

Nationwide Public Safety Broadband Network

Final Programmatic Environmental Impact Statement

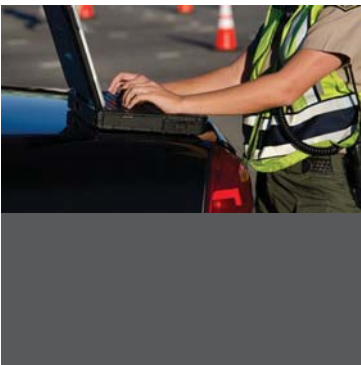
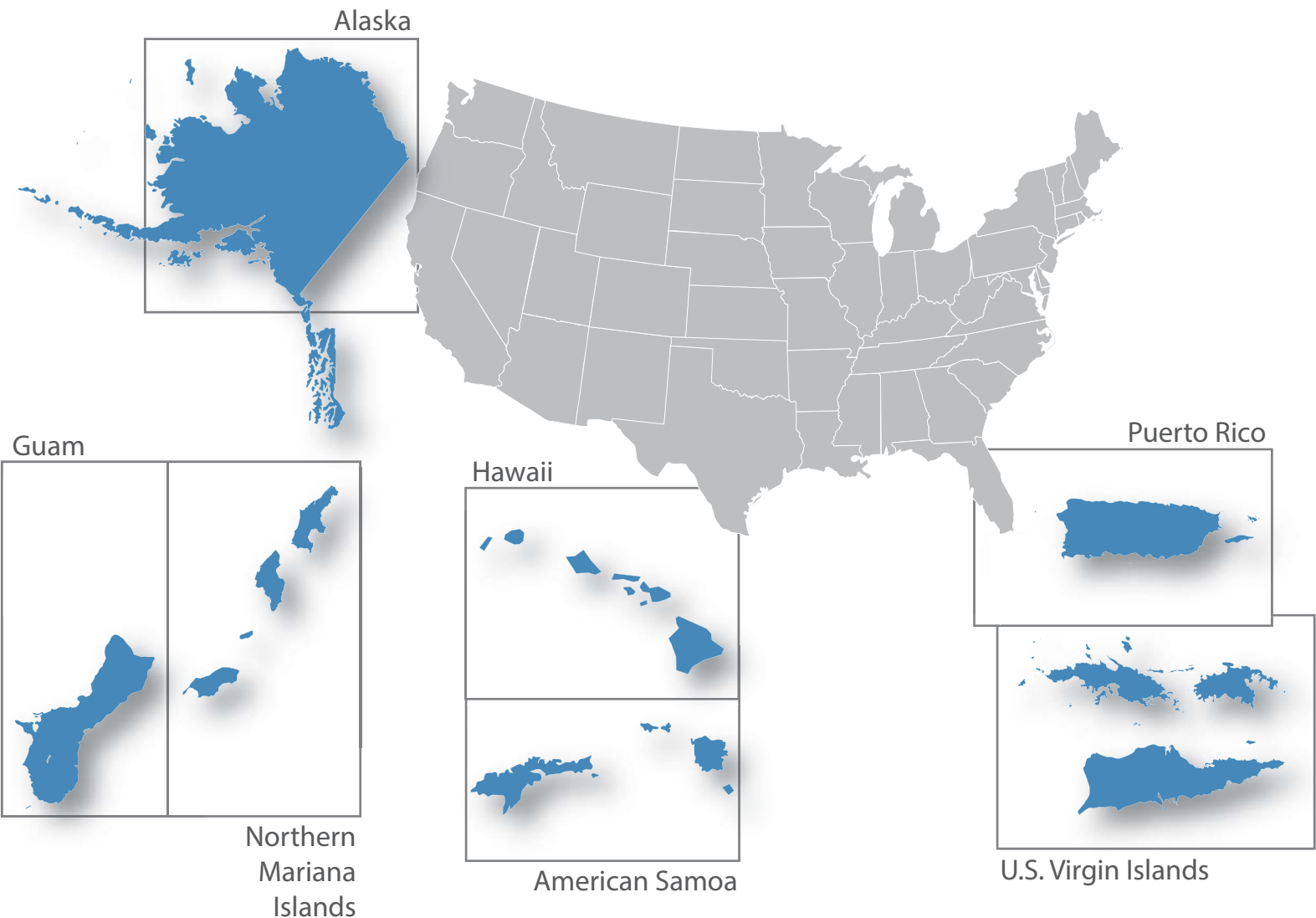
for the Non-Contiguous United States



First Responder Network Authority

Volume 8 - Chapters 10-18 & Appendices

- Alaska
- Hawaii
- American Samoa
- Guam
- Northern Mariana Islands
- Puerto Rico
- U.S. Virgin Islands



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First Responder Network Authority



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

Volume 8

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Cooperating Agencies

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

May 2017

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ACRONYMS AND ABBREVIATIONS

°F	degree Fahrenheit	ASPA	American Samoa Power Authority
°N	degrees north	ATO	Air Traffic Organization
µg/m ³	microgram(s) per cubic meter	ATWC	Alaska Tsunami Warning Center
µPa	micro Pascal	AURORA	Alaska Uniform Response Online Reporting Access
%	percent	BACT	best available control technology
A	attained	BCE	before Common Era
AAC	Alaska Administrative Code	BCR	Bird Conservation Regions
AAFIS	Alaska Public Safety Identification System	BGEPA	Bald and Golden Eagle Protection Act
AAQS	Ambient Air Quality Standards	BLM	Bureau of Land Management
ACHP	Advisory Council on Historic Preservation	BLS	U.S. Bureau of Labor Statistics
ACS	American Community Survey (U.S. Census Bureau)	BMP	best management practice
ADEC	Alaska Department of Environmental Conservation	BRFSS	Behavioral Risk Factor Surveillance System
ADFG	Alaska Department of Fish and Game	BSAI	Bering Sea/Aleutian Island
AGL	above ground level	BWG	BioInitiative Working Group
AIRFA	American Indian Religious Freedom Act	CAA	Clean Air Act
AJRCCM	American Journal of Respiratory and Critical Care Medicine	CAB	Clean Air Branch
AKNHP	Alaska National Heritage Program	CARB	California Air Resources Board
AKOSH	Alaska Occupational Safety and Health	CBIA	Coastal Barrier Improvement Act of 1990
AKWAS	Alaska Warning System	CBRA	Coastal Barrier Resources Act of 1982
ALMR	Alaska Land Mobile Radio	CCP	Comprehensive Conservation Plan
ANCSA	Alaska Native Claims Settlement Act	CDC	Center for Disease Control
ANFIRS	Alaska Fire Incident Reporting System	CDLNR	Commonwealth Department of Lands and Natural Resources
ANSI	American National Standards Institute	CE	Common Era
APE	Area of Potential Effect	CELCP	Coastal and Estuarine Land Conservation Program
APLIC	Avian Power Line Interaction Committee	CEPD	Caribbean Environmental Protection Division
APSIN	Alaska Public Safety Information Network	CEQ	Council on Environmental Quality
AQCR	air quality control region	CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
ARFF	Aircraft Rescue and Firefighting	CFMC	Caribbean Fisheries Management Council
ARMS	Alaska Records Management System	CFR	Code of Federal Regulations
ARPA	Archaeological Resources Protection Act of 1979	cfs	cubic feet per second
AS	Alaska Statute	CH ₄	methane
ASAC	American Samoa Administrative Code	CHC	Commonwealth Health Center
ASCA	American Samoa Code Annotated	CIA	Central Intelligence Agency
ASCMP	American Samoa Coastal Management Program	CMIP3	Coupled Model Intercomparison Project phase 3
ASDHS	American Samoa Department of Homeland Security	CNMI	Commonwealth of Northern Mariana Islands
ASDMWR	American Samoa Department of Marine and Wildlife Resources	CNMIAC	Commonwealth of Northern Mariana Islands Administrative Code
ASEPA	American Samoa Environmental Protection Agency	CO	carbon monoxide
ASHPO	American Samoa Historic Preservation Office	CO ₂	carbon dioxide
		CO ₂ e	carbon dioxide equivalents
		COMAR	Committee on Man and Radiation

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

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

PV	photovoltaic	UVA	University of Virginia
RAN	radio access network	VdB	vibration decibel(s)
RCP	Representative Concentration Pathway	VIC	Virgin Islands Code
RCRA	Resource Conservation and Recovery Act	VIPA	Virgin Islands Port Authority
RF	radio frequency	VISHPO	Virgin Islands State Historic Preservation Office
RIN	Regulation Identification Number	VOC	volatile organic compound
rms	root mean square	vog	volcanic smog
ROW	right-of-way	VRM	Visual Resource Management
SAAQS	State Air Quality Standards	W	watt(s)
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users	W/m ²	watts per meters squared
SARA	Superfund Amendments and Reauthorization Act of 1986	WAPA	Water and Power Authority
SE	Standard of Error	WHO	World Health Organization
SHPO	State Historic Preservation Office	WIMARCS	West Indies Marine Animal Research and Conservation Science
SIP	State Implementation Plan	WNP	Western North Pacific
SLR	sea level rise	WNW	west-northwest
SMA	Special Management Area	WPC	watts per channel
SMS	Scenery Management System	WPRFMC	Western Pacific Regional Fishery Management Council
SO ₂	sulfur dioxide		
SO _x	sulfur oxides		
SPCC	Spill Prevention, Control, and Countermeasure		
SPCZ	South Pacific Convergence Zone		
SPOC	State Single Point of Contact		
SRES	Special Report on Emission Scenarios		
SSA	sole source aquifer		
STATSGO2	State Soil Geographic [Database]		
SW	southwest		
TAAQS	Territory Ambient Air Quality 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		
UAMES	University of Alaska Museum Earth Sciences		
USACE	U.S. Army Corps of Engineers		
USC	United States Code		
USDA	U.S. Department of Agriculture		
USDI	U.S. Department of the Interior		
USEPA	U.S. Environmental Protection Agency		
USFWS	U.S. Fish and Wildlife Service		
USGCRP	U.S. Global Climate Change Research Program		
USGS	U.S. Geological Survey		
USVIDOH	U.S. Virgin Islands Department of Health		
USVIPD	U.S. Virgin Islands Police Department		

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14. DRAFT PEIS PUBLIC COMMENTS

FirstNet has developed a series of five Programmatic Environmental Impact Statements (PEISs) for the Proposed Action, one for each of five geographic regions across the United States (U.S.). This Final PEIS helps fulfill some of FirstNet's responsibilities under the National Environmental Policy Act (NEPA) for the non-contiguous region, which includes the states of Alaska and Hawaii, as well as the Commonwealths of the Northern Mariana Islands and Puerto Rico and the territories of American Samoa, Guam, and the U.S. Virgin Islands. Under the Council on Environmental Quality guidance for public involvement in the NEPA process, agencies shall seek to involve the public in preparing environmental documents such as this PEIS (*40 CFR § 1506.6*). These efforts include providing notice to potentially interested parties, holding public meetings, soliciting comments, and making both the Draft and Final PEIS available to the public.

This chapter provides a full listing of public and agency comments received on the Draft PEIS for the non-contiguous region as well as FirstNet's responses to those comments (see Table 14-1). In addition, some of the comments received on the other four Draft PEISs for the contiguous U.S. were applicable to the non-contiguous region as well; those comments that were received during the preparation of this document are captured in Table 14-2.¹

The Draft PEIS for the non-contiguous region was published on March 4, 2016, which initiated a 60-day public comment period (*81 FR § 11511 [March 4, 2016]*). Notices were also provided directly to cooperating agencies, state/territory Single Points of Contact, elected officials, American Indian tribes and Native Hawaiian Organizations, media organizations, and other interested parties.

Over the course of the comment period, agencies and members of the public were invited to submit comments to FirstNet via traditional mail, e-mail, and the regulations.gov website.² In addition, public meetings were held in each of the seven non-contiguous states and territories where participants had the opportunity to talk directly with FirstNet environmental staff and its contractors to learn about the Proposed Action and the preliminary findings of the Draft PEIS. Individuals in attendance could provide input on those findings both verbally and on comment cards. The public meetings were held as follows:

- Anchorage, Alaska, on March 15, 2016
- Juneau, Alaska, on March 17, 2016
- Honolulu, Hawaii, on March 21, 2016
- Tumon Bay, Guam, on April 5, 2016
- Saipan, Northern Mariana Islands, on April 7, 2016
- Tafuna, American Samoa, on April 11, 2016

¹ A summary of comments provided during the scoping period can be found in Appendix B, *First Responder Network Authority Nationwide Public Safety Broadband Network Programmatic Environmental Impact Statement Scoping Summary Report*.

² Docket ID: FIRSTNET-2016-0001 (<https://www.regulations.gov/docket?D=FIRSTNET-2016-0001>)

- Christiansted, St. Croix, U.S. Virgin Islands, on April 22, 2016
- San Juan, Puerto Rico, on April 26, 2016

Although the official comment period lasted 60 days, FirstNet also considered comments provided after the closing of that period. There were a total of 20 submissions received on the non-contiguous Draft PEIS, which included 5 comment cards and 5 verbal comments. From those 20 submissions, 171 comments were extracted as identified in Table 14-1 (166 comments from agencies or individuals who identified themselves with agency affiliation and 5 public comments). Agency comments were received from the U.S. Department of Agriculture Natural Resources Conservation Service, U.S. Department of the Interior, U.S. Department of Energy, U.S. Department of Homeland Security, U.S. Environmental Protection Agency, U.S. Coast Guard, American Samoa Department of Homeland Security, State of Hawaii Department of Land and Natural Resources, Puerto Rico Emergency Management Agency, Port Authority of Guam, Guam Department of Homeland Security, and U.S. Virgin Islands Bureau of Information Technology.

Content-related comments received on the non-contiguous region Draft PEIS ranged from simple word changes and reference updates to suggestions for additional analysis. Several comments were site-specific in nature, such as installation methods on the Arctic Coastal Plain in Alaska and the identification of eagle habitats within their known ranges. In addition, numerous commenters on the Draft PEIS indicated that the Final PEIS should describe the environmental review process to be followed after the Final PEIS is published and prior to construction and implementation of the Proposed Action. As indicated throughout this Final PEIS, site-specific analysis may be required depending on the site conditions, the type of deployment, or any other permits or permissions necessary to perform the work. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis, but will be issuing a Supplemental Environmental Impact Statement with that information as soon as it is determined.

During the preparation of this document, comments were also received on the other four Draft PEISs for the contiguous U.S. Comments from 13 of these submissions were also applicable to the non-contiguous region (see Table 14-2). These comments included reference and guidance updates, such as the need to remove the 25,000 metric tons of carbon dioxide equivalent reference point from the greenhouse gas and climate change analysis; concerns regarding vibration impacts to natural and cultural resources; suggestions for mitigating potential impacts to migratory birds, such as conducting vegetation clearing outside of breeding periods; and ensuring a detailed review of the best management practices that could avoid or minimize potential impacts of RF emissions to wildlife and humans.

All comments from both Tables 14-1 and 14-2 were used to prepare this Final PEIS.

