

DRAFT

**ENVIRONMENTAL ASSESSMENT OF
NORTHERN BORDER
REMOTE VIDEO SURVEILLANCE SYSTEM PROJECT
SWANTON SECTOR
PHASE I**

**U.S. BORDER PATROL
U.S. CUSTOMS AND BORDER PROTECTION
DEPARTMENT OF HOMELAND SECURITY
WASHINGTON, D.C.**

February 2021

EXECUTIVE SUMMARY

Introduction

U.S. Customs and Border Protection (CBP) proposes to construct, operate, and maintain relocatable and permanent Remote Video Surveillance Systems (RVSS) towers, and the collocation of equipment on existing equipment and buildings to provide long-term, permanent surveillance in the USBP Swanton Sector. With the RVSS, CBP can maintain surveillance over large areas, contributing to agent safety, and increasing operational effectiveness as they detect, identify, and classify incursions/illegal entry and resolve the incursions with the appropriate level of response.

Purpose and Need

There are currently areas along the U.S./Canada border in the Swanton Sector Area of Responsibility where cross-border violators smuggle goods across the border along remote trails and roads. CBP proposes to improve the USBP's efficiency of detection, identification, and apprehension of cross-border violators through the installation of RVSSs. The systems enable U.S. Border Patrol's (USBP) agents to survey rural and remote areas and identify and classify illegal entries without committing numerous agents in vehicles to perform the same functions. The increasing frequency and nature of illegal cross-border activities, as well as the geographic area over which these activities occur, create a need for a technology-based surveillance capability that can effectively collect, process, and distribute information.

Proposed Action and Alternatives Considered

CBP proposes to construct, operate, and maintain relocatable and permanent RVSS towers, and the collocation of equipment on a commercial cell tower to provide long-term, permanent surveillance in the USBP Swanton Sector.

Alternative 1: No Action Alternative

Construction of the proposed RVSS sites and the co-location sites would not occur and there would be the continuation of current practices and procedures. Surveillance, visual detection, and situational awareness would not be enhanced within the area covered by the proposed RVSS sites. The operational efficiency (interdiction of cross - border violators) and effectiveness of the USBP would not be increased in the area covered by the proposed surveillance sites. Without the 24/7 surveillance capability, there is the probability that cross-border violations will increase.

Alternative 2: Proposed Action

CBP would construct, operate, and maintain relocatable tower, permanent RVSS towers, and co-located equipment on a commercial cell tower to provide long-term, permanent surveillance in the USBP Swanton Sector. Each RVSS tower would be equipped with a suite of sensors and/or communications equipment. RVSS technology provides USBP officers with the capabilities to perform their border security mission, improve mission effectiveness, operational awareness, and USBP officer safety. The goal is to provide USBP with enhanced surveillance and detection capabilities to secure the U.S./Canada border within the USBP Swanton Sector Area of Responsibility (AoR).

Alternatives Considered but Eliminated from Further Consideration

Unattended ground sensors, increased agent patrols, and aerial surveillance were considered as alternatives, but were eliminated from further review. Although these alternatives or a combination of these alternatives can be valuable tools, they were eliminated because of logistical restrictions and/or functional deficiencies and would fail to meet the purpose and need for this project.

Affected Environment and Consequences

Table ES-1. Comparison of Alternatives and Resource Impacts

Resource	No Action Alternative	Alternative 1
Land Use	No impacts anticipated	Permanent, minor impacts on the land use in 100 ft. x 100 ft. footprint
Surface Waters and Waters of the US	No impacts anticipated	Short term, negligible impacts during construction
Vegetation	Short term, recoverable impacts from CBVs	Short term, minor impacts on common, local vegetation
Wildlife	Short term, recoverable impacts from CBVs	Long term, minor impacts on common local wildlife and habitat
Threatened and Endangered Species	Short term, recoverable impacts from CBVs	Long term, minor impacts on Northern Long-eared Bats and habitat, if present
Cultural Resources	Negligible impacts on NRHP-eligible or listed cultural resources	Negligible impacts on NRHP-eligible or listed cultural resources
Utilities and Infrastructure	No impacts anticipated	Minor, long term effects on the availability of utilities in the ROI
Aesthetics and Visual Resources	No impacts anticipated	Negligible to minor impacts

Findings and Conclusions

Based on the analysis discussed in Section 4 of this EA, the proposed action would have no significant adverse impacts on the existing natural or built environment. This EA supports a Finding of No Significant Impact (FONSI) for the proposed action. Accordingly, preparation of an Environmental Impact Statement is not required.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION 1-1

1.1 Introduction..... 1-1

1.2 Background 1-1

1.3 Purpose of the Proposed Action..... 1-1

1.4 Need for the Proposed Action 1-1

1.5 Scope of Environmental Analysis and Decision to Be Made..... 1-2

1.6 Environmental Review and Consultation Requirements..... 1-4

1.7 Public Involvement 1-4

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES..... 2-1

2.1 Description of the Proposed Action..... 2-1

 2.1.1 RVSS Project Components 2-1

 2.1.2 Alternative Site Selection Criteria Meeting NEPA Considerations 2-7

 2.1.3 Alternative Site Selection Criteria Meeting Project Operational Requirements 2-7

2.2 Description of Alternatives Carried Forward for Analysis 2-7

 2.2.1 Alternative 1: No Action Alternative..... 2-7

 2.2.2 Alternative 2: Preferred Alternative..... 2-8

2.3 Alternatives Considered and Eliminated from Detailed Analysis..... 2-8

 2.3.1 Unattended Ground Sensors Alternative 2-8

 2.3.2 Increased CBP Workforce Alternative 2-8

 2.3.3 Increased Aerial Reconnaissance Alternative..... 2-9

 2.3.4 Mobile Surveillance Systems..... 2-9

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES 3-1

3.1 Preliminary Impact Scoping..... 3-1

3.2 Impact Topics Eliminated From Further Discussion 3-1

3.3 Land Use 3-4

 3.3.1 Alternative 1: No Action Alternative..... 3-6

 3.3.2 Alternative 2: Preferred Alternative..... 3-6

3.2 Surface Waters and Waters of the United States..... 3-6

 3.2.1 Alternative 1: No Action Alternative..... 3-8

 3.2.2 Alternative 2: Preferred Alternative..... 3-9

3.3 Vegetation 3-9

 3.3.1 Alternative 1: No Action Alternative..... 3-10

 3.3.2 Alternative 2: Preferred Alternative..... 3-11

3.4 Wildlife Resources 3-11

 3.4.1 Alternative 1: No Action Alternative..... 3-12

 3.4.2 Alternative 2: Preferred Alternative..... 3-12

3.5 Threatened and Endangered Species 3-13

 3.5.1 Alternative 1: No Action Alternative..... 3-13

3.5.2	Alternative 2: Preferred Alternative.....	3-14
3.6	Cultural Resources.....	3-14
3.6.1	Alternative 1: No Action Alternative.....	3-18
3.6.2	Alternative 2: Preferred Alternative.....	3-18
3.7	Utilities and Infrastructure	3-19
3.7.1	Alternative 1: No Action Alternative.....	3-21
3.7.2	Alternative 2: Preferred Alternative.....	3-21
3.8	Aesthetic and Visual Resources	3-21
3.8.1	Alternative 1: No Action Alternative.....	3-26
3.8.2	Alternative 2: Preferred Alternative.....	3-26
4.0	MITIGATION MEASURES	4-1
5.0	REFERENCES.....	5-1
6.0	ACRONYMS AND ABBREVIATIONS.....	6-1
7.0	LIST OF PREPARERS.....	7-1

LIST OF FIGURES

Figure 1-1. Northern Border RVSS Swanton Sector – Champlain, Richford, and
Newport Areas of Responsibility..... 1-3
Figure 2-1. Proposed RVSS Tower Regional Area Overview Map and Site Locations 2-2

LIST OF TABLES

Table ES-1. Comparison of Alternatives and Resource Impacts.....ES-1
Table 1-1. Summary of Guidance, Statutes and Relevant Regulations Including
Compliance Requirements 1-5
Table 2-1. Proposed Tower Information..... 2-10
Table 3-1. Surface Waters and Waters of the US at the Proposed Tower Sites 3-7
Table 3-2. Vegetation Present at Proposed Tower Locations..... 3-9
Table 3-3. Cultural Resources Identified within the APEs..... 3-16
Table 3-4. Section 106 Consultation and Concurrence with Determinations of Effect..... 3-19
Table 3-5. Aesthetic and Visual Resources RVSS Tower Settings, Existing Visual
Elements, and Sector Descriptions 3-23
Table 3-6. Aesthetic and Visual Resources Sector Impacts 3-27

LIST OF PHOTOGRAPHS

Photograph 2-1. Typical Northern Border RVSS Lattice Tower 2-4
Photograph 2-2. Typical RVSS Monopole Tower..... 2-5
Photograph 2-3. Typical RVSS Relocatable Tower 2-6

APPENDICES

Appendix A: Supporting Technical Information

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The Department of Homeland Security (DHS) is charged with managing, securing, and controlling the Nation's borders with a priority mission focus of preventing terrorists and terrorist weapons from entering the United States.

The U.S. Customs and Border Protection (CBP), formed in 2003 as a part of the DHS, is responsible for guarding nearly 7,000 miles of land border that the United States shares with Canada and Mexico and 2,000 miles of coastal waters. The CBP's mission is to establish and maintain effective control of air, land, and maritime borders through the use of the appropriate mix of infrastructure, technology, and personnel. Border security depends on the successful implementation of personnel, intelligence, tactical infrastructure, and technology.

As part of the CBP law enforcement strategy, the U.S. Border Patrol's (USBP) priority mission is the prevention of "terrorists and terrorist weapons, including weapons of mass destruction, from entering the United States" (CBP 2012).

1.2 BACKGROUND

To support the USBP, CBP employs systems referred to as the Remote Video Surveillance Systems (RVSS). The RVSS have been deployed since 1996 by the USBP for surveillance along the United States' borders with Canada and Mexico.

1.3 PURPOSE OF THE PROPOSED ACTION

The purpose of the proposed action is to improve the USBP's efficiency of detection, identification, and apprehension of cross-border violators (CBVs), which are defined as persons and/or goods entering the United States without the proper documentation.

The RVSS are intended to provide remote, all weather, video surveillance and detection systems, consisting of day and night motion imagery cameras with remote-pointing control operated from a USBP station. The systems enable USBP agents to survey rural and remote areas and identify and classify illegal entries without committing numerous agents in vehicles to perform the same functions.

1.4 NEED FOR THE PROPOSED ACTION

The increasing frequency and nature of illegal cross-border activities, as well as the geographic area over which these activities occur, create a need for a technology-based surveillance capability that can effectively collect, process, and distribute information.

With the RVSS, USBP can maintain surveillance over large areas, contributing to agent safety, and increasing operational effectiveness as they detect, identify, and classify incursions/illegal entry and resolve the incursions with the appropriate level of response.

There are currently areas along the U.S./Canada border in the Swanton Sector's Champlain, Newport, Richford, and Swanton stations Area of Responsibility (AoR) (Figure 1-1) where CBVs smuggle goods across the border along remote trails and roads.

1.5 SCOPE OF ENVIRONMENTAL ANALYSIS AND DECISION TO BE MADE

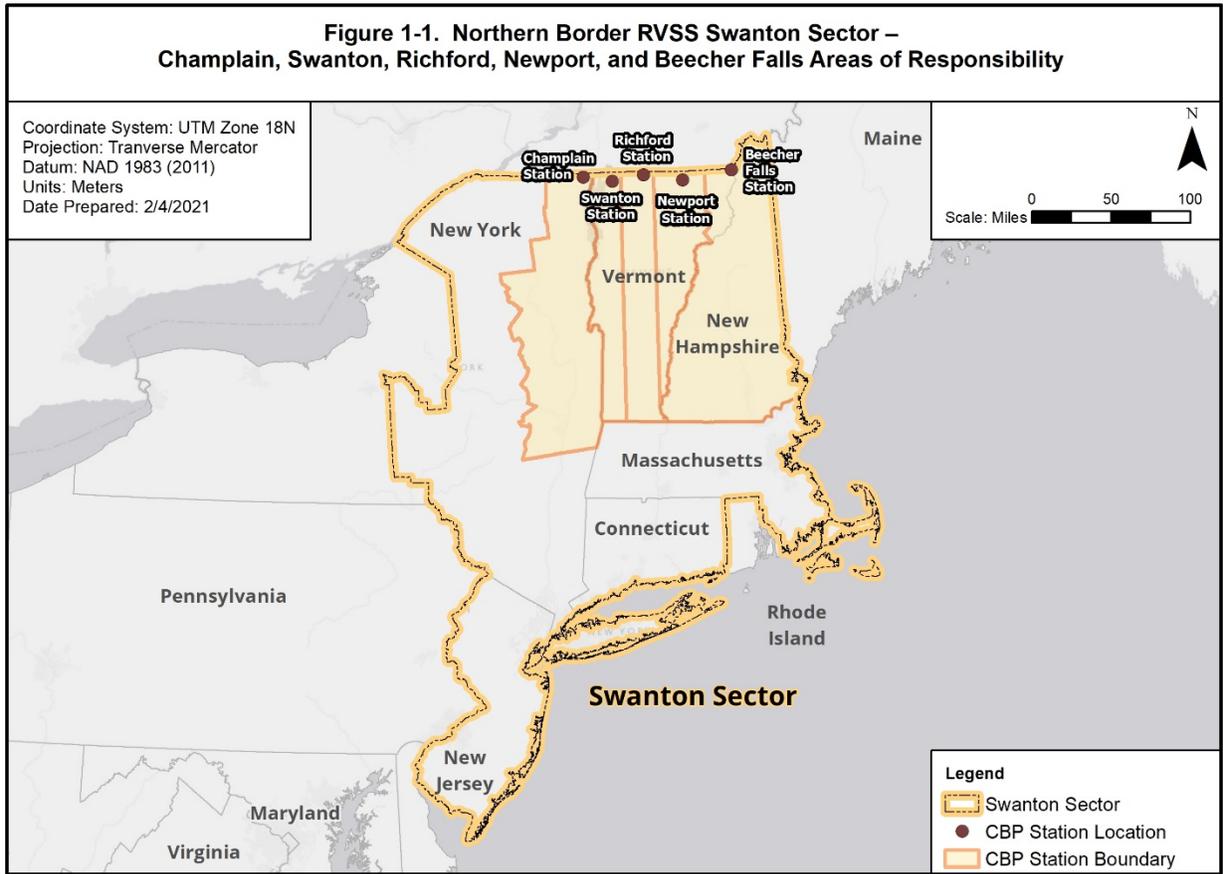
The environmental assessment will analyze the potential impacts on the natural, social, economic, and physical environment resulting from the construction, installation, operation, and maintenance of four new RVSS towers and one location where USBP equipment would be co-located with an existing, commercial tower within the USBP Swanton Sector. The Swanton Sector AoR encompasses some 24,000 square miles and includes all of the state of Vermont; Clinton, Essex, Franklin, St. Lawrence, Hamilton, and Herkimer Counties of New York; and Coos, Grafton, and Carroll Counties of New Hampshire (Figure 1-1). A description of the proposed action and alternatives is provided in Chapter 2.0 of this Environmental Assessment (EA).

