Nationwide Public Safety Broadband Network Draft Programmatic Environmental Impact Statement for the Non-Contiguous United States

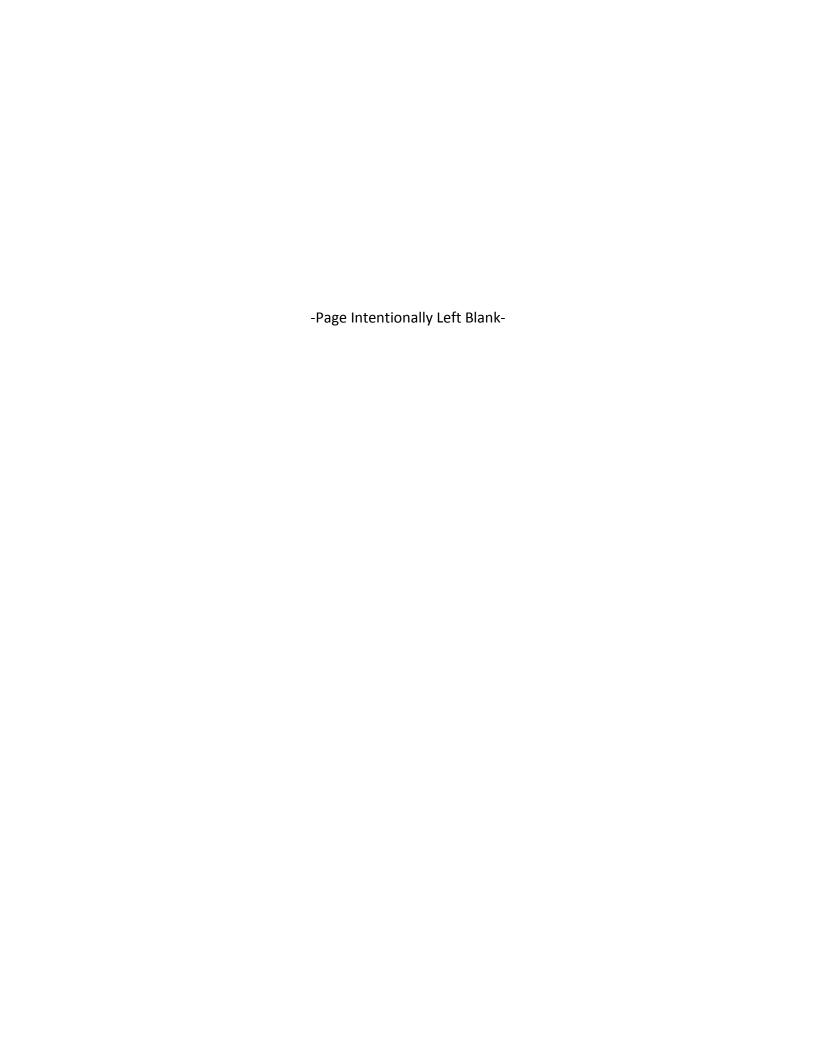












First Responder Network Authority



Nationwide Public Safety Broadband Network

Draft Programmatic Environmental Impact Statement
for the Non-Contiguous United States

Volume 1

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Cooperating Agencies

Federal Communications Commission
General Services Administration
U.S. Department of Agriculture—Rural Utilities Service
U.S. Department of Agriculture—U.S. Forest Service
U.S. Department of Agriculture—Natural Resource Conservation Service
U.S. Department of Defense—Department of the Air Force
U.S. Department of Energy
U.S. Department of Homeland Security

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ACRONYMS AND ABBREVIATIONS

°F	degree Fahrenheit	ATWC	Alaska Tsunami Warning Center
°N	degrees north	AURORA	Alaska Uniform Response Online
$\mu g/m^3$	microgram(s) per cubic meter		Reporting Access
μPa	micro Pascal	BACT	best available control technology
% 0	percent	BCE	before Common Era
A	attained	BCR	Bird Conservation Regions
AAC	Alaska Administrative Code	BGEPA	Bald and Golden Eagle Protection Act
AAFIS	Alaska Public Safety Identification	BLM	Bureau of Land Management
	System	BLS	U.S. Bureau of Labor Statistics
AAQS	Ambient Air Quality Standards	BMP	best management practice
ACHP	Advisory Council on Historic	BRFSS	Behavioral Risk Factor Surveillance
	Preservation		System
ACS	American Community Survey	BSAI	Bering Sea/Aleutian Island
	(U.S. Census Bureau)	BWG	BioInitiative Working Group
ADEC	Alaska Department of Environmental	CAA	Clean Air Act
	Conservation	CAB	Clean Air Branch
ADFG	Alaska Department of Fish and Game	CARB	California Air Resources Board
AGL	above ground level	CBIA	Coastal Barrier Improvement Act of
AIRFA	American Indian Religious Freedom		1990
	Act	CBRA	Coastal Barrier Resources Act of 1982
AJRCCM	American Journal of Respiratory and	CCP	Comprehensive Conservation Plan
	Critical Care Medicine	CDC	Center for Disease Control
AKNHP	Alaska National Heritage Program	CDLNR	Commonwealth Department of Lands
AKOSH	Alaska Occupational Safety and Health		and Natural Resources
AKWAS	Alaska Warning System	CE	Common Era
ALMR	Alaska Land Mobile Radio	CELCP	Coastal and Estuarine Land
ANFIRS	Alaska Fire Incident Reporting System		Conservation Program
ANSCA	Alaska Native Claims Settlement Act	CEPD	Caribbean Environmental Protection
ANSI	American National Standards Institute		Division
APE	Area of Potential Effect	CEQ	Council on Environmental Quality
APLIC	Avian Power Line Interaction	CERCLA	Comprehensive Environmental
	Committee		Response, Compensation, and Liability
APSIN	Alaska Public Safety Information		Act
	Network	CFMC	Caribbean Fisheries Management
AQCR	air quality control region		Council
ARFF	Aircraft Rescue and Firefighting	CFR	Code of Federal Regulations
ARMS	Alaska Records Management System	cfs	cubic feet per second
ARPA	Archaeological Resources Protection	CH_4	methane
	Act of 1979	CHC	Commonwealth Health Center
AS	Alaska Statute	CIA	Central Intelligence Agency
A.S.A.C.	American Samoa Administrative Code	CMIP3	Coupled Model Intercomparison
ASCA	American Samoa Code Annotated		Project phase 3
ASCMP	American Samoa Coastal Management	CNMI	Commonwealth of Northern Mariana
	Program		Islands
ASDMWR	American Samoa Department of	CNMIAC	Commonwealth of Northern Mariana
	Marine and Wildlife Resources		Islands Administrative Code
ASEPA	American Samoa Environmental	CO	carbon monoxide
	Protection Agency	CO_2	carbon dioxide
ASHPO	American Samoa Historic Preservation	CO_{2e}	carbon dioxide equivalents
	Office	COMAR	Committee on Man and Radiation
ASPA	American Samoa Power Authority	CPA	Commonwealth Ports Authority
ATO	Air Traffic Organization		