Table 14-1: Draft PEIS Comment Response Matrix

Submission ID	Comment Number	Date(s) Received	Sender Name(s)	Sender Organization(s)	Comment Text	Response	Chapter/Section/Page Number Reference in the Draft PEIS as Identified by Commenter	Section(s) where changes were made in Final PEIS
FN-NC-0001	1	2/26/2016	Michael Robotham	NRCS	Based on my preliminary review of the document, I do not see any issues with the finding of “less that significant” impact related to soil resources, including the protection of prime and important farmlands (FPPA), in all the jurisdictions covered by this assessment.	Thank you for your comment.	General	NA
FN-NC-0001	2	2/26/2016	Michael Robotham	NRCS	<p>I am somewhat concerned about the decision to use STATSGO2 as the basis for the soils assessments instead of using the more detailed SSURGO data. This may be an issue of consistency since SSURGO is not available for significant portions of Alaska, but, this does result in the use of a less detailed and comprehensive data source in areas where more detailed and comprehensive data (SSURGO) is easily available (Hawaii, Guam, Am Samoa, CNMI, Puerto Rico and USVI) and, at a minimum, this decision should be document and justified in the introductory section.</p> <p>In my opinion, given the scope and effect of the proposed activities, the use of STATSGO2 vs the more detailed SSURGO data does not change the overall conclusions of the assessment at the broad scale. However, it should be explicitly stated (if it is not already and I just missed it) that specific decisions on the selection of alternative and, more specifically on the selection of sites for those alternatives will be based on best available soils information (SSURGO where it exists – STATSGO2 where it doesn’t). In addition, it should be clearly stated that all BMPs to ameliorate potential impacts (e.g. soil erosion during construction activities) will be based on best available soils data and information.</p>	FirstNet used the STATSGO2 database to obtain soils information at the programmatic level to ensure consistency across all the states and territories and the District of Columbia. This regional information provides a sufficient level of detail for a programmatic analysis. Where appropriate, the best available soils data and information, including the use of the SSURGO database, will be used during any subsequent site-specific assessments. This explanation has been provided in the Final PEIS.	General	All Soils Affected Environment sections
FN-NC-0001	3	2/26/2016	Michael Robotham	NRCS	There also are some typos/inconsistencies which I assume will be caught in the editorial process including the following in Volume 3 (American Samoa): Soil Conservation Service. 1982. Soil Survey of the United States Virgin Islands. U.S. Department of Agriculture in cooperation with the Government of American Samoa.	This error has been corrected in the Final PEIS.	General	Various
FN-NC-0002	4	4/18/2016	William Ostrum	DOE	“(See NEPA 1502.20)” - This seems to be referencing the CEQ NEPA regulations, not NEPA. Suggest replacing “NEPA” with “CEQ” for similar references throughout.	The proper reference for this CEQ regulation is <i>40 CFR § 1502.20</i> . References have been corrected throughout the Final PEIS document as appropriate.	ES1.1, page 1	ES1.1
FN-NC-0002	5	4/18/2016	William Ostrum	DOE	“Partner organization(s)” - this is the first time this term is used. Suggest providing some explanation of the role of these organizations.	The following explanation has been included in the Final PEIS: “FirstNet’s partner organization(s) would assist in providing resources as necessary to deploy and operate the NPSBN.” This text has been added as a footnote in the Executive Summary and in the text body of Section 2.1.	ES3, page 6; 2.1, page 2-1	ES3

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FN-NC-0002	6	4/18/2016	William Ostrum	DOE	Recommend including the title of the preferred alternative in the header.	The Final PEIS has been updated to make clean distinctions between the Proposed Action and the Preferred Alternative. The Proposed Action is the nationwide broadband network and the Preferred Alternative refers to the specific way the network would be implemented using a combination of technologies.	ES3.1, page 7	Throughout document
FN-NC-0002	7	4/18/2016	William Ostrum	DOE	Add a brief explanation of the source of the BMPs in general (e.g., BMPs have been developed based on independent research by FirstNet and consultation with other agencies.)	A footnote has been added to the Executive Summary and the main body text in the Final PEIS stating: “BMPs and mitigation measures have been developed based on consultation with other agencies as well as independent research by FirstNet and their environmental contractors.”	ES4, page 10	ES4; Chapter 11, BMPS and Mitigation Measures
FN-NC-0002	8	4/18/2016	William Ostrum	DOE	Bullet 8 - Also coordinate with federal, state, and local government agencies as appropriate.	Bullet 8 referenced in Table ES4-1 has been updated in the Final PEIS to read: “Coordinate with federal, state/territory, and local government agencies as appropriate, as well as with public safety officials, emergency and medical facilities, and existing telecommunications providers to the extent practicable to facilitate awareness of deployment activities and accompanying schedule.”	Table ES4-1, page 12	Table ES4-1; Chapter 11, BMPS and Mitigation Measures
FN-NC-0002	9	4/18/2016	William Ostrum	DOE	Explain “notification and redundancy.”	A footnote has been added to this text of the Final PEIS stating the following: “In this context, notification refers to the ability of health care providers to be alerted in the event of a disaster. Redundancy refers to the duplication of equipment or processes to help maintain continuity of operations.” This has also been explained in the Infrastructure sections of each state/territory-specific chapters.	ES4.1.6, page 15	Infrastructure Affected Environment sections and Environmental Consequences sections; Chapter 1, Introduction; ES4.1.6
FN-NC-0002	10	4/18/2016	William Ostrum	DOE	Global - unclear when “less than significant with BMPs and mitigation measures” should be used. It seems like impacts could be significant without BMPs in most cases.	Section ES4 explains that the methodology used to determine the various impact levels in the programmatic analysis is provided for each resource within each state or territory section. The methodology includes developing and applying specific programmatic criteria to determine impact levels. The descriptions of potential impacts to various resources presented in the Executive Summary are summarized. Specific impacts will be evaluated at the site-specific level in subsequent environmental reviews. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.	ES4.2, page 16	ES4
FN-NC-0002	11	4/18/2016	William Ostrum	DOE	Since prime farmlands are discussed for each other area, add “Alaska has no prime farmlands.”	The Executive Summary of the Final PEIS has been updated to indicate that prime farmland soils are not present in Alaska since soil temperatures do not meet the required threshold established by Congress.	ES4.2.1, page 19	ES4.2.1
FN-NC-0002	12	4/18/2016	William Ostrum	DOE	“It is recommended that...” Recommend removing this phrase throughout the impacts discussion. It is better to say that “FirstNet will, as appropriate and practical, avoid...”	The text in the Final PEIS has been revised to state “As practicable or feasible, FirstNet and/or their partners would work to avoid...”	ES4.3.2, page 25	Throughout document

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FN-NC-0002	13	4/18/2016	William Ostrum	DOE	Global - The phrase “in general” could be seen to imply that there are specific effects that could be considered significant. Recommend removing.	At the programmatic level and using the impact criteria developed for the PEIS, these effects would be considered less than significant. The phrase “in general” has been removed for clarity.	ES4.4.2, page 33	Throughout the Executive Summary
FN-NC-0002	14	4/18/2016	William Ostrum	DOE	“Consider spanning...” -recommend removing “Consider.”	This sentence has been updated in the Final PEIS to read: “Where practicable, span a wetland by locating telecommunication poles on either side of the wetland instead of disturbing the interior.”	Table ES4-5, page 36	Table ES4-5; Chapter 11, BMPS and Mitigation Measures
FN-NC-0002	15	4/18/2016	William Ostrum	DOE	In final sentence, insert “impacts” between “and” and “further.” The BMPs wouldn’t reduce deployment (the first half of the sentence) but would reduce impacts.	This text has been updated in the Final PEIS to read: “To the extent practicable or feasible, FirstNet and/or their partners would work to avoid or minimize deployment in wetland areas. Where deployment in wetlands cannot be avoided, mitigation measures, as defined through permitting and/or consultation with the appropriate resource agency, would be implemented to help avoid or reduce potential impacts. Implementation of BMPs, as practicable or feasible, could further reduce the potential for impacts.”	ES4.5.1, page 39	ES4.5.1; ES4.5.2; ES4.5.3; ES4.5.4; ES4.5.5; ES4.5.6; ES4.5.7
FN-NC-0002	16	4/18/2016	William Ostrum	DOE	Remove “likely” from last sentence.	The word “likely” has been removed from this section in the Final PEIS. The sentence now reads: “To the extent practicable or feasible, FirstNet and/or their partners would work to avoid or minimize deployment in wetland areas. Where deployment in wetlands cannot be avoided, mitigation measures, as defined through permitting and/or consultation with the appropriate resource agency, would be implemented to help avoid or reduce potential impacts. Implementation of BMPs, as practicable or feasible, could further reduce the potential for impacts.”	ES4.5.2, page 39	ES4.5.2
FN-NC-0002	17	4/18/2016	William Ostrum	DOE	Text claims that “activities that involve collocation or shared use of existing facilities or do not require new ground disturbance...would have no effect on biological resources.” Things like lighting and noise could still have an effect. Suggest rewriting to say it is a less than significant effect.	The text in ES4.6 has been updated to better explain the potential development scenarios that could/could not result in potential impacts to biological resources. As described in the Biological Resources sections within each state/territory-specific chapter, collocation or shared use of existing facilities could result in the addition of power units, structural hardening, and physical security measures such as lighting. These activities could impact biological resources, and the text of ES4.6 has been updated to make these distinctions clear, consistent with the text in the state/territory chapters.	ES4.6, page 41	ES4.6
FN-NC-0002	18	4/18/2016	William Ostrum	DOE	Last sentence before bullets - unclear why it claims impacts to “biological resources (including wildlife...” are assessed separately. Isn’t that the focus of this section?	Within the Biological Resources sections (as well as other resource sections) of each state/territory-specific chapter, potential impacts as a result of deployment are assessed separately from operations impacts. This text in ES4.6 has been revised as needed to more clearly convey this point.	ES4.6, page 41	ES4.6

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FN-NC-0002	19	4/18/2016	William Ostrum	DOE	Include statement that FirstNet “has and will continue to coordinate with appropriate state, local, federal, and tribal agencies.” p 1-7 says FirstNet has already initiated contact with USFWS, but doesn’t mention NOAA/NMFS. Suggest including NOAA if applicable.	Specific planned and on-going consultation efforts are discussed in Section ES1.3 as well as in Chapter 1, Introduction (Section 1.5). Appendix A, <i>Invited Cooperating Agencies</i> , lists those agencies that were invited to become cooperating agencies including NOAA and NMFS. NOAA and NMFS declined to be cooperating agencies for the Programmatic EIS. Within Table ES4-6, there is a BMP/Mitigation Measure related to consultation with USFWS and NMFS.	ES1.2, page 1	NA
FN-NC-0002	20	4/18/2016	William Ostrum	DOE	Remove extra “s” in third to last bullet.	The extra “s” has been removed in the third to last bullet.	Table ES4-6, page 44	Table ES4-6
FN-NC-0002	21	4/18/2016	William Ostrum	DOE	“May affect, but is not likely to adversely affect” is the conclusion of a Biological assessment. Has one been completed for this project? If not recommend using different language.	As indicated in footnote b of Table ES4-6, the impact ratings used for Threatened and Endangered Species and Species of Conservation Concern are based on those in the Endangered Species Consultation Handbook (USFWS and NMFS 1998) in order to facilitate impact evaluation under Section 7 of the Endangered Species Act. A Programmatic Biological Assessment has not been completed for the project. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined; however, consultation under Section 7 of the ESA will occur as required.	ES4.6.1, page 51	NA
FN-NC-0002	22	4/18/2016	William Ostrum	DOE	Appendix D contains a species list, but it uses older references from secondary sources. Replace with USFWS and NMFS species lists.	As explained in Section 3.1.6.6, Table 1 of Appendix D, <i>Threatened and Endangered Species</i> , is a list of Forest Service and BLM sensitive species only. Table 3.1.6.6-1 lists the federal and state-listed species in Alaska using USFWS and NMFS species lists.	ES4.6.1, page 51	NA
FN-NC-0002	23	4/18/2016	William Ostrum	DOE	Recommend removing reference to aurora borealis. It seems out of place given the level of detail provided for dark skies in other locations.	Aurora borealis is a unique natural phenomenon found in Alaska more so than other places in the United States, and is therefore an important part of the existing environment. As such, it is appropriate to include it in this discussion.	ES4.8.1, page 62	NA
FN-NC-0002	24	4/18/2016	William Ostrum	DOE	Recommend replacing reference (Puerto Rico Tourism Company 2015). Is there a government or academic source for this information?	The reference has been updated using a government or academic source. This change has also made in Section 8.1.8 (others).	ES4.8.6, page 63	ES4.8.6; 8.1.8.3; accompanying reference sections
FN-NC-0002	25	4/18/2016	William Ostrum	DOE	Add reference for “studies have shown a minimal impact on property prices.”	This text has been updated in the Final PEIS to be consistent with the text of the state/territory-specific socioeconomic impacts sections. The Bond et al. 2013 reference that is included in the resource section has been added to the Executive Summary.	ES4.9, page 64	ES4.9

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FN-NC-0002	26	4/18/2016	William Ostrum	DOE	Also reference the previously discussed impacts and BMPs resulting less than significant effects on tourism which is important in many of these areas.	This text has been updated in the Final PEIS to mention tourism.	ES4.9, page 64	ES4.9
FN-NC-0002	27	4/18/2016	William Ostrum	DOE	Bullet referring to “subsistence species habitat” may be more appropriate in EJ discussion than socioeconomics.	Impacts and related BMPs associated with subsistence practices/resources are addressed in the socioeconomics sections.	Table ES4-9, page 65	NA
FN-NC-0002	28	4/18/2016	William Ostrum	DOE	See previous comment regarding discussion of subsistence practices.	Impacts and related BMPs associated with subsistence practices/resources are addressed in both the socioeconomics and environmental justice sections.	ES4.9.1, page 65	NA
FN-NC-0002	29	4/18/2016	William Ostrum	DOE	The individual state/territory summaries don’t mention low-income groups, just minority groups. This should be considered in the ratings and discussion.	This section of the text has been modified to include the low-income information that is presented in the environmental justice sections of the state/territory-specific chapters.	ES4.10, page 68	ES4.10.1; ES4.10.2; ES4.10.3; ES4.10.4; ES4.10.5; ES4.10.6; ES4.10.7
FN-NC-0002	30	4/18/2016	William Ostrum	DOE	Add “, a racial minority for purposes of this analysis” to the first sentence.	This text has been updated in the Final PEIS to indicate that the majority of American Samoa’s population is considered a racial minority.	ES4.10.3, page 71	ES4.10.3
FN-NC-0002	31	4/18/2016	William Ostrum	DOE	Does the rating (3) imply that is effect is expected but that it won’t be an adverse effect? Unclear how “physical damage to and/or destruction of historic properties” can be not adverse.	As explained in the text, the evaluation of potential impacts to cultural resources uses a distinct set of impact categories. A rating of 3, “effect, but not adverse,” is comparable to a rating of “less than significant” at the programmatic level for other resource areas. As discussed in each Cultural Resources section of the Final PEIS, the criterion of “effect, but not adverse” applies for effects to a non-contributing portion of a single or many historic properties. Also, the first effect type in Table ES4-11 has been changed to “Direct effects to historic properties” to be consistent with the main text of the cultural resources sections in the Final PEIS.	Table ES4-11, page 75	Table ES4-11
FN-NC-0002	32	4/18/2016	William Ostrum	DOE	In the first sentence, replace “flat areas” with “easily accessible areas.”	This sentence has been updated in the various sections of Final PEIS to read: “...cultural resources can be found in coastal areas or inland environments, in relatively flat or easily accessible areas, or in more remote locations, such as those that could be used for ceremonial purposes.”	ES4.11.1, page 77	5.1.11.3; 6.1.11.3; 7.1.11.3; ES4.11.1; ES4.11.2
FN-NC-0002	33	4/18/2016	William Ostrum	DOE	Should the second bullet also include Class 1 areas?	The second bullet in Table ES4-12 has been updated to include Class I areas.	Table ES4-12, page 80	Table ES4-12; Chapter 11, BMPS and Mitigation Measures

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FN-NC-0002	34	4/18/2016	William Ostrum	DOE	According to the CEQ guidance, the analysis should use “GHG emissions as a proxy for assessing...proposed climate change impacts.” This is a little different than just “GHG emissions” as stated in the text.	The Final PEIS has been updated (both in the Executive Summary and in the main body text) to state that GHG emissions are used as a proxy for assessing climate change impacts from the Proposed Action.	ES4.14, page 86	All Climate Change sections; Affected Environment sections and Environmental Consequences sections
FN-NC-0002	35	4/18/2016	William Ostrum	DOE	When discussing the Revised guidance, use “recommends” not “requires.”	The word “requires” has been replaced with “recommends” in this text of the Final PEIS.	ES4.14, page 86	All Climate Change sections; Environmental Consequences sections; ES4.14
FN-NC-0002	36	4/18/2016	William Ostrum	DOE	Replace “any project type” with “the FirstNet program” in the last sentence.	This section has been modified in the Final PEIS to reflect the final CEQ guidance on GHG emissions.	ES4.14, page 86	ES4.14
FN-NC-0002	37	4/18/2016	William Ostrum	DOE	25,000 metric tons is a “reference point” not a “threshold” in the Revised guidance. Make text change in ES4.14 and the accompanying table.	Section ES4.14, Table ES4-14, and elsewhere in the document that referenced the 25,000 metric ton reference point originally included in the CEQ draft guidance on GHG emissions has been updated to reflect the final guidance and no longer cites the reference point in accordance with the final guidance.	ES4.14, page 86	All Climate Change sections; Environmental Consequences sections; ES4.14, Table ES4-14
FN-NC-0002	38	4/18/2016	William Ostrum	DOE	Add “-” between “El Nino” and “like.”	A hyphen has been added between “El Nino” and “like” in this section of the Final PEIS.	ES4.14.5, page 90	ES4.14.5
FN-NC-0002	39	4/18/2016	William Ostrum	DOE	“Increasing mean sea levels would likely increase the frequency of extreme events such as hurricanes.” Sea level rise isn’t usually associated with hurricane frequency. It could be associated with inundation frequency caused by hurricanes. Alternately, the previous sentence is talking about ocean temperature, which may be linked to hurricane frequency. Clarify this sentence.	This section has been re-written in the Final PEIS to make the requested clarifications regarding the correlation between sea level rise and extreme events.	ES4.14.5, page 90	ES4.14.5
FN-NC-0002	40	4/18/2016	William Ostrum	DOE	Recommend highlighting impacts that differ from the preferred alternative.	Chapter 12, Comparison of Alternatives, provides a side-by-side comparison of impact ratings associated with the preferred alternative and each of the other alternatives. Section ES5.3 summarizes key differences.	Table ES5-1, page 100	ES5.3
FN-NC-0002	41	4/18/2016	William Ostrum	DOE	If possible, provide links to remaining references.	Not all references cited are available via web links. Links have been provided where available.	General	All Reference sections
FN-NC-0002	42	4/18/2016	William Ostrum	DOE	Unclear what “physical layer” means. Can the document just use “physical”?	This text has been updated in the Final PEIS to just use the word “physical”.	1.4, page 1-5	1.4; all Geology Environmental Consequences sections

