

**FINAL
ENVIRONMENTAL ASSESSMENT
AND
DRAFT FINDING OF NO SIGNIFICANT IMPACT
FOR CONSTRUCTION OF AN
ARMED FORCES RESERVE CENTER AND IMPLEMENTATION OF BRAC05
RECOMMENDATIONS AT
RUTLAND, VERMONT**



Prepared for:

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March 2010

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**FINDING OF NO SIGNIFICANT IMPACT (FNSI) FOR THE CONSTRUCTION OF AN
ARMED FORCES RESERVE CENTER AND
IMPLEMENTATION OF BRAC 05 RECOMMENDATIONS AT
RUTLAND, VERMONT**

Pursuant to the Council on Environmental Quality (CEQ) regulations (40 *Code of Federal Regulations* [CFR] 1500-1508) for implementing the procedural provisions of the *National Environmental Policy Act* (NEPA) (42 U.S.C. 4321 et. seq.) and the U.S. Department of Army Regulation 32 CFR 651 (*Environmental Analysis of Army Actions*; Final Rule), as well as policy and guidance provided by the *Base Realignment and Closure Manual for Compliance with the National Environmental Policy Act*, the U.S. Army conducted an environmental assessment (EA) of potential environmental effects associated with implementation of Base Realignment and Closure (BRAC) realignment actions.

Purpose and Need. On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended certain realignment actions in the vicinity of Rutland, Vermont. These recommendations were approved by the President on September 23, 2005 and were forwarded to Congress, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended. The BRAC Commission made the following recommendations concerning Rutland, Vermont:

“Close Army Reserve Center, Courcelle Brothers and associated Organizational Maintenance Shop, Rutland, VT; close Army Reserve Army Maintenance Support Activity, Rutland, VT and relocate all units to a new Armed Forces Reserve Center and Organizational Maintenance Facility in the vicinity of Rutland, VT, if the Army is able to acquire land suitable for the construction of the facilities. The new AFRC and Maintenance Activity shall have the ability to accommodate units from the following facility: Vermont Army National Guard Armory Rutland, VT; if the state decides to relocate those National Guard units.”

Description of the Proposed Action. To support the BRAC recommendations, the Proposed Action includes construction of an Armed Forces Reserve Center (AFRC) training building, Army Maintenance Support Activity (AMSA) and Organizational Maintenance Shop (OMS), and Organizational Unit Storage. Future site improvements are expected to require approximately 15 acres. The Army would acquire new land for construction of these facilities. The new AFRC would serve about 300 personnel on a rotating basis, mostly on weekends. The facility would employ approximately 28 permanent full-time personnel. The maximum expected use of the new facility would be about 150 members per weekend.

Alternatives Considered. Potential site locations for the AFRC were screened for inclusion in this EA. Screening criteria consisted of safety constraints, geographic and environmental constraints, and operational constraints. Based on the screening criteria, three alternatives were evaluated in this EA.

Alternative 1. Alternative 1 is to construct the AFRC and associated facilities at a site, known as 13B in the EA, along U.S. Route 7 North and Post Road in the Town of Rutland, Rutland County, Vermont.

Alternative 2. Alternative 2 is to construct the AFRC and associated facilities at a site adjacent to U.S. Route 7 in North Clarendon, Rutland County, Vermont.

The No Action Alternative. CEQ regulations require analysis of the No Action Alternative in an EA, for it serves as the baseline against which the impacts of the Proposed Action and alternatives will be evaluated. Accordingly, the No Action Alternative is evaluated in this EA.

The Army has selected Alternative 1 as the Preferred Alternative.

Factors Considered in Determining that an Environmental Impact Statement is not Required.

Impacts were analyzed for land use, aesthetics and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics, transportation, utilities, and hazardous and toxic substances. Implementation of the proposed realignment actions would not have any significant adverse impacts on any of the resource areas at the Preferred Alternative Site in Rutland, Vermont or on areas surrounding the property. The U.S. Fish and Wildlife Service, the Vermont Fish and Wildlife Department, the U.S. Army Corps of Engineers (USACE) New England District Regulatory Division, and the State Historic Preservation Office concur with this conclusion.

Minor impacts associated with the Preferred Alternative are expected to occur to: aesthetics, air quality, noise, geology and soils, biological resources (wetlands), water resources, transportation, and cumulative effects. The Army will follow best management practices during construction to reduce these impacts.

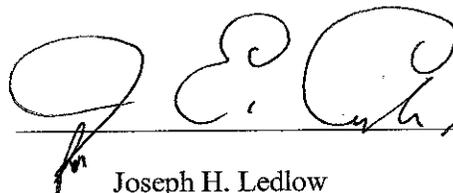
Although the Army has attempted to avoid impacts to wetlands during the planning and design process, there would be an unavoidable permanent impact to approximately 7,612 square feet of jurisdictional wetlands. The Army will submit an application to the USACE under the Vermont Regional General Permit (Category 2). The Army has coordinated with the USACE New England District Regulatory Division throughout this process; wetland impacts are not significant and mitigation is not required.

Analysis of the Alternative 2 Site indicates that wetlands at this site would sustain impacts requiring mitigation. A greater unavoidable permanent impact would occur at the Alternative 2 Site. The site is smaller and does not allow the Army the flexibility to avoid and minimize impacts to wetlands as the Preferred Alternative Site.

Public Comment. A Notice of Availability (NOA) was published in *The Rutland Herald*, on January 23, 24, and 25, 2010, which announced the beginning of a 30-day public review period. In the NOA interested parties were invited to review and comment on the EA and Draft FNSI, and were informed that the EA and Draft FNSI are available via the World Wide Web at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm and at the Rutland Free Library, 10 Court Street, in Rutland, Vermont. The Army also distributed the EA to those individuals and agencies listed in Section 7.0 of the EA. No comments from the general public were received. Several editorial comments were received from the USACE New England District Regulatory Division, and those comments have been addressed in the EA.

Conclusion. The EA concludes that implementation of the Proposed Action would not have a significant impact on the quality of the natural or the human environment. Because no significant environmental impact would result from implementation of the Proposed Action, an environmental impact statement is not required and will not be prepared.

Date: 8 MAR 2010

 COL, EW, PFW

Joseph H. Ledlow
Colonel, US Army Reserve

ENVIRONMENTAL ASSESSMENT

**CONSTRUCTION OF AN ARMED FORCES RESERVE CENTER AND
IMPLEMENTATION OF BRAC 05 RECOMMENDATIONS AT
RUTLAND, VERMONT**

Prepared by:

**U.S. ARMY CORPS OF ENGINEERS
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**Joseph H. Ledlow
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ENVIRONMENTAL ASSESSMENT

LEAD AGENCY: Mobile District, U.S. Army Corps of Engineers

TITLE OF PROPOSED ACTION: Environmental Assessment for the Construction of an Armed Forces Reserve Center and Implementation of BRAC 05 Recommendations at Rutland, Vermont

AFFECTED JURISDICTIONS: Rutland, Rutland County, Vermont

PREPARED BY: AGEISS Inc. and the U.S. Army Corps of Engineers

APPROVED BY: Colonel Joseph H. Ledlow

ABSTRACT: The U.S. Army Corps of Engineers is preparing environmental documentation for the proposed Armed Forces Reserve Center (AFRC) at Rutland, Vermont as part of the restructuring of military bases through the Defense Base Closure and Realignment Act. This environmental assessment (EA) addresses the potential environmental, socioeconomic, and cultural impacts of this proposal and its alternatives. To implement Base Realignment and Closure (BRAC) recommendations, the U.S. Army proposes to construct a new AFRC and related facilities at a site in the vicinity of Rutland, Vermont, to support the changes in force structure.

Based on the environmental impact analyses described in this EA it has been determined that implementation of the Proposed Action would not have a significant impact on the quality of the natural or the human environment. Because no significant environmental impact would result from implementation of the Proposed Action, an environmental impact statement is not required and a Finding of No Significant Impact (FNSI) will be published in accordance with the *National Environmental Policy Act*.

REVIEW PERIOD: A notice of availability (NOA) was published in *The Rutland Herald*, on January 23, 24, and 25, 2010, which announced the beginning of a 30-day public review period. In the NOA interested parties were invited to review and comment on the EA and Draft FNSI, and were informed that the EA and Draft FNSI are available via the World Wide Web at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm and at the Rutland Free Library, 10 Court Street, in Rutland, Vermont. The Army also distributed the EA to those individuals and agencies listed in Section 7.0 of this EA. No comments from the general public were received. Several editorial comments were received from the USACE New England District Regulatory Division, and those comments have been addressed in the EA. A copy of the comments is included in Appendix A of this EA.

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EXECUTIVE SUMMARY

ES.1 Introduction

This environmental assessment (EA) analyzes the potential environmental impacts associated with the United States (U.S.) Army's Proposed Action near Rutland, Vermont. This action is to support the U.S. Army Reserve 99th Regional Support Command (RSC). To enable implementation of Base Realignment and Closure (BRAC) recommendations, the Army proposes to provide necessary facilities to support the changes in force structure.

This EA was developed in accordance with the *National Environmental Policy Act* (NEPA) (42 U.S.C. § 4321 et seq.); implementing regulations issued by the President's Council on Environmental Quality (CEQ), 40 *Code of Federal Regulations* (CFR) Parts 1500-1508; and *Environmental Analysis of Army Actions*, 32 CFR Part 651.

ES.2 Background/Setting

Nestled in Vermont's Green Mountains, Rutland rests in a wide valley between two mountain ranges, in a natural north-south passage, in west central Vermont. The City of Rutland is the second largest city in Vermont and is at the crossroads of U.S. Route 4, connecting east west to White River Junction and Glens Falls, New York, and U.S. Route 7, connecting north south to Burlington and Bennington. The City is an economic, cultural and social leader of the region, and is the region's growth center.

ES.3 Proposed Action

To support the BRAC recommendations, the Proposed Action includes the construction and operation of a new Armed Forces Reserve Center (AFRC) near Rutland, Vermont. As directed by BRAC 05, the new AFRC would be used by Army Reserve units and Army National Guard units that would be realigned as a result of closure of the Courcelle Brothers United States Army Reserve Center, the Army Reserve Army Maintenance Support Activity, and the Vermont Army National Guard Armory, all currently located in Rutland. The Proposed Action also includes construction and operation of an Army Maintenance Support Activity (AMSA) and Organizational Maintenance Shop (OMS) which would provide work bays and maintenance administrative support. There would also be an Organizational Unit Storage building and parking space for military and privately-owned vehicles (POVs).

Approximately 152 vehicles including high mobility multi-purpose wheeled vehicles (Humvees), semi tractors, and commercial cars and trucks are anticipated as a result of the realignment of Army Reserve and Army National Guard units to the new AFRC. In addition, a maximum of approximately 113 flat bed, cargo, and specialty trailers are also anticipated.

The new AFRC would serve about 300 personnel on a rotating basis, mostly on weekends. The facility would employ approximately 28 permanent full-time personnel. The maximum expected use of the new facility would be about 150 members per weekend, and there would be parking for 141 POVs.

ES.4 Alternatives

Five potential site locations for the AFRC were screened for inclusion in this EA. Screening criteria consisted of safety constraints, geographic and environmental constraints, and operational constraints. Based on the selection criteria, three alternatives, Alternative 1, Alternative 2, and the No Action Alternative, were developed for evaluation in this EA.

Alternative 1 is to construct the AFRC at a site located along U.S. Route 7 North and Post Road in the Town of Rutland, Rutland County, Vermont. Throughout the EA process, the Army analyzed two specific locations within this parcel. The portion of this site selected by the Army as the Preferred Alternative comprises about 15 acres with access from Post Road. This site has fewer constraints than Alternative 2, and therefore, this site is considered to be the Preferred Alternative. Alternative 2 is to construct the AFRC at a site located in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7B and U.S. Route 7 and comprises about 14 acres.

CEQ regulations require analysis of the No Action Alternative in an EA, for it serves as the baseline against which the impacts of the proposed action and alternatives are evaluated. Accordingly, the No Action Alternative is evaluated in this EA.

ES.5 Environmental Consequences

Twelve resource areas were characterized and evaluated for potential impacts from Alternative 1 (Preferred Alternative), Alternative 2, and the No Action Alternative. Impacts are summarized below and are the same for both alternatives unless otherwise stated.

Under the Proposed Action, land use would change from agriculture to light industrial, which is consistent with the Town of Rutland's planning for both sites considered as alternatives. The Proposed Action would cause minor impacts to aesthetics, air quality, noise, transportation, geology and soils, and biological resources from construction of the AFRC. These impacts would not be significant, and the Army will follow best management practices during construction to reduce these impacts.

Water resources at the Preferred Alternative Site would not be impacted. At the Alternative 2 Site, a groundwater supply well would be required and groundwater withdrawals could result in a decline of the water level for nearby groundwater users.

Provisions contained in "Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act" will be followed to the greatest extent possible on this project. The effect of implementing these provisions would minimize erosion and control stormwater to the extent required of Federal facilities.

The U.S. Fish and Wildlife Service and the Vermont Fish & Wildlife Department have reviewed this project and have concluded that the Proposed Action would not cause any impacts to rare, threatened or endangered species and that no natural communities of concern are known to occur in the vicinity of the proposed project areas.

The Army conducted a wetlands delineation as part of this EA and has worked closely with the U.S. Army Corps of Engineers (USACE) New England District Regulatory Division. Although the Army has attempted to avoid impacts to wetlands during the planning and design process there would be an unavoidable permanent impact to approximately 7,612 square feet of jurisdictional wetlands which will require a formal Regional General Permit (RGP) Category 2 permit from the USACE. Therefore the Army will prepare and submit a RGP Category 2 permit application package to the USACE New England District Regulatory Division, Vermont Project Office. The USACE New England District Regulatory Division has indicated that the wetlands impacted are not significant and will not require mitigation. Coordination through USACE, and implementation of best management practices for working in areas with wetlands would ensure that impacts to wetlands on the site would be minimized.

Extensive wetlands occur at the Alternative 2 Site, but have not been delineated. According to the USACE New England District Regulatory Division Project Manager, a greater unavoidable permanent impact would be expected at the Alternative 2 Site because the site is much smaller and does not allow the Army the flexibility to avoid and minimize impacts to wetlands as does the Preferred Alternative Site.

Impacts to cultural resources are not expected at the Preferred Alternative Site, as it has been disturbed through agricultural use. The Army completed Phase I and Phase II cultural surveys at the Preferred Alternative Site and has determined “no historic properties affected” by the proposed action as per 36 CFR 800.4(d)(1). Section 106 consultation and coordination has been conducted with the State Historic Preservation Office (SHPO) via the Vermont Division for Historic Preservation. The SHPO concurred with the Army’s determination of no effect on December 16, 2009. No Native American concerns regarding the Proposed Action have been identified. The 99th RSC has consulted with the federally recognized tribe, Stockbridge Munsee Community of Wisconsin. Potential impacts to cultural resources from the Proposed Action would not be significant.

The Proposed Action would cause a short-term minor beneficial increase in local socioeconomic resources as there would be creation of construction jobs and increased use of hotels and businesses surrounding the site

Limited short-term and long-term impacts associated with increased vehicle traffic on U.S. Route 7 would occur during construction and operation of the AFRC. Under Alternative 2, access to U.S. Route 7 may require alteration to the current interchange by the Vermont Agency of Transportation to accommodate the increase in weekend traffic. Such alterations could include reconfiguration, widening, signalization, or striping.

Impacts to hazardous and toxic substances management and utilities would not be significant. All facilities would be designed to meet the Leadership in Energy and Environmental Design Silver design standards in accordance with Army sustainability policies. An extension of available utilities to the proposed AFRC would be necessary at either site.

Cumulative Impacts. Cumulative effects are those environmental impacts that result from the incremental effects of other past, present, or reasonably foreseeable future actions when combined with the Proposed Action. No present or reasonably foreseeable actions within or adjacent to the proposed project areas have been identified. Past actions that have resulted in conversion of agricultural land to developed land were analyzed for cumulative impacts; resulting impacts would not be significant.

ES.6 Mitigation Responsibility

No mitigation measures are required for the Proposed Action discussed in this EA because resulting impacts would not meet the significance criteria described for each resource in Section 4.0; that is, the impacts would not be significant.

ES.7 Findings and Conclusions

Direct, indirect, and cumulative impacts of Alternative 1, Alternative 2, and the No Action Alternative have been considered. Alternative 1 is the Army's Preferred Alternative because it best allows the Army to efficiently provide safe training facilities for Army Reserve and Army National Guard units that would use the facilities. No significant impacts would occur. Cumulative impacts analysis resulted in no significant impact. Therefore, the issuance of a Finding of No Significant Impact is warranted, and preparation of an environmental impact statement is not required. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law to be implemented if the Army is able to acquire land suitable for the construction of the facilities.

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LIST OF ACRONYMS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AFRC	Armed Forces Reserve Center
AIRFA	American Indian Religious Freedom Act
AMSA	Army Maintenance Support Activity
APCD	Air Pollution Control Division
APE	area of potential effect
ARPA	Archaeological Resources Protection Act
ASTM	American Society of Testing and Materials
ATFP	Anti-terrorism/Force Protection
BMP	best management practice
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CO	carbon monoxide
CVPS	Central Vermont Public Services
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel(s)
DoD	U.S. Department of Defense
EA	environmental assessment
ECP	Environmental Condition of Property
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FNSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
HVAC	heating, ventilation, and air conditioning
LEED	Leadership in Energy and Environmental Design
m	meter
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

LIST OF ACRONYMS (continued)

O ₃	ozone
OMS	Organizational Maintenance Shop
OTR	Ozone Transport Region
OWS	oil/water separator
Pb	lead
pCi/L	picocuries per liter
PM ₁₀	particulate matter with an aerodynamic size less than or equal to 10 microns
PM _{2.5}	particulate matter with an aerodynamic size less than or equal to 2.5 microns
POV	privately owned-vehicle
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
ROI	region of influence
RRC	Regional Readiness Command
RSC	Regional Support Command
RTV	rational threshold value
SARA	Superfund Amendments and Reauthorization Act
SHPO	State Historic Preservation Officer
SO ₂	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan
tpy	ton(s) per year
TSCA	Toxic Substance Control Act
U.S.	United States
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VANR	Vermont Agency of Natural Resources
VT RGP	Vermont Regional General Permit
VTARNG	Vermont Army National Guard

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1.0 PURPOSE, NEED AND SCOPE

1.1 Introduction

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur in the vicinity of Rutland, Rutland County, Vermont. These recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The Congress did not alter any of the BRAC Commission's recommendations, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended. This environmental assessment (EA) analyzes the potential environmental impacts associated with the U.S. Army's Proposed Action near Rutland, Vermont.