A description of the affected environment and analysis of the potential impacts on physical and biological resources is provided in Chapter 3.0 of this EA. Impacts on the following resources were identified as potential issues of concern during the internal scoping process or were raised during the agency scoping process (see Section 1.6) and will be analyzed concerning the proposed action and the No Action Alternative:

- Land Use
- Vegetation
- Wildlife
- Threatened and Endangered Species
- Surface Waters and Waters of the US
- Cultural Resources
- Utilities and Infrastructure
- Aesthetic and Visual Resources

The EA will document the significance of the environmental effects of the proposed action and will consider alternative means to achieve project objectives. The EA will allow decision makers to determine if the proposed action would or would not have a significant impact on the natural, social, and human environment; and if the proposed action can proceed to the next phase of project development or if an Environmental Impact Statement is required. The EA also allows for input and comments on the proposed action from the concerned public and interested government agencies to assist in agency decision making.

Figure 1-1. Northern Border RVSS Swanton Sector – Champlain, Richford, and Newport Areas of Responsibility



1.6 ENVIRONMENTAL REVIEW AND CONSULTATION REQUIREMENTS

The EA was developed in accordance with the National Environmental Policy Act (NEPA), regulations issued by the Council on Environmental Quality (CEQ) published in 40 Code of Federal Regulations (CFR) Parts 1500-1508, DHS Directive (Dir.) 023-01, Revision Number: 01 (*Implementation of the National Environmental Policy Act*) and DHS Instruction Number: 023-01-001-01, Revision: 01 [*Instruction Manual on Implementation of the National Environmental Policy Act (NEPA)*], and other pertinent environmental statutes, regulations and compliance requirements (Table 1-1). The EA will be the vehicle for compliance with all applicable environmental statutes, such as the Endangered Species Act (ESA) of 1973, 16 U.S.C. Part §1531 et seq, as amended and the National Historic Preservation Act (NHPA) of 1966, 16 U.S.C. §470a et seq., as amended.

Pursuant to 40 CFR § 1508.1(ff), the proposed action is tiered from CBP's, Final Programmatic Environmental Impact Statement for Northern Border Activities ("Northern Border PEIS") (July 2012), which is hereby incorporated by reference. The Northern Border PEIS preferred alternative is the Detection, Inspection, Surveillance, and Communications Technology Expansion Alternative. According to the Record of Decision (ROD) for Northern Border Activities (April 2013), this alternative focuses on "deploying more and better technologies to support CBP's detection, inspection, and surveillance capabilities and operational communications" and includes continuing the deployment of RVSS along the northern border of the United States. The ROD is also hereby incorporated by reference. Both the PEIS and ROD remain valid.

1.7 PUBLIC INVOLVEMENT

In accordance with 40 C.F.R. §1501.9, 1503 and 1506.6, CBP initiated public involvement and agency scoping activities to identify significant issues related to the proposed action. CBP is consulting and will continue to consult with appropriate local, state, and Federal government agencies and the St. Regis Mohawk Tribe throughout the EA process.

A public review and comment period is being initiated for this draft environmental assessment. Interested agencies, organizations, Native American tribes, and members of the public are invited to submit comments on all aspects of this draft environmental assessment. All relevant comments will be considered in preparing the final environmental assessment. To facilitate consideration and response to comments, it is critical that comments be as specific as possible and clearly state concerns or recommendations related to the issues addressed in this draft environmental assessment.

Table 1-1. Summary of Guidance, Statutes and Relevant Regulations Including Compliance Requirements

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance
Archaeological Resources Protection Act of 1979 16 United States Code (USC) § 470 et seq.	Department of Interior	Excavation, removal, damage, or other alteration or defacing; or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands 43 Code Federal Regulations (CFR) 7.4	Because activities are exclusively for purposes other than the excavation and/or removal of archaeological resources, even though those activities might incidentally result in the disturbance of archaeological resources, no permit shall be required
Clean Air Act of 1963 16 USC § 470 et seq.	Environmental Protection Agency (USEPA)	Any Federal action where the total emissions in a non-attainment area would equal or exceed the provided rates 40 CFR 51	Project emission levels were determined to be less than <i>de minimis</i> thresholds; therefore, a determination of conformity with applicable implementation plan is not required
Comprehensive Environmental Response, Compensation and Liability Act of 1980 42 USC § 9601 et seq.	USEPA	Release or threatened release of a hazardous substance 40 CFR 302	Development of emergency response plans, notification, and cleanup
Endangered Species Act (ESA) of 1973 16 USC § 1531 et seq.	United States Fish and Wildlife Service (USFWS)	All Federal actions in which there is discretionary involvement or control potentially impacting species listed under the ESA 50 CFR 402.03	Determination of no jeopardy to listed species and no destruction or adverse modification of critical habitat through consultation with the USFWS
Farmland Protection Policy Act of 1981 7 USC § 9601 et seq.	Natural Resources Conservation Service	Any Federal action that impacts prime or unique farmland soils 7 CFR 658	Identify and take into account the adverse effects on the protection of prime or unique farmland

Table 1-1. Summary of Guidance, Statutes and Relevant Regulations Including Compliance Requirements, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance
Federal Water Pollution Control Act of 1977 (also known as Clean Water Act or CWA) 33 USC § 1251 et seq.	USEPA	Storage, use, or consumption of oil and oil products, which could discharge oil in quantities that could affect water quality standards, into or upon the navigable waters of the U.S. 40 CFR 112	Preparation of a Spill Prevention, Control, and Countermeasures Plan
Federal Water Pollution Control Act of 1977 (also known as Clean Water Act or CWA) 33 USC § 1251 et seq.	USEPA	Discharge of pollutants that could impact surface water or groundwater 40 CFR 122	Obtain a general National Pollutant Discharge Elimination System (NPDES) Permit
Federal Water Pollution Control Act of 1977 (also known as Clean Water Act or CWA) 33 USC § 1251 et seq.	USEPA, US Army Corps of Engineers (USACE)	Excavation, fill or discharge of materials into wetlands 40 CFR 230 § 404	Identification of wetlands and application for permit, if necessary
Migratory Bird Treaty Act of 1918 16 USC § 703	USFWS	Any CBP action resulting in the take of any migratory bird, or the parts, nests, or eggs of such bird 50 CFR 21.11	Avoidance of take or application for permit
National Historic Preservation Act of 1966, as amended 54 U.S.C. § 300101 et seq.	Advisory Council on Historic Preservation	Any Federal undertaking that could impact cultural resources 36 CFR 800.3	Assessment of effects through consultation with the Advisory Council on Historic Preservation

Table 1-1. Summary of Guidance, Statutes and Relevant Regulations Including Compliance Requirements, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance
Occupational Health and Safety Act of 1970 29 USC § 651 et seq.	Occupational Safety and Health Administration, Department of Labor	Employees performing in a workplace 29 CFR 1910.5 (a)	Adherence to occupational health and safety standards
Resource Conservation and Recovery Act (RCRA) of 1976 42 USC § 6901 et seq.	USEPA	Collection of residential, commercial, and institutional solid wastes and street wastes 40 CFR 243	Adherence to guidelines for waste storage and safety and collection equipment, frequency, and management
(RCRA of 1976 42 USC § 6901 et seq.	USEPA	Procurement of more than \$10,000 annually of products containing recovered materials 40 CFR 247	Procure designated items composed of the highest percentage of recovered materials practicable
RCRA of 1976 42 USC § 6901 et seq.	USEPA	Recovery of resources from solid waste through source separation 40 CFR 246	Recovery of high-grade paper, residential materials, and corrugated containers
RCRA of 1976 42 USC § 6901 et seq.	USEPA	Treatment, storage, or disposal of hazardous waste on-site 40 CFR 262.10(c)	Determination of hazardous or non-hazardous nature of solid waste, obtain an EPA identification number if necessary, properly accumulate hazardous waste, and maintain a record

Table 1-1. Summary of Guidance, Statutes and Relevant Regulations Including Compliance Requirements, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance
Executive Order (EO) 11988: Floodplain Management 42 Federal Register (FR) 26,951 (May 24, 1977)	Water Resources Council, Federal Emergency Management Agency	Acquisition and management of Federal lands; Federally undertaken, financed, or assisted construction; conducting Federal activities affecting land use in a floodplain	Determine whether the proposed action will occur in a floodplain, then evaluate potential effects of any action in a floodplain
Safe, efficient use, and preservation of the navigable airspace CFR Title 14 Part 77	FAA	Standards for determining obstructions to air navigation or navigational aids or facilities	Filing with the FAA for proposed structures varies based on a number of factors including: height, proximity to an airport, location, and frequencies emitted from the structure
EO 11990: Protection of Wetlands 42 FR 26,691 (May 24, 1977)	USACE, USEPA	Acquisition and management of Federal lands; Federally undertaken, financed, or assisted construction; conducting Federal activities affecting wetlands	Take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands
EO 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations 59 FR 7629 (February 11, 1994)	USEPA	All programs or activities receiving Federal financial assistance that affect human health or the environment	Analyze the environmental effects, including human health, economic, and social effects of CBP actions, including effects on minority communities and low-income communities
EO 13045: Protection of Children from Environmental Health Risks and Safety Risks 62 FR 19883 (April 23, 1997)	USEPA	Any Federal action potentially affecting health and safety of children	Identify and assess environmental health risks and safety risks that may disproportionately affect children

Table 1-1. Summary of Guidance, Statutes and Relevant Regulations Including Compliance Requirements, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance
EO 13423: Federal Environmental, Energy, and Transportation Management 72 FR 3919 (January 26, 2007)	USEPA, Department of Energy (DOE)	Acquisition planning, development of procurement programs, operation of a Federal facility	Incorporate waste prevention and recycling in the agency’s daily operations and work to increase and expand markets for recovered materials through greater Federal Government preference and demand for such products
EO 13514: Federal Leadership in Environmental, Energy, and Economic Performance 74 FR 52117 (October 8, 2009)	CEQ	Construction, operation, and maintenance of a Federal facility; aircraft operations and worker commutes	Increase energy efficiency; measure, report, and reduce greenhouse gas emissions from activities; conserve and protect water resources through efficiency, reuse, and stormwater management; eliminate waste, recycle, and prevent pollution; design, construct, maintain, and operate high performance sustainable buildings in sustainable locations

CBP is coordinating with the following agencies and federally recognized Native American tribes:

Federal Agencies:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Environmental Protection Agency (USEPA)
- U.S. Army Corps of Engineers (USACE)
- U.S. Geological Survey (USGS)
- Federal Aviation Administration (FAA)

State Agencies:

- New York State Department of Environmental Conservation
- New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP)
(which contains the State Historic Preservation Office [SHPO])
- New York State Division for Historic Preservation
- Vermont Fish and Wildlife Department (F&W)
- Vermont Division for Historic Preservation (which contains the SHPO)

Native American Nations/Tribes:

- St. Regis Mohawk Tribe

Towns/Villages:

- Champlain, New York
- Derby, Vermont
- Derby Line, Vermont
- North Troy, Vermont

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This chapter discusses the proposed action and alternatives, and provides detail about the components of the proposed action. It also presents the criteria used to determine whether alternatives were reasonable and, therefore, should be carried forward for analysis.