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FN-NC-0002	43	4/18/2016	William Ostrum	DOE	Insert period after “(Hurricane Sandy Rebuilding Taskforce).”	A period has been added after the second Hurricane Sandy Rebuilding Taskforce reference.	1.4, page 1-7	1.4
FN-NC-0002	44	4/18/2016	William Ostrum	DOE	Recommend removing “under NEPA.” This isn’t a comprehensive list of the “primary objectives” of PEISs under NEPA. See 40 CFR § 1502.1 for primary purpose of an EIS.	The discussion in this section has been revised to summarize CEQ guidance for public participation under <i>40 CFR § 1506.6</i> . The discussion of PEIS objectives has been moved to Section 1.2.	1.7, page 1-8	1.7
FN-NC-0002	45	4/18/2016	William Ostrum	DOE	Insert “further” between “warranted” and “analysis.”	At the time of scoping, an initial formal/published analysis had not yet been performed related to identifying alternatives to the Proposed Action. Therefore, the scoping phase would not have identified areas for further analysis, but rather for initial analysis. No change made.	1.7.1, page 1-9	NA
FN-NC-0002	46	4/18/2016	William Ostrum	DOE	Add a brief statement on how scoping comments were incorporated into the PEIS (e.g., are all of these impacts now discussed in the PEIS).	A statement has been added to this text in the Final PEIS to indicate that scoping comments were taken into consideration during the analysis and drafting phase of the Draft PEIS.	1.7.2, page 1-10	1.7.2
FN-NC-0002	47	4/18/2016	William Ostrum	DOE	Recommend including the full ESA definition of take: harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.	The text has been revised to include the full definition of take rather than a summary.	1.8.3, page 1-11	1.8.3; 1.8.6; all Biology Affected Environment sections; Glossary
FN-NC-0002	48	4/18/2016	William Ostrum	DOE	Federal agencies must use the best *available* scientific and commercial data. This is an important distinction.	For clarity, the word “available” has been moved from after the words “commercial data” to before the word “scientific”. The sentence now reads: “...use the best available scientific and commercial data when making an effect determination...”	1.8.3, page 1-12	1.8.3
FN-NC-0002	49	4/18/2016	William Ostrum	DOE	May want to change title to Executive Order 11988 (as amended by 13690) - Floodplain Management” and combine with EO 13690. I don’t think it’s appropriate to consider these separately - see comment below on new guidelines.	Sections 1.8.10 and 1.8.14 have been combined in the Final PEIS to explain EOs 11988 and 13690 in the same section. Appendix C, <i>Environmental Laws and Regulations</i> , has also been updated per this comment.	1.8.10, page 1-14	1.8.10; 1.8.14
FN-NC-0002	50	4/18/2016	William Ostrum	DOE	The guidelines are unclear in first sentence after the bullets. Also, the guidelines were updated in 2015 to reflect EO 13690. Suggest moving the first two sentences of this paragraph to the end and adding “for implementing this EO” after “The guidelines.”	See response to comment 51. The text has been updated in the Final PEIS and the suggested sentence structure change has been made.	1.8.10, page 1-14	1.8.10; 1.8.14
FN-NC-0002	51	4/18/2016	William Ostrum	DOE	Add some discussion of how actions associated with the network will be “federal actions” or “federally funded actions” under EO 13693.	A summary description of EO 13693 has been added to Chapter 1, Introduction.	1.8.10, page 1-15	New Section 1.8.14

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FN-NC-0002	52	4/18/2016	William Ostrum	DOE	Add links to remaining references.	Not all references cited are available via web links. Links have been provided where available.	1.10, page 1-17	1.1
FN-NC-0002	53	4/18/2016	William Ostrum	DOE	Recommend removing quotes around “include the alternative of no action.”	The quotes have been removed in the Final PEIS.	2, page 2-1	Chapter 2, Description of the Proposed Action and Alternatives
FN-NC-0002	54	4/18/2016	William Ostrum	DOE	Remove “utility corridor” in the first sentence. It’s mentioned in the next sentence as something that could be included in ROW.	The Final PEIS has been updated to read: “...plowing or trenching cable alongside the road usually within a utility corridor or within public road right-of-way (ROW), where possible. Utility ROWs could also include other easements and may be public or private.	2.1.2.1, page 2-2	2.1.2.1
FN-NC-0002	55	4/18/2016	William Ostrum	DOE	Under “Cell on Wheels” replace “to” with “and” - “15 feet *and* 40 feet.”	The sentence has been revised in the Final PEIS to read “...typically between 15 feet and 40 feet...”	2.1.2.3, page 2-4	2.1.2.3
FN-NC-0002	56	4/18/2016	William Ostrum	DOE	Remove comma in “the No Action Alternative, forward for analysis.”	The comma has been removed in the Final PEIS.	2.2, page 2-5	2.2
FN-NC-0002	57	4/18/2016	William Ostrum	DOE	Legislative mandate can’t be the only reason it’s dismissed. The combination of the reasons listed here is why it can be dismissed. Suggest rewording last two sentences - e.g., “This alternative has been dismissed from further consideration because new construction of the entire...Furthermore, it is counter to FirstNet’s legislative mandate to leverage existing infrastructure.” 40 most commonly asked questions concerning NEPA 2b - “A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered.”	The New Construction Only Alternative would present a clear violation of federal law, which is sufficient to dismiss this alternative from further consideration. As stated in this section, other factors further support eliminating this alternative. No change made.	2.3.1, page 2-7	NA
FN-NC-0002	58	4/18/2016	William Ostrum	DOE	See previous comment on dismissing alternatives due to legislative mandate.	The New Satellite Alternative would present a clear violation of federal law, which is sufficient to dismiss this alternative from further consideration. As stated in this section, other factors further support eliminating this alternative. No change made.	2.3.2, page 2-7	NA
FN-NC-0002	59	4/18/2016	William Ostrum	DOE	Insert “during the scoping period” after “comments received.”	The suggested text has been added to the Final PEIS.	2.4.1, page 2-7	2.4.1

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FN-NC-0002	60	4/18/2016	William Ostrum	DOE	In last paragraph before bullets, insert an m-dash between “space” and “others.”	An em dash has been added as suggested in the Final PEIS.	2.4.1, page 2-8	2.4.1
FN-NC-0002	61	4/18/2016	William Ostrum	DOE	At the end of the first bullet, insert “in the microwave spectrum.	The text has been updated in the Final PEIS to reflect the type of non-ionizing radiation that would be emitted, which is within the microwave spectrum. The text now also states that portions of 700 MHz band are already being used for both commercial wireless and public safety communications.	2.4.1, page 2-8	2.4.1
FN-NC-0002	62	4/18/2016	William Ostrum	DOE	Highlight the frequency ranges where FirstNet would operate.	Table 2.4.1-1 has been updated in the Final PEIS to indicate the frequency where FirstNet would operate.	Table 2.4.1-1, page 2-10	Table 2.4.1-1
FN-NC-0002	63	4/18/2016	William Ostrum	DOE	If possible, provide the exposure range of “typical ground-level exposures.”	Text related to “typical ground-level exposures” has been included in the Final PEIS.	2-4-2, page 2-11	2.4.2
FN-NC-0002	64	4/18/2016	William Ostrum	DOE	In the paragraph after the bullets, verify that this is really a positive correlation. A negative correlation makes more sense.	The text has been updated in the Final PEIS to explain that the correlation is negative between distance from transmitters and risk of cancer.	2.4.2.2, page 2-17	2.4.2.2
FN-NC-0002	65	4/18/2016	William Ostrum	DOE	Remove “conversely” from the last sentence.	The word conversely has been removed in the Final PEIS.	2.4.2.3, page 2-18	2.4.2.3
FN-NC-0002	66	4/18/2016	William Ostrum	DOE	Remove second sentence of first paragraph. Federal regulatory levels aren’t set based on how they are used in NEPA.	The first paragraph in Section 2.4.3 has been revised in the Final PEIS to clarify the relationship between the lack of exposure levels for non-human species and the treatment of that impact in a NEPA analysis.	2.4.3, page 2-18	2.4.3
FN-NC-0002	67	4/18/2016	William Ostrum	DOE	In the second paragraph, second sentence, replace the “and” between “project” and “make” with a comma.	The sentence has been restructured in the Final PEIS to improve flow by adding commas.	2.4.3, page 2-18	2.4.3
FN-NC-0002	68	4/18/2016	William Ostrum	DOE	In the second paragraph, second sentence, Depending on the specifics, environmental effects don’t necessarily have “parity.” It may be more accurate to say they have to be considered along with engineering and economic decisions.	The sentence has been modified in the Final PEIS to indicate that environmental effects would be considered along with engineering and economic decisions.	2.4.3, page 2-18	2.4.3

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FN-NC-0002	69	4/18/2016	William Ostrum	DOE	In the third paragraph, first sentence, suggest deleting “equally-if not-more.”	It is FirstNet’s opinion that there is greater complexity associated with evaluating impacts to non-human species.	2.4.3, page 2-18	NA
FN-NC-0002	70	4/18/2016	William Ostrum	DOE	Footnote 11: Clarify if this is referring to general effects on migratory bird species or effects specific to bird migration.	Footnote 11 has been updated in the Final PEIS to indicate that the research and environmental community have focused on migratory bird species.	2.4.3.1, page 2-19	2.4.3.1
FN-NC-0002	71	4/18/2016	William Ostrum	DOE	In the next to last paragraph, the first sentence (there are no available studies...) seems to contradict the previous paragraph, unless that study referred to high-level RF emissions. Clarify in text.	This sentence has been removed in the Final PEIS.	2.4.3.1, page 2-20	2.4.3.1
FN-NC-0002	72	4/18/2016	William Ostrum	DOE	In the last paragraph, explain or remove “predatory journals.”	A footnote has been added to the text to explain the term “predatory open access journals.”	2.4.3.1, page 2-20	2.4.3.1
FN-NC-0002	73	4/18/2016	William Ostrum	DOE	In reference Dolk 1997, add a space after the PMID number.	A space has been added after the after the PMID number.	References, page 2-22	Chapter 2, Description of the Proposed Action and Alternatives (References)
FN-NC-0002	74	4/18/2016	William Ostrum	DOE	Is 2011 the most recent data available? Suggest updating if possible. Likewise with the energy information below.	The most recent data from the USGS Mineral Commodity Summary and EIA have been used in the Final PEIS.	3.1.3.3, page 3.1.3-2	3.1.3.3; all Geology Environmental Consequences sections
FN-NC-0002	75	4/18/2016	William Ostrum	DOE	In the last paragraph (The University of Alaska Museum...), next to last sentence, is this referring to something different than the “location” in the previous sentence. If not, recommend deleting this sentence.	The second to the last sentence has been modified in the Final PEIS to avoid redundancy. The sentence now reads: “Specifically, the database has a spatial query function that may be used to generate maps showing locations of fossil specimens...”	3.1.3.3, page 3.1.3-4	3.1.3.3
FN-NC-0002	76	4/18/2016	William Ostrum	DOE	At the end of the next to last paragraph, insert “mainland” before “United States.”	The sentence has been revised in the Final PEIS by adding “mainland”. The sentence reads: “...caused destruction along the west coast of the United States mainland, Hawaii, and Canada...”	3.1.3.4, page 3.1.3-5	3.1.3.4
FN-NC-0002	77	4/18/2016	William Ostrum	DOE	Regarding the USGS landslide hazard map, is there no source of landslide hazard data for Alaska? If that’s the case, it should be stated clearly rather than just mentioning one source that excludes Alaska.	This text has been updated in the Final PEIS to indicate that a state-wide landslide hazard dataset does not exist for Alaska. In addition, an example USGS map showing seismic landslide hazards in Anchorage has been referenced for that geographic area.	3.1.3.4, page 3.1.3-8	3.1.3.4

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FN-NC-0002	78	4/18/2016	William Ostrum	DOE	1st paragraph - Federally funded actions in the 500 year floodplain do fall under EO 13690. It provides a number of options for determining the floodplain for federally funded actions, one of which is the 500-year floodplain. This would likely include FirstNet’s activities.	This text in the Final PEIS has been updated and no longer states that the 500-year floodplain is not generally regulated.	3.1.4.3, page 3.1.4-7	All Water Resources Affected Environment sections
FN-NC-0002	79	4/18/2016	William Ostrum	DOE	In the last paragraph, delete “among other species” from “Although not threatened or endangered in Alaska, among other species, ...”	This text has been revised in the Final PEIS for clarity, now reading “Although not threatened or endangered in Alaska, moose and salmon (among other species) are important...”	3.1.5.4, page 3.1.5-10	3.1.5.4
FN-NC-0002	80	4/18/2016	William Ostrum	DOE	In the Terrestrial Invertebrates section, the last two sentences in this section are a little awkward and don’t flow correctly. Would rewrite as: “Many plants of the tundra are reliant on flies and bumblebees for pollination. For example,...”	These sentences have been revised for improved flow in the Final PEIS.	3.1.6.4, page 3.1.6-17	3.1.6.4
FN-NC-0002	81	4/18/2016	William Ostrum	DOE	In the final sentence in the bison section, clarify if “Bison herds” refers to the number of bison or the number of herds.	This sentence has been updated in the Final PEIS to specify that “bison herds” refers to the number of bison within the herds discussed.	3.1.6.4, page 3.1.6-21	3.1.6.4
FN-NC-0002	82	4/18/2016	William Ostrum	DOE	In the “Non-game (furbearers)” section, clarify how sealing records are relevant.	This sentence has been simplified in the Final PEIS to indicate the ADFG estimates 2,500 to 3,500 trappers in the state.	3.1.6.4, page 3.1.6-22	3.1.6.4
FN-NC-0002	83	4/18/2016	William Ostrum	DOE	Recommend removing footnote 1. The concept is covered in the following sentence.	Footnote 1 has been left in the Final PEIS and the redundant sentence has been removed.	3.1.6.5, page 3.1.6-33	3.1.6.5
FN-NC-0002	84	4/18/2016	William Ostrum	DOE	Since FirstNet is a federal agency, this discussion of HCPs and Section 10 permits may not be necessary.	Footnote 5 indicates that an incidental take permit is issued under Section 10 of the ESA to private parties undertaking otherwise lawful projects that might result in the <i>take</i> of an endangered or threatened species. This information remains in the Final PEIS for completeness. No change made.	3.1.6.6, page 3.1.6-43	NA
FN-NC-0002	85	4/18/2016	William Ostrum	DOE	Under Federally and State-listed and Candidate Species - Does FirstNet plan to treat the candidate species as if they are listed for purposes of this project? If so, state that here.	The response to this question has been addressed in the Environmental Consequences section (3.2.6.6). The text of the Final PEIS has been updated to clarify that while FirstNet does not plan to treat candidate species as listed species, they would be managed in accordance with applicable laws as well as the BMPs presented in the Final PEIS.	3.1.6.6, page 3.1.6-45	3.2.6.6
FN-NC-0002	86	4/18/2016	William Ostrum	DOE	In the first full sentence, note that the reference point is metric tons of CO2-e, not just CO2, and that CO2 is recommended as a “proxy” for a project’s effect on climate change.	The text of the Final PEIS has been updated to reflect CO2-e and that CO2 is recommended as a proxy.	Page 3.1.14-4	All Climate Change sections; Affected Environment sections

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FN-NC-0002	87	4/18/2016	William Ostrum	DOE	In the last sentence in the smoking paragraph, replace “compared with” with “than.”	The sentence has been updated in the Final PEIS to read: “In 2013, Alaska had a higher percentage of current smokers (an estimated 22.6 percent, according to the Center for Disease Control’s Behavioral Risk Factor Survey) than the U.S. (19.0 percent, CDC 2013a).”	Page 3.1.15-4	3.1.15; 4.1.15; 5.1.15; 6.1.15; 7.1.15; 8.1.15; 9.1.15
FN-NC-0003	88	4/21/2016	Susan Hathaway	DHS	Thank you for this advanced read of the FirstNet PEIS. The additional time that you allowed us has greatly benefitted our review and ability to reach out to our components who have extensive and detailed experience in the field.	Thank you for your comment.	NA	NA
FN-NC-0003	89	4/21/2016	Susan Hathaway	DHS	Impact Assessments- The impact assessment sections for all resource areas assume adverse impact with or without BMPs or no impacts. Please specify as such since in some cases increased public safety communication could be perceived as a beneficial positive effect. Particularly in light of the fact that your document makes statements such as “Over the years, numerous lives have been lost as a result of the lack of interoperability in public safety telecommunications in America.” The ultimate outcome of the program is beneficial to human health and safety.	The Comparison of Alternatives chapter has been updated in the Final PEIS to include a subsection on likely substantial beneficial impacts, particularly related to infrastructure, health and safety, and socioeconomic resources. The Executive Summary also highlights the likely beneficial aspects of the Proposed Action.	Executive Summary, Chapter 12 Comparison of Alternatives	Executive Summary; Chapter 12, Comparison of Alternatives
FN-NC-0003	90	4/21/2016	Susan Hathaway	DHS	FirstNet also makes the assumption that you will mitigate all significant adverse impacts to a level of not significant but without capturing the details of how or what criteria would be used. FirstNet may be able to provide regional examples or show that you have queried or communicated with agencies that have dealt with site specific tower colocations or mobile units and so on. Though this is programmatic because of the nature of the regional PEIS this information could be gleaned on such a level. In cases that you truly do not know it is difficult for the reader to agree that everything will be mitigated or minimized when you have no specificity to every scenario with corresponding BMP for a situation that is unknown similar to how you stated it in the cumulative effects section. FirstNet would need to wait for a site specific analysis.	The Final PEIS indicates that at the regional, programmatic level, potentially significant impacts are not expected based on the specific impact significance rating criteria developed for each individual resource (which uses a rating system based on magnitude/intensity, geographic extent, and duration/frequency). ³ However, significant impacts could potentially occur at the site-specific level. Site-specific BMPs may be needed in addition to those outlined in the PEIS, and those would be determined during site-specific environmental assessments in coordination with local environmental agencies. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. The text in the Final PEIS has been revised to indicate that impact determinations are at the programmatic level per the impact significance criteria.	General	All Environmental Consequences Introduction sections; ES4

³ Impacts of climate change on the Preferred Alternative could range from potentially significant to less than significant with BMPs and mitigation measures incorporated at the programmatic level.