The BRAC Commission made the following recommendations concerning Rutland, Vermont:

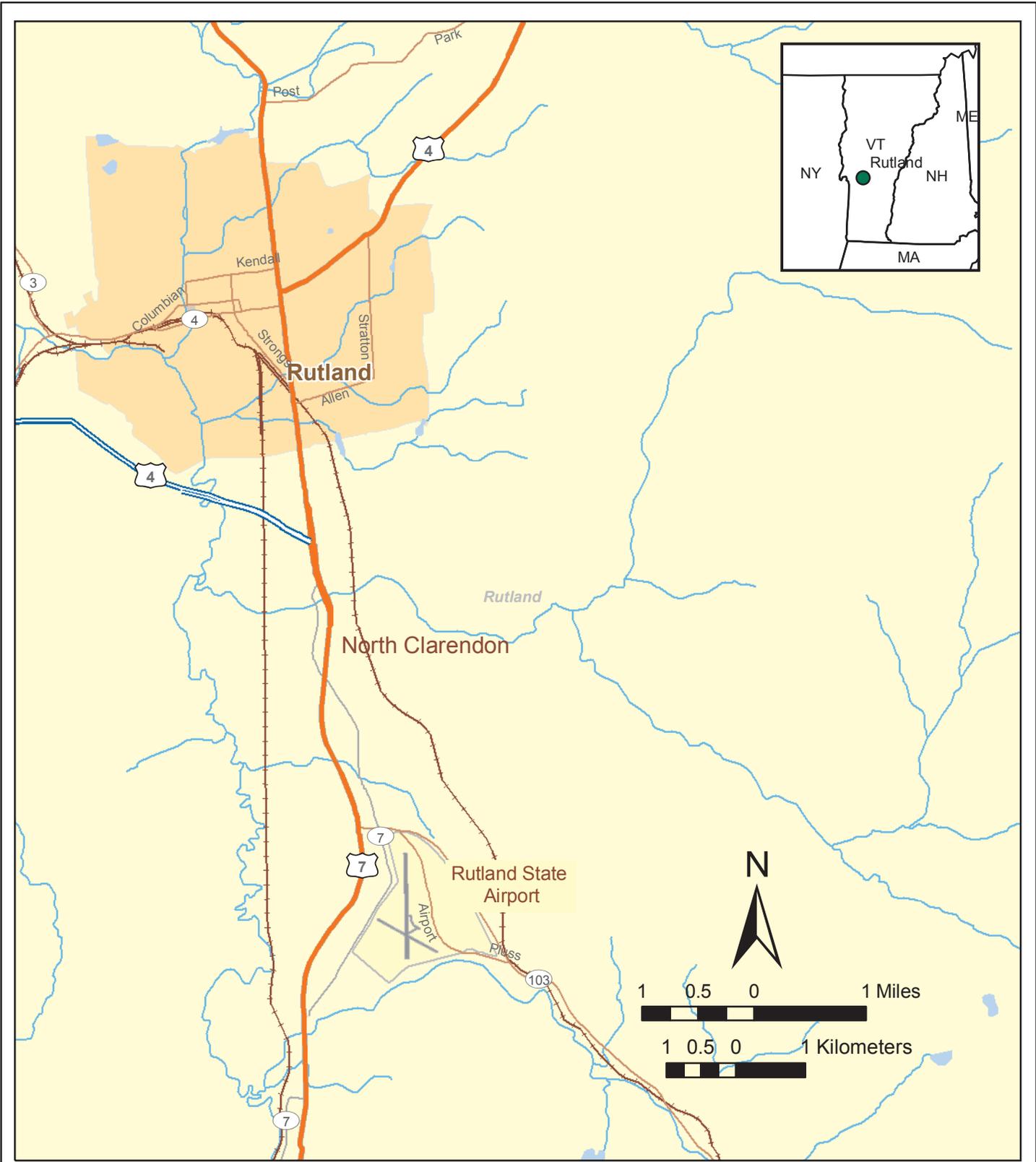
“Close Army Reserve Center, Courcelle Brothers and associated Organizational Maintenance Shop, Rutland, VT; close Army Reserve Army Maintenance Support Activity, Rutland, VT and relocate all units to a new Armed Forces Reserve Center and Organizational Maintenance Facility in the vicinity of Rutland, VT, if the Army is able to acquire land suitable for the construction of the facilities. The new AFRC and Maintenance Activity shall have the ability to accommodate units from the following facility: Vermont Army National Guard Armory Rutland, VT; if the state decides to relocate those National Guard units.”

To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities in the vicinity of Rutland, Rutland County, Vermont, to support the changes in force structure. Figure 1-1 shows the location of Rutland, Vermont. Details on the Proposed Action are provided in Section 2.0.

1.2 Purpose and Need

The purpose of the Proposed Action is to provide a new AFRC in the vicinity of Rutland, Vermont as directed by the BRAC Commission's recommendations. The AFRC is needed to ensure that adequate training and administrative space is available to support reserve units realigned from area facilities and the addition of the Vermont Army National Guard (VTARNG) Armory in Rutland, Vermont.

The need for the Proposed Action is to improve the ability of the Nation to respond rapidly to challenges of the 21st century. The Army's mission is to defend the United States and its territories, support national policies and objectives, and defeat nations and other parties responsible for aggression that endangers the peace and security of the United States. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations.



Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 1-1
 Rutland, Vermont Location Map



The following paragraphs discuss the major initiatives that contribute to the Army's need for the Proposed Action near Rutland, Vermont.

Base Realignment and Closure. In previous rounds of BRAC, the explicit goal was to save money and downsize the military in order to reap a "peace dividend." In the 2005 BRAC round, U.S. Department of Defense (DoD) sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness, and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations at Rutland, Vermont in order to achieve the objectives for which Congress established the BRAC process.

Installation Sustainability. On October 1, 2004, the Secretary of the Army and the Chief of Staff issued *The Army Strategy for the Environment*. The strategy focuses on the interrelationships of mission, environment, and community. A sustainable installation simultaneously meets current and future mission requirements, safeguards human health, improves quality of life, and enhances the natural environment. A sustained natural environment is necessary to allow the Army to train and maintain military readiness.

1.3 Scope

This EA was developed in accordance with the *National Environmental Policy Act* (NEPA) (42 U.S.C. § 4321 et seq.); implementing regulations issued by the President's Council on Environmental Quality (CEQ), 40 *Code of Federal Regulations* (CFR) Parts 1500-1508; and 32 CFR Part 651 [*Environmental Analysis of Army Actions*]. Its purpose is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and alternatives. This EA does not include the closure of the Army Reserve Center, Courcelle Brothers and associated Organizational Maintenance Shop, Rutland, Vermont or the Army Reserve Army Maintenance Support Activity, Rutland, Vermont. Those actions are subject to separate NEPA consideration.

This EA identifies, documents, and evaluates environmental effects of the proposed realignment near Rutland, Vermont. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians analyzed the Proposed Action and alternatives in light of existing conditions and identified relevant beneficial and adverse effects associated with the actions. The Proposed Action is described in Section 2.0 and the alternatives are described in Section 3.0. Conditions considered the "environmental baseline" conditions, are described in Section 4.0, Affected Environment and Consequences. The expected effects of the Proposed Action, also described in Section 4.0, are presented immediately following the description of the environmental baseline conditions for each resource addressed in the EA. Section 4.0 also addresses the potential for cumulative effects, and mitigation measures are identified where appropriate. Section 5.0 provides conclusions summarizing the nature of expected effects, and identifies the environmentally preferred alternative. The list of preparers of this EA is presented in Section 6.0, the document distribution list is presented in Section 7.0, references cited in this document are provided in Section 8.0, and the persons consulted list is presented in Section 9.0.

The Defense Base Closure and Realignment Act of 1990 specifies that NEPA does not apply to actions of the President, the BRAC Commission, or the DoD, except “(i) during the process of property disposal, and (ii) during the process of relocating functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected but before the functions are relocated (Sec. 2905(c)(2)(A), Public Law 101-510, as amended).” The law further specifies that in applying the provisions of NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider “(i) the need for closing or realigning the military installation which has been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected (Sec. 2905(c)(2)(B)).” The Commission’s deliberation and decision, as well as the need for closing or realigning a military installation, are exempt from NEPA. Accordingly, this EA does not address the need for realignment.

The decision to be made is how the Army will implement the BRAC recommendations near Rutland, Vermont, and, as appropriate, carry out mitigation measures that would reduce effects on resources. The decision on how to implement the realignment will be based on strategic, operational, environmental, and other considerations, including the results of this analysis.

1.4 Public Involvement

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the Proposed Action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process.

Public participation opportunities with respect to this EA and decision-making on the Proposed Action are guided by 32 CFR Part 651. A Notice of Availability (NOA) was published in *The Rutland Herald*, on January 23, 24, and 25, 2010, which announced the beginning of a 30-day public review period. In the NOA interested parties were invited to review and comment on the EA and Draft FNSI, and were informed that the EA and Draft FNSI are available via the World Wide Web at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm and at the Rutland Free Library, 10 Court Street, in Rutland, Vermont. The Army also distributed the EA to those individuals and agencies listed in Section 7.0 of this EA. No comments from the general public were received. Several editorial comments were received from the USACE New England District Regulatory Division, and those comments have been addressed in the EA. A copy of the comments is included in Appendix A of this EA.

The public may obtain information on the status and progress of the Proposed Action and the EA through the 99th Regional Support Command (RSC) by contacting Ms. Laura Dell’Olio at (609) 562-7661 or emailing her at laura.dellolio@usar.army.mil.

1.5 Regulatory Framework

A decision on whether to proceed with the Proposed Action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, the Army is guided by relevant statutes (and their implementing regulations) and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning. These include the Clean Air Act (CAA), Clean Water Act (CWA), Noise Control Act, Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Archaeological Resources Protection Act (ARPA), Native American Graves Protection and Repatriation Act (NAGPRA), American Indian Religious Freedom Act (AIRFA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Superfund Amendments and Reauthorization Act (SARA), and Toxic Substance Control Act (TSCA). EOs bearing on the Proposed Action include EO 11988 (*Floodplain Management*), EO 11990 (*Protection of Wetlands*), EO 12088 (*Federal Compliance with Pollution Control Standards*), EO 12580 (*Superfund Implementation*), EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), EO 13123 (*Greening the Government through Efficient Energy Management*), EO 13175 (*Consultation and Coordination with Indian Tribal Governments*), and EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*), and EO 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*). These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full texts of the laws, regulations, and EOs are available on the Defense Environmental Network & Information Exchange website at <https://www.denix.osd.mil>.

2.0 PROPOSED ACTION

2.1 Introduction

This section describes the Army's Proposed Action for carrying out the BRAC Commission's recommendations. The Proposed Action includes land acquisition, construction, and future use of an AFRC. The details of the facilities and operations, equipment, and personnel for the Proposed Action are described below.

2.2 Facilities and Operations

The Proposed Action includes the construction and operation of the following facilities:

- 62,500-square-foot AFRC training building
- 7,400-square-foot Army Maintenance Support Activity (AMSA) and Organizational Maintenance Shop (OMS)
- 3,300-square-foot Organizational Unit Storage

The Proposed Action requires approximately 15 acres. The Army would acquire new land for construction of these facilities. The AFRC training building would provide administrative, educational, assembly, library, learning center, vault, weapons simulator, and physical fitness areas for two Army Reserve units and three Army National Guard units. The AMSA/OMS would provide work bays and maintenance administrative support. The Proposed Action would also provide unit maintenance training, unit storage, and parking space for military and privately-owned vehicles (POVs).

Activities at the AFRC would be training-related, with no live-weapons firing. On training weekends, reservists would either commute to the AFRC or stay in local hotels. Activities at the maintenance building would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. Occasionally, vehicles from neighboring Reserve Centers that do not have an AMSA/OMS could be brought to the Rutland AFRC for maintenance and/or certain types of repair.

The facilities would be permanent construction with reinforced concrete foundations; concrete floor slabs; structural steel frames; masonry veneer walls; standing seam metal roofs; heating, ventilation, and air conditioning (HVAC) systems; and plumbing, mechanical, electrical, and security systems. Paved areas would include about 4,500 square yards for POV parking; about 5,200 square yards of parking for military equipment; and about 7,300 square yards for the access road.

Supporting improvements are also proposed to complement the facilities, including walkways, grading, clearing and landscaping, extension of utility services, security fencing, security gates, and general site improvements. Anti-terrorism/Force Protection (ATFP) safety and security regulations would be incorporated into the facility designs and siting.

2.3 Equipment

A maximum of approximately 152 vehicles including high mobility multi-purpose wheeled vehicles (Humvees), semi tractors, and commercial cars and trucks are anticipated as a result of the realignment of Army Reserve and Army National Guard units to the new AFRC. In addition, a maximum of approximately 113 flat bed, cargo, and specialty trailers are also anticipated. Any fuel-dispensing semi-trailers (5,000 gallons) would be stored on-site empty. Occasionally, some of these vehicles could be staged and then moved as a convoy for off-site training.

2.4 Personnel

The new AFRC would serve about 300 personnel on a rotating basis, mostly on weekends. The new facility would realign the Army Reserve units, resulting from the closure of the Courcelle Brothers United States Army Reserve Center and Army Reserve Army Maintenance Support Activity in Rutland, and Army National Guard units from the VTARNG Armory in Rutland as directed by BRAC 05. The facility would employ approximately 28 permanent full-time personnel. The maximum expected use of the new facility would be about 150 members per weekend, and there would be parking for 141 POVs (taking into account those who would carpool or use public transportation).

3.0 ALTERNATIVES

3.1 Introduction

A bedrock principle of NEPA is that an agency should consider reasonable alternatives to a proposed action. Considering alternatives helps to avoid unnecessary impacts and allows analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be capable of implementation and satisfactory with respect to meeting the purpose of and need for the action.

This section discusses all identified alternatives considered feasible, including all site locations, facilities, and the No Action Alternative. To support and sustain its current and future mission, the 99th RSC has programmed the construction of new facilities, including structures, roads, and parking lots. The 99th RSC was activated on October 1, 2008 to take over functional command from the 77th Regional Readiness Command (RRC), 94th RRC, and 99th RRC.

3.2 Development of Alternatives

Means to Accommodate Realigned Units. Relocation of units and establishment of new units involves ensuring that the Army has adequate physical accommodations for personnel and their operational requirements. BRAC recommendations direct the relocation of units to a new AFRC with an AMSA/OMS in the vicinity of Rutland, Vermont if the Army is able to acquire land suitable for the construction of the facilities.

Siting of New Construction. The Army considers both general and specific siting criteria for construction of new facilities. General siting criteria include consideration of compatibility between the functions to be performed and the land use designation for the site, adequacy of the site for the function required, proximity to related activities, distance from incompatible activities, availability and capacity of roads, efficient use of property, development density, potential future mission requirements, and special site characteristics, including environmental incompatibilities.

Specific siting criteria include consideration of location of the workforce and efficient, streamlined management of functions. Collocation of similar types of functions, as opposed to dispersion, permits more efficient use of equipment, vehicle, and other assets.

Schedule. Alternatives for scheduling of proposed realignment actions are principally affected by three factors: the availability of facilities to house realigned personnel and functions, efforts to minimize potential disruption of mission activities based on the number of personnel involved in the relocation or the amount of work to be performed, and early realization of benefits to be gained by completion of the realignments. In most cases, minor shifts in schedule would not produce different environmental results.

3.3 Alternatives to the Proposed Action

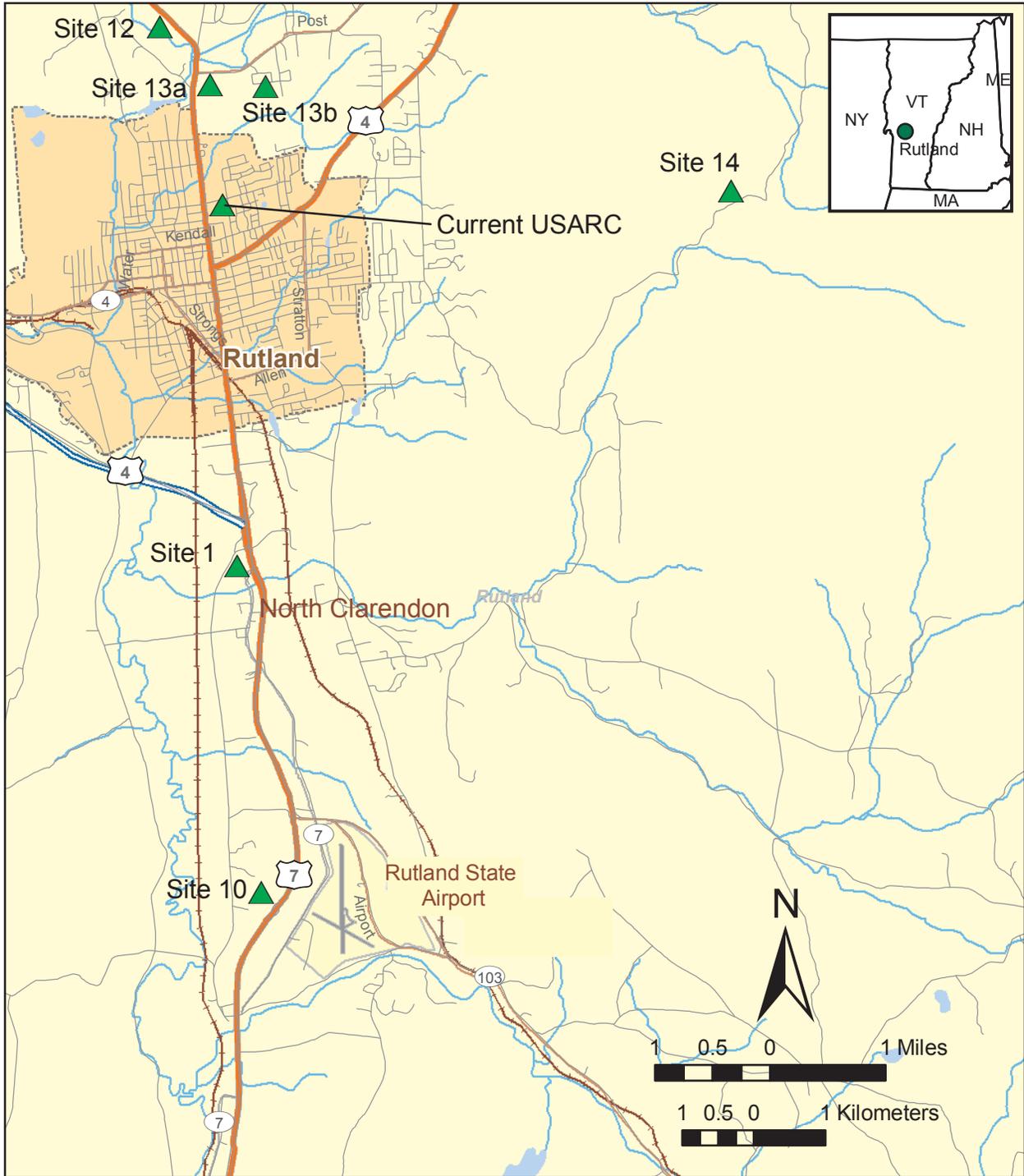
Potential site locations for the AFRC and related facilities were screened for inclusion in this EA. Screening criteria consists of safety constraints, geographic and environmental constraints, and operational constraints. The Army screened six locations in the Rutland, Vermont area. The following describes the constraints considered in the evaluation process for the six locations.