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CRMP	Coastal Resources Management	FMP	Fishery Management Plan
	Program	FPPA	Farmland Protection Policy Act of
CSP	Central South Pacific		1981
CUC	Commonwealth Utilities Corporation	FR	Federal Register
CWA	Clean Water Act	ft	feet
CZMA	Coastal Zone Management Act	g/hp-hr	grams per horsepower-hour
CZMP	Coastal Zone Management Program	g/mi	grams per mile
DACA	Deployable Airborne Communications	GAP	Gap Analysis Program
	Architecture	GCA	Guam Code Annotated
DAR	Division of Aquatic Resources	GDA	Guam Department of Agriculture
	(Hawaii)	GEPA	Guam Environmental Protection
DAWR	Division of Aquatic and Wildlife		Agency
	Resources (Guam)	GHG	greenhouse gas
dB	decibel(s)	GIS	geographic information system
dBA	A-weighted decibel(s)	GMP	General Management Plan
DBCP	1,2-dibromo-3-chloropropane	GOA	Gulf of Alaska
dBZ	Z-weighted decibel(s)	GRHP	Guam Register of Historic Places
DCP	1,2-dichloropropane	GWP	global warming potential
DEC	Department of Environmental	H_2S	hydrogen sulfide
BIIII	Conservation	HDOH	Hawaii Department of Health
DHHL	Department of Hawaiian Homelands	HEI	Health Effects Institute
DLNR	Department of Land and Natural	ННСА	Hawaiian Homes Commission Act of
DIA	Resources (Hawaii)	HIANG	1920
DMA	Disaster Mitigation Act of 2000	HIANG	Hawaii Air National Guard
DNER	Department of Natural and	HIARNG	Hawaii Army National Guard
	Environmental Resources of	HIHWNMS	Hawaiian Islands Humpback Whale
DOA	Puerto Rico	IIIOGII	National Marine Sanctuary
DOA	Department of Agriculture	HIOSH	Hawaii Occupational Safety and Health
DOD	Department of Defense	ha	Division
DOE DOH	U.S. Department of Energy Department of Health	hp HRD	horsepower
DOH-CAB	Hawaii Department of Health,	HRHP	(Guam) Historic Resources Division Hawaii Register of Historic Places
DOII-CAB	Clean Air Branch	HRS	Hawaii Administrative Rules, Revised
DOT	U.S. Department of Transportation	TIKS	Statute
DPNR	Department of Planning and Natural	НТА	Hawai'i Tourism Authority
DINK	Resources (U.S. Virgin Islands)	HUC	hydrologic unit code
DPS	Department of Public Safety	I/M	Inspection/Maintenance
EA	Environmental Assessment	IARC	International Agency for Research on
EAS	Emergency Alert System	nne	Cancer
EBS	Emergency Broadcast System	IBA	Important Bird Area
EDB	ethylene dibromide	IEEE	Institute of Electrical and Electronics
EFH	essential fish habitat		Engineers
EMS	emergency medical services	IFC	International Finance Corporation
ENSO	El Niño/Southern Oscillation	in	inches
EO	Executive Order	IPCC	Intergovernmental Panel on Climate
EPCRA	Emergency Planning and Community		Change
	Right-to-Know Act	IR	ionizing radiation
ERP	effective radiated power	ITCZ	Intertropical Convergence Zone
ESA	Endangered Species Act	IUCN	International Union for Conservation
ESI	Environmental Sensitivity Index		of Nature
FAA	Federal Aviation Administration	kg/gal	kilograms per gallon
FAD	Fish Aggregating Device	KIRC	Kaho'olawe Island Reserve
FCC	Federal Communications Commission		Commission
FEMA	Federal Emergency Management	LAER	lowest achievable emission rate
	Agency	lb/day	pounds per day
FirstNet	First Responder Network Authority	lb/hp-hr	pounds per horsepower-hour

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LBJ	Lyndon B. Johnson	NP	National Park
Ldn	day-night average sound level	NPDES	National Pollutant Discharge
Leq	equivalent noise levels	- 1.5 2	Elimination System
LNG	liquefied natural gas	NPL	National Priorities List
LTE	Long Term Evolution	NPS	National Park Service
$\mu g/m^3$	microgram(s) per cubic meter	NPSBN	nationwide public safety broadband
μPa	micro Pascal		network
m/s	meter per second	NRCS	Natural Resources Conservation
MBTA	Migratory Bird Treaty Act		Service
mg/m ³	Milligram(s) per cubic meter	NRHP	National Register of Historic Places
mgd	million gallons per day	NSPS	New Source Performance Standards
MHz	megahertz	NTIA	National Telecommunications and
MLRA	Major Land Resource Area		Information Administration
mm/s	millimeters per second	NVSR	National Vital Statistics Report
MMPA	Marine Mammal Protection Act	NWI	National Wetland Inventory
MOA	Memorandum of Agreement	NWR	National Wildlife Refuge
MPA	Marine Protected Area	NWWS	National Weather Wire Satellite
mph	miles per hour	OH A	System
MSA	Magnuson-Stevens Fishery	OHA	Office of History and Archaeology
MTD	Conservation and Management Act	OIA	Office of Insular Affairs (USDI)
MTR	Military Training Route	OSHA	Occupational Safety and Health
MUID	Map Unit Identification Data	D.A	Administration
MW mW/cm ²	megawatt milliwatts per centimeter squared	PA	Programmatic Agreement Port Authority of Guam
niw/cm N	north; not attained	PAG PAHO	Pan American Health Organization
N_2O	nitrous oxide	PCB	polychlorinated biphenyl
NA NA	not applicable; not assessed	PCP	pentachlorophenol
NAAQS	National Ambient Air Quality	PDO	Pacific Decadal Oscillation
NAAQS	Standards	PEIS	Programmatic Environmental Impact
NAGPRA	Native American Graves Protection	1 LIS	Statement
TW TOT TO	and Repatriation Act	PL	Public Law
NANSR	Nonattainment New Source Review	PM	particulate matter
NAWAS	National Warning System	PM_{10}	particulate matter up to 10 micrometers
NCA	National Climate Assessment	10	in diameter
NCD	non-communicable disease	$PM_{2.5}$	particulate matter up to 2.5
NCDC	National Climatic Data Center	2.3	micrometers in diameter
NCN	no common name	POPs	points of presence
NCRP	National Council on Radiation	ppm	parts per million
	Protection and Measurements	PRDNER	Puerto Rico Department of Natural and
ND	no data		Environmental Resources
NE	northeast	PREQB	Puerto Rico Environmental Quality
NEPA	National Environmental Policy Act		Board
NESHAP	National Emission Standards for	PR OSHA	The Puerto Rico Occupational Safety
	Hazardous Air Pollutants		and Health Administration
NFIP	National Flood Insurance Program	PRASA	Puerto Rico Aqueduct and Sew
NFIRS	National Fire Incident Reporting		Authority
	System	PREPA	Puerto Rico Electric Power Authority
NHPA	National Historic Preservation Act	PRSHPO	Puerto Rico State Historic Preservation
NIR	non-ionizing radiation	DGD	Office
NMFS	National Marine Fisheries Service	PSD	Prevention of Significant Deterioration
NMHC	non-methane hydrocarbon compounds	PUAG	Public Utility Agency of Guam
NMOG	non-methane organic compounds	PV	photovoltaic
NNE NOAA	north-northeast	RAN	radio access network
NOAA	National Oceanic and Atmospheric	RCP A	Representative Concentration Pathway
NOx	Administration	RCRA	Resource Conservation and Recovery Act
INUX	nitrogen oxides		ACI