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FN-NC-0003	91	4/21/2016	Susan Hathaway	DHS	Protocols for working with agencies to make siting and collocation decisions: While we recognize that planning and decisions regarding siting and collocations will need to be made on a case by case/site by site basis, the EIS does not address the general protocol or role for the cooperating agencies to participate in the FirstNet program. This includes describing, in general, how the program expects their applicants and other agencies to work with FirstNet to ensure that environmental reviews and consultations are conducted for site-level projects. This is a concern because CBP has had at least one Commerce Department grant (a Broadband Technology Opportunity Program- BTOP grant) to a state agency (NM) come across our desks. In that case, they wish to collocate on a BPFTI tower located at the Santa Teresa Land Port of Entry. However, the Commerce grantee is doing all Environmental compliance on their own without anyone signing off at Commerce from what we were able to discover back when the project came to us in Summer 2015. As a result, CBP has been compelled to enter into discussions with Commerce with respect to taking on the consultation burden with some of the resource agencies to cover our NEPA obligations (per Chris Shaw at CBP OCC). Furthermore, CBP needs to ensure that the collocation would not interfere with existing CBP conditions on construction and use of that tower site. To date, that project remains unapproved by CBP and we have not heard back about what role Commerce will be taking or received any of the requested documentation that would allow us to proceed. (Please recall that we mentioned this project issue to you in January 2016.) Without protocols for us to review and comment upon, we can anticipate these same issues of who is responsible for what and how to ensure that FirstNet actions comply with any pre-existing environmental conditions on a DHS or DHS component tower or facility will persist.	The Introduction chapter (Chapter 1) has been updated in the Final PEIS to outline cooperating agency roles, how the program will be coordinated, and a description of the environmental review process going forward, including continued agency and public outreach efforts. For those FirstNet projects that have the potential to affect federal property or facilities, FirstNet or their partner(s), as appropriate, will conduct outreach to the relevant federal agency to help ensure compliance requirements are addressed.	Chapter 1	Chapter 1, Introduction

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FN-NC-0003	92	4/21/2016	Susan Hathaway	DHS	Significance determinations: As written, the document assumes that in all cases every approach for each type of activity will have minimal (mitigated or unmitigated) impacts. It is a concern that this PEIS may actually need to address more remote areas where impacts may approach significance depending on the site-specific case. For instance, what if some FirstNet resources potentially need to consider sites in or adjacent to pristine, protected areas? Or what if a best option in one area could potentially have adverse effects to historic properties? It seems that there should be some discussion of those possibilities. CBP’s towers are not 100% minimal to no impact. If we were to be approached by FirstNet about collocating on a site with restrictions, we would assume that our restrictions would stand for their activities or that they would end up with adverse impacts. So for a CBP helicopter access only site intended to avoid damage to historic properties, a FirstNet access road could not be minimal to no impact. Other towers located in coastal areas have strict requirements about access and maintenance which may elevate collocation on these towers to the level of significance. The document’s failure to better acknowledge the potential circumstances where impacts could arguably approach significance limits its potential usefulness to agencies that would cooperate with the FirstNet program in collocation and co-siting situations in areas with sensitive environmental resources.	The Final PEIS explains that at the programmatic level and based on the impact significance ratings developed, there would be no potentially significant impacts as a result of the Proposed Action as a whole. ⁴ However, the same impact significance criteria used at the programmatic level may not apply to site-specific build-out activities/actions. The Final PEIS acknowledges that site-specific impacts do have the potential to be more significant on a localized basis and may require site-specific assessments and mitigation. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. The text of the document has been updated to provide examples of circumstances where certain impacts may approach significance. In doing so, the Final PEIS makes clear distinctions between the purpose and usefulness of the PEIS and subsequent analyses (such as Environmental Assessments). For example, while potential impacts from specific FirstNet projects taking place in a wetland may not rise to the level of significance at the programmatic level, such impacts could be considered potentially significant at the site-specific level.	General	Throughout Final PEIS, to include all Environmental Consequences Introduction sections
FN-NC-0003	93	4/21/2016	Susan Hathaway	DHS	References/citations that refer to A. Manville most likely belong under US FWS and not his name, similar to what you have done with US DOE, USDA and FCC. Please check this and correct as necessary.	Where government source documents list a specific author(s), the author name is used in the in-text citation and references section. The Manville references refer to a congressional staff briefing presentation (2007), a journal article in the Proceedings of the Fourth International Partners in Flight Conference (2009), and talking points released to the public from a communication tower webinar (2014). Dr. Manville is no longer with the USFWS. No change made.	Section 2-5; page 2-24	NA
FN-NC-0003	94	4/21/2016	Susan Hathaway	DHS	Acronyms are used as references section that don’t the citation that you are referring to. So, despite the fact that you have divided the reference sections to each chapter it may actually be easier to combine all the references. This affects the references and other sections - For example- Under Acronyms you only specify APLIC as the Avian Power Line Interaction Committee and fail to define Alaska Public Lands Information Centers – which is in the references sections therefore it might be easier to combine all references and citations then provide the two uses- e.g. APLIC as APLIC[1] and APLIC[2].	The Final PEIS has been updated to ensure there are no conflicts between acronyms used in the text and reference citation acronyms. Where there is a conflict, the citation will use the full name. Where identical acronyms are used in the text, “1” and “2” designations are provided. The Final PEIS text has been updated to use “Alaska Public Lands Information Centers” in the references and citations and not “APLIC”.	TOC - Acronyms 3.3 and References	3.3; 3.1.3

⁴ Impacts of climate change on the Preferred Alternative could range from potentially significant to less than significant with BMPs and mitigation measures incorporated at the programmatic level.

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FN-NC-0003	95	4/21/2016	Susan Hathaway	DHS	<p>Incorrect citation – Please see https://www.whitehouse.gov/omb/fedreg_1997standards</p> <p>Change the citation for this simply to include the US Census Bureau or OMB definition – I think this section got confused with a prior section and you intended to reference OMB 1997 not CEQ 1997. CEQ 1997 does not expressly make these definitions. Nonetheless, the reader doesn’t need the basis for the definition they just need the proper definition Suggest “Since publication of the Environmental Justice: Guidance under the National Environmental Policy Act (CEQ 1997), The U.S. Census Bureau has changed how it defines race and ethnicity. Ethnicity (Hispanic or not Hispanic) is now counted defined separate differently from race (US Census, Definitions of Subject Characteristics, 2010; OMB 1997). As a result, this Draft Programmatic Environmental Impact Statement (PEIS) considers both race and ethnicity separately for the purpose of evaluating minority status.” Get the census definition and present it.</p>	The suggested edits have been made in the Final PEIS.	Section 3.1.10.2, page 3.1.10-2	All Environmental Justice Affected Environment sections
FN-NC-0003	96	4/21/2016	Susan Hathaway	DHS	<p>BMPs: As a cooperating agency who at some time may have to work with FirstNet on deployment of technologies on our structures (or otherwise), DHS and its components should do a thorough and detailed review of the FirstNet BMPs to make sure that they do not conflict with existing DHS and component BMPs and MOUs which are specifically designed to prevent constraints to DHS and component technologies and missions. For example: There is a BMP for building new FirstNet towers that says: “Select the shortest possible structures necessary to meet the FirstNet system’s needs, and only deploy towers less than 200 feet in height.” It is fine as a goal, but (1) is it efficacious in every situation and (2) might it limit opportunities for collocations in certain circumstances (i.e. If one over 200’ tower may be able to service a remote area as opposed to using multiple less than 200’ towers to cover the same area, it should be an option for consideration)? Due to the volume of BMPs in the document and the apparent conflicting nature of some of the proposed BMPs, this will require a significant amount of time and agency resources.</p>	Unlike mitigation measures, BMPs are not required in every case and will be applied as practicable and feasible. FirstNet will continue to coordinate with DHS as a cooperating agency. Application of BMPs will be determined on a case-by-case basis. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. Additionally, some of FirstNet’s BMPs were developed through consultation with resource managing agencies.	Chapter 11 BMPs and Mitigation Measures	Chapter 11, BMPS and Mitigation Measures
FN-NC-0003	97	4/21/2016	Susan Hathaway	DHS	DHS appreciates the thorough discussion and analysis of RF given the public concerns on the matter.	Thank you for your comment.	Section 2.4	NA

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FN-NC-0003	98	4/21/2016	Susan Hathaway	DHS	How would the installation of the system be documented and reference the PEIS criteria that apply? For instance, is there some kind of numbering scale (numbering or color coding) that could be associated with the potential impacts? That way, when the tiered analysis is being completed for the site-specific project, the appropriate reference could be made in the PEIS to address the type.	The Draft and Final PEIS use four categories of potential impacts to rank the types of effects that may be anticipated at the programmatic level: 1) Potentially significant; 2) Less than significant with BMPs and mitigation measures incorporated; 3) Less than significant; and 4) No impact. As explained in the response to comment 92 above, the same impact significance criteria used at the programmatic level may not apply to all site-specific actions, and site-specific environmental analysis may be performed that describe potential impacts and mitigation measures at the local level. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. To the extent practicable, however, site-specific analyses will refer to and tier off of the appropriate discussions in the Final PEIS and will incorporate the applicable impact ratings and BMPs/mitigation measures from the Final PEIS. However, since the geographic extent, magnitude/intensity, and duration/frequency of some impacts may be different at the local level than at the programmatic level, site-specific impact rankings and additional BMPs/mitigation measures may be developed during these subsequent analyses.	Potential Impacts	Throughout Final PEIS, to include all Environmental Consequences Introduction sections
FN-NC-0003	99	4/21/2016	Susan Hathaway	DHS	The cumulative impacts section specifically states that a cumulative impact results from the additive effect of all projects in the same geographical area; however, no linkage is then made as to why you have singled-out examples of Broadband projects. Please provide rationale or re-word what you have so that reader can make sense of providing only one subset of potential cumulative impacts.	As explained in the Final PEIS, at the programmatic level it is not practical to include a list of all possible infrastructure projects in the cumulative impacts section. Instead, the cumulative impacts section describes projects similar to the Proposed Action with common impacts that would likely have additive effects. The text points out that specific project sites have not yet been identified by FirstNet, and that there is currently a wide range of potential technologies that could be implemented.	Table 10-1	NA

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FN-NC-0003	100	4/21/2016	Susan Hathaway	DHS	<p>Given DHS above comments on impacts and BMPs it is difficult to see the analysis behind such broad statements as – “The potential impacts associated with the Proposed Action would result from the collocation on existing infrastructure; construction of new infrastructure and/or accessory components; use of existing fiber facilities; installation of new conduit; deployment of satellite phones and/or satellite technology; installation of microwave facilities; and utilization of deployable technologies. As described in Chapters 3 through 9, the effects as a result of the Proposed Action would not result in significant potential impacts.”</p> <p>And</p> <p>“Impacts would occur as a result of other ongoing telecommunications infrastructure development, including those projects described above; however, when combined with the potential impacts associated with the Proposed Action, significant impacts to the natural or human environment are not expected.”</p> <p>Cumulative impacts would include projects that FirstNet has no control over so these statements seem over-generalized and lack a reasonable written logic train to guide the reader to come to such a conclusion. DHS is familiar with situations along the border and in remote locations where this seems difficult to be certain and even more difficult to ensure/enforce.</p>	See the responses to comments 92 and 99. The FEIS recognizes that impacts could occur as a result of other ongoing telecommunications infrastructure development. However, when combined with the potential impacts associated with the Proposed Action, incremental significant impacts to the natural or human environment are not expected to be significant at the programmatic level.	Section 10 Cumulative, page 10-3	Throughout Final PEIS, to include all Environmental Consequences Introduction sections
FN-NC-0004	101	3/14/2016	Anonymous	Not specified	The document refers to State Civil Defense which is a division of the State of Hawaii Dept. of Defense. The name was changed to Hawaii Emergency Management Agency (HI-EMA) in 2014; HI-EMA is now the accepted name for that entity	The Final PEIS includes the correct reference to HI-EMA.	Section 4	Hawaii Introduction; 4.1.1.2; 4.1.1.4
FN-NC-0005	102	4/26/2016	Mihai Leta	USCG	Please notify me if any FirstNet representatives visit CNMI in the future. I can provide visitors with information regarding potential tower sites.	FirstNet has provided notification of this request to the User Advocacy Team.	NA	NA
FN-NC-0006	103	3/21/2016	John C.	-	Will this network include coordination with transit agencies such as HART or HI DOT?	At this stage in the project, coordination between FirstNet and state and local transportation agencies has not occurred. However, as individual state/territory plans are developed, opportunities for coordination will occur. The Introduction chapter (Chapter 1) has been updated in the Final PEIS to outline cooperating agency roles, how the program will be coordinated, and a description of the environmental review process going forward, including continued agency and public outreach efforts.	NA	Chapter 1, Introduction
FN-NC-0007	104	4/5/2016	Mike Gawel	NPS	Land needed for facilities can be bought and owned on Guam. But in Saipan and all the Commonwealth of the Northern Mariana Islands, land cannot be alienated and can only be owned by traditional residents. But land can be leased for use in these islands.	The land use sections within the applicable state/territory chapters acknowledge this landownership issue.	General	NA

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FN-NC-0008	105	4/11/2016	Carl Prendergast	ASDHS	I am concerned that FirstNet will have negative impacts to existing local broadband companies like ASTLA (American Samoa Telecommunications Authority) or BlueSky Communications. The surplus bandwidth from FirstNet could cause loss of local jobs since these two companies employ many local people.	The Final PEIS addresses this comment related to competition and potential job loss or dislocations in the socioeconomics impact sections within each state/territory chapter.	General	All Socioeconomics Environmental Consequences sections
FN-NC-0009	106	4/22/2016	Kenneth Duinkerck	-	FirstNet should use renewable energy for backup power in the Virgin Islands (cell towers, for example).	The Final PEIS addresses the potential use of renewable energy in the Climate Change sections of each state/territory chapter, as well as in the BMPs and Mitigation Measures chapter (Chapter 11). A BMP in Chapter 11 states that FirstNet and/or their partners would use, as practicable or feasible, engines certified to the lowest emission standards and engines that burn alternative fuels (e.g., natural gas, biofuels). A BMP also states that FirstNet and/or their partners would use vehicles with hybrid or electric technology, as practicable or feasible, to reduce or eliminate criteria pollutant emissions from fuel combustion.	General	All Climate Change sections; Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures
FN-NC-0010	107	4/26/2016	Ruth E. Silva	PREMA	It’s important to take into consideration that there are three important species that are very loved by the island: the Puerto Rican parrot, manatees, and the coqui.	The Final PEIS addresses potential impacts to wildlife and threatened and endangered species in Puerto Rico in sections 8.2.6.4, 8.2.6.6, and 8.1.6.4. Each of these species is specifically included in the Final PEIS.	General	NA
FN-NC-0011	108	3/21/2016	Victoria Garcia	HI-DOD	(verbal comment) FirstNet should focus more effort on coordinating with other agencies in Hawaii, including Native Hawaiian Organizations, to educate them about the project in general, as well as to inform them about the environmental review process and potential environmental impacts. She suggested that FirstNet could better integrate the environmental review process into overall outreach plans.	Thank you for your comment. A Supplemental Programmatic Environmental Impact Statement will be developed that outlines the site-specific process. As discussed in the Final PEIS, FirstNet has initiated consultation with Native Hawaiian Organizations.	NA	NA
FN-NC-0012	109	4/5/2016	Leigh Pereda	Guam DHS	(verbal comment) FirstNet should make sure that the report is double-checked for typos. A typo was found in the Executive Summary where the text incorrectly referred to the people from Guam as Native Hawaiians.	The Final PEIS has been checked for typos and inconsistencies through a rigorous review and editing process.	General	Various
FN-NC-0013	110	4/5/2016	Chris Roberto	Port Authority of Guam	(verbal comment) Regarding infrastructure resiliency in Guam, the FirstNet project should be structurally resilient and should take into account the potential for insect damage (such as from termites).	The Description of the Proposed Action and Alternatives chapter (Chapter 2) addresses resiliency issues related to the NPSBN. The Infrastructure section within each state/territory chapter discusses infrastructure resiliency as well. Resiliency is discussed as a broad category of natural and man-made disasters and does not go into specifics at the programmatic level.	Section 6.1.1; Section 6.2.1	NA
FN-NC-0014	111	4/11/2016	Unknown	Unknown	(verbal comment) The PEIS should take into account emissions associated with generator use both during construction and during operation, for example, if back-up generators would be used to supply power to cell tower sites.	The PEIS discusses potential impacts related to air emissions and generator use in the air quality section within each state/territory-specific chapter. Additionally, BMPs and Mitigation measures are included in Chapter 11 to help avoid or minimize potential impacts to air quality. For example, FirstNet will use, as practicable or feasible, engines certified to the lowest emission standards and engines that burn alternative fuels (e.g., natural gas, biofuels).	General	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0015	112	4/11/2016	Unknown	Unknown	(verbal comment) Not all historic places are included in the National Register of Historic Places, and that this should be taken into account during the planning and development stages of the project	The cultural resources sections within each state/territory-specific chapter address historic places. The Final PEIS indicates that cultural resources surveys might need to be conducted to identify specific cultural resources of an individual project; however, through previous surveys and a general understanding of the cultural context, archaeological sites and historic resources are more typically found in certain locations given their size, type, and function.	General	All Cultural Environmental Consequences sections
FN-NC-0016	113	4/22/2016	Reuben D. Molloy	U.S. Virgin Islands Bureau of Information Technology	<p>(verbal comment) Some of the challenges in St. Croix related to the telecommunications infrastructure for first responders include:</p> <ul style="list-style-type: none">• Coverage - 20% of St. Croix is a “dead-spot.” Even the radios of first responders are not useable in these areas.• Congestion on the network is a major issue – too many users with not enough bandwidth.• Redundancy – there are redundant 911 call centers in St. Thomas and St. Croix, but the LMR radios in the two locations are not interoperable so they cannot communicate after a call is made.• Training – not all users of the system and radios are properly trained. <p>Also, cell tower “fall-zones” are an issue of concern on St. Croix. A moratorium for building tall towers near existing structures has been recently lifted, but the new regulations make constructing tall towers difficult. Collapsible towers should be explored. The importance of resilient infrastructure to withstand hurricanes is stressed.</p>	Technical information related to the deployment has been communicated to the relevant FirstNet personnel.	General	NA
FN-NC-0017	114	4/25/2016	Mary Josie Blanchard	US DOI	<p>First paragraph, last sentence: The reference to sparse feeding opportunities is an incorrect categorization of habitats in Alaska. Birds migrate to breed in Arctic and sub-Arctic habitats in part because of the abundance of food resources (especially invertebrates) during the short summer season at these latitudes. However, habitat fragmentation is a source of impact to birds through the direct loss of habitat important to critical life stages, including nesting, brood rearing, and refueling (after and before long migratory flights and/or reproduction, which has high energy demands). Activities during construction can also result in indirect impacts to birds (through disturbance) during sensitive life stages. Recommend correcting as appropriate.</p> <p>Second paragraph: Activities onshore can in some circumstances disturb or displace Alaskan marine mammals as well (e.g. near terrestrial haulout locations, near polar bear dens).</p>	<p>The Final PEIS has been updated and no longer indicates relatively sparse feeding opportunities for birds. The final sentence of section 4.6.1 now reads: “Habitat fragmentation could also potentially affect birds through the loss of nesting, brood rearing, and feeding after and before long migratory flights and/or reproduction.”</p> <p>A sentence has been added to the second paragraph of section ES4.6.1 that reads: “Marine mammals could also be affected by project activities onshore if done near terrestrial haulout locations or near polar bear dens.”</p>	Executive Summary ES4.6.1, page ES-51	ES4.6.1