2.1 DESCRIPTION OF THE PROPOSED ACTION

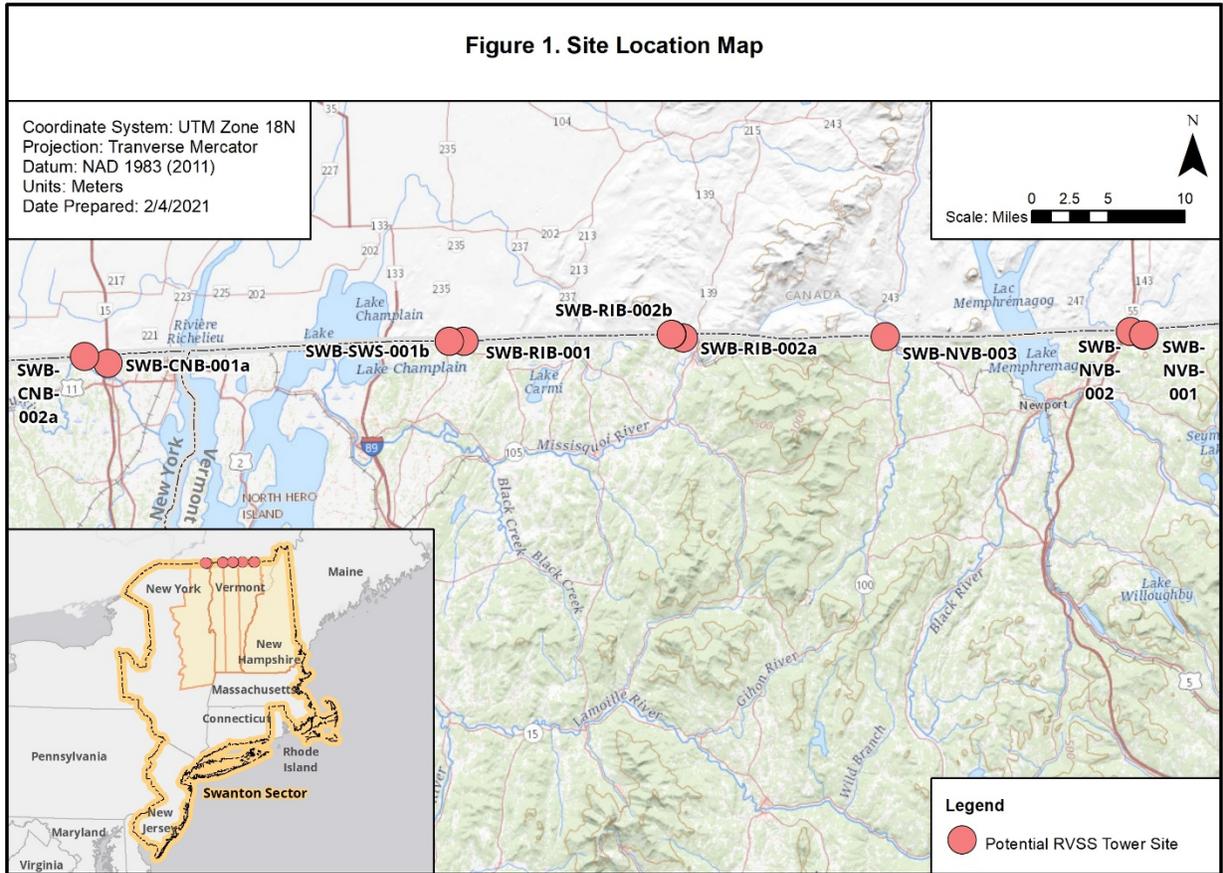
The proposed action includes the construction, operation, and maintenance of relocatable and permanent RVSS towers, and the colocation of equipment on an existing building or equipment to provide long-term, permanent surveillance in the USBP Swanton Sector. Each RVSS tower would be equipped with a suite of sensors and/or communications equipment. These activities are required to support the border security mission of the USBP with advanced capabilities of border surveillance, detection, and interdiction. CBP has proposed RVSS as the technology platform to provide USBP officers with the capabilities to perform this border security mission, and at the same time, improve mission effectiveness, operational awareness, and USBP officer safety.

The goal of the proposed action is to provide USBP with enhanced surveillance and detection capabilities to secure the U.S./Canada border within the area of responsibility of the USBP Swanton Sector.

2.1.1 RVSS Project Components

The typical Northern Border RVSS sensor/communications tower site includes a foundation, tower, information technology (IT) component shelter, utility connections, and other site features, such as fencing. Sites typically measure approximately 50 ft. x 50 ft.

Figure 2-1. Proposed RVSS Tower Regional Area Overview Map and Site Locations



Permanent Towers

Permanent fixed towers can be up to 199 feet tall and be in a lattice (Photograph 2-1) or monopole (Photograph 2-2) structure with a platform at the top. The payload for the tower consists of two camera bundles, each bundle consisting of a remotely controlled pan-tilt-unit (PTU) and two cameras. Towers also typically have two to four microwave communications antennas, which are either 4-foot or 6-foot-diameter dish antennas. With sensors and lightning protection installed, the total height of the tower typically does not exceed 199 feet above ground level (AGL). Construction time for fixed towers is 30-45 days, with a variance due to site conditions.

The primary power source for RVSS towers is commercial grid power. Grid power design is site-specific; however, commercial grid power would be overhead leading up to the permanent disturbed area and then underground where it enters the tower site. The installation of overhead or buried lines at the RVSS tower sites would be placed within surveyed road construction buffer areas, to the extent possible, all of which would be verified to identify potential impacts on biological and cultural resources along access roads. The backup to commercial grid power is battery power. The batteries will be charged by commercial grid power when not being used as the secondary power source.

The IT component shelter is a pre-fabricated unit, measuring approximately 12 ft. x 10 ft. x 9 ft. (or sized as appropriate) and is installed on an appropriately designed and sized foundation at the tower base for racks, equipment, and the site backup power system. Some sites may include aesthetic or other special requirements (e.g. fencing) as imposed by leaseholders or other stakeholders. Protective bollards or parking spaces are generally not required at the tower sites.



Photograph 2-1. Typical Northern Border RVSS Lattice Tower



Photograph 2-2. Typical RVSS Monopole Tower

Relocatable Towers

Relocatable towers (Photograph 2-3) are trailerable and their use is temporary based on the tactical needs of the Border Patrol. The footprint of the relocatable tower is 50 ft. by 50 ft., which includes a non-penetrating security perimeter fence. The relocatable tower can extend to 84 feet. Power is supplied by solar panels with a back-up diesel generator. Installation is generally under 7 days.



Photograph 2-3. Typical RVSS Relocatable Tower

Criteria of Tower Site Selection

Screening criteria were used to assess whether an alternative was “reasonable” and would be carried forward for evaluation in this EA meeting both NEPA and CBP operational/siting requirements.

2.1.2 Alternative Site Selection Criteria Meeting NEPA Considerations

CBP has established the following criteria for determining the selection of alternatives:

1. Meet CBP and USBP mission and operational objectives outlined in Chapter 1;
2. Include sites that meet design and operational criteria for tower and support facilities that is practicable and feasible within reasonable budget parameters;
3. Environmental mitigation meeting regulatory requirements can be accomplished that is practicable and economically feasible.

2.1.3 Alternative Site Selection Criteria Meeting Project Operational Requirements

The RVSS site selection process identifies potentially suitable tower site locations and their alternatives. Key tower site evaluation considerations taken into account are:

1. Constructability,
2. Operability,
3. Real estate availability and,
4. Environmental siting constraint factors.

2.2 DESCRIPTION OF ALTERNATIVES CARRIED FORWARD FOR ANALYSIS

USBP developed a ranking of proposed surveillance sites in the Swanton Sector’s AoR. This priority ranking is based on meeting the purpose and need, the greatest degree of operational effectiveness, and the potential effects on the environment.

2.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, construction of the proposed RVSS sites and the co-location sites would not occur and there would be the continuation of current practices and procedures. Surveillance, visual detection, and situational awareness would not be enhanced within the area covered by the proposed RVSS sites. The operational efficiency (interdiction of cross - border violators) and effectiveness of the USBP would not be increased in the area covered by the proposed surveillance sites under the No Action Alternative.

Without the 24/7 surveillance capability provided by the proposed action there is the probability that cross-border violations will increase.

The purpose and need of this proposed action would not be met with the No Action Alternative. Normal mission operations of the USBP would continue, including patrols, the use of existing surveillance technology and infrastructure maintenance activities. The No Action Alternative

serves as a baseline for the comparison of anticipated effects associated with Alternative 2. Its inclusion in this EA is required by NEPA regulations (40 C.F.R. 1502.14(c)).

2.2.2 Alternative 2: Preferred Alternative

The Preferred Alternative RVSS sites are those locations that the USBP has selected due to the areas having a high level of cross-border violations. Locating RVSS towers at alternative sites will not meet the purpose and need of detecting and reducing CBVs at the targeted locations experiencing high levels of illegal activity in the four station's AoRs.

A total of ten sites are analyzed in the EA: two sites with equipment to be placed on existing infrastructure and eight possible tower locations. Only eight sites can be selected by the decisionmaker. Two of the proposed sites have a secondary option. To ensure no loss of time and expense in the preparation of another EA, these sites are analyzed here, but are not the primary sites. If either of the secondary sites is selected after the preparation of the FONSI, CBP will prepare a revised FONSI noting the revised decision and verifying the analysis in the EA is still current and valid, if applicable.

Some sites have been chosen to have a relocatable tower installed in advance of the fixed tower installation (See Table 2-1). If the decisionmaker selects the Preferred Alternative, they will be choosing to install: relay equipment at two existing locations and six fixed towers; three sites would start with relocatable towers.

2.3 ALTERNATIVES CONSIDERED AND ELIMINATED FROM DETAILED ANALYSIS

Several project elements that included other technology and infrastructure considerations, such as unattended ground sensors, increased agent patrols, and aerial surveillance were considered as alternatives, but were eliminated from further review. Although these alternatives or a combination of these alternatives can be valuable tools that CBP may employ in other instances, they were eliminated because of logistical restrictions and/or functional deficiencies and would fail to meet the purpose and need for this project. These alternatives and reasons for their exclusion from further analysis are discussed below.

2.3.1 Unattended Ground Sensors Alternative

The CBP is currently evaluating unattended ground sensor technology applications to replace existing deployed sensors. Based on testing and evaluation this technology may be applicable to monitor areas of high CBVs. Until this technology is accepted for use in the field other detection technologies will be used to monitor areas of high incidences of CBVs.

2.3.2 Increased CBP Workforce Alternative

Another alternative considered during the preparation of this EA was to have no new RVSS sites and instead to simply increase the number of USBP agents patrolling (via vehicles) the targeted border areas. The targeted areas experience a high level of illegal entries. Due to local topography, elevations, and vegetative cover, individually located agents at discrete border locations in the affected USBP stations' AoRs would not achieve the same level of detection capabilities as provided by the proposed action. Such efforts would require an unacceptably large deployment of

agents in the field at all times and would require a significant increase in agents to obtain a level of effective border surveillance coverage to match a single tower's or camera's persistent surveillance capabilities. Funding and staffing requirements could affect the number of agents available to perform monitoring efforts in the future; therefore, this alternative would not provide a long-term or permanent solution to illegal cross-border activities. This alternative would not meet this project's purpose and need and does not provide the same level of enhanced CBV detection as the proposed action.

2.3.3 Increased Aerial Reconnaissance Alternative

Under this alternative, increased aerial reconnaissance would be used for surveillance to support USBP station operations. CBP would use fixed-wing aircraft and helicopters to perform reconnaissance and detection operations and to support ground patrols.

This alternative was eliminated from further consideration because it does not satisfy the purpose and need of the project. Aerial reconnaissance/operations cannot be used on a 24-hours per-day basis and cannot operate under all weather conditions. Aerial reconnaissance/operations have limited detection capabilities in areas with dense vegetation or varied topography and at nighttime.

2.3.4 Mobile Surveillance Systems

The purpose of the mobile surveillance systems is to provide area surveillance in rural, remote areas over a range of 8 to 12 kilometers. Capabilities are detection, identification, and tracking of items of interest until successfully ending in a law enforcement conclusion.

The CBVs occurring in the Swanton Sector are re-occurring numerous times in known locations. Monitoring these areas using RVSS will provide persistent surveillance in all weather conditions. Mobile Surveillance Systems cannot always provide this adaptability, thus not meeting the purpose and need.

Table 2-1. Proposed Tower Information

Preferred Location	Site Name	Tower Height	Tower Type	City/Twp.	County
✓	SWB-CNB-001a	180'	FT (lattice)	Champlain, NY	Clinton
✓	SWB-CNB-002a	120'	FT (monopole)	Champlain, NY	Clinton
	SWB-SWS-001	120'	RT to FT (monopole)	Highgate, VT	Franklin
✓	SWB-RIB-001	120'	RT to FT (monopole)	Franklin, VT	Franklin
	SWB-RIB-002a	Relocatable to 120'	RT to FT (monopole)	Richford, VT	Franklin
✓	SWB-RIB-002b	Relocatable to 120'	RT to FT (monopole)	Richford, VT	Franklin
✓	SWB-NVB-001	120'	RT to FT (monopole)	Derby, VT	Orleans
✓	SWB-NVB-002	5' pole	None	Derby Line, VT	Orleans
✓	SWB-NVB-003	Relocatable to 120'	RT to FT (monopole)	Troy, VT	Orleans
✓	SWB-SWS-002	5' pole/antenna	None	Highgate, VT	Franklin

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 PRELIMINARY IMPACT SCOPING

This section of the EA describes human environment that exists within the project sites and region of influence, and the potential impacts of the proposed action and the No Action Alternatives outlined in Chapter 2.0. Only those resources with the potential to be affected by the proposed action are described (40 C.F.R. 1501.9 [f]). The impact analysis is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions. Impacts (consequence or effect) can be either beneficial or adverse.