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RF radio frequency Regulation Identification Number RIN rms root mean square ROW right-of-way State Air Quality Standards **SAAOS** SAFETEA-Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy LU for Users **SARA** Superfund Amendments and Reauthorization Act of 1986 **SCD** State Civil Defense SE Standard of Error **SHPO** State Historic Preservation Office SIP State Implementation Plan SLR sea level rise **SMA** Special Management Area SMS Scenery Management System SO_2 sulfur dioxide SOx sulfur oxides **SPCZ** South Pacific Convergence Zone **SPOC** Single Point of Contact Special Report on Emission Scenarios **SRES** sole source aquifer SSA STATSGO2 State Soil Geographic [Database] SW southwest Territory Ambient Air Quality **TAAQS** Standards TCP traditional cultural property **TEMCO** Territorial Emergency Management Coordinating Office **TMDL** Total Maximum Daily Load TOC total organic compound tpy tons per year TRI Toxic Release Inventory **TSCA** Toxic Substances Control Act U.S. **United States** University of Alaska Museum Earth **UAMES** Sciences **USACE** U.S. Army Corps of Engineers United States Code USC **USDA** U.S. Department of Agriculture USDI U.S. Department of the Interior U.S. Environmental Protection Agency **USEPA USFWS** U.S. Fish and Wildlife Service USGCRP U.S. Global Climate Change Research Program U.S. Geological Survey **USGS** USVIDOH U.S. Virgin Islands Department of Health **USVIPD** U.S. Virgin Islands Police Department UVA University of Virginia

volcanic smog vog Visual Resource Management VRM W watt(s) W/m^2 watts per meters squared Water and Power Authority WAPA WHO World Health Organization WIMARCS West Indies Marine Animal Research and Conservation Science WNP Western North Pacific WNW west-northwest WPC watts per channel WPRFMC Western Pacific Regional Fishery

Management Council

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Virgin Islands Port Authority

Virgin Islands State Historic

volatile organic compound

Virgin Islands Code

Preservation Office

VIC

VIPA VISHPO

VOC

1. INTRODUCTION

1.1. OVERVIEW AND BACKGROUND

Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (*Pub. L. No. 112-96, Title VI, 126 Stat. 156* (*codified at 47 USC 1401 et seq.*) (the Act) created and authorized the First Responder Network Authority (FirstNet) to ensure the establishment of a nationwide public safety broadband network (NPSBN) based on a single, national network architecture (*47 USC § 1422(b)*). FirstNet was created as an independent authority within the United States (U.S.) Department of Commerce's National Telecommunications and Information Administration (NTIA), the Executive Branch agency that is principally responsible for advising the president on telecommunications and information policy issues.

The Act meets a long-standing and critical national infrastructure need to create a nationwide broadband network that would, for the first time, allow police officers, fire fighters, emergency medical service professionals, and other public safety officials to effectively communicate with each other across agencies and jurisdictions. The NPSBN (i.e., the Proposed Action) is intended to cover all 50 states, 5 territories, and the District of Columbia.

The Act charges FirstNet with taking all actions necessary to ensure the building, deployment, and operation of NPSBN, by, at a minimum:

- Ensuring nationwide standards for use and access to the network $(47 \text{ USC} \lessgtr 1426(b)(1)(A))$;
- Issuing open, transparent, and competitive requests for proposals to the private sector (47 USC § 1426(b)(1)(B));
- Encouraging use of existing commercial wireless infrastructure to speed deployment, $(47 \ USC \ \S \ 1426(b)(1)(C))$; and
- Managing and overseeing private sector entities that build, operate, and maintain the network $(47 \text{ USC } \S 1426(b)(1)(D))$.

In addition to these requirements, the Act mandates careful consideration of rural areas. This includes requiring FirstNet, to the maximum extent economically desirable, to include deployment phases with substantial rural coverage milestones as part of each construction and deployment phase of the network $(47 \ USC \ \S \ 1426(b)(3))$.

The lack of interoperability in public safety communications, and the hazards associated with it have been known within the public safety community and the telecommunications industry for quite some time. In 1996, the Public Safety Wireless Advisory Committee, which was established by the Federal Communications Commission (FCC) and NTIA in 1995, published a report on the current state of public safety wireless communications (*Public Safety Wireless Advisory Committee 1996*).

The report identified three major problems:

- 1. The radio frequencies allocated to public safety were congested and growing more so;
- 2. The ability of officials from different public safety agencies to communicate with each other was limited due to multiple frequency bands, incompatible equipment, and a lack of standardization in repeater spacing and transmission formats; and
- 3. Public safety officials were unable to effectively pursue their missions because they were not able to take advantage of cutting-edge communications technologies that would make their job performance safer and more efficient.

The report concluded that "unless immediate measures are taken to alleviate spectrum shortfalls and promote interoperability, Public Safety agencies will not be able to adequately discharge their obligation to protect life and property in a safe, efficient, and cost effective manner" (*Public Safety Wireless Advisory Committee 1996*). The report went on to describe interoperability issues that hampered emergency response activities in the 1993 World Trade Center bombing in New York City and the 1995 Oklahoma City bombing of the Alfred P. Murrah Federal Building. It further emphasized that these concerns also applied to more routine, day-to-day emergency response activities, and that the needs of the public safety community – with regard to security, resilience, redundancy, and coverage – were unique and mission-critical.

