction equipment is properly maintained and equipped with noise control, such as mufflers, during construction to reduce temporary, short-term noise levels from on-site construction equipment. Noise from backup power generators installed at the telecommunication sites will be low and intermittent over the long-term, operating for approximately 10 minutes per month and whenever the tower sites experience a power outage. Based on these assessments, no significant noise impacts are expected to occur as a result of this Project.

Air Quality

Potential impacts on air quality associated with this Project will be primarily limited to the construction period. Construction activities will have a negligible, short-term impact on the area from construction equipment and vehicle emissions and no long-term impacts to ambient air quality. Limited fugitive dust emissions will also be generated during construction operations. GovNET will implement BMPs to limit fugitive dust emissions, including applying water to suppress dust, as specified by local and county ordinances and/or management agencies. The Project will also result in short-term, minor increases in the use of fossil fuel and associated greenhouse gas (GHG) emissions during construction. Considering the nature and scope of the planned network, GovNET estimates that the Project will result in the release of approximately 2,421 metric tons of carbon dioxide equivalent emissions. Construction activities under Alternatives B and D would have a slightly greater impact on air quality, while Alternatives C and E would have less GHG emissions. However, GHG emissions from any of the proposed alternatives are expected to be well under the Council on Environmental Quality's presumptive effects threshold of 25,000 metric tons of carbon dioxide equivalent emissions from an action. There may also be minimal long-term impacts on air quality from the annual release of an estimated 1.6 metric tons of GHG from the propane powered emergency generators, to be installed as the backup power source for 31 telecommunication tower sites. Construction and operation of the planned network is not expected to have significant adverse impacts on air quality.

Geology and Soils

This Project will require ground disturbance to excavate foundations for 35 new and replacement towers, to build a 180-foot long access road, and to install equipment buildings. Each new tower footprint will disturb approximately 2,500 square feet of soil. Overall, approximately 1.5 acres of soil will be disturbed by the Project. There will be no impact on Prime or Unique Farmland or

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the geology of the Project area. Ground disturbance associated with Alternatives B and D would include 2.0 acres and Alternatives C and E would disturb 1.2 acres. Implementation of a storm water pollution prevention plan (SWPPP) and associated BMPs will minimize sedimentation and erosion impacts on the Project area. These BMPs may include straw wattles, silt fencing, straw bales, and storm drain inlet filters. Based on these assessments, the Project is not expected to result in significant adverse impacts on the geology or soil in the area.

Water Resources

The backbone and infill node telecommunication sites for this Project are on mountain ridge tops or located in urban or rural areas. None of the new towers or existing collocation sites are in or near rivers, streams, wetlands, riparian areas, or Coastal Management Zones. There is the potential for a temporary increase in stormwater discharge and sediment transfer during construction. However, GovNET will develop a SWPPP and implement BMPs to minimize erosion, sedimentation, and turbidity in receiving waters. High water tables are not present at the new tower and equipment building sites. Therefore, no significant direct or indirect impacts to groundwater resources are anticipated. Five of the new monopole node sites are located in floodplain zones. The installation of new monopole structures within the floodplain will not substantially modify the existing topography. Therefore, no significant impacts to floodplains are anticipated. Based on these assessments, the Project is not expected to result in significant adverse impacts on water resources.

Biological Resources

The Project may result in minor impacts on biological resources. Noise and human activity associated with tower construction and antenna installation are expected to disturb some wildlife species, but these effects will be minor and temporary. Some vegetation and tree clearing may be necessary for the new tower sites, thus impacting small amounts of wildlife habitat. Long-term effects and disturbances from placement of the two new towers are expected to be minimal due to their locations and the relatively small footprint of these structures.