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FN-NC-0017	115	4/25/2016	Mary Josie Blanchard	US DOI	Alaska presents unique challenges to certain ground-disturbing activities proposed under the Project’s preferred alternative, due to the presence of permafrost-rich soils across much of the landscape. On the Arctic Coastal Plain (ACP) especially, trenching in frozen saturated soils characteristic of this region of continuous permafrost often results in thermokarsting. This can in turn lead to trench subsidence. Subsidence of linear features has been known to drain adjacent wetlands, altering local hydrology and habitat and creating long-term maintenance issues. For example, subsidence and subsequent flooding of power cables buried in the tundra in a Prudhoe Bay oil field in the 1990s continued to be a problem well into the late 2000s, in spite of the routine placement of fill, which is expensive and not widely available in this region. We strongly recommend the Project consider alternatives to trenching for placement of fiber optic cable and other transmission lines on the ACP, include hanging wires on existing pipeline vertical support members, burial in existing roadways, and co-location with other transmission lines or other existing infrastructure (e.g., oil and gas pipelines).	Section 3.1.3 of the Draft PEIS indicated that thawing permafrost in Alaska can lead to land subsidence. The Final PEIS has been updated to elaborate on thermokarst and specifically calls out the Arctic Coastal Plain. Specific installation methods will be determined at the site-specific level or during project design phase.	General	3.1.3; 3.2.3; 3.2.5 Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	116	4/25/2016	Mary Josie Blanchard	US DOI	Volume 6, Chapter 8 covers Puerto Rico and Volume 7, Chapter 9 covers the U.S. Virgin Islands. Alternatives include the use of existing or the construction of new wireless communication towers. Based on the information in the DPEIS, the use of towers to maintain a communications infrastructure in Puerto Rico and the U.S. Virgin Islands after a natural disaster such as a hurricane would be difficult. Hurricane force winds can knock down towers or misalign or dislocate antennae. Electrical power is usually cut to preserve the existing grid prior to a Hurricane or Tropical Storm, and power might not be re-established until downed lines are corrected. Under these circumstances, tower facilities would depend exclusively on their existing generators and fuel supplies. This makes tower communications after a tropical weather emergency difficult at best.	No change made. The Draft and Final PEIS indicate that the FirstNet network would be “hardened” from the physical, 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. 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.	General	NA
FN-NC-0017	117	4/25/2016	Mary Josie Blanchard	US DOI	Chapter 3 Alaska, page 3.1.6-11 to -13: The Endangered Species Act (ESA) should also be listed here.	In both the Draft and Final PEIS, the Endangered Species Act (ESA) is discussed in Section 1.8, Overview or Relevant Federal Laws and Executive Orders, as well as in the “Specific Regulatory Considerations” sub-section within each state/territory-specific “Threatened and Endangered Species and Species of Conservation Concern” section. A footnote has been added to the “Specific Regulatory Considerations” subsection within each state/territory “Wildlife” section indicating this.	Chapter 3 - Alaska 3.1.6.4 Wildlife, pages 3.1.6-11 to -13	All Wildlife Affected Environment sections
FN-NC-0017	118	4/25/2016	Mary Josie Blanchard	US DOI	Third paragraph: Recommend clarifying that this is non-federal critical habitat, since there is also critical habitat as defined under the ESA. Be careful with the statement that critical habitat is managed by the State of Alaska.	This sentence has been changed in the Final PEIS to say: “The ADFG Habitat Division manages land use activities within Alaska’s ‘Special Areas’ (state game refuges, state game sanctuaries, and non-federal critical habitat areas).”	Chapter 3 - Alaska 3.1.6.4 Wildlife, page 3.1.6-11	3.1.6.4

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FN-NC-0017	119	4/25/2016	Mary Josie Blanchard	US DOI	Bald and Golden Eagle Protection Act: Suggest acknowledging somewhere in this section that both Bald and Golden Eagles are federally managed through the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Also important to note, for projects taking place within eagles’ preferred habitat within their known ranges, the project proponent should contact the FWS to ensure compliance with BGEPA. Please add language that legal take must be authorized through a FWS permitting process.	This section of the Final PEIS has been updated to reflect that both Bald and Golden Eagles are also federally managed under the MBTA (in addition to the BGEPA). FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. Language has also been added indicating that legal take must be authorized through a USFWS permitting process. Site-specific reviews will be performed and consultation with USFWS where required will be conducted.	Chapter 3 - Alaska 3.1.6.4 Wildlife, page 3.1.6-12	All Wildlife Affected Environment sections
FN-NC-0017	120	4/25/2016	Mary Josie Blanchard	US DOI	In the paragraph that continues from page 3.1.6-13, marine mammals should not be discussed. This text all falls under the header Terrestrial Habitats and Wildlife. Recommend making it clear in this paragraph that this section applies to species that are generally state-managed (according to the regions shown on Figure 3.1.6.4-1).	The mention of marine mammals in the introductory paragraph of this section has been removed in the Final PEIS. Text has been modified to indicate that the section discusses state-managed terrestrial habitats and wildlife.	Chapter 3 - Alaska 3.1.6.4 Terrestrial Habitats and Wildlife, page 3.1.6-14	3.1.6.4
FN-NC-0017	121	4/25/2016	Mary Josie Blanchard	US DOI	Recommend making it clear in the introductory paragraph; this section applies to species that are generally federally-managed, through either NMFS or the FWS. Beaufort and Chukchi Seas: There are Pacific walrus haulouts in the Chukchi Sea, in addition to those mentioned farther south. Gulf of Alaska and Southeast: Please state the listed species that will be discussed in section 3.1.6.6, as you have for previous sections.	The introductory paragraph of this section has been updated to indicate that the section applies to species that are generally federal-managed. In addition, the text notes that there are Pacific walrus haulouts in the Chukchi Sea. The text indicates that the North Pacific right whale is discussed in Section 3.1.6.6.	Chapter 3 - Alaska 3.1.6.4 Habitats and Marine Mammals 3.1.6-22	3.1.6.4
FN-NC-0017	122	4/25/2016	Mary Josie Blanchard	US DOI	Pacific Walrus: The Pacific walrus is a candidate species under the ESA, so it should be discussed in Section 3.1.6.6. (Same comment applies to NMFS candidate species, such as the bearded seal). Walrus are known to stampede from terrestrial haulouts as well as ice floes; and this should be discussed, as it might be a more relevant concern to the FirstNet project, which has more of an onshore or nearshore footprint than an offshore component.	The Pacific walrus and bearded seal discussion were left in Section 3.1.6.4 as the wildlife chapter goes into more detail regarding haulouts as they relate to specific species. A cross reference was added for Section 3.1.6.6 where these species are already included in a briefer discussion, within Table 3.1.6.6-1. Detail was also added to walrus discussion regarding stampeding.	Chapter 3 - Alaska 3.1.6.4 Habitats and Marine Mammals, page 3.1.6-23	3.1.6.4
FN-NC-0017	123	4/25/2016	Mary Josie Blanchard	US DOI	Recommend using the FWS’s Birds of Conservation Concern list (http://www.fws.gov/migratorybirds/pdf/grants/BirdsofConservationConcern2008.pdf) to help identify which birds in this category fall within which Bird Conservation Regions (BCR). Because the list is older than some of your references, those should not be replaced; however, this one should be added because it is the most recent, official list from the FWS.	Information from the referenced 2008 USFWS Birds of Conservation Concern document has been added to the Final PEIS to supplement information provided in the Draft PEIS.	Chapter 3 - Alaska 3.1.6.4 Habitats and Birds, page 3.1.6-26	All Wildlife Affected Environment sections
FN-NC-0017	124	4/25/2016	Mary Josie Blanchard	US DOI	Aleutian and Bering Sea Islands: Short-tailed albatross could range into this BCR, as well as both listed eiders. Even if these are discussed in a later section, recommend including that fact here (where the BCRs are the focus). Same comment applies to other BCRs, as appropriate.	A mention of the short-tailed albatross and eiders has been included in this section of the Final PEIS.	Chapter 3 - Alaska 3.1.6.4 Habitats and Birds, page 3.1.6-26	3.1.6.4

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FN-NC-0017	125	4/25/2016	Mary Josie Blanchard	US DOI	Arctic Plains and Mountains: Some seabirds are also found in this BCR, but they are missing from the discussion. Recommend including seabirds as part of this section.	Seabirds have been added to this discussion of the Final PEIS.	Chapter 3 - Alaska 3.1.6.4 Habitats and Birds, page 3.1.6-27	3.1.6.4
FN-NC-0017	126	4/25/2016	Mary Josie Blanchard	US DOI	Northwest Pacific Rainforest: Missing raptors or other birds of prey in the discussion, including eagles. Recommend including these species. In the first full sentence on page 28, place an “and/or” between wintering and migration habitat, so that it is clearer not all of the species listed do all of these things (e.g. Western Sandpipers are not breeding in the Copper and Stikine River Deltas).	Raptors, including the northern goshawk, bald eagle, and northern saw-whet owl were included in Section 3.1.6.4 of the Draft PEIS. No Change needed for the Final PEIS. The suggested “and/or” edit has been made in the Final PEIS.	Chapter 3 - Alaska 3.1.6.4 Habitats and Birds, pages 3.1.6-27 to 28	3.1.6.4
FN-NC-0017	127	4/25/2016	Mary Josie Blanchard	US DOI	Northwestern Interior Forest: Missing raptors or other birds of prey in the discussion, including eagles. Recommend including these species.	Raptors and eagles have been added to this section of the Final PEIS.	Chapter 3 - Alaska 3.1.6.4 Habitats and Birds, page 3.1.6-28	3.1.6.4
FN-NC-0017	128	4/25/2016	Mary Josie Blanchard	US DOI	The sentence referring to Figure 3.1.6.4-7 should be modified to reflect that federally- managed areas are also shown on this figure.	This sentence has been updated in the Final PEIS as suggested to reflect that federally-managed areas are also shown on the figure.	Chapter 3 - Alaska 3.1.6.4 Important Habitat Areas, page 3.1.6-29	3.1.6.4
FN-NC-0017	129	4/25/2016	Mary Josie Blanchard	US DOI	Recommend choosing representative IBAs from each of the types represented on Figure 3.1.6.4-8 (coastal, nearshore, marine, and colony) as examples for the discussion on this page. Currently, only IBAs important to nesting waterfowl are discussed.	This text in the Final PEIS has been updated to include a discussion of the various representative IBAs, not just nesting waterfowl.	Chapter 3 - Alaska 3.1.6.4 Important Bird Areas, page 3.1.6-30	3.1.6.4
FN-NC-0017	130	4/25/2016	Mary Josie Blanchard	US DOI	Species Overview: Refer to Table 3.1.6.6-1 here in the text. Federal land State-listed and Candidate Species: It is incorrect to state that there are no federally listed Species of Concern. There are birds of conservation concern, as well as fish stocks/populations of conservation and management concern. If you are referring to a more specific definition of Species of Concern, then please provide a footnote for that definition under the introductory paragraph on page 3.1.6.43.	Table 3.1.6.6-1 was referenced in the Species Overview text of the Draft PEIS. No change made. The sentence about Species of Concern has been removed from the text.	Chapter 3 - Alaska 3.1.6.6 Threatened and Endangered Species, page 3.1.6-45	3.1.6.6

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FN-NC-0017	131	4/25/2016	Mary Josie Blanchard	US DOI	<p>Short-tailed Albatross: Please fix the description under geographic range (some missing words make this hard to follow). Also, this species has been found as far north as the Chukchi Sea in recent years. Their range might be expanding.</p> <p>Eskimo Curlew: Species status can be changed to “probably extinct”.</p> <p>Eiders: Please include non-breeding habitats for both eiders under general habitat description.</p> <p>Yellow-billed Loon: Can be removed from this table. It was found not warranted for listing.</p> <p>Polar bear: This section needs some substantial edits. Polar bears are not migratory; they are found in Alaska year-round (including denning bears, which are increasingly using the terrestrial environment). Their habitat and geographic range both need to be updated to reflect their use of the terrestrial environment.</p> <p>Pacific Walrus: Please update this table to reflect walrus use of terrestrial haulouts.</p>	The applicable sections have been revised as appropriate.	Chapter 3 - Alaska 3.1.6.6 Threatened and Endangered Species, Table 3.1.6.6-1	3.1.6.6
FN-NC-0017	132	4/25/2016	Mary Josie Blanchard	US DOI	The descriptions of Critical Habitat for Spectacled and Steller’s Eiders as described in the text on this page are not accurate. Please go back to the listing and correct.	These descriptions have been modified in the Final PEIS.	Chapter 3 - Alaska 3.1.6.6 Threatened and Endangered Species, page 3.1.6-57	3.1.6.6
FN-NC-0017	133	4/25/2016	Mary Josie Blanchard	US DOI	It is hard to see the terrestrial eider habitat delineated on this map. Please check for accuracy and consider renaming the yellow polygons CH for Steller’s AND spectacled eiders, and add the little sliver of spectacled eider-only CH south of Toksook Bay in another color. (See attached Figure 1: “Listed Critical Eider Habitat in YKD in FWS’s comment letter).	This map in the Final PEIS has been updated to make the distinctions clear.	Chapter 3 - Alaska 3.1.6.6 Threatened and Endangered Species, Figure 3.1.6.6-1	Figure 3.1.6.6-1
FN-NC-0017	134	4/25/2016	Mary Josie Blanchard	US DOI	In the sentence, “If a disturbance such as noise... excluded marine mammals from a preferred sea ice haulout,” please change this just to “haulout.” Walrus are using terrestrial haulouts more and more. Even if they are not preferred, these haulouts are important to their life history with loss of sea ice; additionally, walrus using terrestrial haulouts might be more likely than those using sea ice haulouts to be impacted by the FirstNet project.	In addition to sea ice haulouts, terrestrial haulouts were added to the document.	Chapter 3 - Alaska 3.1.6.6 Threatened and Endangered Species, page 3.1.6-59	3.1.6.6; 3.2.6.6
FN-NC-0017	135	4/25/2016	Mary Josie Blanchard	US DOI	It is not clear whether Section 3.2.6.4 applies to only non-listed species, or whether it includes listed species. Assuming the former, the information about Pacific Walrus (pages 3.2.6-17, 3.2.6-20, 3.2.6-22 through 23) should be removed from this section and placed in Section 3.2.6.6.	Section numbers have been added to the descriptions of the sections listed in Section 3.2.6.1 to make it clear where the various biological resources are covered within the larger section 3.2.6. The discussion of the Pacific Walrus was left in Section 3.2.6.4, where detailed species discussions are presented, and a cross reference to the threatened and endangered species section was added.	Chapter 3 - Alaska 3.2.6.4 Wildlife, page 3.2.6-16	All Biology Environmental Consequences Introduction sections