As discussed in this section, the alternatives evaluated may create temporary (lasting the duration of construction), short-term (up to 3 years), long-term (greater than 3 years and less than 20 years), or permanent impacts or effects. Impacts on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the degree of impacts will be classified as negligible, minor, moderate, or major. The intensity thresholds are defined as follows:

- Negligible: A resource would not be affected, or the effects would be at or below the level of detection, and changes would not result in any measurable or perceptible consequences.
- Minor: Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.
- Moderate: Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.
- Major: Effects on a resource would be obvious and long-term and would have substantial consequences on a regional scale. Extensive mitigation measures to offset the adverse effects would be required, and success of the mitigation measures would not be guaranteed.

3.2 IMPACT TOPICS ELIMINATED FROM FURTHER DISCUSSION

Some resource discussions are limited in scope due to the lack of effects or impacts from the proposed project on the resource, or because that particular resource is not located within the project area. Impact topics eliminated from further discussion include the following:

Air Quality: The Federal Clean Air Act (42 USC 7401-7671q) required the U.S. Environmental Protection Agency (USEPA) to establish a series of National Ambient Air Quality Standards (NAAQS) for air quality pollutant levels throughout the United States. The General Conformity Rule (40 CFR 51.850-860 and CFR 93.150-160) requires any federal agency responsible for an action in a non-attainment area to determine that the action is either exempt from the General Conformity Rule's requirements and complete a Record of Non-applicability or positively determine that the action conforms to the provisions and objectives of the State Implementation Plan (SIP). The proposed action would occur within either Clinton County, New York, Franklin County, or Orleans County, Vermont. All counties are designated as "in attainment" for all USEPA NAAQS criteria pollutants (USEPA 2020). Therefore, no further documentation is required.

The proposed action would have no significant adverse impacts to air quality in the region. The primary emission sources for the project would be those associated with site preparation, site disturbance, and mobile source emissions from construction vehicles. All applicable construction and operation permits would be obtained as required by New York or Vermont state laws and regulations. All impacts would be short-term, limited to the construction period, and would not change the county attainment status. For fixed towers, the construction period is 30 -45 days with the variation due to sites that require extensive site preparation. Therefore, there would be no significant impacts to air quality and no further analysis is required. This topic was dismissed from further analysis.

Aquatic Resources. Aquatic resources are addressed under other impact topics that include surface waters of the U.S., wildlife, and vegetation. In addition, CBP would institute best management practices and erosion control measures to avoid any potential downstream impacts from runoff, as necessary. Since this resource is addressed under other resource topics, the aquatic resources impact topic was dismissed from further analysis.

Environmental Justice. The purpose of Executive Order 12898 is to avoid the disproportionate placement of adverse environmental, economic, social, or health impacts from federal actions and policies on minority and low-income populations or communities. For environmental justice considerations, these populations are defined as individuals or groups of individuals who are subject to an actual or potential health, economic, or environmental threat arising from existing or proposed federal actions and policies. Using the USEPA Environmental Justice Screening and Mapping Tool (EJSCREEN), a one mile radius was drawn around each proposed site location and minority and low-income populations were identified (USEPA 2019). The data has been compiled in Table 1 in Appendix A along with the results from the EJSCREEN. The proposed action would not negatively affect low-income or minority families because no families would be relocated as a result of the proposed action and no jobs would be created. It is not anticipated that impacts would be any greater or more severe on minorities or individuals below the poverty line than non-minorities and those above the poverty line. Any impacts would not disproportionately impact low-income or minority populations to any greater degree or extent than non-minority individuals and those above the poverty line. Therefore, the proposed action would meet requirements of EO 12898, and this issue is not addressed further.

Geology and Soils. The Natural Resources Conservation Service (NRCS) Web Soil Service was used to retrieve soil data for each RVSS site as well as their respective counties. Two sites have prime farmland, however, because of the minimal footprint of a proposed tower, no impacts are anticipated. Because removal of soils or geologic components off-site is not anticipated to occur, and because the geologic bedrock located below all sites will not be disturbed as construction activities will not reach their depths, this topic was dismissed from further analysis.

Hydrology and Groundwater. Best management practices would be used during construction and none of the proposed plans would alter hydrology at any of the proposed tower sites. Neither construction nor operation of the new towers would involve discharges to or new withdrawals from groundwater. No substantial sources of potential groundwater contamination would be created or altered, and no wellheads have been located at any of the sites. The limited construction footprint (approximately 200 ft. x 200 ft.) of each tower would result in a limited amount of ground-disturbing activity and a limited potential for soil erosion and storm water runoff. Because there are no anticipated impacts to hydrology or groundwater; this impact topic was not further addressed.

Noise. The proposed sites are adjoined by a mix of residential, industrial, and agricultural properties. Estimated noise levels for heavy construction equipment range from 75 to 105 decibels (dB) at 50 feet from the source, and the sound intensity generally decreases 6 dB with each doubling of the distance from the source (U.S. Environmental Protection Agency [USEPA] 1971). Equipment used in construction of the towers is not expected to generate noise that would be considered unusual in this context. Construction noise is typically exempt from noise ordinances in rural areas (PEIS 2012). Sounds from equipment and work crews would increase during construction. Best management practices would be employed during these activities to minimize noise. Sounds generated would be temporary, lasting only as long as the construction activity was occurring, estimated to be limited to daylight hours - a duration of 30-45 days at each site. In the long-term, operation of the towers will not have noise impacts, aside from an intermittent visit by vehicles for maintenance purposes or during routine CBP operations. Therefore, this topic was dismissed from further analysis.

Hazardous Materials. Construction of the towers would result in the generation of a small amount of non-hazardous construction waste such as (dirt fill, metal scraps, electrical wiring components, etc.). All debris generated during these activities would be transported off-site and disposed of in compliance with applicable solid waste handling laws and regulations. During operation and maintenance of the tower, no hazardous waste and very little non-hazardous solid waste (metal scraps, electrical wiring components, etc.) would be generated. Backup power will be provided through a battery management system that will supply twenty-four (24) hours of battery backup using Nickel-Zinc (Ni-Zn) or equivalent batteries mounted on a thermally managed battery enclosure. At the end of their service life, batteries would be disposed of in compliance with applicable solid waste handling laws and regulations. The capacity at hazardous waste disposal facilities would not be affected by the proposed project. Therefore, this topic was eliminated from further consideration.

Floodplains. None of the proposed tower sites are located in a floodplain according to Flood Insurance Rate Maps 36019C0277D, 36019C0115D, 500248B, 5002180010B, 36019C0115D, and 5000870001B (Federal Emergency Management Agency [FEMA] Flood Insurance Rate Map). All project activities would occur outside of the floodplain. Because the project would have no impact on floodplains, this topic was eliminated from further consideration.

Human Health and Safety. Construction of the RVSS towers would require the use of heavy construction equipment. Appropriate Federal and state safety measures and health regulations would be followed to protect the health and safety of all residents as well as workers. Safety measures, barriers, and “no trespassing” signs would be placed around the perimeter of construction sites, and construction vehicles and equipment would be secured when not in use. Construction standards would be in place to minimize any dust or noise. In the long-term, there would be beneficial impacts because USBP officers would have the ability to maintain surveillance over large areas from a USBP station, which would contribute to safer conditions for USBP officers. The biggest risk to human health and safety from the operation of the tower would be radio frequency and electromagnetic radiation exposure from surveillance towers (PEIS 2012). USBP would follow all training, licensing, and regulation requirements pertaining to people and equipment involved in the operation of the tower, therefore, no significant adverse impacts are expected to occur. Therefore, this topic was dismissed from further consideration.

Roadways and Traffic. The proposed action would have no significant impact to roadways and traffic in the region. A short-term increase in vehicular traffic on the local roads around the site

would occur during the construction phase of the project. There would be more trucks and heavy equipment traffic delivering and hauling supplies and commuting construction workers. However, because the proposed project areas are in rural areas with less dense populations, there would be little to no measurable impact to traffic flow. The operation and maintenance of the RVSS towers would also result in no significant long-term impacts to roadways and traffic. There are no proposed road closures from the proposed action. Therefore, this topic was eliminated from further consideration.

Socioeconomics. The proposed action would have no significant impacts to socioeconomics in the region. No impacts to demographics, housing, or community services from additional short-term workers are anticipated as trained workers would be brought in and not permanently relocated. Negligible, beneficial economic impacts would be realized by both the regional and local economy during the construction phase of the RVSS tower for locally purchased (or rented) equipment and materials. The proposed action would not result in any detectable changes to the demographics of the local or regional areas because there would not be any impacts to population from the additional short-term construction workers. The operation of the RVSS would not interrupt economic activities; change population demographics; or alter the demands for housing or community services. Since there would be no significant adverse impact to socioeconomics, this topic was dismissed from further consideration.

Sustainability and Greening. The Federal Leadership in High Performance and Sustainable Buildings MOU establishes sustainable principles and guidelines for integrated design to consider buildings lifecycle, energy performance, water conservation, indoor environmental quality, and reduce the environmental impact of materials. Executive Order (EO) 13693, Planning for Federal Sustainability in the next decade, requires federal agencies to set targets for such things as greenhouse gas reductions, renewable and alternative energy, plans for buildings of a certain size to achieve net zero for water and energy, install green infrastructure for stormwater/wastewater, improve fleet performance, and electronic stewardship (EPA 2018). CBP already implements many of the goals of this EO into their decision making and would incorporate these principles when possible into the RVSS sites. Because the proposed action would result in the construction of radio towers with small IT component sheds, there would be limited opportunities for sustainable practices. Any impacts would result in little to no measurable impact; therefore, this topic was dismissed from further consideration

3.3 LAND USE

Existing land use for the proposed tower site locations in Clinton, NY; Franklin, VT; and Orleans County, VT include agricultural, residential, and undeveloped public land. Official zoning designation for each proposed site vary by locality even for those with similar land uses.

The Town of Champlain is located in northeastern Clinton County just across the border from the Canadian province of Quebec. Clinton County encompasses approximately 715,220 acres with 161,600 acres (24.3 percent of the land) used for farming and agriculture. Less than 1 percent of farm land in Clinton County serve as irrigated pasture land or rangeland for the production of cattle, sheep, hogs, and horses (U.S. Department of Agriculture [USDA] 2017a). Around 15 percent of farmland are used in the agricultural production of corn. Recreational use in the area is associated with fishing, skiing, swimming, boating, hiking, camping around Lake Champlain and the Adirondack Mountains, among others (Clinton County 2020).

Franklin County encompasses approximately 442,880 acres with 189,699 acres (46.8 percent of the land) used for farms. Franklin, Highgate, and Richford are located in northern Franklin County also across from Quebec. Around 44 percent of farmland in Clinton County serve as cropland and 9 percent serve as pastureland (U.S. Department of Agriculture [USDA] 2017b). The majority of crop land is devoted to the production of forage (hay/haylage) and corn. Population and economic activity in the county are concentrated in St Albans City, the county seat of Franklin County.

Orleans County encompasses approximately 461,440 acres with 128,388 acres (28.9 percent of the land) used for farms. It consists of the Towns Derby and North Troy. Around 46 percent of farmland in Orleans County serve as cropland and 9 percent serve as pastureland (U.S. Department of Agriculture [USDA] 2017c). Majority of crop land are devoted to the production of forage (hay/haylage) and corn. Recreational opportunities in area are supported by Lake Memphremagog, a 27-mile international lake which straddles the U.S. and Canadian Border, and the City of Newport (City of Newport 2020).

Of the ten proposed RVSS sites, four are located on government-owned properties. The following proposed RVSS sites are under consideration. Refer to Table 2 in Appendix A for information pertaining to parcel size, parcel number, and any available real property information:

- Site SWB-CNB-001a - The proposed site in Clinton County is owned by Ammex Warehouse Company Inc. There is one small building on the property operating as a duty-free drug store. The property has electric utilities and a private water supply.
- Site SWB-CNB-002a - The site is an undeveloped parcel in Clinton County owned by the U.S. The property is a forested area with access to electric utilities. The northern boundary of the construction area coincides with the U.S./Canadian Border. Nearby land use includes a single-family residence, several manufactured mobile homes, and agricultural land (Clinton County 2020). These properties are in clusters along the nearby roadways.
- Site SWB-SWS-001b – The site in the Town of Highgate, Franklin County is on private agricultural land. Land uses on neighboring property includes USDA prime farmland and a single-family residential home and the US/Canadian Border (VCGI 2020).
- Site SWB-RIB-001 – The proposed site in Franklin County is on residential land. The property has a residential building, barn, and two storage structures located in the southern portion, and an open patch of land in the northern portion of the property. Surrounding land uses are classified as farmland (VCGI 2020).
- Site SWB-RIB-002a – The site is in Franklin County. Classified as a farm, the parcel is comprised of several plots of agricultural fields that stretch west across Pinnacle Road and to the north, flanking the US/Canadian border. Developed buildings and structures on the property include a single-family residence, livestock shelters, feeding pens, and a barn (VCGI 2020).
- Site SWB-RIB-002b – This site is owned by the US Border Station. Classified as a commercial, the parcel contains a CBP border crossing station, undeveloped open land, and road infrastructure. Surrounding parcels are zoned residential and flank the US/Canadian border (VCGI 2020).
- Site SWB-NVB-001 – The proposed site is in the Town of Derby, Orleans County on an open agricultural land. The property is zoned Rural Residential (Town of Derby 2013).