Although these communications challenge that face the public safety community were known, the true genesis of the NPSBN lies with *The 9/11 Commission Report* (the Report), published on July 22, 2004 (*National Commission on Terrorist Attacks upon the United States 2004*). The Report analyzed the terrorist attacks of September 11, 2001 and sought to provide recommendations and new paths forward to ensure greater public safety based on the events that transpired on that day. The Commission interviewed more than 1,200 individuals and reviewed millions of pages of documents in an effort to understand how the attacks were possible and how to best attempt to prevent such a tragedy from recurring.

The Report identified a critical need for improved communications capabilities for the public safety community through the "expedited and increased assignment of radio spectrum for public safety purposes" (*National Commission on Terrorist Attacks upon the United States 2004*). As numerous onsite reports from public safety personnel at the World Trade Center, the Pentagon, and Somerset County, Pennsylvania, indicated, the lack of interoperable communications capability among the multiple police, fire, and emergency medical services personnel hampered rescue efforts and in many cases likely led to an increased loss of life. Hundreds of police officers and fire fighters, including off-duty personnel who reported to the scene to engage in rescue efforts upon learning of the events that were unfolding, were killed in the line of duty; this amounted to the largest loss of first responders in a single event anywhere in history (*National Commission on Terrorist Attacks upon the United States 2004*). In 2012, the Act created FirstNet with the primary purpose of designing, building, and operating a dedicated public safety communications network to provide first responders with the tools they need to do their jobs more effectively and to minimize the loss of life in the event of any future natural or manmade emergencies or disasters.

The Act also establishes a process allowing states and territories to determine whether to participate in the FirstNet proposed network for that state or conduct their own deployment of a radio access network (RAN) in their respective states (47 USC § 1442(e)). A state that chooses to deploy its own RAN is required by the Act to follow certain procedural requirements, including submitting an alternative plan to the FCC for deployment/construction, maintenance, and operation of the RAN within that state. If the FCC approves the alternative plan, the state could apply to NTIA for a grant to construct the RAN within the state, and must apply to NTIA to lease spectrum capacity from FirstNet (47 USC § 1442(e)(3)(C)).

The Act establishes in the U.S. Department of the Treasury a fund known as a "Network Construction Fund." This fund must be used by FirstNet to carry out its statutory mission. The source of the funds to be deposited came from the proceeds of incentive auctions that are authorized under the Act. Prior to the deposit of proceeds from the incentive auctions, Congress authorized NTIA to borrow up to \$2 billion from the Treasury in order for FirstNet to carry out its responsibilities under the Act $(47 \ USC \ 1427(a)(3))$. However, NTIA is required to reimburse the Treasury, without interest, for any of the funds borrowed with the proceeds it receives from the incentive auctions $(47 \ USC \ 1427(a)(3))$.

As a federal entity, FirstNet is required to comply with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 et seq.), which requires that the government examine the environmental, social, historic, and cultural impacts of its Proposed Actions before it irretrievably commits resources to undertake them. Furthermore, FirstNet must comply with its own NEPA implementing instructions, which were finalized and published in the Federal Register (79 FR 23945 [April 29, 2014]). FirstNet published a Notice of Intent in the Federal Register to prepare five coordinated Programmatic Environmental Impact Statements (PEISs) (79 FR 67156 [November 12, 2014]). The PEISs analyze the potential direct, indirect, and cumulative impacts of the Proposed Action as well as alternative approaches to the deployment/construction, operation, and maintenance of the NPSBN on natural, cultural, and social resources. Each of the five PEISs analyzes potential impacts in a particular region of the country.

1.2. PROGRAMMATIC APPROACH AND TIERING

A programmatic environmental document, such as the five coordinated PEISs being developed for the Proposed Action, is prepared when an agency is proposing to carry out a broad action, program, or policy. FirstNet has determined that the design, deployment/construction, and operation of the NPSBN is a broad action with nationwide implications. This approach, which considers the full planning area, provides for the broadest and most extensive NEPA analysis in order to support the balancing of different considerations, including social, economic, historic, and environmental issues. Furthermore, the programmatic approach creates a comprehensive analytical framework that assesses potential impacts expected from the program as a whole. It also supports any subsequent site-specific environmental analyses that may be required for individual actions at specific locations, once they are identified. Finally, and as discussed in the introduction to each of the Environmental Consequences sections, the programmatic approach

allows FirstNet to identify and define four categories of actions and associated levels of potential impact as described below:

- Potentially significant, where there is substantial evidence that an effect may be significant;
- Less than significant with best management practices (BMPs) and mitigation measures incorporated, where the use of mitigation measures reduce an effect from a potentially significant impact to a less than significant impact;
- Less than significant, where the action creates impacts but no significant impacts; or
- *No impact,* which applies where an action does not create an impact.

To streamline the NEPA process and avoid repetition, the White House Council on Environmental Quality (CEQ) regulations encourage federal agencies to develop a tiered approach to their analyses (40 Code of Federal Regulations [CFR] 1502.20), by working from broad, general NEPA documents addressing large-scale program-level impacts and decisions down to site-specific documents. The PEISs are intended to provide broad analysis and direction regarding the overall potential impacts of the NPSBN. When a proposed network design is ready, and specific sites are proposed for deployment, the decision to deploy the NPSBN would not be revisited; instead, subsequent memoranda, Categorical Exclusions, Environmental Assessments (EAs), or EISs would be "tiered" off of the PEISs, and would summarize, or incorporate by reference, much of the detailed analyses presented in the PEISs as a means of streamlining the NEPA process (40 CFR 1500.4/II). To satisfy NEPA, a Record of Environmental Consideration would be prepared for activities associated with the design, deployment/construction, and operation of the NPSBN that fall within the range of activities analyzed in the PEISs and do not have any extraordinary circumstances that would require further study. Site-specific actions, once defined, would be evaluated against the analyses presented in the programmatic review for future NEPA compliance, and the appropriate level of NEPA review would be determined by FirstNet and developed accordingly.

1.3. PROJECT REGIONS AND DESCRIPTION OF THE PROPOSED ACTION AREA

FirstNet, in consultation with CEQ, decided to analyze the potential impacts of the NPSBN in five regions, as shown in Figure 1.3-1.

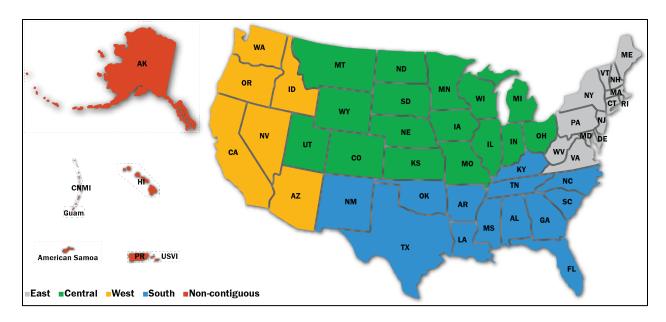


Figure 1.3-1: FirstNet Programmatic Environmental Impact Statement Regions of Analysis

The single, unified analysis for the entire NPSBN has been divided into the five regions as illustrated in Figure 1.3-1 in order to provide a greater depth of information and to more efficiently support FirstNet's mission objectives. The FirstNet PEIS Proposed Action area would cover the geography of the 50 states, the 5 territories, the District of Columbia, and 567 tribal nations.

