



**Record of Decision**  
**for the Adoption of the First Responder Network Authority**  
**Final Programmatic Environmental Impact Statement - Central Region**

Department of Commerce, National Telecommunications and Information Administration

**Summary**

In compliance with the National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et seq.), this Record of Decision (ROD) supports the National Telecommunications and Information Administration's (NTIA) adoption of the Programmatic Environmental Impact Statement (PEIS) issued by the First Responder Network Authority (FirstNet Authority) analyzing the deployment and operation of its nationwide public safety broadband network (NPSBN) in the Central Region. The FirstNet Authority is an independent authority within NTIA, established by the Middle-Class Tax Relief and Job Creation Act of 2012. The design, deployment, and operation of the NPSBN was a broad action with nationwide implications. As a result, FirstNet assessed potential impacts expected from the proposed action from the program as a whole under the NEPA. Due to the geographic scope of the FirstNet network (all 50 states, the District of Columbia, and five territories) and the diversity of ecosystems potentially traversed by the project, FirstNet prepared five regional programmatic environmental impact statements (PEISs) to support NEPA compliance.

In 2017, FirstNet completed the five regional PEISs and Records of Decision. NTIA participated in the development of the PEISs as a cooperating agency. These PEISs serve as the foundation of environmental review for FirstNet's environmental compliance program. As part of a tiered approach to NEPA, FirstNet's PEISs also support subsequent site-specific environmental analyses that may be required for individual actions for specific projects at specific locations once they are identified. The FirstNet Authority PEISs comply with all Council on Environmental Quality (CEQ), Department of Commerce, and NTIA requirements for preparing an Environmental Impact Statement.

In 2021, the Consolidated Appropriations Act of 2021 and the Bipartisan Infrastructure Law of 2021 appropriated \$49.8 billion in grants for NTIA to expand access to high-speed broadband infrastructure by funding infrastructure deployment in all fifty states, five territories, and the District of Columbia through the Internet for All (IFA) grant programs. Like NTIA's IFA initiatives, FirstNet's mandate includes planning and constructing telecommunication and broadband infrastructure across the United States and its territories. The specific activities that NTIA is funding are comparable to the FirstNet Authority project implementation activities in both scope and geographic span.

The FirstNet Authority's five PEISs are divided into the East, Central, West, South, and Non-Contiguous Regions. The PEISs analyzed potential impacts of the deployment and operation of the FirstNet network on the natural and human environment, in accordance with the FirstNet's responsibilities under NEPA. Together, those PEISs concluded that the typical projects necessary to create that broadband network were not expected to have a significant environmental effect.<sup>1</sup> NTIA was one of nine cooperating agencies on the July 2017 PEISs and had no comments on the draft documents. NTIA subsequently

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<sup>1</sup> See, e.g., FirstNet, *Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the Eastern United States, Executive Summary* (Sept. 2017) (*East Region ES*), <https://bit.ly/477YOAR>.



adopted all five PEISs in July 2024 and issues this ROD to streamline the NEPA process for broadband projects funded by NTIA by minimizing redundant reviews while assuring compliance with NEPA on projects that do not generate significant deleterious impacts to the human environment and that are of little or no controversy.

The FirstNet Authority PEIS - Central Region analyzed a suite of broadband deployment activities within specific chapters devoted to each State in the region. Each State-specific chapter includes a description of fifteen categories of “Affected Environment” in the State and an analysis of the FirstNet program’s “Environmental Consequences” for each of those categories.<sup>2</sup> Specifically, it identifies the possible effects the program could have on the “Affected Environment” and establishes a rating system with four “impact levels”: “potentially significant”; “less than significant with [best management practices] and mitigation measures incorporated”; “less than significant”; and “no impact.”<sup>3</sup> It then lists two categories of activities: (1) those “likely to have no impacts on at the programmatic level” and (2) those with “the potential to have impacts at the programmatic level.”<sup>4</sup> Each PEIS also lists best management practices and mitigation measures that can be used to prevent significant environmental effects.

### **Broadband Deployment Activities Analyzed and Covered by FirstNet Authority PEISs**

Broadband infrastructure deployment activities commonly implemented in constructing a communications network are described in four sections of the FirstNet Authority PEISs.

1. Wired Projects (see PEIS section 2.1.2.1)
2. Wireless Projects (see PEIS section 2.1.2.2)
3. Deployable Technologies (see PEIS section 2.1.2.3)
4. Satellite and Other Technologies (see PEIS section 2.1.2.4)

### **Decision Options Considered by the FirstNet Authority PEISs**

For each region, FirstNet considered the same three options: (1) a Preferred Alternative, (2) a Deployable Technologies Alternative, and (3) a No Action Alternative. Under the Preferred Alternative, FirstNet proposed to “construct a nationwide broadband LTE network using a combination of wired, wireless, deployable, and satellite technologies.”<sup>5</sup> Potential projects included laying underground cables (both in newly plowed conduits and existing conduits), stringing aerial cables (both across newly built poles and existing poles), installing wireless antennas and microwave dishes (both on newly constructed towers and existing towers), and deploying vehicles with antenna masts.<sup>6</sup> In turn, under the Deployable Technologies Alternative, FirstNet would rely exclusively on deploying vehicles with antenna masts.<sup>7</sup> Finally, under the No Action Alternative, the network “would not be constructed.”<sup>8</sup>

FirstNet ultimately selected a combination of technologies in its Preferred Alternative. Although the Preferred Alternative was not determined to be environmentally preferable at the programmatic level, it

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<sup>2</sup> See, e.g., FirstNet, *Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the Eastern United States, Chapter 11: New York* (Sept. 2017) (New York), <https://bit.ly/3MFwX2X>.

<sup>3</sup> See, e.g., *id.* at 269.

<sup>4</sup> See, e.g., *id.* at 271–75.

<sup>5</sup> See *East Region ES*, *supra* note 24 at 8.

<sup>6</sup> See *id.* at 8–9.

<sup>7</sup> See *id.* at 9–10.

<sup>8</sup> See *id.* at 10.



was selected as best meeting FirstNet’s mission considering relevant technical factors and its ability to meet the project’s purpose and need.

### **Purpose and Need**

Broadband projects face considerable permitting challenges even though their potential for significant environmental impacts is typically lower than many other types of infrastructure projects. NTIA’s \$49.8 billion IFA funds are allocated to support communications deployments in every U.S. state and territory. The \$42.45 Broadband Equity, Access, and Deployment (BEAD) program alone will generate tens of thousands of NEPA reviews of infrastructure deployments that are similar to those analyzed by the FirstNet Authority in the PEISs. The volume of environmental reviews of similar types of deployments that will occur concurrently across the country will overwhelm regulatory agencies and delay Americans access to high-speed broadband infrastructure unless NTIA can streamline environmental reviews.