On behalf of GovNET, Tierra Right of Way Services, Ltd. (Tierra) collected preliminary background information on threatened and endangered species from the U.S. Fish and Wildlife Service (USFWS), USDA-FS, BLM, Arizona Game and Fish Department (AZGFD), NWR, and Navajo Nation Department of Fish and Wildlife (NNDFW) databases. Based on this data, the USFWS has identified 58 threatened or endangered species, 2 proposed species, and 20 candidate species in the state of Arizona. In addition, BLM and/or USDA-FS lists 16 sensitive species, and the AZGDF identifies 8 wildlife of special concern (WSC) species as potentially occurring in the Project area. Out of the 31 new and existing towers, nine (9) of the backbone tower sites are located within designated critical habitat for the threatened Mexican spotted owl (Strix occidentalis lucida). Minor ground disturbance will occur at 5 of these sites (Summit, Mormon, Strawberry, Signal, and Mt. Lemmon) to install equipment buildings. A 180-foot tower on the USDA-FS Towers Mountain site and a 120-foot tower at the privately-owned Red Mountain site will also be constructed within designated critical habitat for the Mexican spotted

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owl. Antennas will be installed on existing towers at the remaining two sites, which will not involve ground disturbing activities.

GovNET consulted with the USFWS, AZGFD and NWR regarding potential impacts of the Project on biological resources. In a follow-up phone call with Tierra on November 11, 2010, NWR did not have any comments regarding biological resources. To support continued consultation with USFWS and AZGFD, Tierra conducted a biological survey of the Project area. Tierra prepared and submitted to the USFWS and AZGFD for approval a biological assessment report, which includes an analysis of the survey findings and avoidance measures for the Lesser long-nosed bat (Leptonycteris yerbabuenae) and Mexican spotted owl. In a response letter dated July 20, 2011, the USFWS concurred that, based on the information and protective measures provided by GovNET, the Project may affect, but is not likely to adversely affect, the Mexican spotted owl and Lesser long-nosed bat known to occur within the Project area. The USFWS confirmed that, provided the conditions stated in their July 20, 2011 letter and biological assessment are satisfied, no further consultation is required under Section 7 of the Endangered Species Act (ESA). In the July 20, 2011 letter, the USFWS also provided additional avoidance measures in the event that California condors occur at or near any of the Project sites. The USFWS requested additional consultation if the Project plans change, if additional information about listed species or critical habitat becomes available, if a listed species may be affected by any activity that was not evaluated, or if any activities do not meet the criteria for the Mexican spotted owl and Lesser long-nosed bat.

In a letter dated December 2, 2010, the AZGFD requested additional information about Project construction activities, specifically new tower installations. Tierra provided AZGFD with a copy of the biological assessment in May 2011. No additional comments have been received from AZGFD.

GovNET also provided letters to the USDA-FS and BLM requesting additional information for threatened, endangered, and sensitive species. No responses have been received from the USDA-FS or BLM regarding biological resources. GovNET will follow permitting and regulatory requirements outlined by the USFWS, AZGFD, BLM, USDA-FS, NPS, ASLD, NWR, and tribes for all Project activities. GovNET will also consult with the BLM, USDA-FS, NPS, ASLD, NWR, and tribes to minimize potential impacts on local wildlife and species of concern identified on Federal, State, and tribal lands.

Migratory bird species also use habitats across the Project area, including open water bodies, rivers and streams, riparian areas, and forests. To minimize Project impacts on migratory birds, GovNET will comply fully with the stipulations outlined in the Migratory Bird Treaty Act and will follow USFWS guidance (*Interim Guidance on Siting, Construction, Operation, and Decommissioning of Communication Towers* – USFWS 2000), to the greatest extent possible, when designing and constructing the new towers and replacing existing towers, to minimize potential impacts on migratory birds. The Project maximizes collocation opportunities by

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installing new equipment on 39 existing towers or poles and 246 existing buildings to complete the planned network. The Project will construct monopoles and non-guyed, self-supporting towers and will use existing access roads, with the exception of the new Benson site, to build and maintain the tower sites.

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

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Historic and Cultural Resources

In a letter dated October 7, 2010, NTIA initiated consultation on behalf of GovNET with the Arizona State Historic Preservation Office (SHPO) by sending a letter including a project map and description. Following the initiation letter, GovNET finalized project engineering and identified that the forty-one (41) new telecommunications towers and two hundred and eighty-one (281) tower colocations proposed will use FCC licensed regulated spectrum and should be subject to the *Program Comment for Streamlining Section 106 Review for Wireless Communication Facilities Construction and Modification Subject to Review Under the FCC Nationwide Programmatic Agreement (NPA) and/or the Nationwide Programmatic Agreement for the Co-location of Wireless Antenna*, (Program Comment) issued on November 25, 2009.