- **Safety Constraints** – Engineering and operational safety, vehicle traffic and circulation patterns including access roads
- **Geographic and Environmental Constraints** – Availability of sufficient land area and configuration for anticipated footprint of at least 15 acres; access; security requirements; existence of environmentally sensitive areas within the anticipated footprint
- **Operational Constraints** – Infrastructure demand (water, electricity, and other needs), compatibility with neighborhood, demolition costs (estimated costs to demolish any existing improvements)

Table 3-1 summarizes the site considerations and constraints as applied to each location considered. Based on the considerations, three alternatives, Alternative 1 (the Preferred Alternative), Alternative 2, and the No Action Alternative, were developed for evaluation in the EA. The No Action Alternative is required to be carried forward by CEQ. Details of these alternatives are described in Section 3.4. Section 3.5 discusses the sites that were eliminated from further consideration and the reasons for elimination. Figure 3-1 shows the locations of the sites screened for inclusion in this EA.

Table 3-1. Site Considerations and Constraints.

Site	Location Description	Safety Constraints	Geographic and Environmental Constraints	Operational Constraints	Considered in EA or Not Carried Forward
1	U.S. Route 7, North Clarendon, Vermont	Access to U.S. Route 7 may require alteration of existing interchange.	<ul style="list-style-type: none"> • Developable area is too small to allow for flexibility in design and for future expansion. • Wetlands occur in and near the anticipated building and parking footprint. 	<ul style="list-style-type: none"> • Demolition of dilapidated structure required • Would likely require installation of a well for potable water supply • Natural gas not available at the site 	Considered in EA
10	Off Squire Road, North Clarendon, Vermont	Unsuitable site access	<ul style="list-style-type: none"> • 50-foot access right-of-way is shared with neighboring property. • Extensive wetlands occur on site. 	Utility infrastructure needed	Not carried forward
12	U.S. Route 7 North; Rutland, Vermont	None	<ul style="list-style-type: none"> • Developable area may be too small to allow flexibility in design. • Wetlands occur in and near the anticipated building and parking footprint. • High flood potential exists across a majority of the site. 	No utilities on site	Not carried forward
13	U.S. Route 7 North, Post Road; Rutland, Vermont	None	<p>Site is large enough to allow for flexibility in design but has the following constraints:</p> <ul style="list-style-type: none"> • Wetlands occur throughout the western and central portions. • Presence of archeological remains has been documented in the western portion. • Eastern portion is densely wooded and would require extensive tree clearing if used. 	<ul style="list-style-type: none"> • Utility infrastructure needed • Natural gas not available at the site 	Considered in EA
14	Wheelerville Road, Mendon, Vermont	Unsuitable site access	None	Utility infrastructure needed	Not carried forward



USARC - United States Army Reserve Center

Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 3-1
 Sites Screened for Inclusion in this Environmental Assessment



3.4 Alternatives Carried Forward

3.4.1 ALTERNATIVE 1 - PREFERRED ALTERNATIVE

The Army's Preferred Alternative is to construct the AFRC and associated facilities at "Site 13" identified as the Route 7 & Post Road Site in this EA. This site has fewer constraints than Alternative 2 (Site 1, see Table 3-1), and therefore, this site is considered to be the Preferred Alternative. The location of this site, north of the City of Rutland, is also deemed beneficial. The Army Reserve and the Army National Guard units frequently travel to Camp Ethan Allen (north of Rutland) for training, and a facility located on the north side of Rutland would facilitate their travels to the training facility by not having to travel through narrow, congested city streets.

The Route 7 & Post Road Site comprises 104 acres located along U.S. Route 7 North and Post Road in the Town of Rutland, Rutland County, Vermont. Throughout the EA process, the Army analyzed two specific locations within this parcel, Locations A and B. The Army did not analyze the easternmost portion of the 104-acre parcel due to the thickly-wooded area that would require extensive clearing, lack of access, and close proximity to a residential area.

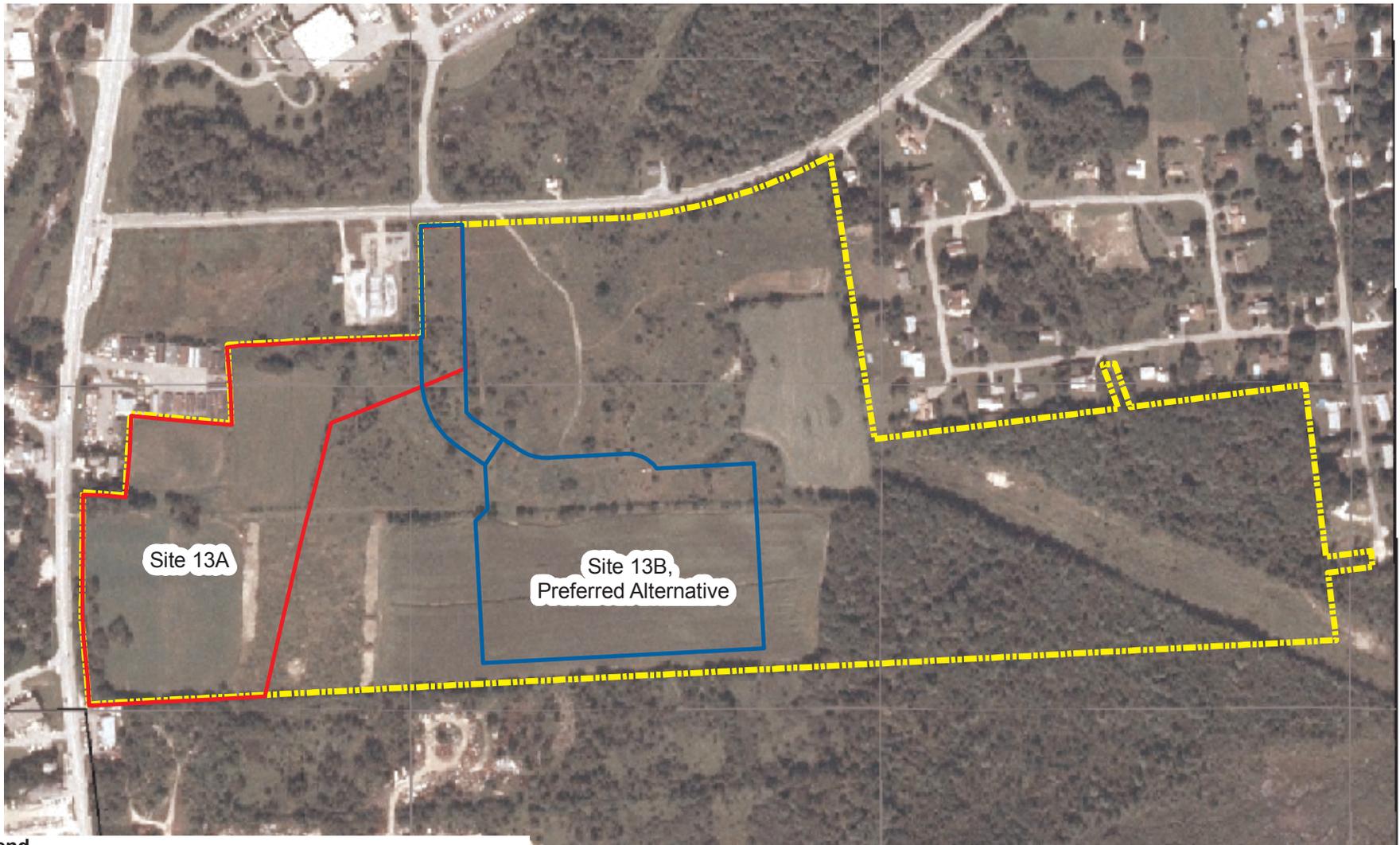
Site 13, Location A (known as Site 13A in this document) is located along the westernmost portion of the site and is comprised of about 14 acres. Operationally, this location is favored. Access would be via Post Road, and utility extensions are readily available. This location, however, presents environmental concerns. At Site 13A, the Army delineated 2.192 acres of wetlands in and near the anticipated building and parking footprint. These wetlands would need to be filled for construction of the AFRC. Additionally, during a Phase I cultural resource survey, the Army identified the presence of archeological remains considered to be significant in terms of the National Register of Historic Places (NRHP) that would be unavoidable.

Site 13, Location B (known as Site 13B in this document) is located in the central portion of the Route 7 & Post Road Site and is comprised of about 15 acres. This location would be accessed via a 1,400-foot-long driveway from Post Road and it would require longer utility extensions than those required for Site 13A. However, fewer wetlands occur (0.17 acres), and no archeological remains were identified at this location. For these reasons, the Army has selected Location B at Site 13 (that is, Site 13B) as its Preferred Alternative.

Figure 3-1 shows the location of the Route 7 & Post Road Site. Figure 3-2 shows an aerial photograph of the Route 7 & Post Road Site. Figure 3-3 shows the conceptual site layout of the proposed facilities on this site. For the Proposed Action, the Army would acquire the 15 acres shown in Figure 3-2 as Site 13B.

3.4.2 ALTERNATIVE 2

Alternative 2 is to construct the AFRC and associated facilities at "Site 1" identified as the North Clarendon Site in this EA. The North Clarendon Site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7B and U.S. Route 7; access to U.S. Route 7 may require alteration to



Legend

 Property line of acreage considered for Proposed Action

300 150 0 300 Feet



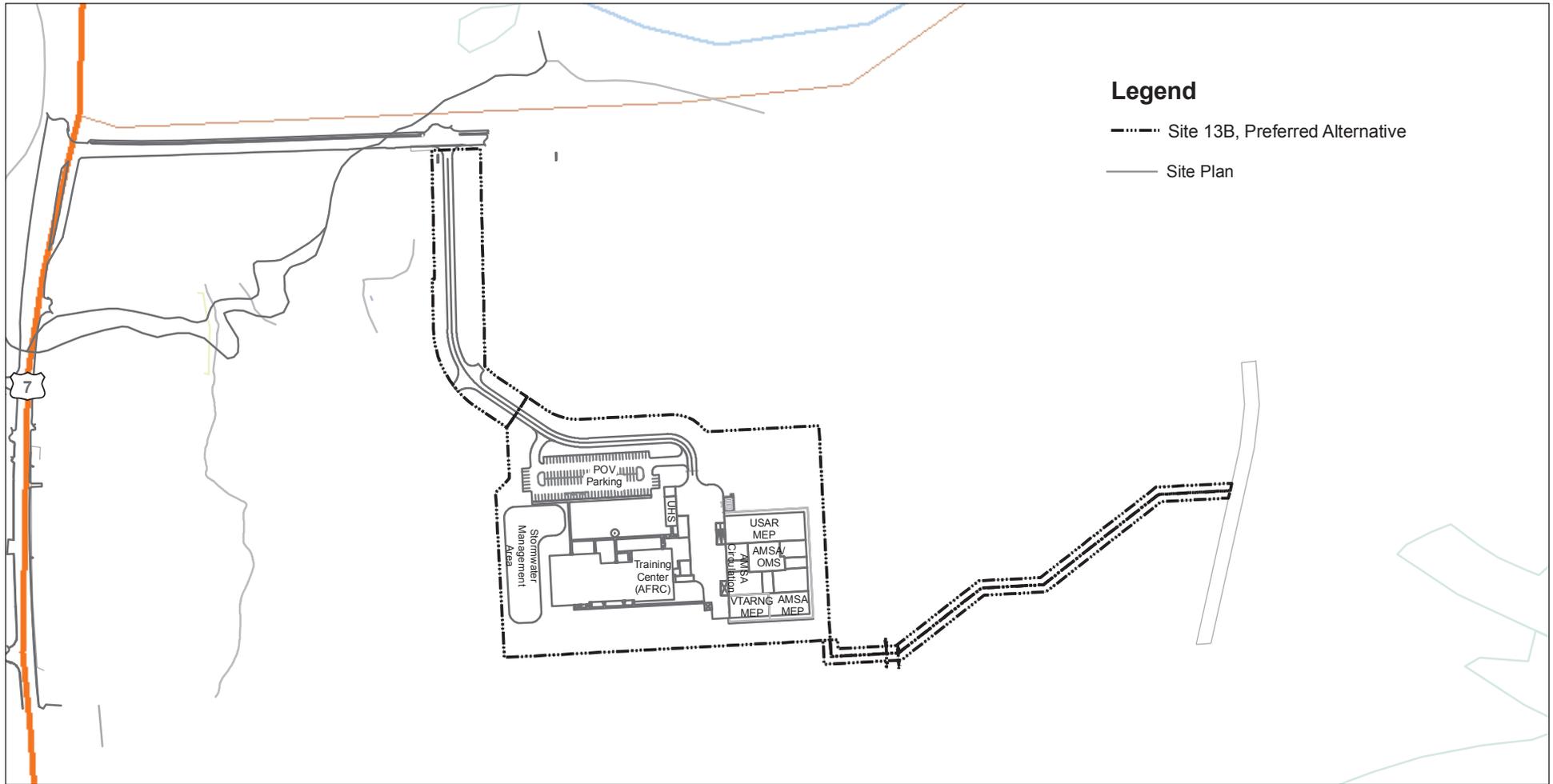
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Figure 3-2

Aerial Photograph of the Route 7 and Post Road Site - Preferred Alternative





Legend

- Site 13B, Preferred Alternative
- Site Plan

- AFRC Armed Forces Reserve Center
- AMSA Army Maintenance Support Activity
- MEP Military Equipment Parking
- OMS Organizational Maintenance Shop
- USAR United States Army Reserve
- UHS Unheated Storage
- VTARNG Vermont Army National Guard



Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 3-3
 Conceptual Site Plan - Preferred Alternative



the existing interchange, as discussed in Section 4.11.2.2. The site is mostly vacant, undeveloped open land, with the exception of a vacant structure that would have to be demolished. The land appears disturbed, with vehicle tracks running across it and some small piles of dirt. During a field reconnaissance, extensive wetlands were observed at this site by the U.S. Army Corps of Engineers (USACE) New England District Regulatory Division. Considering the required ATFP setbacks, the site's developable area is too small to allow for flexibility in design and future expansion of the AFRC. Figure 3-1 shows the location of the North Clarendon Site. Figure 3-4 shows an aerial photograph of the North Clarendon Site.

3.4.3 NO ACTION ALTERNATIVE

CEQ regulations require analysis of the No Action Alternative in an EA, for it serves as the baseline against which the impacts of the Proposed Action and alternatives will be evaluated. Accordingly, the No Action Alternative is evaluated in this EA.

Under the No Action Alternative, the Army would not implement the Proposed Action. U.S. Army Reserve and VTARNG units would continue to train at and operate from their current locations which are over utilized and not properly configured to allow the most effective training of personnel to complete mission requirements.

3.5 Alternatives Considered and Not Carried Forward

Three other alternative sites were considered in the Rutland area for the construction of the proposed AFRC (see Figure 3-1). Sites 10, 12, and 14 were eliminated from further study during the screening process due to site or environmental constraints as summarized in Table 3-1 and as described in more detail below. Therefore, these sites are not carried forward for analysis in this EA.

Site 10 was rejected due to poor access and the presence of wetlands at the site. While the site has frontage on U.S. Route 7, this portion of U.S. Route 7 is a four-lane, limited access highway. It is not certain whether direct, 2-lane access could be obtained. Additionally, several large, unmapped wetlands are present, with at least one occurring along U.S. Route 7.

Site 12 was rejected due to various constraints including high flood potential across a majority of the site reducing the buildable area, high site preparation costs due to topography, very limited utilities (no water/sanitary), and ATFP setback hindrances. Once the constraints were considered, the site was estimated to have about 10 buildable acres, whereas 15 acres are needed. Additionally, preliminary designs of the AFRC indicated that construction in floodplains or adjacent to wetlands would be unavoidable.

Site 14, on Wheelerville Road in Mendon, Vermont, though sufficient in size, was determined to be unsuitable for consideration due to lack of utilities (water, sewer, and power) at the site. In addition, site access is over 4.8 miles long via a 1 to 1.5-lane dirt road.