NTIA’s permitting strategy prioritizes programmatic approaches that build on the significant body of past environmental analysis of broadband. Consistent with CEQ regulations, NTIA reviewed the PEISs that the FirstNet Authority generated to analyze environmental impacts in each state and territory and confirmed that they both remain valid and provide a relevant and adequate assessment of the potential environmental impacts and benefits of IFA projects. The PEISs examine the reasonably foreseeable consequences of communications deployments and can support NTIA’s ability to efficiently make well informed decisions within the IFA timelines statutorily established by Congress.

### **Decision Options Considered by NTIA**

NTIA analyzed whether to adopt the FirstNet Authority PEISs in implementing the IFA initiatives.

1. **PREFERRED ALTERNATIVE:** NTIA adopts the FirstNet Authority PEIS and implements streamlined programmatic NEPA for broadband deployment projects funded by the IFA programs.

After detailed study of the FirstNet PEISs, NTIA recognized the potential efficiencies of the programmatic approach to NEPA compliance afforded by adopting the PEISs. Review and analysis time and costs will be reduced significantly with no reduction in commitment to national environmental policy and human quality of life. Additionally, because broadband deployment activities are funded by NTIA for the broad purpose of expanding communications access to improve the human environment and overall quality of life, including the natural environment, and most deployment activities occur within existing, disturbed rights of way, most of the NTIA site-specific actions are found, upon detailed, site-specific analysis, to have no potentially significant deleterious impacts to the human or natural environment.

2. **NO-ACTION ALTERNATIVE:** NTIA maintains current NEPA processes and requires site-specific analysis of each IFA funded project.

Currently, NTIA conducts individual NEPA analyses of site-specific broadband deployment grants. Many funded projects are covered by one or more of NTIA’s Categorical Exclusions (CE), while larger or more complex projects often require more in-depth analyses resulting in Environmental Assessment (EA). These detailed compliance efforts can be time intensive and costly, often delaying projects and incurring additional costs to project proponents. Maintaining this action-by-action processing results in no change to the existing NTIA NEPA compliance strategy and will impose a significant burden and cost on the IFA programs that is not balanced by potential environmental benefits.



## **Public Comment**

The FirstNet Authority initiated public engagement with a Notice of Intent to prepare five coordinated PEISs in the Federal Register. FirstNet took public comments through an initial 45-day public comment period for scoping and a 60-day public comment period once the Draft PEISs were published for each region. Comments were also solicited from cooperating agencies, state Single Points of Contact, elected officials, American Indian Tribes, and the general public. The Draft PEISs, Final PEISs, and Records of Decision were developed considering public and agency input received throughout the public involvement processes.

## **Environmentally Preferable Alternative and Rationale for Selection**

NTIA analyzed the two decision alternatives described above and determined that Alternative 1 (adopting the First Responder Network Authority PEISs) is the environmentally preferable alternative. This alternative achieves the mission of NTIA and the objectives of the IFA programs while streamlining NEPA compliance. The preferred alternative enables NTIA to maintain a high level of efficiency and flexibility for its grant programs while ensuring that potentially significant environmental impacts are identified and considered in implementing the IFA programs.

## **Mitigation Measures**

All practicable means to avoid or reduce adverse impacts from implementing the preferred alternative will be adopted through best management practices or mitigation measures for action specific and programmatic broadband deployment activities. These practices have been identified in the [Internet for All Best Management Practices and Mitigation Measures](#) publication available on the BroadbandUSA website and incorporated into NTIA's [Permitting and Environmental Information Application](#), a GIS tool to assist grant recipients in avoiding, minimizing and mitigating potential environmental impacts in broadband deployment. These practices are not an exhaustive list of best practices used in NTIA programs but are practices that were considered in the analysis of impacts during development of the FirstNet PEISs. Project-specific compliance with all Federal, State, and local laws must be documented prior to undertaking actions described in the PEIS. Federal environmental compliance requirements are site- and project-specific, and can include the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Mammals Protection Act, the Migratory Bird Treaty Act, the National Historic Preservation Act, the Clean Water Act, the Rivers and Harbors Act, and the Coastal Zone Management Act, among others.

## **Implementation Strategy**

Per NTIA's NEPA Implementing Regulations as described in its [Guidance on NTIA National Environmental Policy Act Compliance](#), where actions are undertaken by an Applicant, NTIA personnel advise the Applicant and provide resources to facilitate the Applicant's consideration of, and explanation of, environmental impacts and alternatives. The conclusion of the NTIA NEPA review process results in a Categorical Exclusion, a Finding of No Significant Impact, or a Record of Decision.

For certain IFA grant programs, States and Territories are the entities that are eligible to apply for funding to provide affordable, reliable Internet to broadband serviceable locations. In their capacity as the State (or Territory) agency administering the IFA grant program, the eligible entity serves as a "joint lead agency" in accordance with 42 U.S.C. 4336a(a)(1)(B) and carry out the duties described in 42 U.S.C. 4336a(a)(2).

NTIA or joint lead agencies will determine and document that proposed project activities and site-specific environmental consequences are within ranges analyzed in the PEIS, and that extraordinary, site-specific



circumstances would not elevate negative project or activity impacts to a level of significance. Using the analyses provided in the First Responder Network Authority PEISs and additional information as necessary, the joint lead agency may propose, and NTIA will assess and confirm, that proposed broadband deployment actions are within the range of alternatives and potential environmental consequences analyzed in the PEIS and will not have significant adverse impacts on the natural or human environments.

Upon review, NTIA will approve NEPA coverage for the proposed action(s) and notify the joint lead agency or Applicant if additional information is required or further analysis is necessary to supplement and document that the project will not have significant adverse impacts. All analysis and authorization will be documented and available for public review upon request.

### **National Environmental Policy Act Compliance**

NTIA used the NEPA process to guide our decision to adopt the First Responder Network Authority Final Programmatic Environmental Impact Statement - Central Region. (*See Appendix A.*) Per NEPA guidelines, NTIA reviewed the direct, indirect, and cumulative impacts of adopting the FirstNet PEISs before making this decision. NTIA adopted the FirstNet PEISs after carefully reevaluating the analyses and their underlying assumptions and determining that they remain valid. NTIA originally accepted the PEISs as adequate with no comments or suggestions in 2017 and has determined that it may adopt the PEISs and file corresponding NTIA RODs with EPA. *See* 40 C.F.R. § 1506.3(b)(2). Future site-specific broadband deployment activities that NTIA and IFA recipients propose that are not within the scope of environmental consequences considered in the PEISs will require additional and separate NEPA review and analysis.

### **Authorities**

This Record of Decision was developed in accordance with NEPA (42 U.S.C. §4321 et seq.), the CEQ's regulations for implementing NEPA (40 CFR parts 1500 through 1508), and Department of Commerce and NTIA NEPA regulations.