The Program Comment relieves NTIA from compliance with Section 106 with regard to effects of communication facilities construction or modification that has either undergone or will undergo Section 106 review, or is exempt from Section 106 review, by the FCC under FCC Nationwide Programmatic Agreement (FCC PA) and/or the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (FCC Collocation NPA). Additionally, the Program Comment shifts responsibility from NTIA to FCC to consult with American Indian Tribes as require for Section 106 compliance. However, the FCC NPA and the Collocation NPA may not apply to towers proposed or located on land managed by federal agencies or tribal lands. In these cases, NTIA has Section 106 review responsibility for project activities in collaboration with GovNET and the FCC. Based on a review of the individual tower or collocations, NTIA, the FCC, and GovNET determined that the FCC PA and the FCC Collocation NPA may not apply to fourteen of (14) of the new towers and (7) collocations proposed because nineteen (19) were located on land owned or managed by the U.S. National Parks Service (NPS), U.S. National Forest Service (USDA-FS), and the Bureau of Land Management (BLM) and two (2) of the sites were located on tribal lands of the Navajo Nation and the Gila River Indian Community.

On September 14, 2011, following the identification of the new towers and tower collocations on federal and tribal land and after continued consultation, NTIA, SHPO, and GovNET, entered into a Programmatic Agreement (PA) defining NTIA's responsibility for releasing funds and authorizing construction; identifying the Section 106 review responsibilities of FCC, USDA-FS, BLM, and NPS; and establishing reporting requirements and outlining various administrative protocols.

First, the PA stipulates that NTIA will not release funds and GovNET will not initiate construction of any of the proposed tower sites or collocation sites until Section 106 review for that particular tower has been concluded in accordance with the PA and approved by NTIA. Additionally, in the case project changes or modification are necessary, GovNET is required to notify and seek approval from NTIA and the SHPO and complete any associated Section 106 review prior to initiating construction.

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Second, the PA stipulates FCC will conduct Section 106 reviews for any of the forty-one (41) new towers and two hundred and eighty-one (281) tower collocations subject to the terms of the Program Comment, the FCC NPA, and FCC Collocation NPA. For the two hundred and eighty-one (281) collocations sites, the PA stipulates that installation of collocated equipment on those towers previously subject to Section 106 review may be exempt from Section 106 review. Once FCC confirms a site as exempt from further Section 106 review, NTIA may approve and advance funds and GovNet may initiate construction at that site. For the forty-one (41) new towers and non-exempt collocations, GovNET must provide written documentation describing the conclusion of Section 106 review conducted under the terms of the Program Comment. After review and acceptance of the written documentation, NTIA may approve and advance funds for that particular tower site, and GovNET may initiate construction.

Third, the PA stipulates that USDA-FS, BLM, or NPA are responsible for Section 106 compliance in consultation with SHPO and tribes for proposed new towers or collocations located on land managed by the respective agencies. Further, the PA stipulates that GovNET will provide the SHPO with documentation indicating the land managing agencies determinations of eligibility for historic properties identified, as well as the agencies findings of effect for all proposed new towers and collocations located on the land managed by the relevant agency. NTIA will not release funds or approve construction of any of the proposed new towers or collocations on land owned or managed by USDA-FS, BLM, or NPS until GovNET provides evidence the required Special Use Permits have been obtained and Section Section 106 reviews have been completed with the concurrence of the controlling agency, the SHPO, and any consulting tribes.

Finally, the PA stipulates that GovNET will report to NTIA every three months describing the status of Section 106 review for each tower, the status of project construction, and any changes to the proposed undertaking.