This Draft PEIS focuses on the non-contiguous region encompassing two states and five territories. The states/territories reviewed in the non-contiguous region PEIS include Alaska, Hawaii, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. This region includes both rural and wilderness areas (e.g., Alaska) and more densely populated areas (e.g., Puerto Rico). To aid the reader, the existing environment and environmental consequences are compiled into state/territory-specific chapters.

1.4. PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to develop the NPSBN. The NPSBN is intended to facilitate the use of rugged, easy-to-use devices and provide a set of applications and services on a single, interoperable platform built to open, non-proprietary commercially-available standards for emergency and daily public safety communications. These applications and services would enhance the ability of the public safety community to perform more reliably, effectively, and safely. The NPSBN would also provide a backbone to allow for improved communications by carrying high-speed data, location information, images, and, eventually, streaming video. This capability would increase situational awareness during an emergency, thereby improving the ability of the public safety community to effectively engage and respond.

The FirstNet network would be "hardened" from the physical layer, user access, and cyber security perspectives to be more resilient to impacts from natural and manmade disasters. Hardening refers to a variety of methods that may be used to make a structure more resistant to

failure, whether through physical reinforcement of a structure, redundant sources of emergency power, or additional firewalls and cybersecurity measures. These efforts would be designed not only to ensure that the network has greater resistance to system failure than what is currently available, but also that it can recover more rapidly should failure occur at any point in the system. The goal would be to provide not only interoperability, but also improved operability in the event of a natural or manmade disaster. The network operating standards would also provide local control to public safety agencies, allowing for more control over the configuration, deployment, and management of multiple types of Information Technology resources, referred to as provisioning, as well as device features and reporting.

The Proposed Action is needed to address existing deficiencies in public safety communications interoperability, durability, and resiliency that have been highlighted in recent years for the ways in which they have hindered response activities in high profile natural and manmade disasters. Today, first responders rely on numerous separate, incompatible, and often proprietary land mobile radio networks. This makes it difficult, and at times impossible, for emergency responders from different jurisdictions to communicate, especially during major emergencies that require a multi-jurisdictional response (*National Task Force on Interoperability 2005*).

During the September 11 attacks, members of the public safety community, who risked their own safety on behalf of others, were unable to communicate with each other on radio systems operating on different, incompatible frequencies. Additionally, emergency messages could not reach first responders as wireless and wire-line networks were overwhelmed with traffic. At the Pentagon, commanders had to resort to sending runners with paper messages to forward instructions to those trying to save as many lives as possible.

In the years that followed these events, the federal government provided billions of dollars and valuable radio spectrum to promote interoperability and improve operations (*CRS 2011*). Subsequent disasters, however, have shown that public safety response is still often compromised by an inability to communicate due to radio systems operating on different, incompatible frequencies. This is largely the result of the fragmented initial design and uncoordinated upgrades of public safety communications. Most upgrades were planned and executed at the local level; what was lacking was an overarching plan to connect all first responders under one dedicated interoperable system.

Four years after September 11, the Hurricane Katrina disaster response in August 2005 highlighted the equally fundamental challenge of operability. The collapse of critical infrastructure proved challenging throughout most of the region affected, as failures in one sector led to failures in others. The physical communications infrastructure in Louisiana, Mississippi, and Alabama was devastated, with more than 3 million customer telephone lines destroyed; in New Orleans, only two FM and two AM radio stations out of 41 survived the storm and subsequent flooding. Almost 2,000 cell towers were knocked out, which severely degraded Land Mobile Radio communications. At one time, more than 35 public safety answering points were out of service, which resulted in a weeks-long, sustained loss of 911 services in some parts of the region (*Miller 2006*). This rendered the issue of interoperability moot, since the equipment and

infrastructure on which the system relied were not operable to begin with (*U.S. House of Representatives 2005*).

Many of these same challenges presented themselves again in October 2013 when Hurricane Sandy battered the northeast U.S. At the peak of the storm, approximately 25 percent of all cell sites across 10 states and the District of Columbia were out of service, resulting in the same loss of basic operability seen in previous events (Hurricane Sandy Rebuilding Task Force 2013). The loss of power and loss of backhaul capacity¹ significantly impacted the functionality of the telecommunications infrastructure in the affected regions; one of the recommendations of the Hurricane Sandy Recovery Task Force was to "develop a resilient power strategy for wireless and data communications infrastructure and consumer equipment" (Hurricane Sandy Rebuilding Task Force 2013)This underscored the need for a disaster-resistant network that could continue to function in an emergency, and that could recover quickly from a failure at a single point somewhere in the system without that point failure causing a ripple effect of failures throughout the system.

In May 2014, the National Public Safety Telecommunications Council published its final report, *Defining Public Safety Grade Systems and Facilities*, which provides information and recommendations for resiliency and durability in a communications system designed to resist failures due to manmade or natural disasters (*National Public Safety Telecommunications Council 2014*). The NPSBN is intended to have a higher level of redundancy and resiliency than current commercial networks in order to support the public safety community effectively.

1.5. FEDERAL AGENCY PARTICIPATION

1.5.1. Lead Agency

As noted in Section 1.1, Overview and Background, FirstNet is the lead agency for the environmental review consistent with NEPA, the National Historic Preservation Act (NHPA) of 1966 Section 106 consultation process, and the Endangered Species Act (ESA) Section 7 consultation process for the Proposed Action. As the lead agency, FirstNet is directing the development of the five PEISs, the tribal consultation process, and has initiated consultation with the U.S. Fish and Wildlife Service (USFWS) to determine the likelihood of potential effects on listed species and migratory birds. FirstNet is also coordinating with cooperating agencies to ensure compliance with the laws, regulations, and Executive Orders (EOs) discussed in Section 1.8, Overview of Relevant Laws and Executive Orders.

1.5.2. Cooperating Agencies

Lead agencies, such as FirstNet, that are preparing a NEPA document are required to do so in cooperation with other federal, state, and/or local agencies with jurisdiction by law or with special expertise with respect to an environmental impact involved in the proposal (40 CFR 1508.5). Outside of the scoping process, this cooperation can be formalized between the lead

¹ Backhaul capacity refers to the ability of a network to transfer data from a radio base station or cell site to a larger core network. These connections are typically made via fiber optic cable and microwave technology.

agency and another agency with a Memorandum of Understanding that formalizes the cooperating agency status and responsibilities.