*Douglas Kinkoph*  
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Doug Kinkoph  
Associate Administrator  
Office of Internet Connectivity and Growth

10/28/2024  
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Date



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Telecommunications and**  
**Information Administration**  
Washington, D.C. 20230

MEMORANDUM FOR: RECORD

FROM: Susannah Spellman (Acting for Doug Kinkoph)  
Associate Administrator  
Office of Internet Connectivity and Growth

SUBJECT: NTIA Adoption of First Responder Network Authority (FirstNet Authority) Regional Programmatic Environmental Impact Statements

### **Background**

In 2021, the Consolidated Appropriations Act of 2021 and the Infrastructure Investment and Jobs Act appropriated \$49.8 billion in grants for the Department of Commerce's National Telecommunications and Information Administration (NTIA) to bring broadband service to unserved and underserved locations across America through the Internet for All (IFA) grant programs. NTIA, in implementing IFA, will administer the Broadband Equity, Access, and Deployment (BEAD) Program, the Middle Mile Deployment Grant Program, the Tribal Broadband Connectivity Program (TBCP), the Broadband Infrastructure Program (BIP), and the Digital Equity (DE) Act programs. These IFA initiatives will expand access to high-speed broadband infrastructure by funding infrastructure deployment in all fifty states, five territories, and the District of Columbia.

NTIA has determined that IFA projects receiving financial assistance for infrastructure meet the National Environmental Policy Act (NEPA) statutory and regulatory definition of "major federal action"<sup>1</sup> because these federal funds are under substantial federal control through requirements associated with 2 C.F.R. Part 200. NEPA requires federal agencies to interpret and administer federal laws in accordance with NEPA's policies to ensure sound decision making.

The First Responder Network Authority (FirstNet Authority or FirstNet) is an independent authority within NTIA, established by the Middle-Class Tax Relief and Job Creation Act of 2012 to deploy and operate a nationwide public safety broadband network (NPSBN).<sup>2</sup> Similar to NTIA's grant programs, FirstNet's mandate includes planning and constructing telecommunication and broadband infrastructure across the United States and its territories. The

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<sup>1</sup> 42 U.S.C. § 4336e(10); 40 C.F.R. § 1508.1(q) (2022). NTIA's NEPA reviews as discussed in this memorandum were performed in accordance with the White House Council on Environmental Quality (CEQ) NEPA implementing regulations as revised on May 20, 2022, but prior to their revision in CEQ's final Bipartisan Permitting Reform Implementation Rule, which went into effect on July 1, 2024. *See* 89 Fed. Reg. 35442 (May 1, 2024). References to the NEPA regulations herein are to the May 20, 2022 version of the regulations.

<sup>2</sup> 47 U.S.C. § 1401.



specific activities that NTIA now anticipates funding through IFA are comparable to the FirstNet Authority project implementation activities in both scope and geographic span.

The design, deployment, and operation of the NPSBN was a broad federal action with nationwide implications. Therefore, FirstNet assessed the potential environmental impacts of the NPSBN under NEPA. Due to the geographic scope of the FirstNet network (all 50 states, the District of Columbia, and five territories) and the diversity of ecosystems potentially impacted by the project, FirstNet prepared five regional programmatic environmental impact statements (PEISs) to support NEPA compliance.

In 2017, FirstNet completed the five regional PEISs and subsequently issued corresponding Records of Decision (RODs). These PEISs serve as the foundation of environmental review for FirstNet's environmental compliance program. As part of a tiered approach to NEPA, FirstNet's PEISs also support subsequent site-specific environmental analyses that may be required for individual actions for specific projects at specific locations once they are identified.<sup>3</sup> The FirstNet PEISs are available on the FirstNet website at the following link:

<https://www.firstnet.gov/network/environmental-compliance/projects/regional-programmatic-environmental-impact-statements>.

The five PEISs were divided into the East, Central, West, South, and Non-Contiguous Regions. The PEISs analyzed potential impacts of the deployment and operation of the FirstNet network on the natural and human environment, in accordance with the FirstNet's responsibilities under NEPA. Together, the PEISs concluded that the typical projects necessary to create that FirstNet network were not expected to have a significant environmental effect.<sup>4</sup> NTIA was one of nine cooperating agencies involved in preparing the July 2017 PEISs and had no comments on the draft PEISs.

NTIA has confirmed that the FirstNet Authority PEISs meet the requirements of NEPA and seeks to adopt them and apply the programmatic analyses to infrastructure projects funded by IFA grants. Two sets of authorities set forth the requirements that NTIA must satisfy to make use of the FirstNet PEISs. First, as amended by the Fiscal Responsibility Act (FRA) of 2023, NEPA provides that "[w]hen an agency prepares a programmatic environmental document for which judicial review was available, the agency may rely on the analysis included in the programmatic environmental document in a subsequent environmental document for related actions" if it takes certain steps. 42 U.S.C. § 4336b. Specifically, if the subsequent action takes place "[a]fter 5 years," the agency must "reevaluate[] the analysis in the programmatic environmental document and any underlying assumption to ensure reliance on the analysis remains valid." *Id.* § 4336b(2).

In studies undertaken by the Environmental Program Officers (EPOs) administering NTIA's NEPA program between January and March of 2024, NTIA reevaluated each of the five regional

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<sup>3</sup> See 40 C.F.R. § 1501.11 (tiering).

<sup>4</sup> See, e.g., FirstNet, *Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the Eastern United States, Executive Summary* (Sept. 2017) (*East Region ES*), <https://bit.ly/477YOAR>.



PEISs and independently determined that the analysis in each PEIS remains valid for use in subsequent environmental documents for related actions, and the development of an NTIA ROD is warranted for each PEIS.

Second, the CEQ NEPA implementing regulations establish that, in general, “[a]n agency may adopt a Federal draft or final [EIS] . . . provided that the [EIS] . . . meets the standards for an adequate [EIS].” 40 C.F.R. § 1506.3(a). The regulations specify that as a “cooperating agency,” NTIA “may adopt in its record of decision without republishing the [EIS] of a lead agency when, after an independent review of the [EIS], the cooperating agency concludes that its comments and suggestions have been satisfied.” *Id.* § 1506.3(b)(2).

### **Discussion**

Pursuant to NEPA as amended by the FRA, NTIA has carefully reevaluated the analyses in the PEISs and their underlying assumptions and determined that NTIA’s reliance on the analyses for IFA programs will remain valid. *See* 42 U.S.C. § 4336b. In addition, given that NTIA originally accepted the PEISs as adequate with no comments or suggestions in 2017, NTIA has determined that it may adopt the PEISs in its own RODs. *See* 40 C.F.R. § 1506.3(b)(2). Accordingly, NTIA now proposes to adopt the PEISs and file corresponding NTIA RODs with EPA.

Careful NTIA review of the 2017 PEISs conducted in 2024 has determined the documents to be relevant and cogent analyses of the potential impacts of deploying infrastructure supporting a telecommunications network on the environment and resources in the States and Territories of the United States, as divided into five regions. FirstNet’s decision to construct the (NPSBN) using a combination of wired, wireless, deployable, and satellite technologies is substantially the same as NTIA’s decisions in administering IFA grants funding broadband deployments to reach unserved and underserved locations across the United States.