72-58-20 W 72-58-10 W 72-58-0 W 72-57-50 W

43-34-25 N
43-34-20 N
43-34-15 N
43-34-10 N



Legend

- Site Boundary
- Water
- Major Road



Map center: 462241, 119170



Prepared For:
U.S. Army Corps of Engineers, Mobile District

Figure 3-4

Aerial Photograph of North Clarendon Site -
Alternative 2



4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 Introduction

This chapter describes the existing resources that could potentially be affected by the Proposed Action and alternatives. The environment described in this chapter is the baseline for the consequences that are presented for each resource and each alternative. The geographic region of influence (ROI) of the Proposed Action has been determined by the Economic Information Forecast System (EIFS) model to be the Towns of Rutland and Clarendon, Rutland County, Vermont. Specific considerations related to the ROI are discussed in the individual resource category discussion. Most of the baseline information was taken from existing documentation and site visits.

This chapter also describes potential impacts for each resource. An impact is defined as a consequence from modification to the existing environment due to a proposed action or alternative. Impacts can be beneficial or adverse, can be a primary result of an action (direct) or a secondary result (indirect), and can be permanent or long lasting (long-term) or temporary and of short duration (short-term). Impacts can vary in degree from a slightly noticeable change to a total change in the environment.

For this EA, short-term impacts are defined as those impacts resulting from construction, renovation, or demolition activities (e.g., those that are of temporary duration), whereas long-term impacts are those resulting from the presence of new facilities and operation of the proposed new facilities once they are constructed and commissioned for operation.

Significance criteria were developed for the affected resource categories, and for many resource categories, are necessarily qualitative in nature. Quantitative criteria can be established when there are specific numerical limits established by regulation or industry standard. These criteria are based on existing regulatory standards, scientific and environmental documentation, and/or professional judgment. Impacts are classified as significant or not significant based on the significance criteria. Significant impacts are those which would exceed the quantitative or qualitative limits of the established criteria, such as actions that would threaten a violation of Federal, state or local law or requirements imposed for the protection of the environment, or that would have adverse effects upon public health or safety. Impacts do not necessarily mean negative changes, and any detectable change is not, in and of itself, considered to be negative. In the following discussions, to highlight adverse impacts for the decision maker, the impacts are considered adverse unless identified as beneficial.

The affected environment and baseline conditions are described for each resource in general terms for the Route 7 & Post Road and North Clarendon Sites or the resource-specific ROI. The affected environment description for each resource is followed by the potential impacts to the resource from Alternative 1 (the Preferred Alternative), Alternative 2, and the No Action Alternative.

4.2 Land Use

4.2.1 AFFECTED ENVIRONMENT

This section describes existing land use conditions on and surrounding the Route 7 & Post Road and North Clarendon sites. It considers natural land uses and land uses that reflect human modification. Natural land use classifications include wildlife areas, forests, and other open or undeveloped areas. Human land uses include residential, commercial, industrial, utilities, agricultural, recreational, and other developed uses. Management plans, policies, ordinances, and regulations determine the types of uses that are allowable, or protect specially designated or environmentally sensitive uses. The following sections discuss the regional geographic setting, location, climate, land use, and current and future development.

4.2.1.1 Regional Geographic Setting, Location, and Climate

Nestled in Vermont's Green Mountains, Rutland rests in a wide valley between two mountain ranges, in a natural north-south passage. To the east three large peaks in the Green Mountain range-Killington, Pico and Shrewsbury flank Rutland. To the west of Rutland are the Taconics. The City of Rutland, the second largest city in the state, is situated in the broad portion of the Lower Otter Creek Valley in west central Vermont. The City covers 8.3 square miles, or about 5,230 acres of mostly level and gently sloping land. The elevation ranges from approximately 500 to 900 feet above mean sea level (MSL). The City of Rutland is at the crossroads of U.S. Route 4, connecting east west to White River Junction and Glens Falls, New York, and U.S. Route 7, connecting north south to Burlington and Bennington. The City is an economic, cultural and social leader of the region, and is the region's growth center. The city's center is approximately 90 miles northeast of Albany, New York, and approximately 170 miles northwest of Boston, Massachusetts.

The City of Rutland was granted a charter by the Vermont Legislature as an entity separate from the Town of Rutland in 1892. The Town of Rutland surrounds the City of Rutland and covers about 20 square miles. The Town of Clarendon is located approximately 3 miles south of the City of Rutland. North Clarendon is an unincorporated community, one of several that comprise the Town of Clarendon.

The climate of Vermont is best described as variable, with a large range of annual temperatures, depending on the season, elevation, and region of the state. Both sites considered in this EA fall within the Western climatological division of the state, as defined by the National Oceanic and Atmospheric Administration (NOAA). Regional data collected by NOAA in Burlington, Vermont (located approximately 65 miles north of both sites) show that the average annual temperature is 45 degrees Fahrenheit, the average annual precipitation is 36 inches, and average annual snowfall is 79 inches. Prevailing winds and storm systems generally approach the region from the west (northwest in winter, and southwest in summer) (NOAA 2008).

4.2.1.2 Land Use

The City of Rutland's pattern of development was set during the nineteenth century, evolving around railroad and industrial uses. The placement of the rail yard dictated a

street grid that remains in place today. The central business district grew up across from the rail yards, industrial uses located close to rail spurs, and residential neighborhoods grew where they were convenient to the employment of the time. Rutland was a compact city. This left the City with an attractive historic building stock and meaningful landmarks that create a distinct community identity. The central core of the downtown is a designated Historic District on the NRHP. The next generation of growth took place along U.S. Routes 4 and 7, the areas now called the Gateway Districts. This growth continues, and planning for it poses one of the major planning challenges facing the City.

Outside of the City of Rutland core, Rutland County remains a rural area with a wide variety of active farms and farm-related businesses. In 2002, 75 percent of Rutland County's land was classified as forest land, and both farmland and forests remain important elements of the region's economy, ecosystem, and character. Both of the sites considered in this EA are located along U.S. Route 7, outside the City of Rutland.

Route 7 & Post Road Site. The Route 7 & Post Road Site (Preferred Alternative) is located along U.S. Route 7 North and Post Road in the Town of Rutland, about 2 miles north of Rutland's city center. The property is located in an unzoned area of residential and commercial land uses. A salvage yard is located immediately south of the southern boundary, and a residential area is located adjacent to the property to the northeast. About two-thirds of the 104-acre site is open land used for agricultural purposes, with the eastern third of the site being densely wooded. Site 13B, the area selected by the Army for construction of the AFRC, is open land.

North Clarendon Site. The North Clarendon Site (Alternative 2) is located in North Clarendon, about 3 miles south of Rutland's city center. The site is adjacent to U.S. Route 7. The entire site is vacant, undeveloped land, with the exception of a dilapidated, vacant structure that would have to be demolished. The site is zoned Residential/Commercial.

4.2.1.3 Current and Future Development in the Region of Influence

Current and future developments in the ROI are driven by the Rutland Town Plan, the Town of Rutland's recent efforts in zoning, and the Rutland Regional Plan. The City of Rutland's Master Plan is also considered.

The Town of Rutland is not zoned. The Rutland Town Planning Commission, in conjunction with the Rutland Regional Planning Commission, is in the process of establishing a zoning ordinance. In 2008, the Town of Rutland prepared and released to the public for comment a Rutland Town Zoning Ordinance to establish standards and policies concerning development of land that further the goals of the Rutland Town Plan. The Rutland Town Zoning Ordinance proposes commercial zoning for the area of the Preferred Alternative Site (Town of Rutland 2008). The Town of Clarendon and the area of the Alternative 2 Site are not included in the Rutland Town Zoning Ordinance.

The Rutland Regional Plan was prepared in 2008 by the Rutland Regional Planning Commission. The purpose of the Rutland Regional Plan is to provide a guide for managing change within the Region and a framework where individuals, businesses, and

local governments can make decisions regarding growth and development. The Rutland Regional Plan identifies the locations of each alternative as high density development based on future land use planning. High density development areas are those most suitable for large-scale activity, within and in areas contiguous to the Region's downtowns, sub-regional centers, and industrial centers (Rutland Regional Plan 2008).

The City of Rutland's Master Plan must be viewed in conjunction with the broader economic context of the Rutland region. This plan designates Gateway Districts as design review districts to improve the visual effect of the approaches into the City and the downtown, to minimize the effects of vehicular traffic, to accentuate the historic features within the gateways, and to improve pedestrian facilities (City of Rutland 2002). Both sites considered for the proposed AFRC are outside the designated Gateway Districts.

4.2.2 CONSEQUENCES

Considerations for impacts to land use include the land on and adjacent to each Proposed Action project area, the physical features that influence current or proposed uses, pertinent land use plans and regulations, and land availability. Conformity with surrounding land use is of utmost importance.

Potential impacts to land use are considered significant if the Proposed Action would:

- Conflict with applicable ordinances and/or permit requirements;
- Cause nonconformance with the current general plans and land use plans, or preclude adjacent or nearby properties from being used for existing activities; or
- Conflict with established uses of an area requiring mitigation.

4.2.2.1 Alternative 1 – Preferred Alternative

Impacts to land use from the Preferred Alternative would not be significant, but there would be a permanent change in land use, most notably, the conversion of open agricultural land to light industrial/commercial use. The Route 7 & Post Road Site is not zoned, but is proposed to be zoned as Commercial. The Proposed Action would not conflict with the Town of Rutland's proposed zoning, nor would it conflict with the Rutland Regional Plan. The proposed facilities would not interfere with activities on adjacent properties.

Under the Preferred Alternative, there would be an irretrievable commitment of land resources required for construction and operation of new facilities; this commitment of land resources is irreversible because the land likely cannot be completely restored to its original condition and other uses would be precluded during the time the land is being used for the proposed use.

4.2.2.2 Alternative 2

Impacts to land use from Alternative 2 would not be significant, but there would be a permanent change in land use, most notably, the conversion of open land to light industrial/commercial use. The North Clarendon Site is currently zoned

Residential/Commercial. The Proposed Action would not conflict with this zoning, nor would it conflict with the Rutland Regional Plan. The proposed facilities would not interfere with activities on adjacent properties.

As with the Preferred Alternative, under Alternative 2, there would be an irretrievable commitment of land resources required for construction and operation of new facilities; this commitment of land resources is irreversible because the land likely cannot be completely restored to its original condition and other uses would be precluded during the time the land is being used for the proposed use.

4.2.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to land use.

4.3 Aesthetics and Visual Resources

4.3.1 AFFECTED ENVIRONMENT

This section describes the existing aesthetic and visual resource conditions in the area of the Route 7 & Post Road and North Clarendon sites. Visual resources include natural and manmade physical features that provide the landscape its character and value as an environmental resource. Landscape features that form a viewer's overall impression about an area include landform, vegetation, water, color, adjacent scenery, scarcity, and constructed modifications to the natural setting.

The Rutland Region's landscape is dominated by mountain ranges, lakes, rivers, mineral deposits, and historic settlement areas. Among the Region's key features are its numerous valley farms, forested hills, slate and marble quarries, hamlets, villages, and its urban center, Rutland. Development, not surprisingly, has generally occurred in the valleys between mountain ranges, along road, rail, and water transportation routes. The Rutland Region is comprised of 27 communities ranging in population from under 300 to over 17,000. The Region contains one urban center, six sub-regional centers of economic activity, and a series of smaller villages surrounded by agricultural and forest land.

Route 7 & Post Road Site. The Route 7 & Post Road Site, located in the Town of Rutland, is in a residential/commercial area with adjacent land uses being commercial and residential in nature. The western side of the 104-acre parcel is adjacent to U.S. Route 7, but Site 13B, the area the Army selected for construction of the AFRC, is interior to the 104 acres and would be accessed via Post Road. It is mostly open field and is being farmed for agricultural crops and contains a drainage ditch on the west side.

North Clarendon Site. The North Clarendon Site, located in North Clarendon, is located in a residential/commercial zone. The site is relatively level with a steeper slope to the west of the property. A dilapidated structure (former single family home) exists on the site but it has deteriorated to the point of being uninhabitable and would have to be demolished.

4.3.2 CONSEQUENCES

Potential impacts to aesthetic and visual resources are considered significant if the Proposed Action would substantially degrade the natural or constructed physical features in the area of the Route 7 & Post Road and North Clarendon sites that provide the area its character and value as an environmental resource. The magnitude of any impact would be primarily determined by the number of viewers affected, viewer sensitivity to changes, distance of viewing, and compatibility with existing land use.

4.3.2.1 Alternative 1 – Preferred Alternative

Impacts to aesthetics and visual resources from the Preferred Alternative would not be significant. The Preferred Alternative would cause minor short-term visual impacts resulting from ground disturbance and the presence of workers, vehicles, and equipment and the generation of dust and vehicle exhaust associated with construction of the proposed facilities. However, once construction is complete, the reclamation of disturbed areas would remove these visual impacts.

Construction of the AFRC on the Route 7 & Post Road Site would result in some long-term visual impacts to the site. The AFRC would be minimally visible from U.S. Route 7 and Post Road and from the residential area. However, aesthetic resources have been considered in developing the site plan, including minimizing the visibility of military equipment parking and using masonry façade. Additionally, ATFP measures would be incorporated as practicable into the design of the facility, such that aesthetically-unappealing bollards would be unnecessary. The AFRC would be consistent with the surrounding aesthetics, both now and in the future.

Operations at the AFRC would result in minor adverse aesthetic impacts, including increased traffic and nighttime light on weekends when the facilities are in use. The maximum number of individuals reporting on any given weekend is expected to be approximately 150; only 28 full-time personnel would commute to the site daily.

4.3.2.2 Alternative 2

Impacts to aesthetics and visual resources from Alternative 2 would not be significant. Impacts from construction would be as described for the Preferred Alternative. A small beneficial impact would occur from the demolition and cleanup of the dilapidated structure at the site. The AFRC would be visible from U.S. Route 7 and would be consistent with the surrounding aesthetics, both now and in the future.

Impacts from operations at the AFRC would be the same as for the Preferred Alternative.

4.3.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to aesthetics and visual resources.

4.4 Air Quality

4.4.1 AFFECTED ENVIRONMENT

This section describes the existing air quality conditions at and surrounding the Route 7 & Post Road and North Clarendon sites. Ambient air quality conditions are discussed first followed by emission sources in the area of the considered sites.

The ambient air quality in an area can be characterized by whether it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The CAA (42 U.S.C. 7401 et seq.) requires the U.S. Environmental Protection Agency (EPA) to set NAAQS for pollutants considered harmful to public health and the environment. National primary ambient air quality standards define levels of air quality which the EPA has determined as necessary to provide an adequate margin of safety to protect public health. This includes the health of “sensitive” populations such as children and the elderly. National secondary ambient air quality standards define levels of air quality which are deemed necessary to protect the public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. These standards have been established for six criteria pollutants. The criteria pollutants are carbon monoxide; lead; nitrogen dioxide; ozone; particulate matter (which includes both particulate matter with an aerodynamic size less than or equal to 10 microns [PM_{10}] and particulate matter with an aerodynamic size less than or equal to 2.5 microns [$PM_{2.5}$]); and sulfur dioxide. Table 4-1 lists the NAAQS primary standards for each criteria pollutant.

Table 4-1. National Ambient Air Quality Standards.

Pollutant	Standard Value
Carbon monoxide (CO)	
8-hour average	9 ppm
1-hour average	35 ppm
Lead (Pb)	
Quarterly average	1.5 $\mu\text{g}/\text{m}^3$
Nitrogen dioxide (NO_2)	
Annual arithmetic mean	0.053 ppm
Ozone (O_3)	
8-hour average (2008 standard)	0.075 ppm
Particulate matter less than 10 microns (PM_{10})	
24-hour average	150 $\mu\text{g}/\text{m}^3$
Particulate matter less than 2.5 microns ($PM_{2.5}$)	
Annual arithmetic mean	15.0 $\mu\text{g}/\text{m}^3$
24-hour average	35 $\mu\text{g}/\text{m}^3$
Sulfur dioxide (SO_2)	
Annual arithmetic mean	0.03 ppm
24-hour average	0.14 ppm

Source: 40 CFR 50.4 through 50.13
 $\mu\text{g}/\text{m}^3$ micrograms per cubic meter
 ppm parts per million

The primary regulatory authority for air quality in Vermont is the Vermont Air Pollution Control Division (APCD) of the Department of Environmental Conservation. The APCD implements state and Federal CAAs by monitoring air quality and air pollution sources, proposing regulations to improve existing air quality, ensuring compliance with regulations, and issuing permits to control pollution from sources of air contaminants across the state.

General air quality monitoring is conducted in areas of high population density and near major sources of air pollutant emissions. Rural areas are typically not considered in such monitoring. Regions that are in compliance with the NAAQS are designated as attainment areas. Areas for which no monitoring data is available are designated as unclassified and are considered to be in attainment of the NAAQS. A nonattainment status is designated for areas where the applicable NAAQS are not being met. A maintenance status is designated for areas that have had a history of nonattainment, but are now consistently meeting the NAAQS. Maintenance areas have been re-designated by the EPA from “nonattainment” to “attainment with a maintenance plan.”

Vermont’s air quality meets the NAAQS. Every county within the State of Vermont is classified as being in “attainment.” Monitoring sites within the state did not record exceedances in 2007 for carbon monoxide, nitrogen dioxide, ozone, particulate matter, or sulfur dioxide (EPA 2008). Vermont did not conduct ambient air monitoring for lead in 2007 because historical ambient air concentrations of lead have been extremely low and monitoring for this pollutant is not required.

On March 12, 2008, the EPA revised the primary and secondary 8-hour ozone NAAQS from 0.08 parts per million (ppm) to 0.075 ppm, to be effective on May 27, 2008. To attain the standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentration must not exceed 0.075 ppm. Vermont is currently in compliance with the new 0.075 ppm standard. The fourth-highest daily maximum 8-hour average ozone measurements at Bennington, Vermont for the past three years (2006, 2007, and 2008) have been 0.068 ppm, 0.077 ppm, and 0.072 ppm. The corresponding three-year average is less than the 0.075 ppm standard.

Motor vehicles are the largest source of pollutants affecting air quality in the State of Vermont. Motor vehicles emit carbon monoxide, carbon dioxide, nitrogen dioxide, and about 65 percent of the ozone-forming pollutants in Vermont. Motor vehicles also emit carcinogenic compounds like benzene, formaldehyde, and 1,3-butadiene.

Regional air pollutant emissions from reported sources are listed below in Table 4-2 for Rutland County, Vermont, for the year 2002, the most recent year available.