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FN-NC-0017	136	4/25/2016	Mary Josie Blanchard	US DOI	Direct Injury/Mortality: Collision events can occur to many species that do not necessarily fall in these categories, caused by weather events or poor visibility. Consider adding the bird family of alcids to the list of poor fliers and loons to the list of heavy birds. Note the mitigation measures and BMPs presented in Chapter 11 are general and not project-specific. The FWS would like the opportunity to collaborate early in the development of specific projects to help ensure impacts to migratory birds and ESA-listed species are avoided and minimized throughout the project siting, design, and operation stages.	Alcids and loons have been added as additional examples as suggested. Additionally, FirstNet intends to fully adhere to its compliance requirements under Section 7 of the ESA, and site-specific reviews will be performed and consultation where required will be conducted.	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-18	All Wildlife Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	137	4/25/2016	Mary Josie Blanchard	US DOI	<p>Vegetation and Habitat Loss Alteration, or Fragmentation: For a discussion about impacts from vegetation clearing, snow geese are not the best example to use. Snow geese are increasing in the western Arctic. In the eastern Arctic, they have displaced other birds through over grazing on grass and sedge tundra habitats. The statement that feeding habitats are limited is misleading. Not all feeding habitats are limited, although some (lagoons, mudflats) might be. Vegetation clearing in molting areas would be a concern because flightless birds do need access to high quality forage within their immediate vicinity. Brant molting and feeding at Teshekpuk Lake are a good example of this.</p> <p>In the last paragraph, recommend listing what factors would influence the degree to which habitat exclusion affects birds (e.g., life history and behavior of the species, stage of the annual cycle being affected, habitat type limited or not). Here, passerines are listed as one bird group for which construction activities might only have minor, short-term effects. Loons would be a good example of the other end of the spectrum (solitary nesters), as would seabirds (colony nesters). The shorebird example used here is also good.</p>	The examples provided in the Final PEIS have been updated as suggested. Additionally, the last paragraph of this section has been updated to describe the factors that would influence the degree to which habitat exclusion affects various bird groups.	Chapter 3 - Alaska 3.2.6.4 Birds, pages 3.2.6-20 to 21	3.2.6.4
FN-NC-0017	138	4/25/2016	Mary Josie Blanchard	US DOI	The Alaska region of the FWS is in the process of updating recommendations for time periods to avoid vegetation clearing/land disturbing activities. The Project should refer to the most recent version of this document available prior to commencing construction.	The text of this section has been updated to refer to the most recent versions of published materials related to avoidance periods for vegetation clearing.	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-20	3.2.6.4
FN-NC-0017	139	4/25/2016	Mary Josie Blanchard	US DOI	Indirect Injury/Mortality: What are the lowland and upland waders species referred to in the first paragraph under birds? This category of bird sometimes means shorebirds, or it might mean marsh birds (herons, egrets). Recommend clarification. FWS doesn't have any of the latter here, and the former were already listed in this sentence. Please also add some discussion here about increased predation on birds and/or their nests, with citations.	This text has been revised in the Final PEIS to provide necessary clarification. The text regarding increased predation has been removed.	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-23	3.2.6.4

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FN-NC-0017	140	4/25/2016	Mary Josie Blanchard	US DOI	<p>Effects to Migration or Migratory Patterns: Shorebirds migrating long distances are not just using Australian non-breeding areas. These birds are flying to Australia, Asia, and to North, Central, and South America non-breeding locations. Additionally, some seabirds are making these long-distance movements (terns may fly all the way to Antarctica), and so are some passerines (e.g. the Northern Wheatear, which winters in Africa).</p> <p>If one of the important, discrete stopover areas is impacted by construction permanently, there might be important consequences to a species or even a population. Temporary impacts could result in displacement from preferred stopover habitat, affecting quality and quantity of food resources, refueling rates, and possibly fitness of individual birds (with the potential to impact survival and therefore have population level consequences).</p>	<p>The examples provided in the Draft PEIS were not intended to be inclusive of all migrating birds. Text has been added in the Final PEIS to provide more information related to the range and distances of migrating bird groups. In addition, project BMPs (see Chapter 11, BMPS and Mitigation Measures) incorporate USFWS BMPs and mitigation measures, including the avoidance of sensitive areas such as known bird concentration areas and known migratory flyways.</p>	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-25	All Wildlife Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	141	4/25/2016	Mary Josie Blanchard	US DOI	<p>Reproductive Effects: In addition to disturbance or displacement, young birds and eggs could be susceptible to direct impacts from construction activities (e.g. crushing of nests during construction of gravel pads). This could be mitigated by using appropriate construction timing windows (e.g. winter construction).</p>	<p>Direct impacts to nests during construction have been added under the Direct Injury/Mortality subsection. The use of construction timing windows can be an effective mitigation measure for avoiding and minimizing adverse reproductive effects. At the programmatic level the project covers a wide geographic range and currently lacks project-specific detail. As such, determining the feasibility and effectiveness of this BMP will be done as part of subsequent site-specific reviews. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.</p>	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-27	All Wildlife Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	142	4/25/2016	Mary Josie Blanchard	US DOI	<p>Invasive Species Effects: Would any of the equipment or supplies for the proposed action be delivered via waterways? If so, there is potential to bring invasive species along on boat hulls and/or in ballast water. This would be one way of having large impacts to the marine ecosystem. Recommend clarification.</p>	<p>No change made. The Draft and Final PEIS indicate that such invasive species effects to marine ecosystems are possible but not likely to be significant given the short duration of construction activities in limited near-shore locations. The project would not involve significant marine deployment activities.</p>	Chapter 3 - Alaska 3.2.6.4 Marine Mammals, page 3.2.6-29	NA
FN-NC-0017	143	4/25/2016	Mary Josie Blanchard	US DOI	<p>Invasive Species Effects: In addition to seabirds, rats could impact any ground-nesting birds (waterfowl, cranes, shorebirds, tundra-nesting passerines). However there are laws against transporting rats in the State of Alaska, so activities for the Proposed Action should not increase risk to birds (as long as mitigation measures and BMPs are followed).</p>	<p>No change made.</p>	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-29	NA

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FN-NC-0017	144	4/25/2016	Mary Josie Blanchard	US DOI	If “deployment” (as described on 3.2.6-31) means construction, then is this section dealing with both temporary and permanent impacts? This is somewhat unclear, but the following comment assumes that is the case. Where potential impacts to birds are described, it is not correct to say that impacts to Alaska’s birds are anticipated to be less than significant. Impacts from infrastructure built under the Proposed Action could range from less than significant to significant at the population or species level, depending on placement, design, operation, and maintenance of the infrastructure. The FWS would like to be involved in site-specific placement, design, and operation as early as possible in the planning stages of individual projects, in order to help avoid and minimize impacts to birds. Also, as a side note, these international migrants should probably not be called “Alaska’s birds.”	The Final PEIS indicates that at the regional, programmatic level, potentially significant impacts are not expected based on the specific impact significance rating criteria developed for each individual resource (which uses a rating system based on magnitude/intensity, geographic extent, and duration/frequency). ⁵ However, significant impacts could potentially occur at the site-specific level, although with BMPs and mitigation measures this is expected to be rare. Site-specific BMPs may be needed in addition to those outlined in the PEIS, and those would be determined during site-specific environmental assessments in coordination with local environmental agencies. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. The text in the Final PEIS has been revised to indicate that impact determinations are at the programmatic level per the impact significance criteria.	Chapter 3 - Alaska 3.2.6.4 Birds, page 3.2.6-34	All Wildlife Environmental Consequences sections
FN-NC-0017	145	4/25/2016	Mary Josie Blanchard	US DOI	There are no birds considered to be candidates for listing at this time in Alaska. Please correct here and throughout text in this section.	The candidate bird species listing has been revised in the Final PEIS.	Chapter 3 - Alaska 3.2.6.6 Threatened and Endangered Species, Table 3.2.6.6-2	3.1.6.6; 3.2.6.6
FN-NC-0017	146	4/25/2016	Mary Josie Blanchard	US DOI	Both direct injury or mortality and indirect effects from disturbance would be considered a take of listed species. Regardless of level of impact, this would be considered a violation of the ESA, unless authorized. Consider adding language stating such to this section.	Language has been added to this section in the Final PEIS to add clarification as suggested.	Chapter 3 - Alaska Threatened and Endangered Species, page 3.2.6-57	All Threatened and Endangered Environmental Consequences sections
FN-NC-0017	147	4/25/2016	Mary Josie Blanchard	US DOI	First sentence in the first full paragraph of this page, please modify to say, “listed or candidate marine mammal species.” Add polar bears to this discussion, as they are also a listed marine mammal. In the sentence about walrus that starts with, “If a disturbance such as noise, human activity...,” please also add language stating this can happen on terrestrial haulouts (in addition to sea ice). Although terrestrial haulouts might not be “preferred,” they are becoming more and more important with reduced sea ice. Walrus displacement from haulouts could (extreme case) result in death through starvation or drowning, if the disturbance is chronic or severe enough to prevent walrus from returning, and if other, accessible haulouts are not available.	Thank you for your comments. These changes have been made in the final PEIS as suggested.	Chapter 3 - Alaska Threatened and Endangered Species/Marine Mammals, page 3.2.6-59	3.2.6.6

⁵ Impacts of climate change on the Preferred Alternative could range from potentially significant to less than significant with BMPs and mitigation measures incorporated at the programmatic level.

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FN-NC-0017	148	4/25/2016	Mary Josie Blanchard	US DOI	<p>Recommend including timing windows as one way to avoid impacts to nests, eggs, and young birds. In the first paragraph, it is not accurate to say that injury or death from deployment of equipment is unlikely. Young birds and nests might be most susceptible to ground disturbing-activities (e.g. gravel pad construction during nesting season), but adult birds are susceptible to collision (as discussed in the next paragraph).</p> <p>Make the collision paragraph listed-species specific, as other species are discussed earlier in this document. It is not appropriate to talk about swans, cranes, eagles, hawks, osprey, or owls here. We also don't have herons or egrets in Alaska. All of this language (excluding the discussion on herons and egrets) can be moved into the earlier section, where non-listed birds are discussed.</p> <p>It is not necessary to single the Eskimo Curlew out in this discussion. First, that species is likely extinct; but perhaps more pertinent to this discussion, it (just like any other bird) could be at risk of collision under certain conditions.</p>	Regarding timing windows, see response to Comment 141 above. The text has been modified in the Final PEIS to indicate that potential impacts to adult birds are unlikely from equipment deployment. Additional revisions have been made to the text to clarify the types of species potentially affected by collision impacts, such as large wing-span birds, heavy birds, and those that fly in flocks. Non-listed species are discussed in the Wildlife section.	Chapter 3 - Alaska Threatened and Endangered Species/Birds, page 3.2.6-60	All Threatened and Endangered Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	149	4/25/2016	Mary Josie Blanchard	US DOI	Under wired projects, please correct text to say “defending breeding sites or young” and “denning or pupping mammals or nesting birds” as mammals don’t nest.	The suggested edits have been made in the Final PEIS.	Chapter 3 - Alaska Threatened and Endangered Species, page 3.2.6-65	3.2.6.6
FN-NC-0017	150	4/25/2016	Mary Josie Blanchard	US DOI	Under birds, please correct text to say the listed species have limited distribution in marine, coastal, and tundra habitats. Also, the correct number of listed birds is four (not five). Impacts to breeding birds are not the only possibility that should be listed here. There is collision risk if projects are not appropriately sited, designed, operated, and maintained. FWS would still consider the impact to be “may affect, not likely to adversely affect” IF the FWS is consulted early in the planning stages of a project, which will allow impacts to be avoided and minimized to the maximum extent.	Suggested edits have been made.	Chapter 3 - Alaska Threatened and Endangered Species, Table 3.2.6.6-3	All Threatened and Endangered Environmental Consequences sections
FN-NC-0017	151	4/25/2016	Mary Josie Blanchard	US DOI	Page 5-2 and Page 5.1.7-5 (Land Use) discusses lands owned by the federal government in the Pacific area, and mentions NPSA. Although the NPS manages these lands, this is accomplished through a lease agreement with the territorial Government (we have no ownership interests).	This distinction has been made in the Final PEIS.	Chapter 5 - American Samoa Affected Environment, page 5-2	5.1.7.3
FN-NC-0017	152	4/25/2016	Mary Josie Blanchard	US DOI	Text indicates that no General Management Plan (GMP) is available. NPSA does have a GMP, which was approved in 1997; printed or electronic versions are available through Superintendent Scott Burch (see attached contact list at end of comments).	The Final PEIS has been revised to mention the GMP.	Chapter 5 - American Samoa Affected Environment Visual Resources, page 5.1.8-3	5.1.8.3

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FN-NC-0017	153	4/25/2016	Mary Josie Blanchard	US DOI	Recommend including language prohibiting the use of straw or hay bales for erosion control as they can harbor invasive weed seeds, even if locally sourced.	The relevant BMP in the Final PEIS has been updated to indicate that straw or hay bales used for erosion control will be designated as weed free.	Chapter 11 11.4.1 4th Bullet Page 11-7	Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	154	4/25/2016	Mary Josie Blanchard	US DOI	Project proponent should work with Alaska Department of Fish and Game to ensure culverts are properly sized to pass fish in any fish-bearing streams.	The relevant BMP in the Final FPEIS has been revised to indicate fish passage should be accommodated working with the appropriate state/territory natural resource agencies.	Chapter 11 11.4.1 7th Bullet Page 11-8	Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	155	4/25/2016	Mary Josie Blanchard	US DOI	New Build - Aerial Fiber Optic Plant: “Install overhead transmission lines along existing road ROWs wherever possible to minimize vegetation clearing and other potential impacts to wetlands.” In certain locations (e.g., on the North Slope in high fog areas; in areas of critical eider habitat), it might be preferable to clear wetland vegetation outside of the breeding season for line burial as opposed to hanging new transmission wire/cables. For scenarios or deployment activities which require new work such as new Build Scenarios (Buried Fiber Optic Plant, Aerial Fiber Optic Plant, or Submarine Fiber Optic Plant); New Wireless Communication Towers; Deployable Technologies; and Deployable Aerial Communications Architecture, we cannot concur with your determination of not likely to adversely affect because of the many variables involved in the different options, habitats and species. New work should have ESA consultation on a case by case basis with the species of concern and appropriate BMPs.	<p>The text in this section has been modified to indicate that in certain circumstances it may be preferable and less impactful to implement line burial instead of installing lines overhead. Such determinations would be made at the site-specific level.</p> <p>Additionally, the Final PEIS indicates that at the regional, programmatic level, potentially significant impacts are not expected based on the specific impact significance rating criteria developed for each individual resource (which uses a rating system based on magnitude/intensity, geographic extent, and duration/frequency).⁶ However, significant impacts could potentially occur at the site-specific level, although with BMPs and mitigation measures this is expected to be rare. Site-specific BMPs may be needed in addition to those outlined in the PEIS, and those would be determined during site-specific environmental assessments in coordination with local environmental agencies. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. The text in the Final PEIS has been revised to indicate that impact determinations are at the programmatic level per the impact significance criteria.</p>	Chapter 11 11.5.2 11-11	Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	156	4/25/2016	Mary Josie Blanchard	US DOI	Recommend including this additional information: Prior to selecting individual project locations in areas known to have habitat suitable for nesting Bald and Golden Eagles, work with the FWS to design and carry out surveys to locate active and inactive raptor nests. Early collaboration with the FWS will help to incorporate site-specific considerations, thereby minimizing the risk of unauthorized take of eagles.	Site-specific BMPs may be needed in addition to those outlined in the PEIS, and those would be determined during site-specific environmental assessments in coordination with environmental agencies. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. Site-specific reviews will be performed and consultation where required will be conducted.	Chapter 11 11.6.2.1 Item 4 and 5 Page 11-15	Chapter 11, BMPS and Mitigation Measures

⁶ Impacts of climate change on the Preferred Alternative could range from potentially significant to less than significant with BMPs and mitigation measures incorporated at the programmatic level.

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FN-NC-0017	157	4/25/2016	Mary Josie Blanchard	US DOI	The Department believes that early consultation with appropriate agencies and stakeholders including, but not limited to, USFWS, NMFS, and state/territory wildlife and natural resources agencies, is critical since all the other BMPs are not detailed enough to properly make a not likely to adversely affect determination. The BMPs outlined in chapter 11.6.4 can be incorporated into the early consultation to reach a not likely to adversely affect determination, through informal consultation.	As mentioned above, the Final PEIS indicates that at the regional, programmatic level, potentially significant impacts are not expected based on the specific impact significance rating criteria developed for each individual resource (which uses a rating system based on magnitude/intensity, geographic extent, and duration/frequency). ⁷ However, significant impacts could potentially occur at the site-specific level, although with BMPs and mitigation measures this is expected to be rare. Site-specific BMPs may be needed in addition to those outlined in the PEIS, and those would be determined during site-specific environmental assessments in coordination with local environmental agencies. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. Where the possibility exists for a significant adverse impact at the project specific level, consultation with the appropriate agency may be required.	Chapter 11 11.6.4	Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	158	4/25/2016	Mary Josie Blanchard	US DOI	Recommend including this additional information in the BMP section: Ground-disturbing work should take place outside the nesting season, so as to avoid direct and indirect impacts to breeding birds and their reproductive success. The FWS can provide project- specific timing window guidance for ground-clearing activities. As Region 7 is in the process of updating published timing windows, we recommend contacting the FWS for current guidance.	Please see the response to comment 141.	Chapter 11 General	Chapter 11, BMPS and Mitigation Measures

⁷ Impacts of climate change on the Preferred Alternative could range from potentially significant to less than significant with BMPs and mitigation measures incorporated at the programmatic level.