### **Decision**

Pursuant to 42 U.S.C. § 4336b, 40 C.F.R. § 1506.3, and the authority delegated to me by the Assistant Secretary for Communications and Information, I hereby adopt the First Responder Network Authority EISs entitled:

- Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the Eastern United States (EIS Number 20170211)
- Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the Central United States (EIS Number 20170167)
- Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the South Region (EIS Number 20170185)
- Nationwide Public Safety Broadband Network: Final Programmatic Environmental





Impact Statement for the Non-Contiguous United States (EIS Number 20170111)

- Nationwide Public Safety Broadband Network: Final Programmatic Environmental Impact Statement for the West Region (EIS Number 20170131)

Consistent with its obligations under 42 U.S.C. § 4336b, NTIA has reevaluated<sup>5</sup> the analyses and underlying assumptions in these programmatic documents and found that the analyses remain valid. Pursuant to 40 C.F.R. § 1506.3(b)(2), republishing these documents is not necessary and NTIA will issue RODs adopting the PEISs and file the RODs with EPA. NTIA will utilize the PEISs as the framework for considering environmental impacts of proposed actions for relating to broadband infrastructure deployments under IFA grant funding programs to bring broadband service to unserved and underserved locations across America.

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Susannah Spellman (Acting for Doug Kinkoph)  
Associate Administrator  
Office of Internet Connectivity and Growth

July 24, 2024  
Date

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<sup>5</sup> See *FirstNet Regional Programmatic Environmental Impact Statement Revalidation Memos* (Central Region, February 24, 2024; Non-Contiguous Region, March 29, 2024; East Region, undated; Southwest Region, January 30, 2024; West Region, March 3, 2024).



UNITED STATES DEPARTMENT OF COMMERCE  
**National Telecommunications and Information  
Administration**  
Washington, DC 20230

**MEMORANDUM FOR:** Jill A. Springer  
Senior Policy Advisor for Permitting  
Chief Environmental Review and Permitting Officer  
Office of Internet Connectivity and Growth

**FROM:** Christopher Baird  
Environmental Program Officer  
Office of Internet Connectivity and Growth

Digitally signed by  
CHRISTOPHER BAIRD  
Date: 2024.07.22 07:29:33 -04'00'

**SUBJECT:** FirstNet Regional Programmatic Environmental Impact Statement  
Revalidation – East Region

**DATE:** July 22, 2024

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On October 27, 2017, the First Responder Network Authority published the Final Regional Programmatic Environmental Impact Statement (PEIS) and Record of Decision (ROD) for the East Region. The National Telecommunications and Information Administration was a Cooperating Agency on the analysis and is conducting this revalidation of the original analysis performed in accordance with requirements for reevaluation of programmatic documents older than 5 years in Section 108 of the National Environmental Policy Act, as amended by the Fiscal Responsibility Act of 2023. This revalidation will describe any changes to the proposed action, regulatory setting, or areas of concern or sensitivity identified in the original PEIS analysis and determine whether NTIA may still rely on it for purposes of subsequent environmental documents.

***Changes in Environmental Setting:***

8.1.12 Air Quality

8.1.12.2 *National and State Ambient Air Quality Standards*

The PEIS notes that the Massachusetts Department of Environmental Protection has authorization to issue Clean Air Act Title V permits on behalf of the USEPA and tabulates the Massachusetts Ambient Air Quality Standards (MassAAQS) in the environmental setting section. In 2019, MassAAQS were updated and, at present, match current national standards (NAAQS). However, the PEIS based the impact significance rating criteria on the likelihood of the proposed action (at the programmatic level) exceeding the NAAQS.

## ***Changes in Environmental Circumstances:***

### 8.1.4 Water Resources

#### *8.1.4.2 Wetlands*

The PEIS notes that discharges to “waters of the U.S.” (WOTUS) are subject to the provisions of Section 401 of the Clean Water Act (CWA). This remains an accurate statement. The PEIS does not specifically define WOTUS. Therefore, the May 25, 2023 Supreme Court ruling in Sackett v. EPA – which resulted in a change to the definition of WOTUS - does not impact the environmental setting or circumstances as described in the PEIS.

#### *8.1.4.4 Wild & Scenic Rivers*

Portions of the Nashua, Squannacook, and Nissitissit Rivers (52.8 miles) were designated in 2019, and therefore not included in the PEIS.

#### *8.1.4.6 Floodplains*

While E.O. 14030 – signed in May 2021 – reinstated the implementing instructions set forth in E.O. 13690, the PEIS does not specifically refer to these Orders and so the Environmental Settings and Impacts sections of the PEIS remain valid. However, the associated best management practices and mitigation measures (Chapter 17) may warrant some revision, for example, by adding more specific flood mitigation requirements such as minimum elevation of broadband infrastructure that is placed within a 100-year flood zone.

### 8.1.6 Biological Resources

#### *8.1.6.2 Wetlands*

The PEIS notes that discharges to “waters of the U.S.” (WOTUS) are subject to the provisions of Section 401 of the Clean Water Act (CWA) but does not specifically define WOTUS. As such, the May 25, 2023, Supreme Court ruling in Sackett v. EPA – which resulted in a change to the definition of WOTUS - does not impact the environmental setting or circumstances as described in the PEIS.

#### *8.1.6.3 Nuisance and Invasive Plants*

The PEIS identified 66 species of plants categorized as either “invasive,” “likely invasive,” or potentially invasive” in Massachusetts. The Massachusetts Prohibited Plants<sup>1</sup> list was updated in November of 2022, to include the following:

- Japanese Black Pine (*Pinus thunbergii*)
- Scotch broom (*Cytisus scoparius*)
- Weeping Lovegrass (*Eragrostis curvula*)

Further, the following two plants species are currently under consideration for addition to the Massachusetts Prohibited Plants list:

- Callery pear/Bradford pear (*Pyrus calleryana*)
- Wall-lettuce (*Mycelis muralis*)

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<sup>1</sup> <https://www.mass.gov/info-details/massachusetts-prohibited-plant-list-updates>

#### 8.1.6.4 Threatened & Endangered Species

(i) Since 2017, the following species – known to occur in the states covered by the east-region PEIS – have been granted protected status under the Endangered Species Act (ESA), and were not included in the PEIS:

- Rusty patched Bumble bee (*Bombus affinis*; Insect, added 2017; Endangered)
- Candy darter (*Etheostoma osburni*; Fish, added 2018; Endangered)
- Yellow lance (*Elliptio lanceolata*; Clam, added 2018); Threatened)
- Atlantic pigtoe (*Fusconaia masoni*; Clam, added 2021; Threatened)
- Sickle darter (*Percina williamsi*; Fish, added 2022; Threatened)
- Longsolid (*Fusconaia subrotunda*; Clam, added 2023; Threatened)
- Bog buck moth (*Hemileuca maia menyanthevora*; Insects; Endangered)

(ii) Since 2017, the ESA status of the following species – known to occur in the states covered by the east-region PEIS – has changed:

- West Indian Manatee (*Trichechus manatus*): Endangered to Threatened in 2017
- American burying beetle (*Nicrophorus americanus*): Endangered to Threatened in 2020
- Northern long-eared bat (*Myotis septentrionalis*): Threatened to Endangered in 2023