Table 4-2. Air Emissions Reported for Rutland County, Vermont, for Calendar Year 2002.

Pollutant	2002 Emissions (tpy)		
	Area Source ^a	Point Source ^b	Total
Particulate matter less than 2.5 microns (PM _{2.5})	1,161	1.16	1,162
Particulate matter less than 10 microns (PM ₁₀)	6,010	2.44	6,012
Carbon monoxide (CO)	33,062	19.8	33,082
Nitrogen oxides (NO _x)	2,648	17.4	2,665
Sulfur dioxides (SO ₂)	528	0.70	529

Source: EPA 2009a

tpy tons per year

- a. Any source of air pollution that is released over a relatively small area but which cannot be classified as a point source, and which may include vehicles and other small engines, small businesses, and household activities that release hydrocarbons. The category includes nonpoint and mobile source emissions.
- b. A stationary location or fixed facility from which pollutants are discharged, such as a factory smokestack.

Section 176(c)(1) of the CAA requires Federal agencies to ensure that their actions conform to applicable implementation plans for the achievement and maintenance of the NAAQS for criteria pollutants. To achieve conformity, a Federal action must not contribute to new violations of NAAQS, increase the frequency or severity of existing violations, or delay timely attainment of NAAQS in the area of concern (for example, a state or a smaller air quality region). Federal agencies prepare written Conformity Determinations for Federal actions that are in or affect NAAQS nonattainment areas or maintenance areas when the total direct or indirect emissions of nonattainment pollutants (or their precursors in the case of ozone) exceed specified thresholds. A conformity analysis is not required in attainment areas. Because the Proposed Action in Rutland County, Vermont is located in an area that is attainment for all criteria pollutants, the Proposed Action will meet conformity rules.

The CAA set out specific requirements for a group of northeastern states that make up the Ozone Transport Region (OTR). Vermont is part of the OTR, as well as the states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and the Washington D.C. Metropolitan Statistical Area (including the northern Virginia suburbs). States that are part of the OTR are required to submit state implementation plans and install a certain level of control for the pollutants that form ozone, even if the state meets the ozone standards. On March 17, 2008, the EPA issued a finding that Vermont had missed the CAA deadline for submitting elements of its state implementation plan showing how the state would meet the 1997 ozone standards. The EPA is working with Vermont to ensure that it submits a revised, approvable plan as soon as possible.

The potential for radon gas exposure exists in Rutland County. Radon is a radioactive gas that results from the decay of radium and exists in varying amounts in most soils. Because radon is a gas, it can move through soil and into the atmosphere or into a building structure. Prolonged exposure to high levels of radon can lead to lung cancer. The EPA Map of Radon Zones assigns each of the counties in the United States into one of three zones based on radon potential. Rutland County is assigned to Zone 2, which has

a “moderate potential” for radon, with a predicted average indoor radon screening level between 2 and 4 picocuries per liter (pCi/L) (EPA 2009b).

4.4.2 CONSEQUENCES

Potential impacts to air quality are considered significant if the Proposed Action would:

- Increase ambient air pollution above any NAAQS;
- Contribute to an existing violation of any NAAQS;
- Interfere with or delay timely attainment of NAAQS; or
- Impair visibility within any federally mandated Prevention of Significant Deterioration Class I area.

4.4.2.1 Alternative 1 – Preferred Alternative

Impacts to air quality from the Preferred Alternative would not be significant. Short-term air quality impacts from implementation of the Preferred Alternative would occur from construction activities associated with the movement and use of construction equipment. Construction activities would be temporary and would occur in a localized area. Contaminants generated from construction would include particulate matter, vehicle exhaust emissions, and increased wind-borne dust (i.e. fugitive dust). The vehicle emissions from construction activities and workers traveling to and from the site would be minor compared to the total existing vehicular emissions in the area. Best management practices (BMPs) would be implemented to minimize generation of fugitive dust.

Long-term impacts associated with operation of the proposed AFRC and associated facilities are not likely to occur. No fueling facilities, underground storage tanks (USTs), or paint booths would be required for the AFRC and associated facilities. The standard HVAC systems would not significantly contribute to air emissions. The POVs associated with the use of these facilities by approximately 150 reservists per weekend would not be expected to result in significant impacts to air quality because the additional traffic would be minor compared to the total existing vehicular emissions in the area. Similarly, the emissions produced by the approximately 152 vehicles kept on-site would not increase regional criteria pollutant concentrations above the NAAQS.

Based on regional information, the potential exists for radon gas to occur within the constructed AFRC at levels that might reach the EPA radon standard of 4.0 pCi/L. Construction of the AFRC would incorporate passive barriers with an underfloor and vent stack provisions for a sub-slab suction system with a passive suction stack to vent any radon gas, preventing accumulation and infiltration into the building. At the completion of construction, and prior to occupancy, radon testing would be performed to verify indoor radon concentration. If radon exceeds the EPA action level, the fan required to create an active suction stack would be installed to increase venting of the foundation and removal of radon gas. Design and construction would comply with the requirements of DoD Unified Facilities Criteria 3-490-04A, Design: Indoor Radon Prevention and Mitigation.

4.4.2.2 Alternative 2

Impacts to air quality from Alternative 2 would be similar to those for the Preferred Alternative. Short-term air quality impacts from construction activities for Alternative 2 could result in greater particulate emissions than those from the Preferred Alternative from the required demolition of the dilapidated structure. BMPs would be implemented to minimize generation of fugitive dust, and potentially hazardous substances such as lead-based paint and asbestos-containing material.

4.4.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to air quality.

4.5 Noise

4.5.1 AFFECTED ENVIRONMENT

This section describes the existing noise conditions in the area of the Route 7 & Post Road and North Clarendon sites. Noise measurement is discussed first, followed by noise sources in the area of the two sites.

4.5.1.1 Noise Measurement

Noise is generally defined as unwanted sound. Sound is all around us; it becomes noise when it interferes with normal activities such as speech, concentration, or sleep. Noise associated with military installations is a factor in land use planning both on- and off-post. Noise emanates from vehicular traffic associated with new facilities and from project sites during construction. Ambient noise (the existing background noise environment) can be generated by a number of noise sources, including mobile sources, such as automobiles and trucks, and stationary sources such as construction sites, machinery, or industrial operations. In addition, there is an existing and variable level of natural ambient noise from sources such as wind, streams and rivers, wildlife, and other sources.

Sound is measured with instruments that record instantaneous sound levels in decibels (dB). A-weighted sound level measurements (dBA) are used to characterize sound levels that can be sensed by the human ear. The typical measurement for quieter sounds, such as rustling leaves or a quiet room, is from 20 to 30 dBA. Conversational speech is commonly 60 dBA, and a home lawn mower measures approximately 98 dBA. All sound levels discussed in this EA are A-weighted.

The decibel scale is a logarithmic, or relative, scale. This means, that as the sound pressure is doubled (or the energy in the sound), the index increases by approximately 3. A sound level of 100 dBA contains twice the energy of a sound level of 97 dBA. This means when two noise sources of the same level are added, the resulting sound level will be increased by 3 dBA, not doubled. The reason for measuring sound this way is that human ears (and minds) perceive sound in terms of the logarithm of the sound pressure, rather than the sound pressure itself. A rule of thumb is that if the sound level increases by 10 dBA, the subjective loudness of the sound is doubled. Outside of the laboratory, a 3-dBA change in sound level is considered a barely discernible difference. A change in

sound level of 5 dBA will typically result in a noticeable community response (Rogers et al. 2006).

4.5.1.2 Noise Sources in the area of the Route 7 & Post Road and North Clarendon Sites

Sources of noise in the area of the Route 7 & Post Road and North Clarendon sites include road traffic along U.S. Route 7. Small towns and rural communities typically have background sound levels of 45 to 55 dBA. Existing noise 50 feet from an interstate highway is typically 75 dBA. Highway noise attenuates to about 60 dBA at 400 feet and to 50 dBA at a distance of 800 feet (Hanson et al. 2006).

4.5.2 CONSEQUENCES

Potential noise impacts resulting from the Proposed Action are evaluated with respect to the potential for:

- Annoyance – noise can impact the performance of various every day activities such as communication and watching television in residential areas. Sound levels that cause annoyance vary greatly by individual and background conditions.
- Hearing loss – one-time exposure to an intense “impulse” sound such as an explosion or by long or repeated exposure to sounds at or above 85 dBA can cause hearing loss (NIDCD 2007).
- Sleep interference

4.5.2.1 Alternative 1 – Preferred Alternative

Noise impacts from the Preferred Alternative would not be significant. Minor, adverse, short-term noise impacts related to the construction of the AFRC would occur. Three commercial areas and a residential area adjacent to the proposed site could be subject to minor, short-term adverse impacts from noise generated during the construction of the proposed facilities since they are all located within a few hundred feet of the site. Noise would be generated from large machinery such as bulldozers, graders, excavators, dump trucks, and cement trucks. This type of construction equipment generates noise levels of about 85 dBA at 50 feet (Hanson et al. 2006). Noise and sound levels would be typical of new construction activities and would be intermittent. Due to the proximity of the residential area (about 525 feet), the Army would consider restricting construction activities generating loud noise to normal working hours and employing noise-controlled construction equipment to the extent possible.

Once the facilities become operational, adverse long-term noise effects would not be expected from their day-to-day use. Once facilities are constructed, noise would be generated by general facility operations (such as HVAC-related noise) and the vehicles associated with these facilities. During power outages, operation of emergency generators could cause minor, short-term noise impacts. Most noise is usually created by vehicles associated with these facilities, including organizational vehicles used for training and operations, government and private delivery vehicles, commuter shuttles or

buses, and personal vehicles used for commuting purposes. The noise impact created by facility and vehicle operations would not be significant compared to existing ambient noise.

Under the Proposed Action, approximately 300 personnel would use the AFRC at Rutland. However, as a reserve center, the majority of these individuals would report to the site on weekends and not all would report on the same weekend. The maximum number of individuals reporting on any given weekend is expected to be approximately 150 and would only contribute negligible amounts of noise to the current environment. The estimated 28 full-time personnel commuting to the site daily would also only contribute negligible amounts of traffic noise to the current noise environment.

4.5.2.2 Alternative 2

Noise impacts from Alternative 2 would not be significant. Minor, adverse, short-term noise impacts related to the construction of the AFRC would occur as described for the Preferred Alternative. There would be a possible increase in noise for Alternative 2 due to the required demolition of the dilapidated structure on site. Immediately adjacent to the proposed site, there is one commercial property located less than 500 feet away from the site and several residential properties located approximately 50 to 200 feet away that could be subjected to minor, short-term adverse impacts from noise generated during the construction of the proposed facilities. However, these properties are separated from the proposed site by tree lines which would help minimize the construction noise. The effects of construction noise also would be reduced by confining construction activities to normal working hours and employing noise-controlled construction equipment to the extent possible.

Once the facilities become operational, the potential noise impacts from the North Clarendon Site would be the same as those from the Route 7 & Post Road Site, as discussed in Section 4.5.2.1.

4.5.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to noise levels on or surrounding the Route 7 & Post Road Site or the North Clarendon Site.

4.6 Geology and Soils

4.6.1 AFFECTED ENVIRONMENT

This section describes the existing geology and soil conditions in the area of the Route 7 & Post Road and North Clarendon sites. Geologic and topographic conditions are discussed first, followed by soils, and prime farmland.

4.6.1.1 Geologic and Topographic Conditions

Historical data of seismic activity in Vermont indicate that the Route 7 & Post Road and North Clarendon sites have felt the effects of seismic activities originating in New England (outside Vermont), the Atlantic Ocean, and Quebec, Canada. Two strong earthquakes were felt throughout Vermont in 1929 and 1935. The 1929 earthquake

originated in the Atlantic Ocean and had a magnitude of 7.2 on the Richter Scale. The 1935 earthquake originated in Timiskaming, Quebec, Canada and had a magnitude of 6.25 (USGS 2006). The largest earthquakes that have originated in Vermont include earthquakes occurring in 1943 and 1962 that were centered around Swanton, Vermont and Middlebury Vermont, respectively. Both had a magnitude of 4.1 on the Richter Scale. Additionally, a 1953 earthquake that originated in Brandon, Vermont had a magnitude of 4.0 on the Richter Scale (Ebel et al. 1995).

Route 7 & Post Road Site. The Route 7 & Post Road Site is flat to gently sloping towards the northwest. The elevation of the site ranges from 620 to 700 feet above MSL. The average gradient of the surface is approximately 0.05 sloping down to the northwest (Gravity College 2009). Rock is found exposed at and above the land surface on limited portions of the site. Topography can be described as steep in some areas on the parcel, primarily in the area fronting Post Road. According to the Geologic Map of Vermont (Doll 1970), the Route 7 & Post Road Site has rocks that belong to the Champlain – Vermont Valleys geo-physiographic province of Cambrian age. These Cambrian rocks of Vermont are composed of slate, quartzite, phyllite, limestone, conglomerates, dolomite, and shale. They are intruded by ultrabasic rocks, mainly basalt (Doll 1970).

North Clarendon Site. The majority of the North Clarendon Site slopes gently towards the west with a gradient of approximately 7 percent. The eastern third of the site slopes towards the east also with a gradient of approximately 7 percent. The elevations at the site range from 580 to 640 feet above MSL. The North Clarendon Site also has rocks that belong to the Champlain – Vermont Valleys geo-physiographic province of Cambrian age (Doll 1970).

4.6.1.2 Soils

Route 7 & Post Road Site. The 15 acres at the Route 7 & Post Road Site 13B are represented by six soil mapping units: Galway-Nellis-Farmington complex (3 to 8 percent slopes); Belgrade silt loam (3 to 8 percent slopes); Farmington-Galway-Galoo complex (5 to 25 percent slopes, very rocky); Paxton fine sandy loam (2 to 8 percent slopes); Massena silt loam (0 to 8 percent slopes, very stony); and Georgia and Amenia soils (3 to 8 percent slopes, very stony) (USDA NRCS 2009b). Of the six mapping units, the Galway-Nellis-Farmington complex (3 to 8 percent slopes) comprises approximately half of the site. This soil mapping unit is characterized by moderately good drainage, low potential for surface runoff, and moderately low susceptibility to wind erosion. The Belgrade silt loam (3 to 8 percent slopes), Farmington-Galway-Galoo complex (5 to 25 percent slopes, very rocky), and Paxton fine sandy loam (2 to 8 percent slopes) each make up about 15 percent of the site, with the remaining two mapping units comprising less than 5 percent of the site.

The Georgia and Amenia soils (3 to 8 percent slopes, very stony), the Massena silt loam (0 to 8 percent slopes, very stony); and the Belgrade silt loam (3 to 8 percent slopes) are rated as having partially hydric soils (USDA NRCS 2009b). Hydric soils are defined by the National Technical Committee for Hydric Soils as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop

anaerobic conditions in the upper part. Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation. Partially hydric soils represent 3 acres of the portion of the site under consideration.

North Clarendon Site. The North Clarendon Site is covered by soils belonging to three mapping units: Paxton fine sandy loam (2 to 8 percent slopes); Hinckley gravelly loamy fine sand (0 to 8 percent slopes); and Paxton fine sandy loam (8 to 15 percent slopes) (USDA NRCS 2009a). The Paxton fine sandy loam (2 to 8 percent slopes) covers about 96 percent of the site, and is characterized by good drainage, moderate potential for surface runoff, and moderately high susceptibility to wind erosion. None of the soils at this site are identified as hydric (USDA NRCS 2009a).

4.6.1.3 Prime Farmland

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. Prime farmland could be cultivated land, pasture land, forest land, or other land, but it is not urban or built-up land or water areas (USDA NRCS 2009a). Of the 15 acres considered for the AFRC at the Route 7 & Post Road Site 13B, 2.5 acres would be considered farmland of statewide importance and 8.5 acres would be considered prime farmland based on soil quality. At the North Clarendon Site, 11.6 acres and 0.5 acres would be considered prime farmland and farmland of statewide importance, respectively, based on soil quality. Prime farmland is protected by the Farmland Protection Policy Act (FPPA) (7 CFR Parts 657 and 658), but it does not include land already in or committed to urban development or water storage (FPPA § 4201 (c)(1)(A)). The farmland at both sites is zoned or proposed to be zoned as Commercial and is “destined for urbanization;” therefore, the land is not considered prime farmland and is not protected under the FPPA.

4.6.2 CONSEQUENCES

Potential impacts to geology or soils are considered significant if the Proposed Action would:

- Expose people or structures to major geologic hazards;
- Cause substantial erosion or siltation; or
- Cause substantial land sliding.

4.6.2.1 Alternative 1 – Preferred Alternative

Impacts to geology and soils from the Preferred Alternative would not be significant. The total site improvements including the AFRC training building, the AMSA/OMS, the Organizational Unit Storage, and associated facilities (parking area and walk ways) would occupy about 5 acres, resulting in about 5 acres of impervious surface. The effect of this on the regional infiltration at the vicinity of the site would not be significant.

Although damaging earthquakes are infrequent in Vermont as discussed above, there is risk from collapsing of buildings that are not engineered with earthquakes in mind (VGS

2008). The AFRC would be built in accordance with the International Building Code of 2006, which ensures that the facility is constructed in such a way to minimize damage from seismic activities.

Construction of the AFRC would involve excavation, grading, and movement of heavy equipment at the Route 7 & Post Road Site. These activities would disturb the surface soil, thereby increasing the potential for soil erosion by wind and runoff. The Army's construction contractor would be required to submit a Notice of Intent to the EPA in order to obtain a Construction General Permit (EPA 2009c). The Construction General Permit requires implementation of activities to control soil erosion during construction. Erosion control during construction activities could include the use of hay bales and silt fencing, as appropriate, to prevent the movement of soils into low-lying areas, revegetation, and top soil management. The construction contractor shall also implement the provisions contained in "Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act" to the greatest extent possible on this project. The effect of implementing these provisions would minimize erosion and control stormwater to the extent required of Federal facilities as explained in Section 4.7.2.1.

The Proposed Action would not result in the loss of prime farmland. The Natural Resources Conservation Service (NRCS) was consulted, and the NRCS indicated that the development of the AFRC at the Preferred Alternative Site would have less impact on farmland than that of Alternative 2. Additionally, the NRCS scored the value of the farmland as low, considering zoning, the size of the parcel, and other factors. The letter sent to the NRCS and the NRCS rating form are provided in Appendix A.