In letters dated January 16, 2015, FirstNet invited 37 federal agencies to participate in the development of the PEISs as cooperating agencies. Eight agencies accepted the invitation: the FCC; the General Services Administration; the U.S. Department of Agriculture's (USDA) Rural Utilities Service; the USDA's U.S. Forest Service; the USDA's Natural Resources Conservation Service; the U.S. Air Force; the U.S. Department of Energy; and the U.S. Department of Homeland Security, which includes the Federal Emergency Management Agency, the U.S. Coast Guard, and the U.S. Customs and Border Protection. Appendix A, *Cooperating Agencies*, contains a complete list of those agencies invited to become cooperating agencies.

1.5.3. Consulting Parties

Under the Act, FirstNet is required to conduct all consultation and network planning activities in a given state or territory through a governor-appointed state Single Point of Contact (SPOC) (47 USC § 1442(d)). In a letter dated April 29, 2015, FirstNet invited all 56 SPOCs to be consulting parties on the development of the PEISs in order to promote transparency and partnership. As of the date of publication, 13 SPOCs accepted the invitation, which afforded them the opportunity to review and comment on draft documents prior to public release.

1.6. CULTURAL RESOURCES CONSULTATION

As a federal entity, FirstNet has obligations under the NHPA to understand and address the potential impacts of its proposed undertakings on historic properties; one of the ways in which this is accomplished is through consultation with State Historic Preservation Offices and government-to-government consultation with federally recognized American Indian tribes. As the lead agency for compliance with Section 106 of the NHPA, FirstNet is committed to meaningful engagement with Tribal Nations. In a letter dated January 30, 2015, FirstNet contacted tribal leaders and Tribal Historic Preservation Officers, where applicable, to initiate formal, government-to-government consultation with all 567 federally recognized American Indian tribes. In a subsequent letter dated May 15, 2015, FirstNet initiated consultation with 17 Native Hawaiian Organizations. As of the date of publication, FirstNet received responses from 38 tribes with requests to consult on the Proposed Action. FirstNet anticipates consulting with Pacific Islanders on American Samoa, Guam, and the Northern Mariana Islands as well as the communities in Puerto Rico and the U.S. Virgin Islands.

1.7. THE NEPA PROCESS AND PUBLIC INVOLVEMENT

Under NEPA, the primary objectives of each PEIS are to:

- Identify and assess potential impacts on the natural and human environment that would result from implementation of the Proposed Action;
- Describe and evaluate reasonable alternatives, including the Preferred Alternative, a No
 Action alternative, and other alternatives that would avoid or minimize adverse effects to the
 environment;

- Identify and recommend specific BMPs and mitigation measures, as necessary, to avoid or minimize potential environmental, social, historic, and cultural impacts; and
- Facilitate public, tribal, and agency involvement in identifying significant environmental impacts.

This section provides an overview of the overall PEIS public involvement process (see Section 1.7.1) and, more specifically, the scoping process for the Draft PEISs (see Section 1.7.2).

1.7.1. Public Involvement

NEPA requires draft and final versions of a PEIS to be published, fostering public involvement through two public opportunities: the scoping public comment period prior to the preparation and publication of the Draft PEIS, and the Draft PEIS public comment period prior to the preparation and publication of the Final PEIS. FirstNet has engaged with the public to provide opportunities for comment in full compliance with the letter and spirit of the law.

The content of a Draft PEIS is based on a process called "scoping." The regulations implementing NEPA require that scoping be included in the environmental analysis process (40 CFR 1501.7). Scoping for the Draft PEIS included several key elements: 1) gathering information and ideas from the public and key stakeholder groups, such as the public safety community, about the analytical issues related to the NPSBN; 2) making determinations about which issues should be analyzed; and, 3) identifying alternatives to the Proposed Action that warranted analysis. The scoping process is ongoing and critical to informing agency actions in that it begins before the PEIS analyses are initiated and continues throughout document development.

1.7.2. Scoping

On November 12, 2014, FirstNet published a Notice of Intent in the *Federal Register* to prepare five coordinated PEISs (79 FR 67156 [November 12, 2014]). This publication kicked off a 45-day public comment period wherein members of the public were able to submit comments to FirstNet via traditional mail or via e-mail. A series of public meetings were also held where participants had the opportunity to learn about the Proposed Action, talk directly with FirstNet environmental staff, and provide input regarding the scope and analysis of the Proposed Action. The public meetings were held in the following locations:

- Washington, D.C.—Tuesday, November 25, 2014 (4-8 p.m.);
- Honolulu, HI—Tuesday, December 2, 2014 (4-8 p.m.);
- San Francisco, CA—Thursday, December 4, 2014 (4-8 p.m.);
- Tucson, AZ—Thursday, December 4, 2014 (4-8 p.m.);
- Kansas City, MO Tuesday, December 9, 2014 (4-8 p.m.);
- New Orleans, LA—Thursday, December 11, 2014 (5-9 p.m.); and
- New York, NY—Monday, December 15, 2014 (4-8 p.m.).

The Scoping Summary Report can be found in Appendix B, First Responder Network Authority Nationwide Public Safety Broadband Network Programmatic Environmental Impact Statement Scoping Summary Report. The following major items were identified during the formal scoping comment period and in public meetings:

- Potential impacts of the NPSBN on sensitive natural resources;
- Concerns regarding the potential impacts of tower placement on culturally and ecologically sensitive areas, such as Tumamoc Hill in Tucson, Arizona; and
- The potential impact of the NPSBN on existing public safety communications infrastructure and operations.

FirstNet continued to accept comments after the close of the formal scoping period in order to allow the public as many opportunities as possible to provide input. Additional comments were received on the topics mentioned above, as well as on the topic of potential impacts of radio frequency radiation.

1.8. OVERVIEW OF RELEVANT FEDERAL LAWS AND EXECUTIVE ORDERS

This section provides a brief explanation of major federal laws and EOs that are relevant to the Proposed Action. Given the expected nature and extent of the proposed NPSBN, it is likely that a wide range of diverse resources could be potentially impacted to varying degrees, including wetlands, coastal areas, farmland, wildlife, marine areas, migratory birds, and social or cultural resources, among others. Therefore, there are multiple laws and EOs that FirstNet is obliged to consider as part of this analysis. This is not intended to be a comprehensive list of all applicable laws and EOs, instead it provides context with regard to those laws and EOs that are most likely to be directly triggered by the Proposed Action. Appendix C, *Environmental Laws and Regulations*, provides a comprehensive list of applicable laws and regulations that were considered as part of the Proposed Action.