Rural Residential districts are designated for predominantly agricultural, forestry and the least intense residential and seasonal uses (Town of Derby 2019). There is a residential single-family home, farming facilities (livestock shelter, anaerobic digester, feeding pen), and storage structures situated approximately 0.5-mile away from the RVSS Tower Construction Area. Nearby land use share similar characteristics to the site.

- Site SWB-NVB-002 – The proposed antennae would be installed on an existing CBP facility, a two-unit, government building built in 2017.
- Site SWB-NVB-003 - The site in the Village of North Troy, Orleans County, is owned and formerly operated by Ammex Discount Tax and Duty Free Shops. The Ammex building onsite is vacant. The commercial property is surrounded by the Canadian Border to the north, a CBP-owned Land Port Of Entry (LPOE) to the west, and an undeveloped residential property to the east and south. A relocatable then fixed tower would be constructed west of the abandoned duty-free shop in the former parking area.
- Site SWB-SWS-002 – The proposed antennae would be installed on the existing Deringer Tower at Highgate Springs LPOE) in a heavily forested, sparsely developed parcel. The parcel along with surrounding uses, is designated for commercial use.

3.3.1 **Alternative 1: No Action Alternative**

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur at sites. Technology-based surveillance capability would not be improved and the ability of USBP to maintain surveillance over a wide area within the Swanton Sector would remain the same. Under the no action alternative, there would be no impacts to land use.

3.3.2 **Alternative 2: Preferred Alternative**

Under Alternative 2, CBP shall construct, operate, and maintain the RVSS towers in addition to the installation and operation of relocatable towers and antennae equipment on select sites. Construction activity is expected to cause minor, temporary impacts to land use within specific RVSS tower construction areas of each respective property. Temporary impacts may include reduced access to land for livestock grazing, vehicular movement, recreation, and agricultural activities. The RVSS towers, fixed and relocatable, would have a small construction footprint (200 ft. x 200 ft.) on the site. Antennae installations on sites SWB-NVB-002 and SWB-SWS-002 would not create any additional visual intrusions to the viewshed of any surrounding land uses.

Six sites would be permanently converted in their 100 ft. x 100 ft. plots (10,000 sq. ft. or 0.23 acres each) from the current land use to RVSS facilities. In the long-term, the presence of either a fixed and/or relocatable tower would have a minor impact on the land use within the site parcels as well as adjacent parcels. Coordination with landowners of the site parcels would be conducted prior to construction.

3.4 **SURFACE WATERS AND WATERS OF THE UNITED STATES**

A biological resource evaluation was prepared to determine the presence/absence of potential jurisdictional waters of the US (WOTUS) in 2018 and revisited the conclusions based on the April

2020 Navigable Waters Protection Rule (CBP 2018). If present in 2018, wetland delineations were conducted.

Three areas surveyed are jurisdictional wetlands based on their adjacency to other jurisdictional waters. Seven stream segments were identified but only two segments were classified as intermittent. The intermittent stream (STR-02A) and the stream at SWB-RIB-002b would be considered jurisdictional under the new rule. Using best professional judgment, it is unlikely that the other five stream segments are jurisdictional.

Wetlands are protected under state regulations, as well. To be protected under New York’s Freshwater Wetlands Act, (Environmental Conservation Law Article 24 Freshwater Wetlands [§24- 0101-24-0107]) a wetland must be 12.4 acres (5 hectares or larger). Wetlands smaller than this may be protected if they are considered of unusual local importance. Around every wetland is an 'adjacent area' of 100 feet that is also regulated to provide protection for the wetland. Vermont Wetland Rules [Vt. Code R. 12 004 056] are limited to those wetlands which are so significant that they merit protection in this program. Wetlands that are not significant should be assumed to have public value, and therefore may merit protection under other statutory or regulatory authority. Per Section 2.06-2.08 of the Vermont Wetland Rules, there were no Class I, Class II, or Class III wetlands present or adjacent to the Vermont CBP sites (VANR 2018, Parsons 2018). In September 2018, wetlands scientists conducted field delineations of wetland features and the following were identified as shown in Table 3-1.

Table 3-1. Surface Waters and Waters of the US at the Proposed Tower Sites

Preferred Location	Site Name	Local Name	City/Twp.	Waters of the US Present on parcel (per April 2020 definition)
x	SWB-CNB-001a	Duty Free (a)	Champlain, NY	Wetland. A small (0.2-acre) palustrine emergent (PEM) wetland located east of the I-87 eastern service road/US-9 on the southwest end of Site Duty Free (a). Stream. A tributary to the Great Chazy River.
x	SWB-CNB-002a	Glass Road (a)	Champlain, NY	None.

Table 3-1. Surface Waters and Waters of the US at the Proposed Tower Sites, continued

Preferred Location	Site Name	Local Name	City/Twp.	Waters of the US Present on parcel (per April 2020 definition)
	SWB-SWS-001b	Rainville Rd (b)	Highgate, VT	None.
x	SWB-RIB-001	Morses Line	Franklin, VT	None.
x	SWB-NVB-001	Letourneau Field	Derby, VT	None.
x	SWB-NVB-002	Derby Line I-91 POE	Derby Line, VT	N/A –(antenna installation only)
x	SWB-NVB-003	North Troy	Troy, VT	None.
x	SWB-SWS-002	Deringer Tower	Highgate, VT	N/A –(antenna installation only)
	SWB-RIB-002a	Pinnacle Hill (a)	Richford, VT	None.
x	SWB-RIB-002b	Pinnacle Hill (b)	Richford, VT	Wetlands. Two PEM wetlands. 0.4-acres with a small, man-made, inundated area for watering cattle. 0.8-acres at the convergences of 2 drainages Stream. A tributary to the Missisquoi River (CBP 2009)

3.4.1 Alternative 1: No Action Alternative

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur at sites and therefore there would be no impacts on surface waters or WOTUS from construction, maintenance, or operation of towers. The possibility of remote surveillance of these areas would not occur and physical surveillance by CBP would continue as described in the PEIS (DHS 2012) to include the use of off-road vehicles (ORV) and all-terrain vehicles (ATV) along the Northern Border in the Swanton Sector. Because low-lying water ways have been used by CBV pedestrian traffic, this alternative may lead to the promotion, dispersal, and establishment of nonnative, invasive species in these areas. These impacts would be considered negligible.

3.4.2 Alternative 2: Preferred Alternative

At the two sites with surface waters and WOTUS present, the towers have not been proposed in or near the wetlands or streams and would have a 100 ft. buffer. Best Management Practices to control erosion during construction would be in place. The culvert/drainage crossing required at SWB-CNB-001a has been proposed in a location removed from the stream as well (over 100 ft. north). Because the sites would not be located in or near surface waters or WOTUS, and because the sites will have a sufficient buffer for any adjacent areas, and because proper Best Management Practices would be in place during construction, impacts on surface waters and WOTUS from the Alternative 2 would be considered negligible and short-term.

3.5 VEGETATION

Proposed tower locations are located in the Laurentian Mixed Forest ecoregion which is dominated by forested habitats. Particular species in the assemblages are highly dependent on soils where deciduous trees typically favor nutrient-rich soils and conifers flourish in poor soils. Shrub and herbaceous layers add to the vegetative diversity within each of these forests (Bailey, 1995). This type of vegetation is typically surrounding all of the sites.

Vegetation communities are susceptible to invasive plant infestations once disturbed. Concerns exist in the northeast region where serious long-term impacts to forests are already occurring from invasive plant species such as garlic mustard (*Alliaria petiolata*) and buckthorn (*Rhamnus* spp.) and beyond the region with the common reed (*Phragmites australis*). Invasive plant species such as honeysuckle (*Lonicera* sp.), purple loosestrife (*Lythrum salicaria*), flowering rush (*Butomus unmelletus*) and oriental bittersweet (*Celastrus orbiculatus*) (AE 2014c) are a great concern. The introduction of nonnative invasive species affects natural habitats of native plants primarily through degradation and disturbance of soils and vegetation. Nonnative species encroach on both rare and natural plant populations and their habitats, potentially reduce soil stability and subsequently increase erosion, and cause overall decline of ecosystem health (Welch et al. 2014).

Six of the proposed sites are grass covered (Table 3-2). One site is recently wooded (SWB-CNB-002a, Glass Road) and one site (SWB-NVB-003, North Troy Ammex) proposes to place the tower in a gravel parking area. The two proposed co-located sites would place equipment on existing infrastructure (tower or roof) so no vegetation is present. No federally-listed ESA plant species, state listed rare plants, or significant natural communities were identified at any of the sites.

Table 3-2. Vegetation Present at Proposed Tower Locations

Preferred Location	Site Name	Local Name	City/Twp.	Vegetation Present in tower location
x	SWB-CNB-001a	Duty Free (a)	Champlain, NY	Grass vegetated land; vacant
x	SWB-CNB-002a	Glass Road (a)	Champlain, NY	Primarily wooded; historically used for agricultural purposes in 1964 and forested by 1994

Table 3-2. Vegetation Present at Proposed Tower Locations, continued

Preferred Location	Site Name	Local Name	City/Twp.	Vegetation Present in tower location
	SWB-SWS-001b	Rainville Rd (b)	Highgate, VT	Grass as maintained residential lawn
x	SWB-RIB-001	Morses Line	Franklin, VT	Grass as maintained residential lawn
	SWB-RIB-002a	Pinnacle Hill (a)	Richford, VT	Grass covered field and hayfield
x	SWB-RIB-002b	Pinnacle Hill (b)	Richford, VT	Grass covered, maintained
x	SWB-NVB-001	Letourneau Field	Derby, VT	Grass covered field and hayfield
x	SWB-NVB-002	Derby Line I-91 LPOE	Derby Line, VT	N/A –(antenna installation only)
x	SWB-NVB-003	North Troy	Troy, VT	None. One building (the abandoned Ammex) and a gravel parking lot in the proposed tower area.
x	SWB-SWS-002	Deringer Tower	Highgate, VT	N/A –(antenna installation only)

3.5.1 Alternative 1: No Action Alternative

The Region of Influence for vegetation would be the vegetation community occupying each proposed site and the immediately adjacent vegetation communities.

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur at sites and therefore there would be no impacts on vegetation from construction, maintenance, or operation of towers. The possibility of remote surveillance of these areas would not occur and physical surveillance by CBP would continue as described in the PEIS (DHS 2012) to include the use of off-road vehicles (ORV) and ATVs along the Northern Border in the Swanton Sector.

Vegetation in the ROI may experience damage and soil compaction as a result of activities where unauthorized roads and trails are created by CBV pedestrian traffic. ORVs/ATVs and CBV pedestrian traffic may lead to the promotion, dispersal, and establishment of nonnative invasive species.

Because impacts on vegetation in the ROI would continue as a result of CBV pedestrian traffic that create unauthorized roads and trails, damage vegetation, and promote the dispersal and establishment of non-native invasive species, and because remote surveillance in the region of influence would not occur, law enforcement ground operations would continue, these adverse impacts to vegetation would be localized and negligible and the duration of impacts would vary according to the location of activity, and would be short-term and recoverable.

3.5.2 Alternative 2: Preferred Alternative

Alternative 2 would permanently remove grass at six (6) sites in their 100 ft. x 100 ft. plots (10,000 sq. ft. or 0.23 acres each) and would temporarily impact surrounding vegetation during the 30-45 days in the surrounding 200 ft. x 200 ft. plot during construction. Because residential/ agricultural/ commercial grass can be easily replaced, impacts would be considered negligible at these sites. One site (SWB-CNB-002a, Glass Rd. a), is wooded and would require tree removal in the 100 ft. x 100 ft. plot which would have permanent impacts on this vegetation. Permanent loss of the small amount of acreage would not adversely affect the population viability of any plant species in the region. No impacts on vegetation are anticipated at the North Troy site.

With use of the RVSS technology, CBV pedestrian traffic should reduce over time which has led to unauthorized roads and trails, damaged vegetation, and promoted the dispersal and establishment of non-native invasive species. Table 3-2 lists the types of vegetation that would be permanently removed during the proposed activities. None of these vegetation communities are rare and the amounts are small. Because best management practices would be in place, the localized nature of the construction activities, and the recoverability after disturbance due to revegetation efforts to surrounding areas, long-term consequences to regional vegetation are not expected to result from construction activities associated with the proposed activities. Therefore, impacts on vegetation from construction associated with Alternative 2 would be considered minor.

3.6 WILDLIFE RESOURCES

The woodlands of the northern border are characterized by long winters and a short growing season. The climate, known for mild summers and very cold to extremely cold winters, maintains species adapted to these conditions. All of the proposed sites are near human development. Species adapted to human disturbance and which also prefer early successional habitats or developed areas live here including the woodchuck (*Marmota monax*), deer mouse (*Peromyscus maniculatus*), meadow vole (*Microtus pennsylvanicus*), white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), gray squirrel (*Sciurus carolinensis*), Indiana bat (*Myotis sodalis*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), American toad (*Bufo americanus*), and the common garter snake (*Thamnophis sirtalis*) (TDI-NE 2014a, VFWD 2020, DeGraaf and Yamasaki 1986, Bailey 1995, and NYSDEC 2018).