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FN-NC-0017	159	4/25/2016	Mary Josie Blanchard	US DOI	<p>NPS Pacific Area Parks & Superintendents</p> <p>World War II Valor in the Pacific National Monument 1845 Wasp Blvd. Bldg# 176 Honolulu HI 96818 Jacqueline Ashwell, Superintendent Jacqueline_ashwell@nps.gov</p> <p>Honouliuli National Monument 1845 Wasp Blvd. Bldg # 176 Honolulu HI 96818 Jacqueline Ashwell, Superintendent Jacqueline_ashwell@nps.gov</p> <p>Kalaupapa National Historical Park PO Box 2222 Kalaupapa HI 96742 Erika Stein Espaniola, Superintendent Erika_stein@nps.gov</p> <p>Haleakala National Park P.O. Box 369 Makawao, HI 96768 Natalie Gates, Superintendent Natalie_gates@nps.gov</p>	Thank you for your comment.	Potentially Impacted NPS Resources	Chapter 16, Distribution List
FN-NC-0017	159 (cont.)	4/25/2016	Mary Josie Blanchard	US DOI	<p>Ala Kahakai National Historic Trail 73-4786 Kanalani Street, #14 Kailua-Kona HI 96740 Aric Arakaki, Superintendent Aric_arakaki@nps.gov</p> <p>Puukohola Heiau National Historic Site 62-3601 Kawaihae Road Kawaihae HI 96743 Daniel Kawaiaea, Superintendent Daniel_kawaiaea@nps.gov</p> <p>Kaloko-Honokohau National Historical Park 73-4786 Kanalani St. Suite #14 Kailua-Kona HI 96740 Tammy Duchesne, Superintendent Tammy_duchesne@nps.gov</p> <p>Pu'u honua O Honaunau National Historical Park Tammy Duchesne, Superintendent Tammy_duchesne@nps.gov</p>	Thank you for your comment.	Potentially Impacted NPS Resources	Chapter 16, Distribution List

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FN-NC-0017	159 (cont.)	4/25/2016	Mary Josie Blanchard	US DOI	<p>Hawai'i Volcanoes National Park P.O. Box 52 Hawai'i National Park, HI 96718-0052 Cindy Orlando, Superintendent Cindy_orlando@nps.gov</p> <p>National Park of American Samoa Pago Pago, AS 96799 Scott Burch, Superintendent Scott_burch@nps.gov</p> <p>War in the Pacific National Historic Park 135 Murray Boulevard, Suite 100 Hagatna, GU 96910 James Richardson, Superintendent Jim_richardson@nps.gov</p> <p>American Memorial Park P.O. Box 5198-CHRB Saipan MP 96950 James Richardson, Superintendent Jim_richardson@nps.gov</p>	Thank you for your comment.	Potentially Impacted NPS Resources	Chapter 16, Distribution List
FN-NC-0017	160	4/25/2016	Mary Josie Blanchard	US DOI	The DPEIS is generally well-written, with thorough consideration of biological resources and includes a good discussion of potential impacts to these resources. Most activities discussed in the preferred alternative are identified to have “less than significant” impacts. Given the limited footprint associated with Project infrastructure, we generally agree with the assessment.	Thank you for your comment.	General	NA
FN-NC-0017	161	4/25/2016	Mary Josie Blanchard	US DOI	<p>We believe the BMPs listed in Chapter 11 of the PEIS are sufficient to avoid and minimize risk to most species, in most areas. We recommend including the following, additional BMPs:</p> <ul style="list-style-type: none">• Ground-disturbing work will take place outside the bird nesting season to avoid direct and indirect impacts to breeding birds and their reproductive success. The dates for the timing of the nesting seasons are currently being revised in Alaska, so we recommend you work directly with FWS staff in Region 7 to obtain avoidance periods.• In areas known to have habitat suitable for nesting eagles (bald and golden), work with the FWS to design and implement surveys to locate active and inactive eagle nests prior to selecting individual Project locations. Early collaboration with the FWS will help to incorporate site-specific considerations, thereby minimizing the risk of unauthorized take of eagles.	Regarding the first suggested BMP, please see the response to comment 141. Site-specific BMPs may be needed in addition to those outlined in the PEIS, and those would be determined during site-specific environmental assessments in coordination with environmental agencies. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. Site-specific reviews will be performed and consultation where required will be conducted.	Chapter 11	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0017	162	4/25/2016	Mary Josie Blanchard	US DOI	<p>On the Alaskan Coastal Plain (ACP) especially, aerial infrastructure might pose risks to birds during the breeding and migration seasons due to: (1) the density of birds migrating to the Arctic to breed; (2) frequent low lighting and poor weather conditions that lead to many low visibility days; and (3) a landscape that otherwise has few tall vertical structures. At risk are a wide variety of migratory bird species, including Alaska-breeding Steller’s (<i>Polysticta stelleri</i>) and spectacled eiders (<i>Somateria fischeri</i>), both of which are listed as threatened under the Endangered Species Act. For these coastal areas, the Department suggests the following additional BMPs should be implemented:</p> <ul style="list-style-type: none">• Self-supporting towers will be used instead of guyed towers wherever possible.• When guy wires are necessary, each wire will be marked for its full length, using daytime markers that stand out against the wire and the environment. Not all markers are designed for use in extreme conditions such as those encountered in the Arctic. The Project should work with the FWS to choose appropriate markers. Markers should be regularly maintained for the life of the project.• On the ACP, monopole structures will be considered in place of lattice structures to discourage perching and nesting by ravens and raptors/birds of prey, unless use of a monopole structure would require addition of any guy wires. In these cases, projects should work with the FWS to incorporate anti-perching and anti-nesting devices into project design.	<p>The Draft and Final PEIS indicate that the use of non-guyed towers is preferable to guyed towers, and that when guy wires are used they will have daytime markers. FirstNet will consult with USFWS at the site-specific level as required, regarding the use of guyed towers. The text in the Final PEIS has been modified to indicate that, to the extent practicable and feasible, monopole structures may be considered in place of lattice structures on the ACP. If lattice towers are to be used on the ACP, FirstNet and/or their partners would work with the USFWS to incorporate anti-perching and anti-nesting devices into project design, as practicable and feasible.</p>	Chapter 11	Chapter 11, BMPS and Mitigation Measures
FN-NC-0017	162 (cont.)	4/25/2016	Mary Josie Blanchard	US DOI	<ul style="list-style-type: none">• Outdoor security or safety lights will be motion-triggered, downcast and/or down-shielded, and directed inward whenever possible to prevent “star” effects when viewed offsite. This recommendation applies to both permanent and temporary lighting used during construction and operation.• Lights inside buildings will be motion-triggered. Blackout shades will be installed and used on outward-facing windows at night, when migratory birds are present (e.g., May through October on the ACP).• The FWS has concerns about the risks overhead power lines pose to migratory birds on the ACP. Except in special cases, we generally discourage their use. If telecommunications facilities will require use of overhead wires, the FWS would like to provide input on design and placement to minimize potential impacts to migratory birds.	<p>Text has been added Chapter 11, BMPS and Mitigation Measures, of the Final PEIS related to the suggestions made in the first and third bullets. In certain circumstances it may be preferable and less impactful to implement line burial instead of installing lines overhead. Such determinations would be made at the site-specific level. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.</p> <p>Although project-specific details have not yet been developed, buildings are not anticipated to be tall enough to pose a significant risk for bird collisions as a result of indoor lighting.</p>	Chapter 11	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0017	163	4/25/2016	Mary Josie Blanchard	US DOI	For communication towers constructed in forested habitats without ESA compliance, the Department cannot concur with your no effect determination. The consultation process is a forward looking process that works to anticipate impacts and avoid or minimize them. This cannot be done for towers that were constructed without consultation. The Department recommends that towers show proof of existing ESA compliance prior to FirstNet using them.	The Federal Communications Commission (FCC) is responsible for addressing environmental and historic preservation requirements for existing towers. FirstNet will address ESA compliance requirements for any new towers and modifications made to existing towers for the Nationwide Public Safety Broadband Network (NPSBN) at the site-specific level. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.	General	NA
FN-NC-0118	164	7/27/2016	Kealana Phillips	State of Hawaii Department of Land and Natural Resources, State Historic Preservation Division	On behalf of the Maui Lana’I Island Burial Council, I would like to thank you for contacting the council regarding the First Responder Network Authority (FirstNet) release of the Draft Programmatic Environmental Impact Statement (PEIS) for the Nationwide Public Safety Broadband Network (NPSBN) in the non-contiguous region of the United States (Alaska, Hawai’i, American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and U.S. Virgin Islands). Unfortunately, with the sporadic meeting schedule of our schedule, we were not able to convene to discuss the PEIS prior to the 60-day comment period ending May 3. However, we would greatly appreciate it if we can remain informed as the project progresses so that we may provide comments in the future as we see fit. Should you have any questions or concerns, please feel free to contact me.	FirstNet will continue to keep the State Historic Preservation Division informed as the project progresses.	General	NA
FN-NC-0019	165	5/3/2016	Shari Wilson	US EPA	<p>The draft PEIS analyzed three alternatives: 1) No Action; 2) Deployable Technologies Only and; 3) Mixed Technologies. FirstNet selected alternative three (Mixed Technologies) as the preferred alternative. This alternative incorporates a combination of methods including collocation of network equipment, construction of new communication towers, installation of new conduit and fiber technology and deployable technologies (portable satellite phones, cell-on-wheels, cell-on-light trucks and system-on-wheels).</p> <p>Based on our review, EPA finds no objection with the preferred alternative in the draft PEIS. EPA has rated the draft PEIS as LO (“Lack of Objections”). The “LO” rating signifies the draft PEIS did not identify an environmental impacts requiring substantive changes. A summary of EPA’s Rating System Criteria is located at http://www.epa.gov/compliance/nepa/comments/ratings.html</p>	Thank you for your comment.	General	NA
FN-NC-0020	166	12/21/2016	Jacinta Brown	American Samoa Department of Homeland Security	Police Services – line 5 – There is one central police station and four sub-stations: Tafuna, Leone, Faga’itua and the Manu’a Islands Group, as well as the Department of Public Safety Uniform Crime Reporting Record Office, located in Fagatogo.	Thank you for your comment. This text has been updated in the Final PEIS.	Page 5.1.1-4	5.1.1.4

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FN-NC-0020	167	12/21/2016	Jacinta Brown	American Samoa Department of Homeland Security	Second bullet: American Samoa TEMCO: should read American Samoa Department of Homeland Security (ASDHS), Territorial Emergency Management Coordinating Office (TEMCO) as the territorial emergency management mechanism is the lead office responsible for coordinating resource management, emergency response and recovery efforts.....	Thank you for your comment. This text has been updated in the Final PEIS.	Page 5.1.1-6	5.1.1.5
FN-NC-0020	168	12/21/2016	Jacinta Brown	American Samoa Department of Homeland Security	Third bullet: Emergency Alert System (EAS): The American Samoa EAS was developed by National Weather Services an ASDHS/TEMCO....	Thank you for your comment. This text has been updated in the Final PEIS.	Page 5.1.1-6	5.1.1.5
FN-NC-0020	169	12/21/2016	Jacinta Brown	American Samoa Department of Homeland Security	Fourth bullet: Federal Emergency Management Agency Integrated Public Alert and Warning System (IPAWS):....FEMA has partnered with the ASDHS/TEMCO and NOAA/NWS with the KKHJ-FM radio station in American Samoa as the EAS Primary Entry Point Station or LP1 and the radio station KULA-FM as the LP2.	Thank you for your comment. This text has been updated in the Final PEIS.	Page 5.1.1-6	5.1.1.5
FN-NC-0020	170	12/21/2016	Jacinta Brown	American Samoa Department of Homeland Security	Section on Fire Services: Fifth sentence in the para should read: There is one main fire station located in Fagatogo and four sub-stations which are co-located with the four police substations at Tafuna, Leone, Faga’itua and the Manu’a islands group. The Fire Bureau or Division of the Department of Public Safety is made up of ____ 48 ??? people, including firefighters and administrative staff.	Thank you for your comment. This text has been updated in the Final PEIS.	Page 5.1.1-5	5.1.1.4
FN-NC-0020	171	12/21/2016	Jacinta Brown	American Samoa Department of Homeland Security	Section on Emergency Medical and Hospital Services: Emergency medical services are provided under the Lyndon B. Johnson (LBJ) Tropical Medical Center. The emergency medical staff is made of 34 people.....???	This text has been updated in the Final PEIS.	Page 5.1.1-5	5.1.1.4

ASDHS = American Samoa Department of Defense; DHS = U.S. Department of Homeland Security; DOE = U.S. Department of Energy; DOI = Department of the Interior; EPA = Environmental Protection Agency; ES = Executive Summary; HI-DOD = Hawaii Department of Defense; NA = not applicable; NPS = National Park Service; NPSBN = Nationwide Public Safety Broadband Network; NRCS = U.S. Department of Agriculture Natural Resources Conservation Service; PEIS = Programmatic Environmental Impact Statement; PREMA = Puerto Rico Emergency Management TOC = Table of Contents; USCG = U.S. Coast Guard

Table 14-2: Comments on Other Reports Applicable to this Final PEIS

Submission ID	Comment Number	Date(s) Received	Sender Name(s)	Sender Organization(s)	Comment Text	Response	Chapter/Section/Page Number Reference in the Draft PEIS as Identified by Commenter	Section(s) where changes were made in Final PEIS
FN-NC-0021	172	10/11/2016	Michaela E. Noble	US DOI	USFWS recommends conducting vegetation clearing and removal and tree cutting outside of the breeding period for migratory birds. The USFWS Field Offices can provide state-specific date ranges when clearing should be avoided.	Direct impacts to nests during construction have been added under the Direct Injury/Mortality subsection. The use of construction timing windows can be an effective mitigation measure for avoiding and minimizing adverse reproductive effects. At the programmatic level the project covers a wide geographic range and currently lacks project-specific detail. As such, determining the feasibility and effectiveness of this BMP will be done as part of subsequent site-specific reviews. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.	General	Chapter 11, BMPS and Mitigation Measures
FN-NC-0021	173	10/11/2016	Michaela E. Noble	US DOI	We recommend that structures containing the fewest perching options be used in areas where raptor and raven predation of sensitive resources is a concern. Where raptor electrocution is a concern, use of structures and components compatible with the guidance in the Avian Power Line Interaction Committee’s (APLIC) 2006 “Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006” electrocution manual should be implemented. Where collision is a hazard, we recommend the APLIC’s 2012 “Reducing Avian Collisions with Power Lines: The State of the Art in 2012” manual be implemented.	The suggested BMPs have been added to Chapter 11, BMPs and Mitigation Measures	General	Chapter 11, BMPS and Mitigation Measures
FN-NC-0021	174	10/11/2016	Michaela E. Noble	US DOI	The USFWS recommends that the suggested practices by the Avian Power Line Interaction Committee be followed to minimize impacts to migratory birds through collision and electrocution (see www.aplic.org for the 2006 electrocution and 2012 collision manuals) for all overhead lines.	A reference to the APLIC practices is included in Chapter 11, BMPs and Mitigation Measures, to be implemented as practicable or feasible during deployment and operation activities.	General	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0021	175	10/11/2016	Michaela E. Noble	US DOI	<p>Communication towers are currently estimated to kill between four and five million birds per year. A great deal of the mortality is the result of collisions with supporting guy wires. Additionally, the type of safety lighting on these towers appears to influence their attractiveness to birds. In order to minimize the potential for impacts to migratory birds, the USFWS urges consideration of the following siting and construction recommendations.</p> <p>1. If possible, new communication equipment should be co-located on an existing tower or similar structure (e.g. billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may co-locate on an existing tower.</p> <p>2. Where co-location is not feasible and a new tower must be constructed, all efforts should be taken to construct towers no more than 199 feet above ground level (AGL), that do not require guys wires (e.g. use a lattice, monopole structure, etc.). Such towers should be unlighted if Federal Aviation Administration (FAA) regulations permit.</p> <p>3. If constructing multiple towers, providers should consider the cumulative effects of all of those towers to endangered, threatened, proposed, and candidate species and migratory birds as well as effects of each individual tower.</p> <p>4. If at all possible, new towers should be sited within existing antenna farms Avoid siting towers near (within 3 to 5 miles of) wetlands, other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, or low ceilings.</p> <p>5. If taller (greater than 199 feet AGL) towers requiring lights for aviation safety must be constituted, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless required by the FAA, only white strobe lights should be used at night, preferably with the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights.</p>	<p>Elements of many of these recommendations are included in Chapter 11, BMPs and Mitigation Measures. Most of these suggestions are also duplicates of the recommendations in USFWS 2013b which are cited in Chapter 11. Site-specific analysis may be required depending on the site conditions, the type of deployment, or any other permits or permissions necessary to perform the work, and the feasibility of implementing these recommendations could be determined during subsequent analysis and consultation. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.</p>	General	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0021	176	10/11/2016	Michaela E. Noble	US DOI	<p>6. Towers designed using guy wires for support that are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers (e.g., bird diverter devices) on the wires to prevent collisions by these diurnal moving species. For guidance on markers, the Avian Power Line Interaction Committee has published guidance (Reducing Avian Collisions with Power Lines: The State of the Art in 2012 and Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006). Copies can be obtained at http://www.aplic.org/.</p> <p>7. Towers and attendant facilities should be sited, designed, and constructed to avoid or minimize habitat loss within and adjacent to the tower footprint. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above-ground obstacles to birds in flight.</p> <p>8. If significant numbers of breeding, feeding, or roosting birds are known to occur within the tower construction area, relocation to an alternate site is recommended. If this is not possible, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.</p> <p>9. New towers should be designed structurally and electrically to accommodate the applicant/licensee’s antennas and comparable antennas for at least two additional users (minimum of 3 users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or non-guyed tower.</p> <p>10.Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.</p> <p>11.USFWS personnel and/or researchers from the Communication Tower Working Group or its designees should be allowed access to the site to evaluate bird use, conduct dead bird searches, and to conduct various research.</p> <p>12.Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.</p>	(Included with response above.)	General	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0021	177	10/11/2016	Michaela E. Noble	US DOI	Although these measures will provide significant protection for migratory birds, implementation of these measures alone will not remove any liability should violations of the MBTA or the Eagle Act occur. The U.S. Fish and Wildlife Service Division of Law Enforcement and the U.S. Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds. We acknowledge that you intend to avoid construction during sensitive time periods and within specific spatial buffers for listed species. We recommend that nesting migratory birds also be avoided during the nesting season within species-specific buffers. As a part of the Project, we recommend monitoring of avian use of Project facilities as well as reporting avian mortality events.	(Included with response above.)	General	Chapter 11, BMPS and Mitigation Measures
FN-NC-0021	178	10/11/2016	Michaela E. Noble	US DOI	The reproductive success of federally listed plants may be impacted by the Project, particularly through use of insecticides or pesticides as well as dust generated from construction and use of access roads.	The Draft and Final PEIS acknowledge this potential impact to listed plants.	General	NA
FN-NC-0021	179	10/11/2016	Michaela E. Noble	US DOI	A spill prevention, control, and countermeasure plan (SPCCP) should be developed for the Project. This would apply to Water Resources, Wetlands, Fisheries and Aquatic Habitats, T&E Species, and Human Health and Safety.	The development of an SPCC Plan, as practicable or feasible, has been added to Chapter 11, BMPs and Mitigation Measures, to avoid, reduce, or minimize impacts to the resources mentioned.	General	Chapter 11, BMPS and Mitigation Measures
FN-NC-0021	180	10/11/2016	Michaela E. Noble	US DOI	Recommend adding a measure about control of fugitive dust generated by the Project’s use of unpaved roads and construction. Dust can settle on plants and block their ability to photosynthesize, and can disrupt pollination success.	Chapter 11, BMPS and Mitigation Measures, of the Draft PEIS included a BMP to implement a dust control plan for construction activities and any travel over unpaved roads. In the Final PEIS, a BMP has been added to this chapter in the Biological Resources section to avoid, reduce, or minimize dust impacts to those resources.	Chapter 11	Chapter 11, BMPS and Mitigation Measures
FN-NC-0021	181	10/11/2016	Michaela E. Noble	US DOI	Recommend adding a measure on controlling speed limits on access roads, particularly within areas where a federally listed animal may be struck by construction and/or maintenance vehicles.	Chapter 11, BMPS and Mitigation Measures, of the Draft PEIS included a BMP to post and enforce speed limits on dirt/gravel roads as related to reducing airborne fugitive dust impacts. In the Final PEIS, a BMP has been added to this chapter in the Biological Resources section to avoid, reduce, or minimize potential collision impacts to Wildlife and T&E species.	Chapter 11	Chapter 11, BMPS and Mitigation Measures