1.8.1. National Environmental Policy Act

NEPA (42 USC 4321 et seq.) requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their Proposed Actions and reasonable alternatives to those actions. NEPA also established CEQ. As part of the Executive Office of the President, CEQ coordinates federal environmental efforts and is responsible for advising the president on environmental policy matters. CEQ has also promulgated regulations implementing NEPA, which are binding on all federal agencies. These regulations address the procedural provisions of NEPA and the administration of the NEPA process, including preparation of EISs.

NEPA is applicable to all "major" federal actions affecting the quality of the human environment. A major federal action is an action with effects that may be major and which are potentially subject to federal control and responsibility. These actions may include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies; new or revised agency rules, regulations,

plans, policies, or procedures; and legislative proposals. FirstNet has determined the deployment/construction, operation, and maintenance of the NPSBN qualifies as a major federal action under these criteria and therefore requires a review under NEPA.

1.8.2. National Historic Preservation Act

The goal of the NHPA (formerly 16 USC § 470 et seq., now 54 USC § 100101 et seq.) is to empower federal agencies to act as responsible stewards of cultural resources when agency actions affect historic properties. The NHPA established the Advisory Council on Historic Preservation, an independent federal agency that promotes the preservation, enhancement, and productive use of our nation's historic resources, and advises the President and Congress on national historic preservation policy. The NHPA also authorizes the Secretary of the Interior to expand and maintain a National Register of Historic Places composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. In carrying out their responsibilities under Section 106, the NHPA requires that federal agencies consult with federally-recognized Indian tribes and Native Hawaiian Organizations that attach traditional religious and cultural significance to eligible or listed historic properties that could potentially be affected by the agency's actions. The intent of the consultation is to identify historic properties potentially affected by the undertaking and to seek ways to avoid, minimize, or mitigate any adverse effects on those properties.

The NHPA details a 4-step process for Section 106 consultation that requires each federal agency to: 1) initiate a review process to evaluate any proposed action; 2) identify historic properties that could be affected by the proposed federal, or federally-licensed, permitted or funded, action; 3) assess whether the action has the potential to affect properties that are listed in or are eligible for listing in the National Register of Historic Places; and, 4) resolve the adverse effects. FirstNet has determined that the deployment/construction, operation, and maintenance of the NPSBN qualifies as an undertaking under Section 106, and will, therefore, require analysis under NHPA.

1.8.3. Endangered Species Act

The ESA (16 USC § 1531 et seq.) was established to conserve and protect threatened and endangered species. Under most circumstances, the ESA prohibits take, which is defined as harming, up to and including loss of life, or harassing a listed species. Section 2 of the ESA sets forth the purposes and policy of the Act, which include providing a means to conserve endangered and threatened species' ecosystems and providing programs for the conservation of such species. The ESA requires federal agencies to conserve threatened and endangered species, and use their authorities to further the purposes of the ESA.

Accordingly, Section 7 of the ESA requires each federal agency to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse modification of critical

habitat for such species. Federal agencies are further required to consult with the appropriate federal agency, either the USFWS or the National Marine Fisheries Service (NMFS), for federal actions that "may affect" a listed species or adversely modify critical habitat. Federal agencies must use the best scientific and commercial data available when making an effect determination relating to the impact of their actions. Given the likely extent of the NPSBN, FirstNet has determined that consultation under the ESA is required to determine whether there are any expected impacts to endangered and threatened species or their critical habitat.

1.8.4. Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC § 1801 et seq.) is the primary law governing fisheries management in U.S. federal waters. The MSA is intended to foster long-term biological and economic sustainability of U.S. marine fisheries through the prevention of overfishing, the rebuilding of overfished stocks, and increasing long-term economic and social benefits to ensure a safe and sustainable supply of seafood. The MSA extended U.S. jurisdiction from 12 nautical miles to 200 nautical miles and established eight regional fisheries management councils to develop Fishery Management Plans (FMPs), which must comply with conservation and management standards to promote sustainable fisheries management. The FMPs also define essential fish habitat, which is the aquatic habitat where fish spawn, breed, feed, and grow through various life stages; this habitat includes marine waters, wetlands, coral reefs, seagrasses, and rivers. The FMPs further define habitat areas of particular concern, which are high-priority areas that are rare, particularly sensitive, or critical to overall ecosystem functions. FirstNet could encounter marine resources in the deployment/construction and operation of the NPSBN, particularly for those parts of the network intended to provide coverage and service to coastal areas.

1.8.5. Marine Mammal Protection Act

The Marine Mammal Protection Act (16 USC § 1361 et seq.) prohibits takes of all marine mammals in the U.S. (including territorial seas) with few exceptions. Permits for scientific research on marine mammals and permits to enhance the survival or recovery of a species, issued under Section 104 of the Marine Mammal Protection Act, are two such exceptions, neither of which would likely be pursued by FirstNet as part of the Proposed Action. For threatened and endangered marine mammals, any activities that could affect ESA-listed species must be consistent with the ESA as well. Deployment/construction and operation of the NPSBN could include activities that occur in or adjacent to marine areas for those parts of the network intended to provide coverage to coastal areas, including mainland and island coastlines.

1.8.6. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC § 703-712) was enacted to ensure protection of migratory bird resources that are shared among the U.S., Canada, Mexico, Japan, and Russia. The MBTA prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, of any migratory bird, their eggs, parts, and nests, except as authorized under a valid permit. The responsibilities of federal agencies to protect migratory

birds are set forth in EO 13186 (see below). USFWS is the lead agency for migratory birds. The USFWS issues permits for takes of migratory birds for activities such as scientific research, education, and depredation control, but does not issue permits for incidental take² of migratory birds. FirstNet activities, such as tower construction, would have the potential to impact migratory bird species; therefore, FirstNet is obliged under the MBTA and EO 13186 to analyze the potential impacts of such actions.

1.8.7. Clean Water Act

The Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA) (33 USC § 1251 et seq.), establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. The CWA defines waters of the U.S. to include all interstate waters, lakes, rivers, streams, territorial seas, tributaries to navigable waters, interstate wetlands, wetlands that could affect interstate or foreign commerce, and wetlands adjacent to other waters of the U.S. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, without a permit. Under Sections 303 and 305 of the CWA, states must review all "existing and readily available" state surface water quality data to compare against their water quality standards and determine whether waterbodies will be classified as higher quality (Category 1 or 2) or lower quality (Categories 3, 4, or 5). A water pollution reduction plan, or total maximum daily load, may be required for waterbodies that are classified as lower quality. The total maximum daily load defines the upper threshold of a given pollutant that a waterbody can contain and still meet water quality standards

Under Section 401 of the CWA, discharges of pollutants, such as storm water from point or nonpoint sources³ into waters of the U.S. are authorized through the National Pollutant Discharge Elimination System (NPDES) permitting program. The U.S. Environmental Protection Agency and delegated states and territories administer the NPDES permitting program. As part of this program, general NPDES permits are required to regulate storm water discharges associated with deployment/construction activities that disturb one or more acres of land. Section 404 of the CWA established a program to regulate the discharge of dredged or fill material into waters of the U.S. Under the CWA, if FirstNet intends to carry out ground disturbing activity in or adjacent to waters of the U.S., then permits and analyses may be required.