Birds typical of these areas include blue-winged warbler (*Vermivora cyanoptera*), gray catbird (*Dumetella carolinensis*), Eastern towhee (*Pipilo erythrophthalmus*), rose-breasted grosbeak (*Pheucticus ludovicianus*), and mourning dove (*Zenaida macroura*). Near sites which are less open or adjacent to forested areas, passerine species may be found, including species of warblers (family Parulidae), thrushes such as the hermit thrush (*Catharus guttatus*), rose-breasted grosbeak (*Pheucticus ludovicianus*), and birds especially typical of coniferous forest, such as black-backed woodpecker (*Picoides arcticus*), and gray jay (*Perisoreus canadensis*). Other known species in the area include the broadwinged hawk (*Buteo platypterus*), ruffed grouse (*Bonasa umbellus*), hermit thrush (*Catharus guttatus*), and blue jay (*Cyanocitta cristata*).

Birds are protected by both federal (Migratory Bird Treaty Act of 1918) and state regulations. The U.S. Fish and Wildlife Service, in its response to scoping for this project, recognized the presence of migratory birds in the Study Area. The term “migratory,” as used in the Migratory Bird Treaty Act, does not necessarily mean that all individuals of a species have to migrate. Bald eagles, which

are also found in the Study Area, are further protected by the Bald and Golden Eagle Protection Act of 1940. Swanton Sector is situated on the Atlantic Flyway system. Habitats in the area of the Swanton Sector sites form a complex of feeding, resting, and breeding grounds for migrating species during the spring and fall. In 1999, USFWS established the Communication Tower Working Group to study and determine approaches for tower construction that would prevent bird strikes. USFWS's Division of Migratory Bird Management established BMPs to reduce collisions of birds with communication towers (See Section 4.0).

3.6.1 **Alternative 1: No Action Alternative**

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur and therefore there would be no impacts on wildlife habitats from these activities. However, wildlife and habitats in the vicinity of these sites may be affected by CBV and consequent law enforcement activities similar to the impacts discussed under Section 3.3, Vegetation. Because remote surveillance would not occur, law enforcement ground operations would continue, these adverse impacts to wildlife and habitats would be localized and minor and the duration of impacts would vary according to the location of activity and would be short term and recoverable.

3.6.2 **Alternative 2: Preferred Alternative**

The grass wildlife habitat present at six (6) sites (Table 3-2) would be permanently removed in their 100 ft. x 100 ft. plots (10,000 sq. ft. or 0.23 acres each) and would temporarily impact surrounding grass wildlife habitat during the 30-45 days in the surrounding 200 ft. x 200 ft. plot during construction. Because residential/agricultural/commercial grass can be easily replaced, and because of the small area impact, impacts on wildlife and habitat would be considered negligible at these sites. One site (SWB-CNB-002a, Glass Rd.), is wooded and would require tree removal in the 100 ft. x 100 ft. plot which would have permanent impacts on this habitat. Permanent loss of the small amount of acreage would not adversely affect the population viability of any wildlife species in the region and readily equivalent habitat is available nearby for displaced wildlife. No impacts on wildlife are anticipated at the North Troy site from the construction of the relocatable or fixed tower.

USFWS (2000) *Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers and Recommendations for Design and Construction of Cell Phone and Other Towers* (USFWS 2008) would be followed to reduce nighttime atmospheric lighting and the potential adverse effects of nighttime lighting on migratory bird and nocturnal flying species. Guidance includes recommendations to communications companies and the Federal Communications Commission (FCC) on tower height, lighting regimes, and placement. Redesigned tower lighting can minimize avian mortality from collisions, which may occur during low light situations (night or bad weather, e.g., fog). RVSS and relay towers may have infrared lighting installed for aviation safety and would be compatible with night vision goggle usage by aviators. The proposed tower shelter may be lighted for security purposes and would consist of a motion-controlled “porch light” on the shelter, shielded to avoid illumination outside the footprint of the site, and low-pressure sodium bulbs would be used.

Successful operation of the RVSS towers would lead to reduced trails through habitat by illegal CBV pedestrian traffic and reduce damage and soil compaction in wildlife habitat as a result of

activities where unauthorized roads and trails are created. Reduced ORVs/ATVs use, CBV pedestrian traffic may lead to the promotion, dispersal, and establishment of nonnative invasive species into wildlife habitat. Because of the minimal amount of impact on habitat, short construction window, and reduced lighting impacts, in addition to the goal that tower presence would reduce CBV activity and CBP operations in the greater region, impacts on wildlife from construction, operation, maintenance associated with Alternative 2 would be considered long-term and minor.

3.7 THREATENED AND ENDANGERED SPECIES

The location of the sites within the Swanton Sector were inserted into the U.S. Fish and Wildlife Information, Planning, and Conservation System to determine if any threatened, endangered, or candidate species could be present. Two mammal species were identified with potential for presence at the sites: northern long-eared bat and the Canada lynx. No critical habitat occurs within the searched area. A biological resource evaluation was prepared to determine the presence/absence of potential habitat for threatened or endangered species (CBP 2018). In September 2018, proposed parcels were examined, and general wildlife and vegetation conditions were documented to include federally-listed species under the Endangered Species Act (ESA), and species protected under other applicable federal or state regulations. No state-listed rare animals were identified at any of the sites.

Northern Long-eared Bat. During the September 2018 survey (CBP 2018), potential suitable habitat for the northern long-eared bat was found at the perimeter of three sites: SWB-CNB-001a, SWB-CNB-002a, and SWB-NVB-003. Sites not addressed in the 2018 report because they were included later: SWB-SWS-001b, SWB-RIB-001, and SWB-RIB-002a,b were visited, and presence/absence of bat habitat was assessed. Potential suitable habitat was noted adjacent to all four sites, but not within the parcels.

Canada lynx. The Canada lynx was identified as having a potential distribution at one site: SWB-NVB-001. Although the Canada lynx likely occurs within the greater region, the open agricultural space and lack of the primary prey source (snowshoe hare) in the open area of the site makes the presence of this species unlikely. Because there is no suitable habitat or prey availability at the site, there would be no co-occurrence with the Canada lynx and the proposed action. Therefore, this species is not analyzed further in the environmental assessment, no Biological Assessment has been prepared, and concurrence with a “no effect” determination from the USFWS pursuant to the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) was received on /DATE/ for this proposed action.

3.7.1 Alternative 1: No Action Alternative

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur and therefore there would be no impacts on threatened and endangered species habitats from these activities. However, illegal cross-bordering pedestrian traffic and consequent law enforcement activities would continue and if they occur near roosting Northern long-eared bats, may lead to a startle response. Startled bats that flee from roost sites during daylight may have an increased risk of predation (USFWS 2010, 2016). If pups are present, they would have been left unattended and vulnerable.

Research and anecdotes have shown that bats can habituate to human disturbances (USFWS 2009, 2010, 2016). Northern long-eared bats have also been documented on military ranges, becoming habituated to the active day time or night time human disturbances (USFWS 2009, 2010). In one example from another species, an Indiana bat abandoned a primary roost only after a bulldozer eventually reached an adjacent tree (USFWS 2009). Each species and individual, however, will have a different threshold for the level of disturbance and intensity tolerated. Visual disturbances are temporary, reactions are temporary, and activities would return to normal when the visual disturbance ended. Because remote surveillance would not occur, law enforcement ground operations would continue, these adverse impacts to bats and their potential habitats would be localized and minor and the duration of disturbance impacts would vary according to the location of activity and would be short term and recoverable.

3.7.2 **Alternative 2: Preferred Alternative**

Potential roost trees noted at three sites could be avoided during construction as they are beyond the border of the construction footprint and would not be removed. Potential bat habitat is present adjacent to the remaining tower sites. Impacts on individual bats would be limited to construction noise disturbances (if present at the time of construction) and collisions with the towers. Startled bats that flee from roost sites during daylight construction periods may have an increased risk of predation (USFWS 2010, 2016). If pups are present, they would have been left unattended and vulnerable. Noise disturbances would be limited to the short duration of the construction period and would be short-term and temporary. Collisions with the towers would be addressed by following the USFWS guidance mentioned in Section 3.4.2. Because of the minimal amount of impact on any bat habitat present in the area of the towers, short construction window, and reduced lighting impacts, impacts on the North long-eared bat from construction, operation, maintenance associated with Alternative 2 would be considered long-term and minor, if present in the area of a tower.

CBP consulted with USFWS through the IPAC system during the scoping period. Because several tower locations are near wooded areas, the CBP has determined the installation of towers under the proposed action *may affect* the Northern long-eared bat. Through online consultation, the CBP will rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

3.8 **CULTURAL RESOURCES**

Cultural resources are prehistoric and historic sites, structures, districts, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for traditional, religious, scientific, or any other reason. Cultural resources are discussed here in terms of: archaeological sites including both prehistoric and historic occupations, architectural resources (i.e. standing structures), and Properties of Religious or Cultural Significance to Native American Tribes including Traditional Cultural Properties (TCPs). Historic properties, as defined by the National Historic Preservation Act (NHPA), represent the subset of cultural resources listed on, or eligible for, inclusion in the National Register of Historic Places (NRHP).

Procedures for the identification, evaluation, and treatment of cultural resources are contained in a series of federal and state laws and regulations and agency guidelines. Archaeological,

architectural, and Native American resources are protected by a variety of laws and their implementing regulations: the National Historic Preservation Act (NHPA) of 1966, as amended in 2016 and codified in Title 54 of the United States Code (U.S.C.); the Archeological and Historic Preservation Act of 1974; the Archeological Resources Protection Act (ARPA) of 1979; the American Indian Religious Freedom Act (AIRFA) of 1978; and the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. The Advisory Council on Historic Preservation (ACHP) further guides treatment of archaeological and architectural resources through the implementing regulations for Section 106 of the NHPA (54 U.S.C. 306108), 36 CFR 800, Protection of Historic Properties.

The Area of Potential Effects (APE) for archaeological resources includes the portion of the parcel, proposed for new construction encompassing the approximately 200 ft. x 200 ft. construction work area within which all demolition and new construction activities will occur. In accordance with a 2015 Programmatic Agreement for CBP undertakings in states located along the northern border of the U.S., signed by the New York and Vermont State Historic Preservation Officers (SHPOs), the visual APE for architectural resources is defined as the 0.5-mile radius around each proposed tower location (CBP et al. 2015). The level of effort to identify both archaeological sites and architectural resources at each location was coordinated with the respective SHPOs.

Archaeological Sites. The level of effort to identify archaeological resources at each location was based on prior ground disturbance and known archaeological sensitivity. Archaeological survey was conducted at four locations, two locations has been previously surveyed and no survey was conducted at three locations (Table 3-3). Only one archaeological site eligible for listing in the NRHP was identified: the J.M. Hill archaeological site (NRHP-eligible) (Table 3-3). (Archaeological site information is excluded from public dissemination under 54 U.S.C. 307103 in order to protect the resources from harm).

Architectural Resources. The level of effort to identify architectural resources at each location was based previous architectural survey and archival information on the dates of construction for buildings with the APE. Architectural resources survey was conducted at six locations, and three locations has been previously surveyed (Table 3-3). Five architectural resources eligible for listing in the NRHP were identified: 237 Rainville Road, the 1936 Morses Line Land Port of Entry, the Fuller-Rainville Farm Complex, the 1937 North Troy Land Port of Entry, and the Gladden-Corliss Farm (Table 3-3).

Native American Resources. Native American resources can include, but are not limited to, archaeological sites, burial sites, cultural items, ceremonial areas, caves, mountains, water sources, trails, plant habitat or gathering areas, or any other natural area important to a culture for religious or heritage reasons. No Native American resources have been previously identified in the project locations.

Only one federally recognized tribe has cultural and historical ties to the project locations: the St. Regis Mohawk Tribe. Consultation with the St. Regis Mohawk Tribe was conducted on February 6, 2019 and August 19, 2019.. No comments or concerns were subsequently provided by the St. Regis Mohawk Tribe.

Table 3-3. Cultural Resources Identified within the APEs

Site Name	Local Name	Archaeological Sites			Architectural Resources		
		Survey	Reference	Results	Survey	Reference	Results
SWB-CNB-001a	Duty Free (a)	Current survey	Gray & Pape 2019e	No sites identified	Current survey	Gray & Pape 2019a	Not Eligible: 25 Meridian Road 38 Meridian Road 46 Meridian Road 101 Meridian Road 117 Meridian Road 1310 US Route 9 1326 US Route 9 1338 US Route 9 92 W. Service Road
SWB-CNB-002a	Glass Road (a)	Current survey	Gray & Pape 2019e	No sites identified	Current survey	Gray & Pape 2019a	Not Eligible: 38 Glass Road
SWB-SWS-001b	Rainville Road (b)	Current survey	Gray & Pape 2019c	Not Eligible: Historic Domestic Scatter	Current survey	Gray & Pape 2019b	Not Eligible: 520 Rainville Road NRHP-Eligible: 237 Rainville Road
SWB-RIB-001	Morses Line (Clements parcel)	Current survey	Gray & Pape 2019c, 2019d, 2020	NRHP-Eligible: J.M. Hill Archaeological Site	Previous surveys	Baker 2007; PAL 2009c	NRHP-Eligible: 1936 Morses Line LPOE Fuller-Rainville Farm Complex

Table 3-3. Cultural Resources Identified within the APEs, continued

Site Name	Local Name	Archaeological Sites			Architectural Resources		
		Survey	Reference	Results	Survey	Reference	Results
SWB-NVB-001	Letourneau Field	No survey required			Current survey	Gray & Pape 2019f	Not Eligible: 52 Goodall Road 514 Holland Road 1271 Holland Road
SWB-NVB-002	Derby Line I-91 LPOE	Previous survey	Berger 2005a; PAL 2005a	No sites identified	Previous surveys	Berger 2005b; Baker 2007	No resources identified
SWB-NVB-003	North Troy (Ammex Parcel)	No survey required			Previous survey	Starzak et al. 2014	NRHP-Listed: 1937 North Troy LPOE
SWB-RIB-002a	Pinnacle Hill (a)	No survey required			Previous and current survey	PAL 2009b; Parsons 2020	NRHP-Eligible: Gladden-Corliss Farm
SWB-RIB-002b	Pinnacle Hill (b)	Previous Surveys	PAL 2005b, 2009a	No sites identified	Previous and current survey	Baker 2007; PAL 2009b; Parsons 2020	NRHP-Eligible: Gladden-Corliss Farm

3.8.1 **Alternative 1: No Action Alternative**

The impact analyses presented here are intended to comply with the requirements of both NEPA and Section 106 of the NHPA (54 U.S.C. 306108). In accordance with the ACHP regulations implementing Section 106 (36 CFR Part 800, Protection of Historic Properties), a determination of either adverse effect or no adverse effect must be made for affected NRHP-listed or eligible cultural resources. An effect is considered adverse when it diminishes the integrity of the historic property's location, design, setting, materials, workmanship, feeling, or association. A determination of no adverse effect means that historic properties are present, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the NRHP.