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FN-NC-0021	182	10/11/2016	Michaela E. Noble	US DOI	Additionally, communication towers might have an impact on migratory birds due to non-ionizing electromagnetic radiation emitted by the tower. Please review the February 7, 2014, letter from the Department to Mr. Eli Veenendaal (National Telecommunications and Information Administrator) for additional information regarding electromagnetic radiation impacts from the Proposed Action (Enclosure 1).	<p>The full US DOI comment submission, including the February 7, 2014, letter to Mr. Veenendaal, can be found in Appendix H, <i>Radio Frequency Emissions Comments Received—All Regions</i>, of the Final PEIS. The letter references radiation studies conducted at communication towers and discusses the potential impacts to birds from non-ionizing electromagnetic radiation.</p> <p>The Wildlife sections of the Final PEIS have been updated to include additional information related to potential radio frequency exposure and its associated potential impacts to wildlife, specifically birds and bats. Potential radio frequency exposure impacts to humans are discussed in Section 2.4, Radio Frequency Emissions.</p>	General	All Wildlife Environmental Consequences sections
FN-NC-0022	183	10/11/2016	Brian Shepherd	FirstNet Colorado	The environmental regulations, guidelines, exclusions, etc. that apply to states that choose to ‘opt-in’ to the national plan (and the national partner) should apply to states that choose to develop an alternative Radio Access Network (RAN) through their statutory right. States and their partners that choose to opt-out should in no way be treated any differently than states that opt-in. The fundamental environmental impacts for each scenario are the same.	Thank you for your comments; however, the issues raised are beyond the scope of this Final PEIS.	General	NA
FN-NC-0022	184	10/11/2016	Brian Shepherd	FirstNet Colorado	Categorical exclusions: Any categorical exclusions requested by FirstNet and/or the national partner should set a precedent/template for any categorical exclusions required by an alternative plan state. As the national plan is developed, implemented, and categorical exclusions are granted, the parameters that enable those categorical exclusions should apply to any opt-out states. This will primarily impact the use of existing towers and/or structures for the RAN. A process and reasons for granting any exclusion for a specific tower or structures should be the same for any other towers or structures.	Thank you for your comments; however, the issues raised are beyond the scope of this Final PEIS.	General	NA
FN-NC-0022	185	10/11/2016	Brian Shepherd	FirstNet Colorado	Use of existing assets: We would encourage the PEIS to include a more detailed discussion of the impact of using existing towers and/or structures. Currently, the PEIS states that the use of existing assets ‘may’ have an environmental impact. It would be helpful to include in the final PEIS a set of specific parameters that would guide the decision on whether an existing asset will have an actual impact. We understand that the final impact would be a case-by-case review, but providing some examples of how specific uses of towers/structures may or may not create an impact would be helpful.	The impacts of using existing assets would vary depending on the specific asset and its unique environment, therefore it is not possible to provide greater specificity on impacts at the programmatic level beyond the discussion of impacts of each project type on the various resource areas included in the Environmental Consequences sections of the document. The impacts of use of existing assets would be subject to further evaluation at the site-specific level. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined.	General	NA

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FN-NC-0023	186	10/21/2016	Michael Robotham	NRCS	Another issue that has come up in our internal agency discussions is the need for FirstNet to be aware of land use easements that are held by NRCS (and I believe by other agencies – but we are focused on ours). NRCS holds some very large acreage easements, primarily focused on wildlife habitat. These are mainly located in the Western US, but easements have been purchased nationwide. Easement conditions often severely restrict potential management activities including, but not limited to, construction activities. Easements can be amended, but this is typically a very long process and, depending on the particular species of concern, proposed FirstNet activities may not be compatible with the goals of the particular easement. To address this issue, we suggest that language be included in the Draft PEIS recognizing that FirstNet is aware of this as a potential issue, and that all reasonable efforts will be taken to avoid construction activities in areas covered by existing easements.	Information related to NRCS easements has been included in the Final PEIS within the Land Use, Airspace, and Recreation sections of each state/territory chapter. In addition, a BMP has been added to Chapter 11, BMPs and Mitigation Measures, indicating that reasonable efforts would be taken to avoid or minimize construction activities in areas covered by existing incompatible easements.	General	All Land Use Affected Environment sections; all Land Use Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures
FN-NC-0024	187	10/6/2016	Nick Antonio	Antonio Acoustics	Construction vibration can have a direct effect on natural and cultural resources, including disturbance to humans, impacts on sensitive activities and processes, damage to property and structures, and effects on fauna in both land and marine habitats... I therefore suggest that the PEIS address vibration impacts from construction activities.	Thank you for your comment. Vibration impacts have been added to the noise and vibrations sections within each state/territory chapter.	General	All Noise and Vibrations Affected Environment sections; all Noise and Vibrations Environmental Consequences sections
FN-NC-0024	188	10/6/2016	Nick Antonio	Antonio Acoustics	The construction work proposed encompasses a wide variety of processes including (but not limited to) piling, trenching, concrete placement and road construction. Many of these processes are noisy. The exact location of these has not been established but some working is anticipated to be in urban and suburban areas. Therefore, some work will be close to noise sensitive receivers. It is not possible to carry out many construction work processes close to noise sensitive receivers without disturbance, sometimes even after mitigation. The PEIS identifies that noise from “the Proposed Action is expected to result in impacts that are not potentially significant regardless of whether BMPs and mitigation measures are incorporated.” Clearly this is wrongly categorized. As it is not possible to carry out noisy construction and work close to noise sensitive receivers without disturbance, Best Management Practices and mitigation measures should be incorporated. The Assessed Impact should therefore be either “Potentially Significant”, or “Less than significant with best management practices (BMPs) and mitigation measures incorporated.”	Thank you for your comment. See response to comment number 92. The Final PEIS explains that at the programmatic level and based on the impact significance ratings developed, there would be no potentially significant impacts as a result of the Proposed Action as a whole. ⁸ However, the same impact significance criteria used at the programmatic level may not apply to site-specific build-out activities/actions. The Final PEIS acknowledges that site-specific impacts do have the potential to be greater on a localized basis and may require site-specific assessments and mitigation. FirstNet has not yet determined the methodology that will be employed to address site-specific analysis but will be issuing a Supplemental Programmatic Environmental Impact Statement with that information as soon as it is determined. At the programmatic level, noise impacts are anticipated to be less than significant using the significance criteria established for the analyses.	General	Throughout Final PEIS, to include all Noise and Vibrations Environmental Consequences sections

⁸ Impacts of climate change on the Preferred Alternative could range from potentially significant to less than significant with BMPs and mitigation measures incorporated at the programmatic level.

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FN-NC-0025	189	11/15/2016	Rob Tomiak	US EPA	We recommend revising the GHG and climate change analysis to remove the 25,000 metric tons of CO2-e reference point and ensure overall consistency with the 2016 Final GHG Guidance.	The climate change analyses in the Final PEIS no longer include the 25,000 metric ton reference point and have been revised in accordance with the 2016 Final Guidance.	Climate Change Environmental Consequences sections	All Climate Change Environmental Consequences sections; ES4.14, Table ES4-14
FN-NC-0026	190	11/8/2016	Richard Fristik	USDA-RUS	Section 1.2 - Suggest deleting “of actions and associated levels” from this sentence: “Finally, and as discussed in the introduction of 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.”	This phrase has been deleted from the sentence in the Final PEIS.	Section 1.2	1.2
FN-NC-0026	191	11/8/2016	Richard Fristik	USDA-RUS	Sections 2.1.2 and 2.2 - realizing that this is a programmatic assessment, and as stated in Section 2.1, that the network “...must use existing infrastructure to the maximum extent economically desirable”, is it at all possible to at least generally describe the magnitude of parameters of the proposed project for this region in terms of miles of buried and aerial fiber, number of antennas/towers, etc.? If nothing else, this provides some point of reference for the impact assessment and may also inform the assessment of cumulative impacts.	Project design plans have not been developed and therefore this information is not available to be included in the Final PEIS.	Sections 2.1 and 2.2	NA
FN-NC-0026	192	11/8/2016	Richard Fristik	USDA-RUS	Section 2.4 - This seems oddly placed in this chapter.	Radio frequency emission concerns were expressed by the public during the scoping and public comment periods. The discussion of emissions effects to human and non-human species is important to include in Chapter 2, Description of the Proposed Action and Alternatives, as it applies to all states and territories.	Section 2.4	NA
FN-NC-0026	193	11/8/2016	Richard Fristik	USDA-RUS	Concerned that the impact descriptions seem not to match established criteria of USFWS, e.g., for may affect, not likely to adversely affect, the effects are expected to be “discountable, insignificant, or completely beneficial” (FWS S. 7 Consultation Handbook)...	As explained in the Draft and Final PEIS, the impact levels (or effect determinations) used in the analysis of threatened and endangered species and species of conservation concern are based on those in the Endangered Species Consultation Handbook (USFWS and NMFS 1998). The text under the “Impact Assessment Methodology and Significant Criteria” heading in each of these sections describes the three impact levels (no effect; may affect, not likely to adversely affect; may affect, likely to adversely affect). Within these descriptions, the “may affect, not likely to adversely affect” determination indicates that these effects are beneficial, insignificant, or discountable. The text also describes the other two effect determinations. Following these descriptions, the impact significance rating criteria tables provide examples of various effect characteristics based on magnitude/intensity, geographic extent, and duration/frequency.	NA	NA
FN-NC-0026	194	11/8/2016	Richard Fristik	USDA-RUS	...references to CEQ 2014 guidance on climate change/GHG; CEQ issued final guidance Aug. 1, 2016. Not only do the references need to be changed, but text needs to be modified to reflect the final guidance, e.g., it no longer uses the 25,000 MT threshold.	The Final PEIS uses the August 1, 2016 final guidance. The climate change analyses in the Final PEIS no longer include the 25,000 metric ton reference point and have been revised in accordance with the 2016 Final Guidance.	General	All Climate Change Environmental Consequences sections; ES4.14, Table ES4-14

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FN-NC-0026	195	11/8/2016	Richard Fristik	USDA-RUS	BMPs/Mitigation... there is considerable overlap and redundancy in the BMPs and mitigation measures. Also, some appear to be neither BMP nor mitigation measure...	Where appropriate and applicable, the suggestions made by RUS on the West Region BMPs and Mitigation Measures chapter were made in the non-contiguous region chapter.	Chapter 11	Chapter 11, BMPS and Mitigation Measures
FN-NC-0026	196	11/8/2016	Richard Fristik	USDA-RUS	Appendix A: The appendix possibly should be re-titled, and at a minimum the table annotated to indicate that these agencies were invited to be cooperating agencies (according to section 1.5.2), and then highlight or otherwise indicate those that accepted.	The title of Appendix A has been changed to <i>Invited Cooperating Agencies</i> in the Final PEIS to reflect the fact that the list represents the agencies that were invited to become cooperating agencies. The text of the appendix was also updated to indicate which agencies accepted the invitation.	Appendix A	Appendix A, <i>Invited Cooperating Agencies</i>
FN-NC-0027	197	1/20/2017	Dr. Andrea A. Hunder and Jackie Rodgers	Osage Nation Tribal Historic Preservation Office	First, it came to our attention that inadvertant discoveries and the Native American Graves Protection and Repatriation Act, also known as NAGPRA (Public Lawy 101-601; 25 U.S.C. 3001-3013) were not mentioned throughout the document. As the avoidance of disturbing burials is a top priority for the Osage Nation, this omission needs to be addressed. We suggest adding a BMP to follow all state and national laws and regulations if inadvertent discoveries of human remains are made during construction. Additionally, we suggest that state burial laws be included in the cultural resources sections' lists of state laws as well.	Thank you for your comment. NAGPRA is addressed in Appendix C, <i>Environmental Laws and Regulations</i> , as well as in the applicable Cultural Resources Affected Environment and Environmental Consequences sections. Relevant burial laws are included in the "Specific Regulatory Considerations" under Section X.1.11. For clarity, the suggested BMP has been added to Chapter 11, BMPs and Mitigation Measures.	General	All Cultural Affected Environment sections; all Cultural Environmental Consequences sections; Chapter 11, BMPS and Mitigation Measures; Appendix C, <i>Environmental Laws and Regulations</i>
FN-NC-0027	198	1/20/2017	Dr. Andrea A. Hunder and Jackie Rodgers	Osage Nation Tribal Historic Preservation Office	One of the BMPs states "Follow all applicable federal requirements for consultation on the identification and assessment of effects to cultural resources." While it is important to consult with all invested parties on potential impacts to cultural resources, it is especially important to consult with Tribes before work begins. Tribes have special knowledge of their significant sites and often still utilize these sites in ceremonies or for other cultural purposes. Additionally, several peices of legislation and executive orders require tribal consultation including NAGPRA, the American Indian Religious Freedom Act (AIRFA) (16 U.S.C. 1996), the Archeological Resources Protection Act of 1979. (ARPA) (16 U.S.C. 470aa-mm), the National Historic Preservation Act (NHPA) (16 U.S.C. 470 et seq.), the National Environmental Policy Act (NEPA) Implementing Regulations (40 CFR Part 1500, and Executive Order 13175: Consultation and Coordination with Indian Tribal Governments (Nov. 6, 2000). This office recommends that tribal consultation be emphasized either within the wording of this BMP or in an additional BMP.	Thank you for your comment. When site-specific information is known, American Indian tribes will be notified of the deployment locations using FCC's Tower Construction Notification System (TCNS). At that time, the federally recognized tribes with an interest in a given geographic area will be able to review the project location(s) within that given geographic area and provide feedback, comments, or requests to FirstNet regarding the project(s) and its location in relation to cultural resources. Additionally for clarity, the suggested BMP has been revised in Chapter 11, BMPs and Mitigation Measures.	Chapter 11	Chapter 11, BMPS and Mitigation Measures
FN-NC-0028	NA	9/29/2016	Dr. Albert M. Manville	Wildlife and Habitat Conservation Solutions, LLC;	Comments from this submittal express concerns about the potential impacts of radio frequency radiation to wildlife and humans. This submittal also expresses concerns related to birds colliding with communication towers. This full comment submission can be found in Appendix H of the Final PEIS.	The Wildlife sections of the Final PEIS have been updated to include additional information related to potential radio frequency exposure and its associated potential impacts to wildlife, specifically birds and bats. The Wildlife sections also address potential collision impacts. Potential radio frequency exposure impacts to humans are discussed in Section 2.4, Radio Frequency Emissions.	General	All Wildlife Environmental Consequences sections

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FN-NC-0029 through FN-NC-0033	NA	12/15/2016; 12/16/2016; 12/21/2016; 1/28/2017	Catherine Kleiber; Rebecca Smith; Naveen Albert; Michelle Illiatovitch; Tara Schell	Various	See Appendix H of the Final PEIS. Comments from these submissions express concerns about potential impacts to humans, wildlife, and vegetation as a result of radio frequency emissions.	The Wildlife sections of the Final PEIS have been updated to include additional information related to potential radio frequency exposure and its associated potential impacts to wildlife, specifically birds and bats. Potential radio frequency exposure impacts to humans are discussed in Section 2.4, Radio Frequency Emissions. The terrestrial vegetation sections have also been updated to acknowledge potential impacts from radio frequency emissions.	Various	All Wildlife Environmental Consequences sections; All Vegetation Environmental Consequences sections

DOI = Department of the Interior; EPA = Environmental Protection Agency; ES = Executive Summary; NA = not applicable; NPSBN = Nationwide Public Safety Broadband Network; NRCS = U.S. Department of Agriculture Natural Resources Conservation Service; PEIS = Programmatic Environmental Impact Statement; T&E = Threatened and Endangered; USDA-RUS = U.S. Department of Agriculture Rural Utilities Service

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