4.6.2.2 Alternative 2

Impacts to geology and soils from Alternative 2 would be similar to those for the Preferred Alternative. The NRCS indicated that the development of the AFRC at the North Clarendon Road Site would have a greater impact on farmland than the Preferred Alternative.

4.6.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to geologic or soil resources.

4.7 Water Resources

4.7.1 AFFECTED ENVIRONMENT

This section describes existing water resources on and in the area of the Route 7 & Post Road and North Clarendon sites, including surface and groundwater resources. Surface water includes lakes, rivers, and streams and is important for a variety of reasons, including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrogeologic resources of the physical environment. This section also discusses floodplains. Wetlands are discussed in Section 4.8.1.4.

4.7.1.1 Surface Water

The Route 7 & Post Road and North Clarendon sites are located within the Otter Creek-Little Otter Creek-Lewis Creek Watershed of Vermont.

Route 7 & Post Road Site. The nearest stream to the Route 7 & Post Road Site is East Creek, located just across U.S. Route 7 west of the site. It flows towards the south. Another unnamed stream is located approximately 1,000 feet north of the site and flows to the west to join East Creek and together they flow to the south to drain into Patch Pond. A third stream, Tenney Brook, is located approximately 3,500 feet south of the site and flows to the southwest where it ends up joining the East Creek. In addition to Patch Pond, two surface water bodies, Rocky Pond and an unnamed water body, are located approximately 1 mile west of the Route 7 & Post Road Site (Gravity College 2009).

North Clarendon Site. The nearest stream to the North Clarendon Site is the Cold River, located approximately 2,500 feet south of the site and flowing towards the west. Otter Creek is about 0.75 mile west of the site and flows northward. Approximately 1.2 miles southwest of the North Clarendon Site, the Cold River joins Otter Creek and together they flow to the north. The nearest surface water body to the North Clarendon Site is Eddy Pond, located about 1.1 miles northeast of the site (Gravity College 2009).

4.7.1.2 Hydrogeology/Groundwater

Groundwater under the Route 7 & Post Road and North Clarendon sites is primarily stored in coarse grained stratified glacial drift and stream gravel. These aquifers have low to moderate groundwater potential (USGS 2008). Groundwater underlying Rutland County is replenished by precipitation being absorbed into the soil and underlying strata and by infiltration of surface water from rivers, lakes, ponds, and streams. Specifically, groundwater at the Route 7 & Post Road and North Clarendon sites is recharged from percolation of precipitation through the surface soils and infiltration of surface water from the East Creek, Tenney Brook, Patch Pond, Rocky Pond, Cold River, Otter Creek, and several unnamed streams and ponds located in the vicinity of the sites.

The water yield of wells completed in these aquifers ranges from 6 to 22 gallons per minute. Groundwater in the vicinity of the Route 7 & Post Road and North Clarendon sites flows west towards Otter Creek. According to the U.S. Geologic Survey, Groundwater Networks (USGS 2008), there is one well in Rutland County that is used to monitor groundwater levels. The well is located approximately 4 miles north of the Route 7 & Post Road Site. Depth to groundwater in this well ranged from approximately 34 to 40 feet below ground surface over the last 51 years. Sixty six percent of Vermont's drinking water comes from groundwater sources (VNRC 2008).

4.7.1.3 Floodplains

EO 11988, *Flood Plain Management*, requires that development in floodplains be avoided if practicable. The Route 7 & Post Road and North Clarendon sites are completely outside of the 100-year floodplain as shown on Federal Emergency Management Agency issued flood maps for Rutland County, Vermont (FEMA 2009).

4.7.2 CONSEQUENCES

Potential impacts to water resources, including surface water and groundwater are considered significant if the Proposed Action would:

- Irreversibly diminish water resource availability, quality, and beneficial uses;
- Reduce water availability or interfere with a potable supply or water habitat;
- Create or contribute to overdraft of groundwater or exceed a safe annual yield of water supply sources;
- Result in an adverse effect on water quality or an endangerment to public health by creating or worsening adverse health hazard conditions;
- Result in a threat or damage to unique hydrological characteristics;
- Violate an established law or regulation that has been adopted to protect or manage water resources of an area; or
- Degrade fisheries habitat.

Potential impacts that would be considered significant related to floodplain management include:

- Potential damage to structures located in the floodplain; and
- Changes to the extent, elevation, or other features of the floodplain as a result of flood protection measures or other structures being silted in or removed from the floodplain.

4.7.2.1 Alternative 1 (Preferred Alternative)

Impacts to water resources from the Preferred Alternative would not be significant. Neither the quality nor the quantity of surface water would be significantly reduced. The completion of the proposed structures at the Route 7 & Post Road Site would result in about 5 acres of impervious cover. Approximately 35 percent of the 15-acre site would be capped by impermeable surfaces. The reduction in groundwater recharge as a result of the covered area would not cause a significant impact on the regional groundwater supply. Potable water for the AFRC would be provided by connecting to a municipal water line, as described in Section 4.13.1.1.

For construction and operation of the AFRC, the U.S. Army Reserve would obtain both a State Stormwater Discharge Permit and a Construction General Stormwater Discharge Permit, in order to comply with Vermont law (10 V.S.A. 1264) and the CWA, respectively. The Vermont Agency of Natural Resources (VANR) issues State Stormwater Discharge Permits while the EPA administers Construction General Permits for Federal facilities in Vermont. The Construction Stormwater Permit Program addresses stormwater runoff from construction activity that disturbs one or more acres of land. Additionally, for operations, the U.S. Army Reserve would obtain a State Stormwater Permit (sometimes referred to as the “operational,” “post-construction” or “stormwater” permit) to address runoff from impervious surfaces (rooftops, paved and

non-paved parking/roads etc.). The Vermont Stormwater Discharge Permit program has specific jurisdictional thresholds based on the amount of impervious surface.

The construction contractor shall also implement the provisions contained in "Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act" to the greatest extent possible on this project. Section 438 establishes strict stormwater runoff requirements for Federal development projects whose footprint exceeds 5,000 square feet in area. In general, the main performance objective is that pre-development site hydrology be maintained or restored to the maximum extent technologically feasible after the proposed site development is complete. Section 438 provides two options for meeting this performance objective, and various design practices to be utilized in conjunction with the option chosen. Examples of accepted design practices would be use of porous pavements, incorporation of rain gardens, bioretention, vegetated swales, and/or bioswales into the site design, and various other means and technologies that enhance or mimic the site's natural hydrologic cycles. Adherence to requirements under Section 438 of the Energy Independence and Security Act would minimize the impact of stormwater runoff to the extent required of Federal facilities, and would, in turn, ensure that impacts to water quality from stormwater runoff would also be minimal.

Activities at the proposed AFRC would not impact surface water or groundwater quality beneath or in the area surrounding the proposed AFRC. In addition to the stormwater requirements described above, the U.S. Army Reserve would be required to obtain a Multi-Sector General Permit issued under the National Pollutant Discharge Elimination System (NPDES). The State of Vermont does not have NPDES permitting authority for federally-owned and operated facilities. EPA Region 1 is responsible for stormwater permitting for Federal facilities in Vermont. On September 29, 2008, the EPA issued a Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity that lists the requirements for 29 industrial sectors that discharge stormwater to waters of the United States. This permit applies to vehicle maintenance activities that would be conducted at the AFRC.

As a requirement of its permit, the Army would prepare and implement a SWPPP. Potential nonpoint stormwater impacts would not be significant with implementation of BMPs identified in the SWPPP. BMPs would be selected, designed, installed, implemented, and maintained in accordance with good engineering practices to eliminate or reduce all pollutants in the stormwater discharge, as well as any more stringent measures necessary to meet Vermont water quality standards provisions during operation of the AFRC.

Spills would be managed using procedures identified in the Spill Prevention Control and Countermeasures (SPCC) Plan which the Army would prepare to reduce potential impacts to surface water and/or groundwater.

Because the Proposed Action does not entail construction within the 100-year floodplain, there would be no impacts to floodplains.

4.7.2.2 Alternative 2

Impacts to water resources from Alternative 2 would be similar to those for the Preferred Alternative with the exception of groundwater usage.

Potable water in Clarendon is typically obtained through drilling private water supply wells, and potable water for the AFRC would most likely be provided by drilling a water supply well, as described in Section 4.13.1.1. Impacts to groundwater resources could result due to the additional water withdrawal. Impacts could include a decline in water levels, possibly resulting in increased pumping costs, reduced pumping rates and even causing shallow wells to run dry. Should the AFRC be built at the North Clarendon Site, the Army would have to comply with the plan for the groundwater source protection area that underlies the site; although no activities are known to be restricted in the groundwater source protection area (LaFrancis 2009b).

4.7.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to water resources.

4.8 Biological Resources

4.8.1 AFFECTED ENVIRONMENT

This section describes existing biological resources at the Route 7 & Post Road and North Clarendon sites. It focuses on plant and animal species or habitat types that are typical or are an important element of the ecosystem, are of special category importance (of special interest due to societal concerns), or are protected under state or Federal law or statute regulatory requirement. Vegetation is discussed first, followed by wildlife, sensitive species, and wetlands.

4.8.1.1 Vegetation

Route 7 & Post Road Site. The Route 7 & Post Road Site is approximately two-thirds open field farmed as agricultural crops and one-third shrubby woodlot vegetation scattered around the perimeter. The southern boundary of the proposed site contains predominately forested habitat that contains species typical of western Vermont such as American beech (*Fagus grandifolia*), sugar maple (*Acer saccharum*), yellow birch (*Betula alleghaniensis*), eastern hemlock (*Tsuga canadensis*), and white pine (*Pinus strobus*) (Rutland Regional Plan 2008).

North Clarendon Site. The North Clarendon Site is open field habitat bordered by a patchwork of shrub and wooded habitat. A more heavily wooded area, composed of similar hardwoods as described above, occurs south of this site within the vicinity of Cold River.

4.8.1.2 Wildlife

Each alternative site has similar habitat that is typical of rural areas of this region, with a mixture of wooded areas and open fields. The Town of Rutland is an important migration corridor due to its physical setting at the confluence of the Region's two primary valleys and Otter Creek, and four Natural Heritage Sites have been identified

within the Town of Rutland (Town of Rutland 2007). Three key areas are identified for wildlife habitat connectivity within the Town of Rutland with one between Pine Hill Park and the Town of Proctor located just to the west of the Route 7 & Post Road Site (Town of Rutland 2007). Wildlife present in the area may include, but is not limited to, white-tailed deer (*Odocoileus virginianus*), coyotes (*Canis latrans*), woodchuck (*Marmota monax*), red (*Vulpes vulpes*) or gray foxes (*Urocyon cinereoargenteus*), opossums (*Didelphis virginiana*), raccoons (*Procyon lotor*), Eastern cottontail rabbits (*Sylvilagus floridanus*), squirrels (*Sciurus* spp.), turkey (*Meleagris gallopavo*) and various raptors and passerine birds species. White-tailed deer winter ranges occupy 1,627 acres in and around the Town of Rutland in predominately low, south-facing slope areas (Town of Rutland 2007). One deer winter range is located just east of Prospect Hill, approximately 1.5 miles north of the Route 7 & Post Road Site. Species composition at the North Clarendon Site is similar to that described for the Route 7 & Post Road Site.

4.8.1.3 Sensitive Species

The U.S. Fish and Wildlife Service administers the ESA of 1973, as amended. This law provides Federal protection for species designated as federally endangered or threatened. An endangered species is “in danger of extinction throughout all or a significant portion of its range,” and a threatened species “is likely to become an endangered species within the foreseeable future” (USFWS 1988). Special status species are listed as threatened or endangered, are proposed for listing, or are candidates for listing by the state and/or Federal government.

Under Section 7 of the ESA, the Army is mandated to use its authority to ensure actions are approved, funded, or carried out to protect both flora and fauna that are considered threatened and endangered species or proposed for listing as threatened or endangered species on the Rutland sites. In compliance with the ESA, informal consultation has been conducted with the U.S. Fish and Wildlife Service. A copy of the consultation letter sent by the 99th RSC to the U.S. Fish and Wildlife Service, along with copies of scoping letters sent to the Vermont Fish & Wildlife Department and the Vermont Department of Environmental Conservation, is included in Appendix A.

The U.S. Fish and Wildlife Service, New England Field Office website was accessed to determine if any federally-listed species occur in the vicinity of the project location. The three-step process provided on the website was followed, including reviewing the information on Vermont’s Nongame and Natural Heritage Program website. No rare, threatened, or endangered species or natural communities of concern are known to occur in the vicinity of the proposed project areas. A letter from the U.S. Fish and Wildlife Service documenting this process is provided in Appendix A.

According to the U.S. Fish and Wildlife Service, New England Field Office website (USFWS 2009) and Vermont’s Nongame and Natural Heritage Program website (VTFW 2008), Rutland County contains a few sensitive species, yet none are known to occur at either proposed site. Bald eagles (*Haliaeetus leucocephalus*) are frequently observed in Rutland County, yet no known nesting locations are located in the Town of Rutland or North Clarendon (CVPS 2007). Another state endangered species, the sedge wren

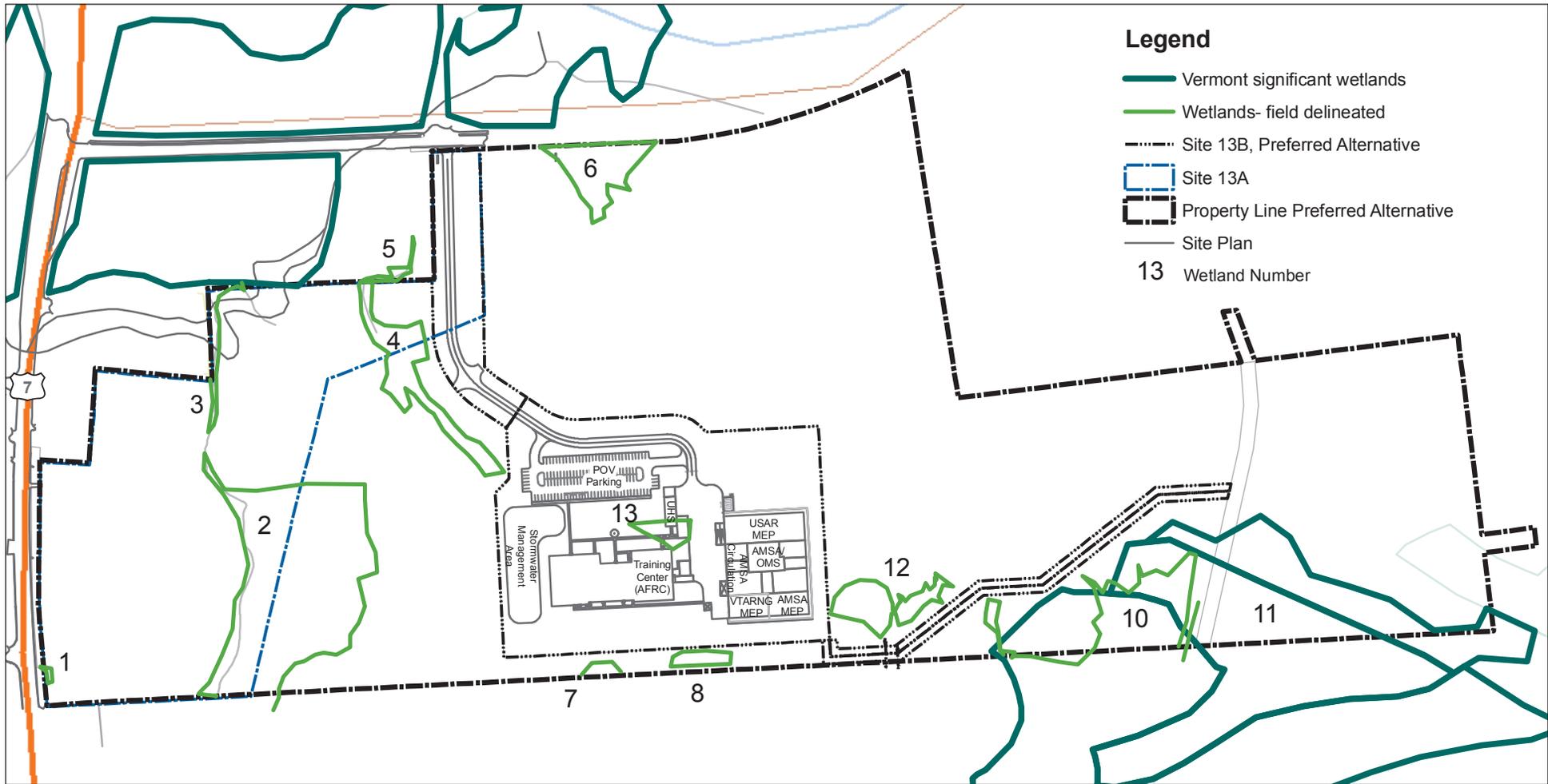
(*Cistothorus platensis*), a wetland and marsh species, has been documented in the county (VINS 2006). The Indiana bat (*Myotis sodalis*) is also an endangered species within the county, however critical nesting and hibernaculum sites are not found in the Town of Rutland or the Town of Clarendon (VTFW 2008). All of the species are wide ranging and may in the course of their movements be seen in the vicinity of both proposed sites. Finally, two reptile species the timber rattlesnake (*Crotalus horridus*) and eastern ratsnake (*Pantherophis alleghaniensis*) are found in Rutland County, with the former of the species having three dens in the Town of Rutland (Burgess 2005), but neither has been documented on either proposed site.

4.8.1.4 Wetlands

Wetlands are classified by USACE based on three criteria: hydrology, soil type, and vegetation. Specifically, wetlands are defined as those areas that are saturated or inundated by water that is sufficient to support vegetation typically adapted to saturated soils (USACE 1987). Wetlands and other surface water features, which may include intermittent and perennial streams, are generally considered “waters of the United States” by the USACE, and under their definition of “jurisdictional waters/features,” are protected under Section 404 of the CWA. Activities in wetlands are also regulated under 10 Vermont Statutes Annotated, Chapter 37, Section 905(a)(7-9) (Vermont Wetland Rules) and EO 11990.