(iii) The following species – known to occur in the states covered by the east-region PEIS – was proposed for listing by the USFWS as ‘Endangered’ under the ESA on September 13, 2022:

- Tricolored Bat (*Perimyotis subflavus*)

(iv) The following species – known to occur in the states covered by the east-region PEIS – is currently listed as a Candidate species and is identified as “imminent” for protected status under the ESA:

- Monarch butterfly (*Danaus plexippus*)

#### 8.2.10 Environmental Justice

In 2021, Massachusetts Governor Charlie Baker signed into law a new climate bill that codified Environmental Justice language into state law (previously EJ policy had been established through Executive Orders). Similar to federal EOs, Massachusetts laws have expanded the definition of EJ populations to more broadly include geographic areas with high minority populations, low-income populations, and also considers English-language proficiency. It also established more robust public comment opportunities in the state. Consider updating PEIS language to refer to the latest EJ laws and policies of MA and other states included in the east-region PEIS. While the findings of the PEIS with regard to EJ remain valid, the environmental review required to address EJ concerns moving forward may be more involved. Based on the nature of the NTIA broadband funding programs – intended to bring affordable high-speed internet to unserved and underserved areas – it is likely that many such areas will include areas of EJ populations. However, the benefits of such infrastructure deployment will likely be more positive than otherwise, which should not be discounted in the environmental review. At present, the impacts section of the PEIS does not appear to consider beneficial impacts.

#### 8.2.14 Climate Change

The PEIS cites the Massachusetts Climate Change Adaptation Report (September, 2011) as a relevant Climate Change law/regulation. In March 2021, Massachusetts passed a significant new climate law aimed at cutting greenhouse gases, building a greener economy, and prioritizing equity and environmental justice (see discussion on EJ above). While the PEIS can be updated to cite this new climate law, the findings and assessment of impacts summarized in the PEIS remain valid.

### ***Changes to Environmental Impacts of the Project:***

#### 8.2.6.4 Wildlife

The PEIS states (Pg. 8-312, Birds, 1st sentence) that “The direct removal of most bird nests is prohibited under the MBTA.” Consider revising this to “The direction removal of most active bird nests is prohibited under the MBTA.”

#### 8.2.6.5 Fisheries and Aquatic Habitat

The PEIS describes “Activities with the Potential to Have Impacts at the Programmatic Level” as including “New Build – Submarine Fiber Optic Plant” installations. The PEIS specifically describes areas of impact from submarine cables as “limited nearshore and inland bodies of water”. The National Oceanic and Atmospheric Administration defines the term ‘nearshore’ as being “*shorthand for tidal marshes, wetlands, and river estuaries where land and water combine to support life of all kinds...*”<sup>2</sup> While it remains accurate that nearshore and inland waters may be impacted, the statement could be revised to say “coastal marine waters, nearshore, and inland waters” to be more broadly inclusive in the event that submarine cables are placed further offshore. The remaining statement of potential impacts to these areas remains valid and does not require alteration.

### ***Changes to Avoidance, Minimization, Mitigation Measures, or Best Management Practices:***

#### Chapter 17 BMPS and Mitigation Measures

##### 17.4 Water Resources

See ‘Changes to Environmental Circumstances’ (8.1.4.6 Floodplains) above.

##### 17.6 Biological Resources

###### 17.6.2 Wildlife

17.6.2.2 Project-Type Specific BMPS and Mitigation Measures: On March 1, 2021, the USFWS released an updated “*Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*”.<sup>3</sup> The PEIS incorporates the recommended best practices from the 2013 version of this document.

<sup>2</sup> <https://www.fisheries.noaa.gov/feature-story/protecting-critical-value-nearshore-habitat>

<sup>3</sup> <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

17.6.3 Water Resources and 17.6.4 Threatened and Endangered Species

The PEIS does not specify new submarine cables under the “Project-Type Specific BMPs and Mitigation Measures”. The general BMPs and mitigation measures in these sections remain valid and include many of the measures , but consider directly incorporating the Conservation Measures set forth in the applicable Fisheries Management Plan(s) for the Region.

Recommendation:

Based on a thorough review of the East Regional PEIS, NTIA has determined that the analysis remains valid for use in subsequent environmental documents, and the development of an NTIA Record of Decision (ROD) is warranted.



UNITED STATES DEPARTMENT OF COMMERCE  
**National Telecommunications and Information  
Administration**  
Washington, DC 20230

**MEMORANDUM FOR:** Jill A. Springer  
Senior Policy Advisor for Permitting  
Chief Environmental Review and Permitting Officer  
Office of Internet Connectivity and Growth

**FROM:** Josh Fitzpatrick  
Environmental Program Officer  
Office of Internet Connectivity and Growth  
**Josh Fitzpatrick**

**SUBJECT:** Regional Programmatic Environmental Impact Statement  
Revalidation – Alaska Chapter of the Non-Contiguous Region

**DATE:** July 22, 2024

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Fitzpatrick  
Date: 2024.07.22  
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On August 8, 2018, the First Responder Network Authority published the Final Regional Programmatic Environmental Impact Statement (PEIS) and Record of Decision (ROD) for the Non-Contiguous Region. The National Telecommunications and Information Administration was a Cooperating Agency on the analysis, and is conducting this revalidation of the original analysis performed in accordance with requirements for reevaluation of programmatic documents older than 5 years in Section 108 of the National Environmental Policy Act, as amended by the Fiscal Responsibility Act of 2023. This revalidation describes any changes to the proposed action, regulatory setting, or areas of concern or sensitivity identified in the original PEIS analysis and determine whether NTIA may still rely on it for purposes of subsequent environmental documents.

*Changes in Environmental Setting:*

1. Section 3.1.5: this section would benefit with case law included...SWANCC, Rapanos, Sackett to help inform jurisdiction and CWA definitions.
2. Section 3.1.6.3: Are there any additional noxious weeds that have been listed since 2003 document citation?
3. Update table 3.1.6-10 if any additional noxious weeds were added since 2014 citation.
4. Are there any additional birds of conservation concern that need to be added to table on page 3.1.6-30
5. Page 3.1.6-37, are there any new invasive avian species added to list?
6. Page 3.1.6-49, does AK Fish and Game still use Wildlife action plan in place of state level species of concern?
7. Page 3.1.6-50, do the BLM and USFS sensitive species lists need to be updated?
8. Table 3.1.6.6-1 all candidate species now are: Alexander Archipelago wolf; Pacific walrus; Kittlitz's Murrelet; Pinto abalone; Lynn Canal herring; Sunflower sea star
  - a. New federally threatened species to include in table include: Eulachon, Guadalupe Fur seal, Yelloweye Rockfish:

9. Page 3.1.6-63, are these fish stocks still of concern. May need to update since citation is from 2015.
10. Page 3.1.6-65, are there any new critical habitat updates since 2015?
11. Section 3.1.9: Need to update with new 2020 census data.
12. Page 3.2.6-61: we should rectify throughout the document that actual number of ESA listed species based on recent listings.