For the purposes of this EA, a significant impact under NEPA is defined as an un-resolvable "adverse effect" under Section 106 of the NHPA. "Unresolvable" adverse effects may occur when the terms of mitigation cannot be agreed upon, or if the NHPA Section 106 process is foreclosed due to an inability to reach agreement.

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur at any location, and therefore, there would be negligible impacts on NRHP-eligible or listed cultural resources. The possibility of remote surveillance of these areas would not occur and physical surveillance by CBP would continue as described in the PEIS (DHS 2012) to include the use of off-road vehicles (ORV) and ATVs along the Northern Border in the Swanton Sector. Additionally, illegal cross-border violator (CBV) pedestrian traffic would also continue. As a result of CBV pedestrian traffic and CBP vehicular activities, unauthorized roads and trails would be created in undisturbed areas, and with repeated use, could destroy vegetation leading to exposure of previously unidentified archaeological sites. These cultural resources may experience increased ground disturbance, subsequent erosion, and damage to the archaeological site stratigraphy and displacement of features and artifacts destroying research potential and thus, their ability to convey their significance for eligibility for listing in the NRHP.

Because remote surveillance would not occur, CBP ground operations and CBV pedestrian traffic would continue. Such activities would create unauthorized roads and trails in undisturbed areas, and with repeated use, could destroy vegetation leading to exposure of previously unidentified archaeological sites. These adverse impacts to cultural resources (i.e. archaeological sites) would be localized and minor, and the duration of impacts would vary according to the location of the activity and would be short- to long-term.

3.8.2 **Alternative 2: Preferred Alternative**

In accordance with Section 106, determinations of effect were identified for each location based on the type and extent of ground disturbance (archaeological sites) and viewshed analysis (architectural resources). As needed, proposed RVSS tower locations were shifted to avoid adverse impacts to NRHP-eligible or listed cultural resources. Determinations of effect submitted to the respective SHPOS (New York State Office of Parks, Recreation, and Historic Preservation [NYSOPRHP] and Vermont Division of Historic Preservation [VT DHP]) included four findings of No Historic Properties Affected and five findings of No Adverse Effect (Table 3-4). The respective SHPOs concurred with these determinations.

Under Alternative 2, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would occur within a small construction footprint (200 ft. x 200 ft.) minimizing ground disturbance, and the presence of the towers within their respective viewsheds would not substantially alter the rural setting of adjacent architectural resources such as historic residences and farmsteads. In accordance with Section 106, Alternative 2 would not adversely affect any NRHP-listed or eligible archaeological sites or architectural resources and therefore, there would be negligible impacts to NRHP-eligible or listed cultural resources under NEPA.

Because remote surveillance would be implemented and serve as a deterrent to CBVs, CBP ground operations and CBV pedestrian traffic would be minimized. As a result, unauthorized roads and trails in undisturbed areas would not be created and destruction of vegetation leading to exposure of and damage to previously unidentified archaeological sites would not occur. Impacts to cultural resources would be negligible and beneficial.

Table 3-4. Section 106 Consultation and Concurrence with Determinations of Effect

Site Name	Local Name	Effects	SHPO	Concurrence Date
SWB-CNB-001a	Duty Free (a)	No Historic Properties Affected	NYSOPRHP	8/14/2019
SWB-CNB-002a	Glass Road (a)	No Historic Properties Affected	NYSOPRHP	8/14/2019
SWB-SWS-001b	Rainville Road (b)	No Adverse Effect	VT DHP	4/23/2020
SWB-RIB-001	Morses Line	No Adverse Effect	VT DHP	5/15/2020
SWB-NVB-001	Letourneau Field	No Historic Properties Affected	VT DHP	No response received within 30 days (concurrence in accordance with 36 CFR 800.4(d)(1)(i))
SWB-NVB-002	Derby Line I-91 LPOE	No Historic Properties Affected	VT DHP	No response received within 30 days (concurrence in accordance with 36 CFR 800.4(d)(1)(i))
SWB-NVB-003	North Troy (Ammex Parcel)	No Adverse Effect	VT DHP	5/29/2020
SWB-RIB-002a	Pinnacle Hill (a)	No Adverse Effect	VT DHP	11/20/2020
SWB-RIB-002b	Pinnacle Hill (b)	No Adverse Effect	VT DHP	12/18/2020

3.9 UTILITIES AND INFRASTRUCTURE

New York State Electric and Gas Corporation (NYSEG) and Vermont Electric Co-op (VEC) distribute electrical energy for various uses operating within the area. Site surveys for the Swanton Sector RVSS occurred between June 2018 and May 2020. During surveying, utility power poles

were identified for each site as potential power sources to connect to the RVSS towers (DHS 2019). Commercial grid power is either currently available or would be acquired for all proposed towers. The point of connection will be made to an existing medium voltage power distribution line and connected to a step-down transformer to drop to a lower voltage to provide single phase 240/120-volt power to the site. A portable engine generator outlet and grid power will be connected along with the UPS and battery management system to provide both normal and backup power to the tower loads.

Electrical easements are assessed on a site to site basis. This will be determined by and is the responsibility of the power company. Installation of overhead/underground power lines, as well as design of the power system and transformer, is the responsibility of the power company.

- Site SWB-CNB-001a - Primary power will be provided through commercial power from New York State Electric & Gas (NYSEG). The method of power delivery for this site will be carried overhead from the distribution line to approximately 140 feet service run to the site. This new utility pole installation and service entrance power design will be coordinated by with NYSEG. Actual connection points may vary and will depend on the approved location.
- Site SWB-CNB-002a - The primary power will be provided through commercial power from New York State Electric & Gas (NYSEG). A new utility power pole needs to be added along with the distribution line to feed power to the tower site. This new utility pole installation and service entrance power design will be coordinated with NYSEG. The method of utility power delivery for CNB will be carried overhead from the new utility pole (approximately 480 feet from the site) from a step-down pole mounted utility transformer to provide a minimum of 100A service to the site. Actual connection points may vary and will depend on the approved location determined by FAA/CBP with the utility company. Timber pads will be required for installation due to the soft ground conditions of the tower area (DHS 2019).
- Site SWB-SWS-001b –Primary power will be provided through commercial power from Vermont Electric Co-Op (VEC) with an approximate distance of 120 feet from pole to the site. A minimum of 100A service needs to be provided to this site. Actual connection points may vary and will depend on the approved location. Timber pads will be required for installation due to the soft ground conditions of the tower area (DHS 2019).
- Site SWB-RIB-001 –The site will likely utilize an unused existing utility meter fed from an existing pole mounted utility transformer on an existing utility pole through which commercial power could be provided from the VEC to the tower site. Power cables will be run through the existing underground route. Actual connection points may vary and will depend on the approved location. Timber pads will be required for installation due to the soft ground conditions of the tower area (DHS 2019).
- Site SWB-RIB-002a – Above ground power lines run along the east side of Pinnacle Rd. A pole-mounted transformer is located northwest of the house on parcel 516-162-10747. There is no power up to the tower site. The property owners expressed preference for a power line to the site to be placed underground rather than overhead due to aesthetics and maneuverability along the roads that will continue to be used for farm activities (Quaine 2020).

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- Site SWB-RIB-002b – Above ground power lines run along the east side of Pinnacle Rd. and power is existing at the LPOE.
 - Site SWB-NVB-001 –Power will be provided from the existing VEC utility power pole and run through an underground route up to the tower site with an approximate distance of 1200 ft. Design and installation of pole mounted utility transformer on power pole or pad mounted utility transformer on the tower site will be coordinated. A minimum of 100A service needs to be provided to this site. Actual connection points may vary and will depend on the approved location. Timber pads will be required for installation due to the soft ground conditions of the tower area (DHS 2019).
 - Site SWB-NVB-002 –Unused antenna mounts/conduits are available in each location. Electric power will be sourced from the existing LPOE; no new power lines need to be established or trenched (Mangum 2019).
 - Site SWB-NVB-003 - Above ground power lines run along the VT-243. A utility pole with power meter housing is located near the road southwest of the Ammex building (Mangum 2018). Relocatable tower and fixed tower will connect to VEC utility power pole #63 through overhead cables.
 - Site SWB-SWS-002 – This location would be an antenna installation at an existing tower site. Electric power would be sourced from the existing LPOE.

3.9.1 **Alternative 1: No Action Alternative**

Under the No Action Alternative, the proposed RVSS towers would not be constructed. The No Action Alternative would not affect the availability of utilities or require construction of additional facilities.

3.9.2 **Alternative 2: Preferred Alternative**

Alternative 2 would result in minor, long term effects on the availability of utilities throughout the ROI because of the limited amperage needed by each tower to operate all equipment and because all towers would be tied into an existing and available service transmission line.

3.10 AESTHETIC AND VISUAL RESOURCES

Visual resources consist of natural and manmade features that give a particular environment its aesthetic qualities. The existing aesthetics and visual quality surrounding each proposed RVSS tower location are described for three different sectors (Table 3-5). These sectors represent different viewer perspectives and visual requirements and are defined here as: rural landscape; residential development; and commercial/ industrial/ government areas (Table 3-5).

The rural landscape sector consists of open vistas, scattered farmsteads and dairies, agricultural fields, and forested areas (undeveloped). All proposed RVSS tower locations exhibit some, if not all, elements of the rural landscape. The bucolic nature of this landscape sector is reflected by few manmade visual (vertical) elements such as local power lines, regional transmission lines, and occasional cell phone towers.

The residential development sector is present only at proposed RVSS tower location SWB-NVB-002 (Derby Line I-91 LPOE) and is characterized by small one- and two-story single family homes, some with detached garages or outbuildings, constructed in the late-19th to mid-20th century. The residential development is located along north/south Maple Street, Highland Avenue, and Pelow Hill, and east/west Caswell Avenue, consisting of small residential lots, ornamental vegetation and trees, street signs, and overhead power lines with attached cobra head street lights. Only the two residences on Maple Street face toward the LPOE facility and the proposed RVSS antenna location.

The commercial/industrial/government sector reflects the commercial and industrial facilities present only at the proposed RVSS tower location SWB-CNB-001a (Duty Free (a)) and those proposed locations associated with the LPOEs. The commercial facilities and industrial warehouses consist of large one-and two-story buildings with multiple loading docks, open storage space for tractor-trailers, and parking lots for company and employee vehicles, located along the frontage roads (E. Service Road and W. Service Road) of I-87. The commercial/industrial/government sector is characterized by multiple power lines, roadway signs, a cell phone tower (located west of W. Service Road), chain link fences, and cobra head streetlights. The LPOEs range from a small historic building (e.g., Morses Line LPOE) to much larger and modern facilities such as the Champlain LPOE and Derby Line I-91 LPOE, and exhibit various complexities of buildings and structures, with associated entry/exit canopies, multiple light stands used to illuminate LPOE grounds, flag poles, and large gantry directional highway/ lane signs. Numerous pieces of equipment and technology are housed in metal cases or installed on poles/stands between the traffic lanes creating visual intrusions at pedestrian and vehicle levels. With the exception of the Morses Line LPOE (operating hours are 8 AM to 12 PM, 7 days a week), the other four LPOEs are operated 24 hours/7 days a week.