Route 7 & Post Road Site. Wetland field identification and delineation efforts were performed by AECOM Environment, a contractor for the Army, on July 22, July 23, October 22, and November 06, 2009 at the Route 7 & Post Road Site for all wetland areas subject to Federal Regulations and Vermont Wetland Rules. Wetland delineation followed methodology detailed in the 1987 *Corps of Engineers Wetlands Delineation Manual* (USACE 1987); *DRAFT Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Northcentral and Northeast Region* (USACE 2008), and *the Vermont Wetland Rules*. A copy of the Wetlands Investigation Letter Report is attached as Appendix B.

Twelve wetland areas were identified and delineated on the Route 7 & Post Road Site (Figure 4-1). Table 4-3 provides a classification of the wetlands and approximate acreage. The USACE has taken jurisdiction over all 12 of the identified wetlands. Although there is a 13th wetland listed in Table 4-3, two wetland areas (Wetlands 9 and 10) were combined into one (Wetland 10) after initial field delineation for a total of 12 wetland areas. Approximately 2.192 acres (90,008 square feet) of wetlands occur within Site 13A, and 0.17 acres (7,612 square feet) of wetlands occur within Site 13B. In addition, it was determined in the field that a nexus, or connection, exists connecting wetlands 13 and 4 as well as wetlands 12 and 10 (Ramborger 2009a).



- AFRC Armed Forces Reserve Center
- AMSA Army Maintenance Support Activity
- MEP Military Equipment Parking
- OMS Organizational Maintenance Shop
- USAR United States Army Reserve
- UHS Unheated Storage
- VTARNG Vermont Army National Guard



Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 4-1
 Wetlands at the Route 7 & Post Road Site - Preferred Alternative



Table 4-3. Approximate Acreage and Classification of Wetlands Located Within the Study Area for the Route 7 & Post Road Site.

Wetland ^a	Wetland Classification ^a	Class ^{b1}	Approximate Area (square feet/acres) ^c	Approximate Area within Site 13A (square feet/acres)	Approximate Area within Site 13B (square feet/acres)
1	Palustrine Forested Wetland and Palustrine Scrub Shrub	Three	660/0.02	605/0.139	0
2	Palustrine Scrub Shrub and Palustrine Emergent Marsh	Two	187,864/4.3	68,730/1.578	0
3	Palustrine Emergent Marsh	Two	10,713/0.25	7,704/0.177	0
4	Palustrine Emergent Marsh and Palustrine Scrub Shrub	Three	36,866/0.8	12,969/0.298	0
5	Palustrine Forested Wetland	Three	2,498/0.057	0	0
6	Palustrine Scrub Shrub/ Palustrine Forested Wetland and Palustrine Emergent Marsh	Two	29,630/0.7	0	0
7	Palustrine Emergent Marsh	Three	2,413/0.06	0	0
8	Palustrine Emergent Marsh	Three	5,747/0.13	0	0
10* (part formerly 9)	Palustrine Forested Wetland	Two	60,704/1.3*	0	0
11**	Palustrine Forested Wetland	Two		0	0
12	Palustrine Emergent Marsh and Palustrine Forested Wetland	Three	24,200/0.6	0	0
13	Palustrine Emergent Marsh	Three	7,612/0.17	0	7,6412/0.17
Total			368,907/8.387	90,008/2.192	7,612/0.17

SOURCES: (a) AECOM Environment 2009; (b) Ramborger 2009b; (c) Stearns 2009

*Approximate, most of the area is not within the site boundary. Wetland is much larger than the area delineated for this project.

**Small portion of wetland is located adjacent to site, unable to quantify size as it does not fall within property boundary.

¹Determined by AECOM, Environmental through consultation with Vermont Agency of Natural Resources

NOTE: U.S. Army Corps of Engineers has jurisdiction over all 12 of the identified wetlands (Ramborger 2009a).

North Clarendon Site. At the North Clarendon Site, no jurisdictional wetlands on the property are recorded in the VANR Environmental Interest Locator (VANR 2009). However, during a field reconnaissance extensive wetlands were observed on the North Clarendon Site by the USACE New England District Regulatory Division Project Manager. The wetlands have not received a formal jurisdictional determination.

4.8.2 CONSEQUENCES

Potential impacts to biological resources are considered significant if the Proposed Action would:

- Affect a threatened or endangered species;
- Substantially diminish habitat for a plant or animal species;
- Substantially diminish a regionally or locally important plant or animal species;
- Interfere substantially with wildlife movement or reproductive behavior;
- Result in a substantial infusion of exotic plant or animal species; or
- Destroy, lose, or degrade jurisdictional wetlands (as defined by Section 404 of the CWA)

EO 11990, *Protection of Wetlands*, requires Federal agencies to avoid actions, to the extent practicable, which would result in the location of facilities in wetlands.

4.8.2.1 Alternative 1 – Preferred Alternative

Impacts to biological resources from the Preferred Alternative would not be significant. The Preferred Alternative would have no overall effect on biodiversity or regional plant and animal populations. Direct adverse impacts to biological resources would be very minor since the AFRC would be built on land with limited forested habitat and early succession growth after agriculture production.

Construction of the AFRC may affect on-site wildlife through the long-term direct loss of a relatively small amount of habitat and direct mortality of individuals occurring in construction zones. Habitat mainly affected would consist of vegetated fields and forest patches interspersed throughout the proposed site. Retention of some forested patches would reduce potential impacts to both floral and faunal species diversity. During construction activities, any exposed soil would be quickly stabilized using erosion control measures as discussed in Section 4.6.2.1. After construction is complete, cleared areas would be landscaped and replanted with grasses, as well as native and non-native (ornamental) plant species.

Minor short- and long-term direct adverse impacts to wildlife would occur due to displacement of wildlife and habitat removal. Game species affected may include white-tailed deer and wild turkey. With a winter deer yard north of the proposed site, deer migration movement from summer to winter habitat may be affected if the proposed site lies within the migration path. Animals would, however, likely adapt after completion of the project and change their movements accordingly. Non-game species that could be affected include ground-dwelling or nesting species, foxes, and coyotes that may inhabit the open fields. Generally, species inhabiting this area are transient, and would therefore, likely move to other areas of similar habitat. Additionally, the required buffer zone around the wetlands (as described below) would provide protection to those migratory bird species that may be in the area using the wetlands habitat. Therefore, this project should have little or no effect on migratory bird species.

Post-construction impacts to wildlife from operation of the AFRC and AMSA/OMS would not be significant. With the operation of the facility, there would be a slight increase in pollutants of oil and grit from the increased vehicle numbers. Potential for indirect impacts to biological resources, such as the degradation of aquatic habitat off site from nonpoint source pollution (e.g., uncontrolled stormwater runoff and soil erosion), would be reduced through implementation of a SWPPP.

The Preferred Alternative would not cause adverse impacts to any federally-listed threatened or endangered species, for no such species are known to occur on the Route 7 & Post Road Site. The U.S. Fish and Wildlife Service and the Vermont Fish and Wildlife Department have reviewed the proposed project and concluded that the Proposed Action would not cause any impacts to rare, threatened and endangered species and significant natural communities (Appendix A).

Twelve wetlands exist on the project property totaling over 8 acres of wetlands. As shown on Figure 4-1 and Table 4-3, Site 13A at the Route 7 & Post Road Site contains approximately 2.192 acres (90,008 square feet) of wetlands, including two Vermont Class Two and two Vermont Class Three wetlands. Construction at this site would impact most of these wetlands. The Class Two wetlands would be subject to the Vermont Wetland Rules, while Class Three wetlands are not protected under the Vermont Wetland Rules. The Vermont Wetland Rules specify mitigation and compensation standards for significant wetlands (Class One and Two wetlands) and require a 50-foot buffer zone contiguous to all Class Two wetlands.

In comparison, Site 13B contains approximately 0.17 acres (7,612 square feet) of Vermont Class Three wetlands. Labeled as Wetland 13, it is federally regulated under Section 404 of the CWA by the USACE but does not fall under the regulatory jurisdiction of the Vermont Wetland Rules.

Minimizing impacts to wetlands at the Route 7 & Post Road Site was an important consideration in the Army's selection of Site 13B as its Preferred Alternative. Only Wetland 13 occurs within construction work areas. The construction of the facility at Site 13B would directly impact Wetland 13, about 0.17 acres (7,612 square feet) of wetland within the facility footprint. In addition, construction of the waterline for the facility has the potential to indirectly impact Wetlands 10, 11, and 12 (Figure 4-1). The Army has modified the location of the proposed water line right-of-way to avoid these wetlands; however field efforts identified a nexus, or connection, between Wetlands 10 and 12 located to the east of the southeast corner of the proposed AFRC footprint.

The wetlands that would be impacted at Site 13B are not significant with respect to Vermont Wetlands Rules since they are Class Three, therefore Vermont Wetlands Rules do not apply for this action (Quackenbush 2009). The proposed footprint and utility line right-of-way will require review by the USACE New England District Regulatory Division under the Department of the Army Regional General Permit for Vermont (VT RGP) (NAE-2007-24) because the impact to Wetland 13 has been determined to be federally jurisdictional. Under the VT RGP, impacts that are greater than 3,000 square feet but less than 1 acre require a VT RGP Category 2 permit from the USACE. The

Army will prepare a VT RGP Category 2 permit application package following the current New England District Office Regulatory Division Application and Plan Guideline Checklist and submit the application to the USACE New England District Regulatory Division, Vermont Project Office.

Throughout the facility design phase, the Army has worked closely with the USACE New England District Regulatory Division and has developed its facility footprint at Site 13B to avoid and then minimize impacts to wetlands. The USACE New England District Regulatory Division has indicated that the wetlands impacted are not significant and will not require mitigation but that after the water line installation is completed, the original grade between Wetlands 10 and 12 must be restored to maintain the nexus between them (Ramborger 2009a).

Continued coordination with USACE New England District Regulatory Division, adherence to the requirements in its VT RGP Category 2 permit, and implementation of best management practices for working in areas with wetlands will ensure that the Army's actions result in minimal impacts to wetlands on the site. Measures intended to minimize potential impacts resulting from construction of the AFRC and access roadway include, but are not limited to, sedimentation and erosion controls to be installed along the boundaries of construction work areas to prevent sedimentation and erosion from leaving the construction site and entering Wetlands 4, 5, 7, 8 and 12. Wetland 13 will be filled and no special protection methods are required – except those identified in the VT RGP Category 2 permit requirements. Measures intended to minimize potential impacts resulting from construction of the water line right-of-way bordering Wetlands 10, 11, and 12 include, but are not limited to, installation of silt fence to protect this resource and may require site-specific construction techniques across the nexus. Actions that the Army would implement, to minimize impacts to the wetlands, as deemed appropriate, are summarized in Table 4-6.

4.8.2.2 Alternative 2

Impacts to biological resources from Alternative 2 would not be significant. Alternative 2 would cause minor short- and long-term direct adverse impacts to wildlife due to displacement of wildlife and habitat removal. Direct mortality of individuals occurring in construction zones could occur. As with the Preferred Alternative, affected native vegetation would be limited to the open fields and not the surrounding forested areas. A variety of non-game species would be affected including various passerine type birds, foxes, coyotes, as well as the ground-dwelling or nesting species that may inhabit the open field areas; however, most of these species are transients and would likely alter movements accordingly. Game species such as wild turkeys and white-tailed deer may potentially be affected in their daily movement routes but would find alternate routes for their daily movements.

No impacts to any Federal or state protected species are expected to occur as a result of Alternative 2. The U.S. Fish and Wildlife Service and the Vermont Fish and Wildlife Department have reviewed the proposed project and concluded that the Proposed Action

would not cause any impacts to rare, threatened and endangered species and significant natural communities (Appendix A).

Construction and operation would result in wetland losses greater than the 0.17 acres of Vermont Class Three wetlands at the Preferred Alternative Site according to the USACE New England District Regulatory Division Project Manager. The site is small and does not have sufficient space to allow for alternative site plans to avoid impacts (Adams 2009).

4.8.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to biological resources.

4.9 Cultural Resources

4.9.1 AFFECTED ENVIRONMENT

This section describes the existing cultural resource conditions in the area of the Route 7 & Post Road and North Clarendon sites. The area of potential effect (APE) includes the property within the proposed project areas that will be affected by the action, either during construction only or permanently. Cultural resources are defined as historic properties as defined by the National Historic Preservation Act (NHPA), cultural items as defined by the Native American Graves and Repatriation Act (NAGPRA), archeological resources as defined by Archaeological Resources Protection Act (ARPA), sacred sites as defined in EO 13007 to which access is afforded under American Indian Religious Freedom Act (AIRFA), and collections and associated records as defined in 36 CFR 79.

The prehistoric and historic background of the area is summarized first, followed by the status of cultural resource inventories and Section 106 consultations, and Native American resources.

4.9.1.1 Prehistoric and Historic Background

The earliest people to settle in Vermont were the Paleoindians, who began to move into the region by about 9000 B.C., at the end of the last ice age. Since the great weight of the glaciers had depressed the land, once the glaciers receded sufficiently northward, the Atlantic Ocean flooded the St. Lawrence Valley and filled an enormous basin with marine water, known as the Champlain Sea. By 7000 B.C., hardwood trees familiar today in Vermont such as beech, oak, ash, and maple, began to appear in the Champlain Valley, but the uplands remained dominated by conifers. During this period, which is called the Early Archaic period, small communities settled into favorable areas and populations gradually increased.

By the beginning of the Late Archaic period, around 4000 B.C., the generally warm regional climate seems to have fostered a blooming of human populations. The extensive array of woodworking tools found in sites of this period suggests that by now the dugout canoe was an important method of transportation on Vermont's waterways. It was also during this period that, for the second time in Vermont's prehistory, there is evidence of wide-ranging trade and exchange networks. Beginning about 100 B.C., by the start of the

Middle Woodland period, a long-term growth in the region's human population began. By 1050 A.D., at the beginning of the Late Woodland period, extensive settlements could be found in all of Vermont's river valleys.

By 1100 A.D., nearly 400 years before Columbus discovered America, corn, beans, and squash were being cultivated and stored in pits beneath small houses located on the flood plain adjacent to the river. The arrival of Samuel de Champlain on Lake Champlain in 1609 marked the beginning of the end of a way of life that had persisted for nearly 11,000 years. War and dispersal dominated the Indian's world between 1600 and 1800 and, in the process, Vermont's native culture was nearly destroyed and marked the end of the area's prehistory (Vermont Heritage Network 2009).

The original Rutland was chartered in 1761 as part of the New Hampshire Grants by the Provincial Governor Benning Wentworth. The first settlers arrived in 1770 led by Colonel James Mead. Almost immediately a controversy arose with New York claiming the same land grants under the name of "Socialborough." This controversy ultimately led to the Vermonters forming the Republic of Vermont from 1777-1791. Vermont became the fourteenth state in 1791.

During the early 1800s the Rutland area was known for agriculture and for the sheep industry. By the mid 1800s the development of the marble industry and the arrival of the railroads created an industrial and retail boom which brought many immigrant workers to the Rutland area. Rutland has continued to grow in industry and population to become the largest city in Southern Vermont (Rutland Historical Society 2009).

4.9.1.2 Status of Cultural Resource Inventories and Section 106 Consultations

Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. NHPA defines historic properties as cultural resource sites that are considered eligible for or are included on the National Register of Historic Places (NRHP).

In order to meet its responsibilities as defined under Section 106, the Army initiated cultural resource survey efforts at the originally proposed footprint of the Route 7 & Post Road Site (Site 13A) with a phase I survey in May 2009. This phase I survey included 90 0.5 meter (m) x 0.5 m test pits. An additional 90 0.5 m x 0.5 m test pits and one 1.0 m x 1.0 m test pit were excavated in June 2009. Results of this phase I survey identified two prehistoric sites consisting of large but low density scatters of non-diagnostic lithic debitage. These sites are recorded via Vermont state site numbers VT-RU-596 and VT-RU-597. Phase II testing followed in July – August 2009 at the originally proposed footprint, including 135 0.5 m x 0.5 m test pits, 13 1.0 m x 1.0 m test pits, and the mechanical excavation of 145 square meters of combined site area. Site VT-RU-597 contains locus 4 which is considered to be significant in terms of NRHP, criterion D.

The presence of the archaeological remains within the originally proposed footprint (Site 13A) resulted in the Army moving its preferred location to property adjacent to and east

of the original location to Site 13B. As a result, the proposed AFRC construction would have no effect on archaeological sites VT-RU-596 or VT-RU-597. A management plan with the results of the phase II testing and a letter declaring the Army's determination of effects were informally forwarded via e-mail to the State Historic Preservation Officer (SHPO) via the Vermont Division for Historic Preservation at the completion of the field work in August. The SHPO tentatively concurred with the Army's determination of no historic properties affected by the project via e-mail response and teleconference. In addition, the SHPO approved a survey plan for newly proposed acreage at Site 13B.

An August 2009 phase I survey of the new footprint at Site 13B identified two prehistoric sites consisting of low density scatters of non-diagnostic lithic debitage. These new sites are recorded via Vermont state site numbers VT-RU-600 and VT-RU-601. The phase I inventory at the new footprint included 98 0.5 m x 0.5 m test pits. A testing plan and management summary with the testing proposal were forwarded to the SHPO on October 5, 2009. The SHPO approved the testing proposal via e-mail from State Archaeologist, Mr. Scott Dillon.

The Army completed phase II testing at the new footprint in October 2009, which included 125 0.5 m x 0.5 m test pits, 8 1.0 m x 1.0 m test pits, and the mechanical excavation of 80 square meters of combined site area. Phase II testing found that both sites VT-RU-600 and VT-RU-601 fail to maintain integrity, features, or other in-tact components which are considered to have potential to add to the archaeological knowledge of the region.

As a result of the information provided by the phase II testing, both sites VT-RU-600 and VT-RU-601 are recommended as ineligible for listing on the NRHP. Based on the results of the inventory and subsequent phase II testing, the APE of the proposed AFRC contains no sites eligible for the NRHP. Therefore, the Army has determined "no historic properties affected" by the proposed action as per 36 CFR 800.4(d)(1). A management plan with the results of the phase II testing and a letter declaring the Army's determination of effects for Site 13B were forwarded to the SHPO via the Vermont Division for Historic Preservation on November 2, 2009.