*Changes in Environmental Circumstances:*

1. Section 3.1.3: validate that geology and permafrost melting as it relates to fiber in environmental consequences is based on latest science.
2. Section 3.1.9: Need to discuss EO 14096 and Justice 40.
3. Section 3.1.10.3: Need to update with new census bureau statistics.
4. Table 3.1.11-1: Have any additional properties been added to the NRHP?

*Changes to Environmental Impacts of the Project:*

1. Does AK still not meet the EJ 50% threshold, per section 3.1.10.4?
2. Table 3.1.12-1, is this data still relevant for air quality ten years later?
3. Table 3.1.12-2 and page 3.2.12-11, have any non-attainment or maintenance areas changed or been added since 2015? Rectify throughout document.
4. Section 3.1.14.3: May need to add additional GHG and Climate change analysis information based on more contemporary requirements.
5. Page 3.2.6-45: We may want to discuss the impact of trenching in tundra/taiga conditions where it can cause long term collapse of the surface area.
6. Section 3.2.7.3: what about construction noise impacts to recreation and public land?

*Changes to Avoidance, Minimization, Mitigation Measures, or Best Management Practices:*

1. Page 3.1.11-27: How do you conclude consultation in a PEIS programmatic consultation? We do it for projects with construction, but how about a programmatic scenario?
2. Page 3.2.6-41: Is there any new data on towers, lighting, and avian mortality? New BMPs? AK is such a large flyway.

Recommendation:

Based on a thorough review of the Alaska Chapter of the Non-Contiguous Regional PEIS, NTIA has determined that the analysis remains valid for use in subsequent environmental documents, and the development of an NTIA Record of Decision (ROD) is warranted.





UNITED STATES DEPARTMENT OF COMMERCE  
**National Telecommunications and Information  
Administration**  
Washington, DC 20230

**MEMORANDUM FOR:** Jill A. Springer  
Senior Policy Advisor for Permitting  
Chief Environmental Review and Permitting Officer  
Office of Internet Connectivity and Growth

**FROM:** Josh Fitzpatrick  
Environmental Program Officer  
Office of Internet Connectivity and Growth

**SUBJECT:** Regional Programmatic Environmental Impact Statement  
Revalidation – New Mexico Chapter of the Southern Region

**DATE:** July 22, 2024

Josh

Fitzpatrick

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Fitzpatrick  
Date: 2024.07.22 17:36:47  
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On August 8, 2018, the First Responder Network Authority published the Final Regional Programmatic Environmental Impact Statement (PEIS) and Record of Decision (ROD) for the Southwest Region. The National Telecommunications and Information Administration was a Cooperating Agency on the analysis, and is conducting this revalidation of the original analysis performed in accordance with requirements for reevaluation of programmatic documents older than 5 years in Section 108 of the National Environmental Policy Act, as amended by the Fiscal Responsibility Act of 2023. This revalidation describes any changes to the proposed action, regulatory setting, or areas of concern or sensitivity identified in the original PEIS analysis and determine whether NTIA may still rely on it for purposes of subsequent environmental documents.

*Changes in Environmental Setting:*

1. Sections 10.1.4.2 and 10.1.5.2: Have any Tribes assumed Section 401 or 404 authority?
2. Section 10.1.5.2: Section on CWA case law (Raponos, SWANCC, etc) would be helpful and recent Sackette decision. CWA is governed by case law.
3. Figure 10.1.5-1 and overall section: Figure has NWI wetlands, has FWS updated NWI. I thought that was coming or had already recently come out. If so, update figure. Wetland analyses/delineation are valid for five years and since this document is seven years old, some updates should occur.
4. Section 10.1.6.6 shows 55 species listed. FWS website on 1/22/24 for NM shows 60 species listed. Will need to cross reference and add and subtract more depending on species.
5. Table 10.1.6-3: Lessler Long nosed Bat was delisted in 2018 due to recovery.
6. Table 10.1.6-6: Least Tern is delisted. Lesser Prairie Chicken was uplisted the southern distinct population segment (DPS) to endangered in 2023. Critical habitat is still being determined.
7. Table 10.1.6-7: Yaqui Catfish was added as threatened and the Peppered chub was added as endangered on 3/22/22.

8. Table 10.1.6-9: Wright marsh thistle was added as threatened in May 2023.
9. Section 10.1.9: I believe new census data will need to be added.
10. Section 10.1.10 needs to add EO 14096 Revitalizing Our Nation's Commitment to Environmental Justice for All. May also want to discuss Justice 40 initiative.
11. 10.1.10.4: I can't remember when EPA's EJ screen tool was released, but I believe well after 2017 so we may want to reevaluate section using tool.
12. Table 10.1.11-3: New Mexico has hundreds of listed NRHP sites and the list continues to grow. Will need to determine if additional sites have been listed after 2017.
- 13.

*Changes in Environmental Circumstances:*

1. The PEIS declares in multiple sections that FirstNet activities are generally expected to be small-scale in nature. Can we scale NTIA projects to this PEIS if the intent of the PEIS was to review projects small-scale in nature?
2. Section 10.2.11.2: The cultural section provides for adverse effect, mitigated adverse effect, effect, but no adverse effect and no effect. Where does no historic properties affected determination fit in with this PEIS review?
3. What types of climate changes predication and modeling have occurred after publishing the PEIS and do they need to be included?
4. Section 10.2.4.3: Will need to cross reference if 65% of New Mexico's water bodies are still impaired under 303d or if the number has grown.
5. Document does not state average thickness of New Mexico aquifers, but asserts there is little potential for groundwater contamination. Average aquifer thickness should be declared to make this assumption.
6. Section 10.2.5.3 denotes land management agencies have maps of high quality wetlands, if these maps are public information, they should be disclosed as part of the reevaluation to help better guide future avoidance efforts. The document says they are high quality, but doesn't say if they are rare on the landscape. If just high quality, we should declare in the reeval, if rare we shouldn't disclose.
7. Section 10.2.6.3: Since 2017 has more studies been conducted on the effects of radio frequency emissions on plants, animals and humans? Document should disclose if so and that could trigger a supplemental document to this overall PEIS analysis.
8. Section 10.2.6.4: has more study been conducted on effects of radio frequency emissions on bat species. Based on the PEIS, more information was needed.

*Changes to Environmental Impacts of the Project:*

1. Have any of the critical habitat designations changed for any of the species? The fish section has a lot of critical habitat listings.
2. Section 10.2.15: Should radio frequency emissions be analyzed in Human Health and Safety section? It is not in this section, but included in other sections, but does not necessarily focus on humans in other sections of the document.
3. Since 2017, the social cost of carbon has received a lot of attention and should be analyzed in updates to the PEIS.

*Changes to Avoidance, Minimization, Mitigation Measures, or Best Management Practices:*

1. BMPs for wetland avoidance may include avoid rare features on the landscape like forested wetlands as you mitigation will cost more and it lowers probability that your project will be permitted.