On October 22, 2010, NTIA provided project details through the Tower Construction Notification System to twenty-six (26) tribes interested in the Project's geographical location (Arizona). However, based on the application of the Program Comment and the execution of the Programmatic Agreement, NTIA retained Section 106 review responsibilities – including tribal consultation responsibilities- for only two towers located on the land of federally recognized tribes with Tribal Historic Preservation Officers: the Gila River Indian Community and the Navajo Nation. Tribal consultation for all other sites will either be conducted under the FCC or the federal land management agency permitting the project.

At the request of GovNet, the Gila River Indian Community conducted a Class I Cultural Resource Assessment (CRA) for the proposed installation of new telecommunication equipment at Sacaton Peak location. The tribe evaluated two potential alternatives for installation of new communications equipment by GovNET. Under the first alternative, the proposed activities include the installation of telecommunication equipment on and within an existing City of

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Phoenix tower and equipment shelter. Under the second alternative, the proposed activities include replacing an abandoned Federal Aviation Authority (FAA) tower and equipment shelter on Sacaton Peak. The results of the CRA recommend a finding of no adverse effect resulting from project activities described under either of the proposed alternatives at the Sacaton Peak and concluded that no further archaeological work is required. On August 8, 2011, the Tribal Historic Preservation Officer (THPO) concurred with the recommendation and finding that the project would have No Adverse Effect on cultural or historical resources. However, if any cultural deposits or artifacts were to be observed during the construction activities, our office must be notified, at which point the tribe will dispatch an archaeologist to evaluate the discovery.

Following TCNS notification, GovNET sent a request to the Navajo Nation requesting a review and recommended a finding of No Adverse Effect of a proposed cell tower on Jack Peak, Bitter Springs Arizona. In a letter dated August 24, 2011, the Navajo Nation responded by notifying GovNET that the location of the proposed new tower installation is a sacred site and concurred with a finding of No Adverse Effect only if the proposed action involves collocation of communication equipment rather than construction of a new telecommunications tower. Based on this recommendation, GovNET has modified project activities at the Jack Peak site, and will limit work to the installation of collocation equipment.

If any cultural material is discovered, GovNET will stop construction immediately, notify the SHPO, and retain a qualified archaeologist to assess the cultural materials. In addition, construction will also be stopped if any human skeletal remains or protected Native objects are discovered, and appropriate authorities will be informed, including law enforcement agencies, the SHPO, and interested Tribes.

Based on the agreements and action implemented above, the Project is not expected to have significant adverse impacts on historic and cultural resources.

Aesthetic and Visual Resources

The planned telecommunications network will include new towers and wireless network equipment on existing towers, poles, and buildings, which are located on ridge tops, rural areas, or within urban areas. Placement of additional wireless antennae on existing towers and structures will not significantly diminish visual quality. The effects of viewing an additional antenna will have minimal impact on local aesthetics and visual resources. The new towers planned for this Project will be 60-180-feet high, self-supporting, and free of guy wires to minimize potential visual impacts. Sixteen of the new towers and the three (3) replacement towers will be located near existing towers on existing telecommunication sites. The towers, antennas, and equipment buildings are expected to blend in with existing development, other towers and structures, and trees. The two new telecommunication tower sites will be visible to the surrounding area, but these impacts are not anticipated to be significant. GovNET will meet Visual Resource Management (VRM) guidance and management directives for equipment

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installed on BLM, USDA-FS, NPS, and NWR land. Accordingly, the Project is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

Land Use

Wireless equipment will be installed on 287 existing towers, poles, and structures and 33 towers will be constructed on existing telecommunications sites; land use at these sites will not change. The Project will also construct two (2) new telecommunication sites; long-term land use in these locations will not change significantly. Changes in land use will impact approximately 2,500 square feet at each tower site. GovNET has contacted the USDA-FS, BLM, NPS, ASLD, and Cabeza Prieta NWR to determine the appropriate permits and approvals required to construct and operate the proposed Project within their jurisdictions. In an informal response dated August 22, 2011, the USDA-FS stated that, based on their regulations, their endorsement is for Alternatives B and C, which meet the requirements of their collocation policy. GovNET is continuing to work with the USDA-FS to address their concerns regarding collocations and the new tower proposed at the Tower Mountain site. Alternative D would only be permitted by the USDA-FS if GovNET can demonstrate that collocations or purchasing existing towers was not effective in meeting the purpose and need of the Project. If any new towers are constructed on USDA-FS land, construction activities would be consistent with all applicable USDS-FS land management plans. GovNET will also obtain the necessary permits from the ASLD concerning State Trust owned lands and local county jurisdictions. Through the respective agency permitting processes, the USDA-FS, BLM and ASLD will analyze potential land use impacts and determine whether the Project is consistent with their respective land and resource management plans. GovNET has agreed to comply with all permit conditions issued by the respective Federal, State, and local agencies. Based on these consultations, the Project is not anticipated to result in significant adverse impact on land use.