² Section 704 of the MBTA describes a take as "hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any such bird, or any part, nest, or egg thereof" (33 USC § 1251 et seq.).

³ Section 502 (14) of the CWA defines point source pollution as pollution that comes from "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." Nonpoint source pollution is defined as any source of water pollution that does not meet the legal definition of "point source," and includes runoff from rain or snowmelt that picks up natural and manmade pollutants, such as fertilizers, oils, salt, bacteria, and others that are eventually deposited into lakes, rivers, streams, wetlands, coastal water, and groundwater (*33 USC § 1251 et seq.*).

1.8.8. Coastal Zone Management Act

Congress enacted the Coastal Zone Management Act (16 USC § 1451 et seq.) to protect the coastal environment from growing demands associated with residential, recreational, commercial and industrial uses (such as, state and federal offshore oil and gas development). Coastal states with an approved Coastal Zone Management Plan, which defines permissible land and water use within the state's coastal zone, can review federal actions (such as deployment/construction and operation of the Proposed Action), licenses or permits for federal consistency. Federal consistency is the requirement that those federal permits and licenses likely to affect any land/water use or natural resources of the coastal zone be consistent with the state program's enforceable policies. Deployment/construction of the NPSBN is likely to occur in coastal areas; therefore, consistency determinations under Coastal Zone Management Act may be required.

1.8.9. Occupational Safety and Health Act

The Occupational Safety and Health Act of 1970 created the Occupational Safety and Health Administration (OSHA) for the purpose of ensuring safe and healthful working conditions. OSHA pursues this mission by setting and enforcing standards in the workplace to create an environment free from hazards that include exposure to toxic substances, excessive noise, unsanitary conditions, and other physical hazards such as mechanical dangers and heat or cold stress. The Occupational Safety and Health Act covers most private sector and some public sector employers and their workers either directly at the federal level, through OSHA, or through an OSHA-approved state plan that defines and implements state-level worker health and safety programs and enforcement standards. Currently, 22 states and territories have OSHA-approved state plans. Deployment/construction activities required for the implementation of the NPSBN would be required to comply with OSHA standards, or OSHA-approved state plans.

1.8.10. Executive Order 11988 - Floodplain Management

EO 11988 requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities" for the following actions:

- Acquiring, managing, and disposing of federal lands and facilities;
- Providing federally undertaken, financed, or assisted construction and improvements; and
- Conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

The guidelines address an 8-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain. This 8-step process can be addressed as part of the NEPA compliance process if an EA or EIS, such as this PEIS, is

developed. Aspects of EO 11988 have been updated in EO 13690 (see Section 1.8.14, Executive Order 13690 – Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input).

1.8.11. Executive Order 11990 – Protection of Wetlands

The purpose of EO 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, federal agencies are required, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. The EO applies to the following:

- Acquisition, management, and disposition of federal lands and facilities construction and improvement projects that are undertaken, financed, or assisted by federal agencies; and
- Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

The procedures require the determination of whether or not the proposed project would be in, or would affect, wetlands. If so, a wetlands assessment must be prepared that describes the alternatives considered. The procedures include a requirement for public review of assessments. The evaluation process follows the same eight steps as for EO 11988, Floodplain Management. As with EO 11988, this 8-step process can be addressed as part of the NEPA compliance process if an EA or EIS, such as this PEIS, is developed.

1.8.12. Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The purpose of EO 12898 is to ensure that federal agencies avoid taking actions that have a disproportionately high and adverse impact on low-income populations or minority populations. Each federal agency must make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health, environmental, economic, and social effects of its programs, policies, and activities on minority and low-income populations, particularly when such analysis is required by NEPA. The EO emphasizes the importance of NEPA's public participation process, directing that each federal agency shall provide opportunities for community input in the NEPA process. Agencies are further directed to identify potential effects as well as BMPs and mitigation measures in consultation with affected communities.

1.8.13.Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds

The purpose of EO 13186 is to direct federal agencies to take certain actions to further implement the MBTA. Several international, bilateral conventions on migratory birds, of which the U.S. is a co-signatory, impose substantive obligations on the U.S. for the conservation of migratory birds and their habitats. Through the MBTA, the U.S. has implemented these migratory bird conventions with respect to this country. The EO directs each federal agency

whose actions are likely to create a measurable, negative effect on migratory bird populations to enter into a Memorandum of Understanding with the USFWS to promote the conservation and mitigation of impacts to migratory birds. Furthermore, the EO established the interagency Council for the Conservation of Migratory Birds to enhance coordination and communication among federal agencies regarding their responsibilities under the four bilateral treaties on the conservation of migratory birds.

1.8.14. Executive Order 13690 – Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input

The purpose of EO 13690 is to implement the Federal Flood Risk Management Standard as part of a national policy on resilience and risk reduction, consistent with the President's Climate Action Plan. The EO amends EO 11988, and emphasizes consideration by agencies of ecosystem-based alternatives and long-term resilience and risk reduction when managing flood risks. The order further establishes a process for further solicitation and consideration of public input and a climate science-based approach to defining floodplains and flood hazard areas.

1.9. PEIS ORGANIZATION

This Draft PEIS includes descriptions of the affected environment, potential impacts, and alternatives of the Proposed Action, including potential cumulative impacts, in each of the seven states and territories that make up the Non-contiguous region. The structure and contents of this document have been developed consistent with NEPA requirements. The main organization of this document is as follows:

- Chapter 1: Introduction
- Chapter 2: Description of the Proposed Action and Alternatives
- Chapters 3 through 9: Each chapter contains a state-by-state analysis of the affected environment (including descriptions of the portions of the environment that could be affected by the Proposed Action), environmental consequences (including descriptions of the potential environmental, social, historic, and cultural impacts of the Proposed Action), and references
- Chapter 10: Cumulative Effects
- Chapter 11: BMPs and Mitigation Measures
- Chapter 12: Comparison of Alternatives
- Chapter 13: Other Required Analyses
- Chapter 14: List of Preparers and Contributors
- Chapter 15: Distribution List
- Chapter 16: Index
- Chapter 17: Glossary
- Appendices

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