2. Working during winter frozen ground conditions, helps reduce the discharge of dredged and fill material into wetlands.
3. The visual resources BMPs states: Reduce or eliminate the need for lighting on poles or structures, or restrict the duration and directionality of needed lighting---How do we rectify this with the need for flashing lights to reduce bird collisions. I believe there has been much work on flashing lighting (by the FAA) since 2017. I believe the latter should take precedence.

Recommendation:

Based on a thorough review of the New Mexico Chapter of the Southern Regional PEIS, NTIA has determined that the analysis remains valid for use in subsequent environmental documents, and the development of an NTIA Record of Decision (ROD) is warranted.



UNITED STATES DEPARTMENT OF COMMERCE  
**National Telecommunications and Information  
Administration**  
Washington, DC 20230

**MEMORANDUM FOR:** Jill A. Springer  
Senior Policy Advisor for Permitting  
Chief Environmental Review and Permitting Officer  
Office of Internet Connectivity and Growth

**FROM:** Andrew Bielakowski                      ANDREW  
Environmental Program Officer              BIELAKOWSKI  
Office of Internet Connectivity and Growth

**SUBJECT:** FirstNet Regional Programmatic Environmental Impact Statement  
Revalidation – Western Region

**DATE:** March 3, 2024

Digitally signed by  
ANDREW BIELAKOWSKI  
Date: 2024.03.03  
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On April, 2017, the First Responder Network Authority published the Final Regional Programmatic Environmental Impact Statement (PEIS) and Record of Decision (ROD) for the Western Region. The National Telecommunications and Information Administration was a Cooperating Agency on the analysis and is conducting this revalidation of the original analysis performed in accordance with requirements for reevaluation of programmatic documents older than 5 years in Section 108 of the National Environmental Policy Act, as amended by the Fiscal Responsibility Act of 2023. This revalidation will describe any changes to the proposed action, regulatory setting, or areas of concern or sensitivity identified in the original PEIS analysis and determine whether NTIA may still rely on it for purposes of subsequent environmental documents.

*Changes in Environmental Setting:*

Because these documents were published in 2017, it is obvious that most information that pertains to data, numbers, or statistics are out of date. I am not sure how important updates such as these will be to any decision that needs to be made, but it is something to consider. For example, socioeconomic numbers easily change yearly, but it is unclear whether that will significantly change a decision regarding this resource area.

Although infrastructure has logically expanded since 2017, especially in broadband, the point of this program is that it has not expanded enough. Although the focus of the PEISs was mainly towers, the reports do take into consideration fiber, although to a lesser extent. This section is probably adequate.

Soils and geology are things that do not often change, so I expect that these should be adequate.

The definition of Waters of the United States has changed multiple times since 2017, and the current definition is different than what it was in 2017. This could include or exclude (more likely exclude) more waterbodies than previously. Given that waterbody/wetland identification is a

project-specific action that would be needed regardless of programmatic results, this change should not necessarily affect a decision, although the revisions are suggested.

The impaired waterbodies section may need to be updated as more waterbodies may have been added or waterbodies removed from the 303(d) list.

The approaches used for identification of floodplains for federally funded projects has changed to those FFRMS-established. This should be taken into consideration. Given that floodplain identification is a project-specific action that would be needed regardless of programmatic results, this change should not necessarily affect a decision, although the revisions are suggested.

The threatened and endangered species and invasive species lists have changed since 2017 and should be updated. Given that species identification is a project-specific action that would be needed regardless of programmatic results, this change should not necessarily affect a decision.

Landuse, recreation, and airspace may have changes and updates, but it is unlikely that these would significantly affect a decision. The ability to be consistent with a given land use is project-specific and should be determined before any project is proposed in a designated land. Therefore, it is unlikely that this should affect a decision.

It is doubtful that visual resources require major changes that would affect a decision.

As discussed above, socioeconomics numbers are not up to date, but it probably will not change anything that would affect a decision. However, some of the approaches to identify and determine EJ communities have changed with the focus of CEQ and subcommittees. It might be warranted to update these sections using these approaches, given the focus of this resource area by the administration. However, given the nature of NTIA's programs and projects, most would be done as a benefit to EJ communities, so these updates may not affect a decision.

The cultural sections are at a high-level and cannot identify all resources in a given state and probably should not given the sensitive nature of some of these resources. One update that may be warranted for ocean bound states is the inclusion of shipwrecks using either DAHP or NOAA's databases. Given that cultural resource identification is a project-specific action that would be needed regardless of programmatic results, this change should not necessarily affect a decision.

Air attainment areas might have changed as well as noise ordinances; however, as the document shows, it is unlikely that NTIA's type of projects would reach levels to impact either resource area. Similarly, climate change has been exacerbated, although, similarly whether it be the effects from the projects or effects to the projects by climate events, these updates should not affect a decision.

The human health and safety sections may require updates to the number and locations of hazardous waste sites as more may have been added or remediated; however, these updates are not likely to affect a decision.

*Changes in Environmental Circumstances:*

Major laws/regs/approaches that have changed that would be discussed here are integrated in my discussions above.

*Changes to Environmental Impacts of the Project:*

As discussed above, the PEISs focus on towers and less on fiber, which are the majority of our projects. Therefore, the potential for environmental impacts or the lack thereof related to fiber could be discussed in greater detail.

Additionally, for all of the items discussed above regarding changes in the environmental setting sections, there may be some trickle-down discussions required in the environmental impacts section. However, it is not expected that these changes would affect a decision.

*Changes to Avoidance, Minimization, Mitigation Measures, or Best Management Practices:*

As discussed above, the PEISs focus on towers and less on fiber, which are the majority of our projects. Therefore, mitigation measures and BMPs could be discussed in greater detail regarding fiber using our 2+ recent year experience on these projects. Again, as discussed above, submarine cables are a larger part of our portfolio than probably planned. For example, we could include additional information from our experience with NOAA/NMFS and the EFH BMPs and/or our consultation regarding marine mammals and T&E species consultations.

Recommendation:

Based on a thorough review of the Western Regional PEIS, NTIA has determined that the analysis remains fairly valid for use in subsequent environmental documents but should be updated to address the comments and themes above. If the document's analysis is going to be used to make a decision and result in a truncation of natural resource areas that need to be analyzed for future NTIA programs/projects, then the analysis in these documents needs to be up to date at the time of any decision. With these updates, the development of an NTIA Record of Decision (ROD) should be warranted.