Infrastructure

Under this Project, GovNET will construct 35 towers on both new and existing telecommunication sites and add wireless equipment to 287 existing towers, poles, and buildings, including both backbone and node sites. Electric utilities will be extended from existing locations to provide power to the new and replaced towers, with the exception of the Chevelon site which will be powered by up to four wind turbines. A 180 foot long access road will be constructed at the Benson tower site to connect to a paved public road. Access may be temporarily restricted to the backbone and node sites due to Project construction activities. The construction of new towers and wireless equipment will introduce new broadband infrastructure to areas that are not currently served, thereby providing a positive impact on infrastructure at these locations. However, under Alternative E, the proposed wireless network would not occur on USDA-FS sites and therefore would diminish the network functionality. Elimination of the USDA-FS backbone sites under Alternative E would also completely disconnect last mile portions of the Project. Overall, the Project, as described under the Preferred Alternative and Alternatives B-D, will have a positive impact on infrastructure in Arizona, and is not anticipated to result in significant adverse impacts on infrastructure.

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Socioeconomic Resources

The Project will expand the existing wireless broadband networks across the state of Arizona. Implementation of the Project will provide enhanced broadband services to schools, libraries, health care facilities, public safety facilities, state and county agencies, and other anchor institutions. The network will help to provide access to educational resources and allow for secure connections for first responders and medical facilities. The Project will not disproportionately affect minority and low-income populations. However, under Alternative E installation of the backbone sites on USDA-FS land would not occur; thereby, disconnecting last mile portions from the network. Disconnected communities would not have the same economic development and educational opportunities as those served by the other alternatives. Overall, the Project is expected to have a positive impact on socioeconomics in the planned service area, and is not anticipated to result in significant adverse impacts on socioeconomic resources.

Human Health and Safety

No hazardous waste sites have been identified near the backbone or node locations. Federal, State, and local regulations pertaining to asbestos and lead paint will be followed for all collocation sites, where applicable. Backup propane generators are designed to contain any lubricating oil leaks and will be housed within equipment buildings. Propone storage tanks will be equipped with remote alarms to indicate any propane leaks.

The Project is not expected to have direct impacts on human health and safety during normal operation. However, human health and safety concerns may arise during construction when such activities occur in close proximity to traffic along roadways and within public areas. BMPs for workplace safety will be implemented to protect workers and the public along the Project route. In addition, all applicable regulations set forth by the Occupational Safety and Health Organization (OSHA) will be followed during construction of the Project. Alternative E would eliminate USDA-FS backbone sites from the network and disconnect communities from public safety facilities, unlike those communities served by the other alternatives. Based on these assessments, the Project is not anticipated to result in significant adverse impacts on human health and safety in the region, and would provide beneficial results by enhancing communications for fire, police, and other first response organizations.

Cumulative Impacts

As described above, the Project will not have significant adverse impacts on any of the environmental resource areas evaluated in the EA. GovNET was not able to identify whether any other projects will simultaneously occur or if future projects will occur at the same Project sites. If simultaneous projects do occur, GovNET will work with Federal, State and local governments, and tribal entities during the permitting process to avoid construction conflicts. As such, no cumulative impacts on the environment are anticipated.

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governments, and tribal entities during the permitting process to avoid construction conflicts. As such, no cumulative impacts on the environment are anticipated.

Decision

Based on the above analysis, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, identified BMPs, and identified 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:

Wayne Ritchie

Chief Administrative Officer

Office of Telecommunications and Information Applications National Telecommunications and Information Administration