Table 3-5. Aesthetic and Visual Resources RVSS Tower Settings, Existing Visual Elements, and Sector Descriptions

Site Name	Local Name	RVSS Tower Location		Sector/Description		
		Setting	Existing Visual Elements (vertical)	Rural Landscape	Residential	Commercial/ Industrial/ Government
SWB-CNB-001a	Duty Free (a)	Agricultural Field	Entry/exit canopies; flagpoles; multiple light stands used to illuminate the Champlain LPOE grounds; Lacolle Canada Border Services Agency (CBSA) station with multiple light stands just over the international boundary; large gantry directional highway/ lane signs; power lines along the west side of W. Service Road and the east side of E. Service Road; cobra head streetlights on W. Service Road and E. Service Road	Agricultural fields to the east	N/A	Commercial/ Industrial facilities to the south and west; Champlain LPOE to the north
SWB-CNB-002a	Glass Road (a)	Forested Area	Power line along the west side of Glass Road; tall trees	Forested area to the north; farmsteads to the south; agricultural fields to the east, south, and west	N/A	N/A
SWB-SWS-001b	Rainville Road (b)	Agricultural Field	Power lines along the east side of Rainville Road	Agricultural fields to north, east, south, and west; farmsteads to north and south	N/A	N/A

Table 3-5. Aesthetic and Visual Resources RVSS Tower Settings, Existing Visual Elements, and Sector Descriptions, continued

Site Name	Local Name	RVSS Tower Location		Sector/Description		
		Setting	Existing Visual Elements (vertical)	Rural Landscape	Residential	Commercial/Industrial/Government
SWB-RIB-001	Morses Line (Clements parcel)	Agricultural Field	Exit canopy; flag poles; power lines along the east side of Morses Line Road; and the modern (ca. 2015) Morses Line CBSA station with multiple light stands just over the international boundary	Agricultural fields to the east, south, and west	N/A	Morses Line LPOE to the south; Morses Line CBSA station to the north
SWB-NVB-001	Letourneau Field	Agricultural Field	Power line along west side of Holland Road (T-1)	Rolling agricultural fields to north, east, south, and west; farmsteads to the north and east	N/A	N/A
SWB-NVB-002	Derby Line I-91 LPOE	Derby Line I-91 LPOE	Entry/exit canopies; flagpoles; multiple light stands used to illuminate the Derby Line I-91 LPOE grounds; large gantry directional highway/ lane signs; Caswell Avenue overpass; Stanstead CBSA station with multiple light stands just over the international boundary	Agricultural fields and forested areas to the east and south	Residential development to the north and west	Derby Line I-91 LPOE

Table 3-5. Aesthetic and Visual Resources RVSS Tower Settings, Existing Visual Elements, and Sector Descriptions, continued

Site Name	Local Name	RVSS Tower Location		Sector/Description		
		Setting	Existing Visual Elements (vertical)	Rural Landscape	Residential	Commercial/Industrial/Government
SWB-NVB-003	North Troy (Ammex Parcel)	Open space/commercial parcel	Entry/exit canopies; flagpoles; multiple light stands used to illuminate the North Troy LPOE grounds; equipment in the traffic lanes; and power lines along the east side of Route 243; tall trees	Forested areas to the north, east, and west	N/A	North Troy LPOE to the south
SWB-RIB-002a	Pinnacle Hill (a)	Agricultural Field	Tall trees (east)	Rolling agricultural fields to north, east, south, and west; farmsteads to the south and west	N/A	N/A
SWB-RIB-002b	Pinnacle Hill (b)	Pinnacle Road LPOE	Entry/exit canopies; flagpoles; multiple light stands used to illuminate the Pinnacle Road LPOE grounds; power line on west side of Pinnacle Road; tall trees	Forested area to the west; farmsteads and rolling agricultural fields to the north, east, and southeast	N/A	Pinnacle Road LPOE to the south

3.10.1 **Alternative 1: No Action Alternative**

Impacts to aesthetics and visual resources in the proposed project areas were assessed on whether the vertical project elements would appear compatible with the existing features identified for each sector or would contrast noticeably with the setting and appear out of place.

Under the No Action Alternative, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would not occur at any location, and therefore, no impacts to aesthetics and visual resources would occur for any of the three sectors.

3.10.2 **Alternative 2: Preferred Alternative**

Under Alternative 2, construction of the proposed relocatable or fixed RVSS towers and associated infrastructure would occur within a small construction footprint (200 ft. by 200 ft.) within several different settings: agricultural fields, forested area, open space within a commercial parcel, and within LPOE boundaries (Table 3-6). Existing vertical visual elements were defined in the vicinity of each proposed RVSS tower location for comparative purposes (Table 3.9-1), and manmade and natural features that would provide screening to obscure the proposed RVSS towers in the various sectors were identified (Table 3.9-2).

Impacts were determined for each of the three sectors (rural landscape, residential, and commercial/industrial/government) by proposed RVSS tower location (Table 3-6). Negligible impacts to aesthetics and visual resources were identified at five RVSS tower locations and were based on the presence of existing manmade or vegetative screening of views toward the tower locations and the incorporation of the RVSS tower within the commercial/industrial /government sector with similar existing vertical technological elements. Minor impacts were identified at four locations based on the visibility of the RVSS tower within the rural landscape sector in close proximity to farmsteads; however, the primary views from the farmsteads occurred in directions away from the RVSS tower location. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. The presence of the RVSS towers would not introduce obvious visual intrusions into, nor substantially alter the open vistas associated within the Rural Landscape sector (Table 3-6). Overall, Alternative 2 would have negligible to minor impacts on aesthetics and visual resources.

Table 3-6. Aesthetic and Visual Resources Sector Impacts

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-CNB-001a	Duty Free (a)	Trees along Meridan Road would obscure the RVSS tower from surrounding farmsteads in this sector. The presence of the RVSS tower would not alter the overall aesthetics of this sector.	N/A	<p>Commercial and industrial buildings, power lines, cobra head streetlights, and vegetation and trees would partially obscure the RVSS tower from vantage points along the two frontage roads (E. Service Road and W. Service Road) in this sector. Two similar features are located within the viewshed: a cell phone tower 0.27 miles west/ southwest, and a cell phone tower in Canada, 0.76 miles north. While both towers are visible, they reflect expected vertical elements within this sector. The presence of the RVSS tower would be compatible with existing vertical elements.</p> <p>The addition of a RVSS tower, though taller than the vertical elements at the LPOE, would be compatible with existing features and expected to occur as part of the technologically advanced suite of equipment at modern ports of entry/ international crossings. The RVSS tower would not create any additional vertical visual intrusion in this sector.</p>	Negligible

Table 3-6. Aesthetic and Visual Resources Sector Impacts, continued

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-CNB-002a	Glass Road (a)	Primary views from the six closest farmsteads are to the east and west, looking away from the proposed RVSS tower location to the north. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. The presence of the RVSS tower would not substantially alter the overall aesthetics of this sector.	N/A	N/A	Minor
SWB-SWS-001b	Rainville Road (b)	Primary views from the two closest farmsteads are to the east and south, looking away from the proposed RVSS tower location to the north. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. The presence of the RVSS tower would not substantially alter the overall aesthetics of this sector.	N/A	N/A	Minor

Table 3-6. Aesthetic and Visual Resources Sector Impacts, continued

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-RIB-001	Morses Line (Clements parcel)	Primary views from the two closest farmsteads are to the east and west, looking away from the proposed RVSS tower location to the north. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. A similar feature, the Vermont Electric Power Company (VELCO) steel truss H-frame power transmission towers (approx. 100-150 foot high towers are located about 850 feet apart) and power lines, are located 0.35 miles southeast and while visible, does not detract from rural landscape views. The presence of the RVSS tower would not substantially alter the overall aesthetics of this sector.	N/A	The view from the 1936 Morses Line LPOE north has been previously compromised by the 2015 construction of the modern CBSA station and surrounding equipment in the traffic lanes. The addition of a RVSS tower, though taller than the surrounding vertical elements, would be compatible with existing features and expected to occur as part of the technologically advanced suite of equipment at modern ports of entry/ international crossings. The RVSS tower would not create any additional vertical visual intrusion in this sector.	Minor

Table 3-6. Aesthetic and Visual Resources Sector Impacts, continued

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-NVB-001	Letourneau Field	Rolling topography, vegetation and trees, farmsteads, and power lines would partially obscure the RVSS tower from vantage points along the existing roads in this sector. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. A similar feature, a small wind turbine attached to a silo, is located 0.90 miles south/southeast and while visible, does not detract from rural landscape views. The presence of the RVSS tower on the hill top would not substantially alter the overall aesthetics of this sector.	N/A	N/A	Negligible

Table 3-6. Aesthetic and Visual Resources Sector Impacts, continued

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-NVB-002	Derby Line I-91 LPOE	Vegetation and trees along Herrick Road and the access ramp to Caswell Avenue would partially obscure the antenna installed on the modern LPOE building from this sector. The antenna would be no taller than existing light stands around the building and would not create any additional vertical visual intrusions.	Vegetation and trees along the east side of Maple Street would obscure the view to the antenna from the residential sector. The presence of the RVSS tower would not alter the overall aesthetics of this sector.	The antenna installed on the modern LPOE building would be no taller than existing light stands around the building and represents only one additional vertical element within the LPOE facility. The addition of antenna would be compatible with existing features and expected to occur as part of the technologically advanced suite of equipment at modern ports of entry/ international crossings. The antenna would not create any additional vertical visual intrusion in this sector.	Negligible
SWB-NVB-003	North Troy (Ammex Parcel)	Trees would obscure the RVSS tower from surrounding farmsteads in this sector. The presence of the RVSS tower would not alter the overall aesthetics of this sector.	N/A	The addition of a RVSS tower, though taller than the surrounding vertical elements, would be compatible with existing features and expected to occur as part of the technologically advanced suite of equipment at modern ports of entry/ international crossings. The RVSS tower would not create any additional vertical visual intrusion in this sector.	Negligible

Table 3-6. Aesthetic and Visual Resources Sector Impacts, continued

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-RIB-002a	Pinnacle Hill (a)	Rolling topography, vegetation and trees, farmsteads, and power lines would partially obscure the RVSS tower from vantage points along the existing roads in this sector. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. A similar feature, cell phone tower in Canada, is located 2.72 miles north/northeast and while visible, does not detract from rural landscape views. The presence of the RVSS tower on the hill top would not substantially alter the overall aesthetics of this sector.	N/A	N/A	Negligible

Table 3-6. Aesthetic and Visual Resources Sector Impacts, continued

Site Name	Local Name	Sector			Impact
		Rural Landscape	Residential	Commercial/ Industrial/ Government	
SWB-RIB-002b	Pinnacle Hill (b)	Trees would minimally obscure the base of the RVSS tower from surrounding farmsteads in this sector. Primary views from the two closest farmsteads are to the southeast and southwest, looking away from the proposed RVSS tower location north of the LPOE. The linear nature of the RVSS tower would represent only a narrow intrusion in the overall rural view. The presence of the RVSS tower on the hill top would not substantially alter the overall aesthetics of this sector.	N/A	The addition of a RVSS tower, though taller than the surrounding vertical elements, would be compatible with existing features and expected to occur as part of the technologically advanced suite of equipment at modern ports of entry/ international crossings. The RVSS tower would not create any additional vertical visual intrusion in this sector.	Minor

4.0 MITIGATION MEASURES

To prevent and minimize potential adverse impacts associated with the proposed action, best management practices and mitigation measures would be implemented during the construction and post construction phases of the project. General and resource specific best management practices and mitigation measures are listed below by impact topic.

CBP would ensure that all construction personnel would be instructed on procedures to follow in case previously unidentified archeological resources were uncovered during construction. Should construction unearth previously undiscovered archeological resources, work would cease in the area of any discovery and a cultural resources specialist would be contacted. Consultation with the New York or Vermont State Historic Preservation Officer would be conducted, in accordance with 36 CFR§ 800.13, Post Review Discoveries. In the unlikely event that human remains were discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. BMPs found in "Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning" prepared by the U.S. Fish and Wildlife Service Migratory Bird Program (USFWS 2018) would be followed.

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6.0 ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
AoR	Area of Responsibility
APE	Area of Potential Effects
ARPA	Archaeological Resources Protection Act
ATV	All-Terrain Vehicles
CBP	U.S. Customs and Border Protection
CBV	Cross-Border Violator
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Db	Decibels
DHS	Department of Homeland Security
EA	Environmental Assessment
ESA	Endangered Species Act
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
LPOE	Land Ports of Entry
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NASS	National Agricultural Statistics Service
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resource Conservation Services
NRHP	National Register for Historic Preservation
NYSEG	New York State Electric & Gas
NYSOPRHP	New York State Office of Parks, Recreation, and Historic Preservation
ORV	Off-Road Vehicles
PEIS	Programmatic Environmental Impact Statement
RVSS	Remote Video Surveillance Systems
SHPO	State Historic Preservation Officers
SIP	State Implementation Plan
TCP	Traditional Cultural Properties
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
U.S.C	U.S. Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

VCGI	Vermont Center for Geographical Information
VEC	Vermont Electric Co-Op
VTDHP	Vermont Division of Historic Preservation
WOTUS	Waters of the United States

7.0 LIST OF PREPARERS

The EA was prepared collaboratively between CBP and contractor preparers.

Name	Agency/ Organization	Discipline/ Expertise	Experience	Role in Preparing EA
Paul C. Schmidt	CBP	Environmental Resources Planning and Natural Resources	40 years environmental resources planning and NEPA document preparation	Project Manager
Margaret Rockwell	CBP	Environmental Resources Planning	10 years environmental resources planning and NEPA document preparation	Environmental Specialist
Carol-Ann Stewart	Parsons	Program Management	27 years of program and project management experience	Project Oversight
Susan Bupp	Parsons	Cultural Resources	44 years of Cultural Resources management and NEPA documentation	Section 106 Coordination, and Cultural Resources Identification and Impact Analysis, Aesthetic and Visual Resources
Rachael Mangum	Parsons	Cultural Resources	19 years of cultural resources experience	Cultural Resources and SHPO Consultations
Amanda Molsberry	Parsons	Socioeconomic Impacts Analysis	15 years of NEPA and socioeconomic resources experience	Socioeconomic Impacts Analysis
Hung Truong	Parsons	Land Use	2 years of NEPA experience	Land Use, Utilities and Infrastructure
Cheryl Quaine	Parsons	Natural Resources	25 years of NEPA and natural resources experience	Vegetation, Surface Waters/WOTUS, Wildlife, T&E Species, FONSI