UNITED STATES DEPARTMENT OF COMMERCE  
**National Telecommunications and Information  
Administration**  
Washington, DC 20230

**MEMORANDUM FOR:** Jill A. Springer  
Senior Policy Advisor for Permitting  
Chief Environmental Review and Permitting Officer  
Office of Internet Connectivity and Growth

**FROM:** Suzanne B. Derrick  
Environmental Program Officer  
Office of Internet Connectivity and Growth

**SUBJECT:** FirstNet Regional Programmatic Environmental Impact Statement  
Revalidation – Central Region

**DATE:** February 24, 2024

**Suzanne  
Derrick**

Digitally signed by  
Suzanne Derrick  
Date: 2024.07.22  
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On September 1, 2017, the First Responder Network Authority published the Final Regional Programmatic Environmental Impact Statement (PEIS) and Record of Decision (ROD) for the Central Region. The National Telecommunications and Information Administration was a Cooperating Agency on the analysis and is conducting this revalidation of the original analysis performed in accordance with requirements for reevaluation of programmatic documents older than 5 years in Section 108 of the National Environmental Policy Act, as amended by the Fiscal Responsibility Act of 2023. This revalidation will describe any changes to the proposed action, regulatory setting, or areas of concern or sensitivity identified in the original PEIS analysis and determine whether NTIA may still rely on it for purposes of subsequent environmental documents.

*Changes in Environmental Setting:* Changes in environmental setting, e.g., new development affecting sensitive resources.

Since the 2017 publication of the Central Region's PEIS, there have been minor changes in the environmental setting including population change and shifts among the major cities; increased participation in FEMA's Community Rating System; changes to the number of species listed as Species in Greatest Conservation Need (SGCN); to the invasive species lists, threatened and endangered species lists; changes in land use coverage type; changes in the numbers of public and private airports; additional identified historic properties, etc. However, none of these changes invalidates the PEIS for use in the development of environmental documents for NTIA's review of environmental effects.

*Question: I can't find documentation of significant, quantifiable changes to the environmental circumstances that were discussed in the PEIS. Generally speaking, continued climate change (increases in average temperature and severe weather events, warming oceans), decreasing air quality and water quality, shortages in water supply, rising sea level, and increases in wildfires can be*

*considered to be changes in environmental circumstances that have continued to occur globally and across the United States since 2017. The central region in general, or portions of the region, may be at least somewhat directly impacted by these except for rising sea levels. I just can't find evidence that the changes in these intervening six years is statistically significant or what the effects to the reviewed environmental categories might be. If I am looking at this through too wide a lens, please let me know.*

*Changes in Environmental Circumstances:*

Since the 2017 publication of the PEIS there have been some change in the federal regulatory landscape that Deloitte has outlined in their table. State regulations for the different environmental categories included in the PEIS appear not have changed significantly *but each state broadband office will update as necessary (right?)*

Designated in 2021, the Wisconsin Shipwreck Coast National Marine Sanctuary provides stewardship for our nation's maritime heritage in Lake Michigan. <https://sanctuaries.noaa.gov/wisconsin/> Marine installation of fiber optic cables could be required to consider impacts to this sanctuary. A list of all sanctuaries and proposed sanctuaries can be found here - <https://www.noaa.gov/general-counsel/gc-international-section/submarine-cables-domestic-regulation>

New Threatened and Endangered Species listed since 2017 for the Central Region include:

Scientific Name	Common Name
<b>Bombus affinis</b>	<b>Bumble bee, Rusty patched (Wherever found)</b>
Lednia tumana	Stonefly, meltwater lednian (Wherever found)
Zapada glacier	Stonefly, western glacier (Wherever found)
Cryptobranchus alleganiensis alleganiensis	Hellbender, Eastern (Missouri DPS)
Macrhybopsis tetranema	chub, Peppered (Wherever found)
Tympanuchus pallidicinctus	Prairie-chicken, lesser (Northern DPS)
Tympanuchus pallidicinctus	Prairie-chicken, lesser (Southern DPS)
Cyprogenia aberti	Fanshell, western (Wherever found)
<b>Fusconaia subrotunda</b>	<b>Longsolid (Wherever found)</b>
<b>Obovaria subrotunda</b>	hickorynut, Round (Wherever found)
<b>Hemileuca maia menyanthevora (=H. iroquois)</b>	<b>moth, bog buck (Wherever found)</b>
Faxonius peruncus	Crayfish, Big Creek
Faxonius quadruncus	Crayfish, St. Francis River
Pinus albicaulis	Pine, whitebark (Wherever found)
Donrichardia macroneuron	moss, South Llano Springs (Wherever found)
Gulo gulo luscus	Wolverine, North American (Wherever found)

Species that have changed status since 2017:

Echinocereus fendleri var. kuenzleri	Cactus, Kuenzler hedgehog
Sclerocactus brevihamatus ssp. Tobuschii	Cactus, Tobusch fishhook
Swallenia alexandrae	Grass, Eureka Dune
Trichechus manatus	Manatee, West Indian



**Myotis septentrionalis****Bat, Northern long-eared**

## Candidate Species post 2017

Celeus galeatus	Woodpecker, Helmeted
Dendrocopos noguchii	woodpecker, Okinawa
Scytalopus novacapitalis	Tapaculo, Brasilia
Cyanoramphus malherbi	Parakeet, orange-fronted
Haematopus chathamensis	Oystercatcher, Chatham Island
Mulinia coloradoensis	clam, Colorado delta
<b>Danaus plexippus</b>	<b>butterfly, Monarch</b>
Tangara peruviana	Tanager, black-backed
Aulacorhynchus huallagae	Toucanet, yellow-browed
Strepera graculina crissalis	Currawong, Lord Howe pied
Eurytides marcellinus	butterfly, Jamaican kite swallowtail
Porphyrio hochstetteri	Takahe
Zosterops luteirostris	White-eye, Ghizo
Rallus semiplumbeus	Rail, Bogota
Teinopalpus imperialis	Butterfly, Kaiser-I-Hind swallowtail
Oncorhynchus clarkii virginalis	Trout, Rio Grande cutthroat

## Species under consideration:

Southern Plains bumble bee  
 Pygmy rabbit  
 Eastern hellbender

*Changes to Environmental Impacts of the Project:* Changes to environmental impacts of the project, e.g., a new type of impact, or a change in the magnitude of an existing impact.

NTIA grants appear to be funding a higher proportion of fiber installations versus towers when compared to FirstNet's actions. The PEIS discussed the impacts of various fiber installations but appears to focus on nearshore impacts.

*Question: Since the program focuses more on fiber deployment than FirstNet did, should we supplement the discussion for the consideration of potential effects of Noise, Vibration and Electromagnetic effects with marine installations?*

*Changes to Avoidance, Minimization, Mitigation Measures, or Best Management Practices: Amanda, you mentioned a BMP analysis has been conducted by Deloitte team. I am not able to find that but here are two areas that I think can be beefed up, but otherwise the measures seem to translate well to NTIA's grantee's actions.*

Chapter 19, Page 19-24 has limited BMPs for submarine cables. The document at the link below, dated 2018, has additional BMP for submarine cable installation -

<https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/submarine-cables-in-olympic-coast-nms.pdf>

Chapter 19 (BMPs for the Central Region), Page 19-30 and 31, add direction bore as a method to avoid effects to archaeological historic properties.

Recommendation:

Based on a thorough review of the Central Region PEIS, NTIA has determined that the analysis remains valid for use in subsequent environmental documents, and the development of an NTIA Record of Decision (ROD) is warranted.