A May 2009 phase I inventory of the North Clarendon Site included the identification of three archaeologically sensitive areas which were surveyed with 73 0.5 m x 0.5 m test pits. One test pit excavated in the very southern portion of the parcel, at the edge of a landform margin overlooking Cold Brook, produced a large possible quartzite flake. Test pits at 10 m interval on either side of the positive test pit were negative. The site was determined to be ineligible for listing on the NRHP. A recommendation of no historic properties affected by the Proposed Action was forwarded, along with supporting survey data, to the SHPO following the field work. No further work was recommended at this site.

Section 106 consultation and coordination has been conducted with the SHPO via the Vermont Division for Historic Preservation. A copy of the consultation letters sent to the SHPO, dated January 14, October 05, and November 02, 2009, are included in Appendix A. The SHPO's concurrence with the Army's no historic properties affected

determination for Site 13B was received on November 16, 2009 and is included in Appendix A.

4.9.1.3 Native American Graves Protection and Repatriation Act (NAGPRA)

No Native American concerns regarding the Proposed Action have been identified. Three notification letters to the federally recognized tribe, Stockbridge Munsee Community of Wisconsin, regarding the Proposed Action have been sent by the 99th RSC. A copy of the 99th RSC's letters dated January 14, October 05, and November 02, 2009 are included in Appendix A. The Stockbridge Munsee Community of Wisconsin responded on November 03, 2009 and indicated the Army's proposed activity does not appear to endanger archaeological sites of interest to the Stockbridge-Munsee Tribe. The Stockbridge Munsee Community of Wisconsin response is included in Appendix A.

4.9.2 CONSEQUENCES

Potential impacts to historic properties and/or archaeological resources are considered significant if the Proposed Action would:

- Physically destroy, damage, or alter all or part of the property;
- Physically destroy, damage, alter or remove items from archaeological contexts without a proper mitigation plan;
- Isolate the property from or alter the character of the property's setting when that character contributes to the property's qualification for the NRHP;
- Introduce visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect a property resulting in its deterioration or destruction; or
- Transfer, lease, or sell the property (36 CFR 800.9[b]) without a proper preservation plan.

4.9.2.1 Alternative 1 – Preferred Alternative

As discussed in Section 4.9.1.2, a phase I cultural resources survey located two prehistoric archaeological sites within the project area. Phase II testing resulted in a determination that both sites lack integrity and are ineligible for listing on the NRHP. Therefore, the Army has determined no historic properties affected for Site 13B, the Preferred Alternative. A letter which included the results of the phase II testing, eligibility determinations and effects determination was sent to the SHPO on November 02, 2009. The SHPO's concurrence letter was received by the Army on November 16, 2009 and is included in Appendix A. If, during construction, any potential historic or archaeological resource is uncovered or inadvertent discoveries are made of Native American human remains and associated funerary objects, sacred objects, or objects of cultural patrimony, the Cultural Resources Manager for the 99th RSC would be contacted immediately, in accordance with standard operating procedure for the accidental discovery of archaeological resources or Native American artifacts.

4.9.2.2 Alternative 2

As discussed in Section 4.9.1.2, it has been determined that no significant archaeological deposits are present in the project area at the North Clarendon Site, and the SHPO has concurred with the Army's determination of No Historic Properties Affected for this location.

If, during construction, any potential historic or archaeological resource is uncovered or inadvertent discoveries are made of Native American human remains and associated funerary objects, sacred objects, or objects of cultural patrimony, the Cultural Resources Manager for the 99th RSC would be contacted immediately, in accordance with standard operating procedure for the accidental discovery of archaeological resources or Native American artifacts.

4.9.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to cultural and archaeological resources.

4.10 Socioeconomics

4.10.1 AFFECTED ENVIRONMENT

The City of Rutland, the Town of Rutland, and the Town of Clarendon, located in Rutland County, Vermont would provide necessary goods and services for AFRC personnel, including food, gasoline, and miscellaneous supplies. This section describes the existing socioeconomic conditions for the City of Rutland, the Town of Rutland, the Town of Clarendon, and Rutland County, Vermont. Socioeconomic factors include economic development, demographics, housing, quality of life, environmental justice, and protection of children. Values in this section were rounded to three significant figures. Values presented as percentages were rounded to two significant figures.

4.10.1.1 Economic Development

Economic development indicators are presented in Table 4-4, and include total number of individuals in the workforce, unemployment, top three industries and occupations, median household income, per capita income, and cost of living.

The top three industries in Rutland County, the Town of Rutland, and Town of Clarendon in 2000 included educational, health, and social services; manufacturing; and retail trade (U.S. Census Bureau 2000). The City of Rutland's top three industries were similar; however, arts, entertainment, recreation, accommodation, and food services replaced manufacturing in the top three. These industries accounted for just over 50 percent of the local industry in Rutland County and the City of Rutland, and for nearly 50 percent of industry in the towns of Rutland and Clarendon.

The top three occupations in Rutland County and the Town of Clarendon in 2000 included management, professional, and related occupations; sales and office occupations; and production, transportation, and material moving occupations.

Table 4-4. Economic Development Statistics for the Region of Influence.

Location	Total Workforce ^a	Unemployment (%) ^a	Top Three Industries ^a	Top Three Occupations ^a	Median Income (household) ^a	Per capita Income ^a	Cost of Living Index (%) ^b
Rutland County	33,200	3.1	<ul style="list-style-type: none"> • Education, Health, and Social Services (22%) • Manufacturing (14%) • Retail Trade (14%) 	<ul style="list-style-type: none"> • Management, Professional, and Related Occupations (31%) • Sales and Office Occupations (26%) • Production, Transportation, and Material Moving Occupations (17%) 	\$36,700	\$18,900	92
City of Rutland	8,570	3.2	<ul style="list-style-type: none"> • Education, Health, and Social Services (21%) • Retail Trade (16%) • Arts, Entertainment, Recreation, Accommodation and Food Services (14%) 	<ul style="list-style-type: none"> • Management, Professional, and Related Occupations (30%) • Sales and Office Occupations (29%) • Service Occupations (19%) 	\$30,500	\$17,100	94
Town of Rutland	2,180	1.5	<ul style="list-style-type: none"> • Education, Health, and Social Services (23%) • Retail Trade (14%) • Manufacturing (11%) 	<ul style="list-style-type: none"> • Management, Professional, and Related Occupations (34%) • Sales and Office Occupations (32%) • Service Occupations (13%) 	\$44,400	\$24,400	Not Available
Town of Clarendon	1,630	2.4	<ul style="list-style-type: none"> • Education, Health, and Social Services (19%) • Manufacturing (17%) • Retail Trade (13%) 	<ul style="list-style-type: none"> • Management, Professional, and Related Occupations (27%) • Sales and Office Occupations (23%) • Production, Transportation, and Material Moving Occupations (19%) 	\$41,600	\$19,800	90

Sources: a U.S. Census Bureau 2000

b City-Data 2008

The City and Town of Rutland were similar, with service occupations replacing production, transportation, and material moving occupations.

Unemployment for the year 2000 within the ROI was below the national average for the same year, which was 3.7 percent (U.S. Census Bureau 2000). Unemployment rates ranged from 1.5 percent to 3.2 percent in the ROI as shown on Table 4-4.

In 2000, the median income for a household in the ROI ranged from a low of \$30,500 for the City of Rutland, to a high of \$44,400 for the Town of Rutland (U.S. Census Bureau 2000). Per capita income for the same year ranged from a low of \$17,100 in the City of Rutland, to a high of \$24,400 in the Town of Rutland.

Data from 2008 indicate the cost of living within the ROI was 92 percent for Rutland County, 94 percent for the City of Rutland, and 90 percent for the Town of Clarendon (City-Data 2008), which is between 6 and 8 percent lower than the U.S. average cost of living based on the cost of living composite index (City-Data 2008). Data were not available for the Town of Rutland.

4.10.1.2 Demographics

In 2000, the population of Rutland County was 63,400 people, the City of Rutland had 17,300 people, the Town of Rutland had 4,040, and the Town of Clarendon had 2,810 people. The racial makeup of the county was about 98 percent White, 0.4 percent Asian, and 0.3 percent Black/African American, with other races comprising the remainder of the population (U.S. Census Bureau 2000). The City of Rutland, Town of Rutland, and Town of Clarendon had similar distributions of racial backgrounds.

In Rutland County, 84 percent of the population graduated from high school and 23 percent had Bachelor's Degrees (U.S. Census Bureau 2000). The City of Rutland had a lower percentage of high school graduates (82 percent) and people with Bachelor's Degrees (22 percent). The Town of Rutland had significantly higher percentages of high school graduates (90 percent) and people with Bachelor's Degrees (28 percent), while the Town of Clarendon had a higher percentage of high school graduates (87 percent), but a lower percentage of people with Bachelor's Degrees (20 percent) (U.S. Census Bureau 2000).

4.10.1.3 Housing

The U.S. Census for the year 2000 identifies Rutland County as having a total of 32,300 housing units; 25,700 of the units (80 percent) were occupied. Of the occupied units, 17,900 housing units were renter occupied and 7,780 units were owner occupied; the remaining units were vacant. The median value of houses in Rutland County was \$96,000, and the median monthly rent was \$517 (U.S. Census Bureau 2000).

In 2000, the City of Rutland had a total of 7,920 housing units, of which, 7,450 units (94 percent) were occupied. Of the occupied units, 3,980 units were renter occupied and 3,470 were owner occupied; the remaining units were vacant (U.S. Census Bureau 2000). The median value of houses in the City of Rutland (\$89,300) was below that of the

county (U.S. Census Bureau 2000). The median monthly rent in the City of Rutland (\$501) was also below the county's median. The Town of Rutland had 1,690 occupied units out of a total of 1,760 housing units; 1,300 units were owner occupied and 386 were renter occupied. The Town of Clarendon had 1,210 total housing units, of which 1,140 were occupied. Owner occupancy accounted for 924 units, while renter occupancy accounted for 212 units. The Towns of Rutland and Clarendon had significantly higher median house values at \$134,000 and \$103,000, respectively. Median monthly rents were also higher at \$534 and \$526 (U.S. Census Bureau 2000).

4.10.1.4 Quality of Life

Quality of life is discussed in terms of public safety and medical services, schools, and recreation.

Public safety and medical services. The City of Rutland's Fire Department is staffed by 30 full-time firefighters divided between three shifts. A team of 18 other people supplement the department workforce (City of Rutland 2009). The department responds to residential, commercial, and industrial fires, and is trained in Hazardous Materials Response and technical rescue. Rutland County has an organization called the Rutland County Fire Mutual Aid Association, which has 27 member departments that work together at major fires and other emergencies (City of Rutland 2002).

The Rutland City Police Department and the Rutland County Sheriff's Department occupy the same building in the City of Rutland, located at 108 Wales Street. The Rutland City Police Department has 40 sworn police officers and 10 non-sworn civilian positions. Of the sworn officers, there is one Captain, one Lieutenant, six Sergeants, six Corporals, and 26 Police Officers. The civilian positions include five Dispatchers, two Record Clerks, one Secretary, one Animal Control Officer, and a Parking Enforcement Officer. The department has a goal of increasing staff to include six dispatchers, 41 full-time sworn officers, and three School Resource Officers in the next year (City of Rutland 2002, City of Rutland 2009). The Vermont State Police also have an office in Rutland, Vermont that employs 20 Patrol Troopers, four Patrol Commanders, three part-time Auxiliary Troopers, two Administrative Clerks, and one Station Commander. This office is one of the busiest of the field stations operated by the Vermont State Police (Rutland County Sheriff's Office 2009).

Rutland Regional Medical Center is a 301-bed facility located at 160 Allen Street, Rutland, Vermont (Hospital-Data 2009). Rutland Regional serves the ROI for a variety of medical needs, including over 30 areas of specialty (Rutland Regional Medical Center 2009).

Schools. The City of Rutland's schools include Northeast and Northwest Schools (grades K-2), the Pierpoint Primary Learning Center (grades K-2), Rutland Intermediate School (grades 3-6), Rutland Middle School (grades 7-8), and Rutland High School (grades 9-12). Other schools in the City of Rutland include four private schools (Christ the King; Creative Solutions School; Green Mountain Christian School; and Rutland Learning Center, Inc.), a highly acclaimed special needs school (The Vermont Achievement Center), Stafford Technical Center, and Vermont Technical College (City

of Rutland 2002). The City of Rutland received a grant to provide after school and summer enrichment and remedial programs for city youth, and students from the towns of Rutland, Proctor, and West Rutland (City of Rutland 2002). Total enrollment in the City of Rutland, according to the U.S. Census Bureau (2000), was 4,095 students, including 294 in nursery and pre-school, 203 in kindergarten, 1,976 in grades 1-8, 915 in grades 9-12, and 707 in college.

The Town of Rutland has one school, Rutland Town Elementary, that serves students from pre-kindergarten through grade 8 (Great Schools 2009). A total of 962 students were enrolled in school in 2000, including 57 in nursery and pre-school, 21 in kindergarten, 481 in grades 1-8, 252 in grades 9-12, and 151 in college (U.S. Census Bureau 2000). The Town of Clarendon had 644 students enrolled in school, including 38 in nursery and pre-school, 21 in kindergarten, 336 in grades 1-8, 160 in grades 9-12, and 89 in college (U.S. Census Bureau 2000). The Town of Clarendon has two schools, Clarendon Elementary and Mill River Unified School District # 40 (Virtual Vermont 2009).

Recreation. The City of Rutland Master Plan (2002) identifies parks, playgrounds, and walking paths that should be taken into consideration when planning developments. These features include Pine Hill Park, Giorgetti Park, Monsignor Connor Park, St. Joseph's Field, White's Field, Rutland High School, Stafford Technical Center, and Rotary Field.

4.10.1.5 Environmental Justice

Environmental justice is the fair treatment for people of all races, cultures, and incomes, regarding the development and implementation (or lack thereof) of environmental laws, regulations, and policies. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, directs Federal agencies to address environmental and human health conditions in minority and low-income communities. A memorandum from former President Clinton concerning EO 12898 stated that Federal agencies would collect and analyze information concerning a project's effects on minorities or low-income groups when required by NEPA. If such investigations find that minority or low-income groups experience a disproportionate adverse effect, then avoidance or mitigation measures are necessary. Table 4-5 shows information about minority and low-income populations in the ROI for the year 2000. The table provides the percent of minorities, percent of families living below the poverty level, percent of the population living below the poverty level, as well as what percentage of the people living below the poverty level are under age 18 and over age 65.

Table 4-5. Minority and Low-Income Populations in the Region of Influence.

Location	% Minority (2000)	% Below Poverty Level			
		% Families (2000)	% Population (2007)	% in Poverty Under Age 18 (2007)	% in Poverty Over Age 65 (2007)
Rutland County	1.9	7.1	11	13	10
City of Rutland	2.2	10	15	20	14
Town of Rutland	1.3	4.9	6.4	8.8	7.7
Town of Clarendon	1.9	5.4	7.7	8.3	13
National Average	25	9.2	11	34	9.9

Source: U.S. Census Bureau 2007, U.S. Census Bureau 2000

As shown in Table 4-5, the percent of minorities in the ROI ranges from 1.3 to 2.2 and is much lower than the national average for the same year which was 25 percent (U.S. Census Bureau 2000).

Also shown in Table 4-5, the Towns of Rutland and Clarendon had significantly lower populations below poverty level as compared to the City of Rutland and Rutland County. The percent of the population below the poverty level is lowest in the Town of Rutland (6.4 percent) and highest in the City of Rutland (15 percent). In 2000, the poverty guideline for a family of four was an annual income of \$17,100 in the 48 contiguous states and Washington, D.C.; for a family of three, it was \$14,200 (U.S. Department of Health and Human Services 2005). The national rate for people living in poverty was 11 percent in 2000 (U.S. Census Bureau 2000).

4.10.1.6 Protection of Children

EO 13045, *Protection of Children from Environmental Health and Safety Risks*, requires Federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. The Army takes special precautions for the safety of children, including the use of fencing and signage.

4.10.2 CONSEQUENCES

Potential socioeconomic impacts are considered significant if the Proposed Action would cause:

- Substantial gains or losses in population and/or employment; or
- Disequilibrium in the housing market, such as severe housing shortages or surpluses, resulting in substantial property value changes.

Potential environmental justice impacts are considered significant if the Proposed Action would cause disproportionate effects on low-income and/or minority populations.

Potential impacts to protection of children are considered significant if the Proposed Action would cause disproportionate effects on children.

4.10.2.1 Alternative 1 – Preferred Alternative

Socioeconomic impacts from the Preferred Alternative would not be significant. The economic effects of the construction phase of the Proposed Action were estimated using the EIFS model, a computer-based economic tool that calculates multipliers to estimate the direct and indirect effects resulting from a given action. Changes in spending and employment associated with the construction represent the direct effects of the action. Based on the input data and calculated multipliers, the model estimates changes in sales volume, income, employment, and population in the ROI, accounting for the direct and indirect effects of the action. For purposes of this analysis, a change is considered significant if it falls outside the historical range of ROI economic variation. To determine the historical range of economic variation, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. This analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of an action falls above the positive RTV or below the negative RTV, the effect is considered to be significant. For this analysis, the ROI is Rutland County, Vermont and the change in local expenditures refers to the estimated construction spending for the new AFRC (\$20,115,000).

Based on the EIFS model, the Proposed Action would generate about 129 direct and 212 indirect jobs in the economic ROI during construction activities. This increase in employment would represent a 0.91 percent increase in the region's employment levels and would fall short of the positive RTV of 3.54 percent to make any significant positive difference. It should be noted that the increased employment and any other economic benefits associated with construction would only be short term and would be spread out over the lifespan of the project construction. The Proposed Action would also generate positive changes in the other economic indicators estimated by the EIFS model, including a 2.73 percent increase in sales volume, and a 0.8 percent increase in regional personal income. However, these increases do not exceed the positive RTVs for their respective categories, and are therefore not significant. Appendix B contains the EIFS model output for the proposed BRAC actions in Rutland County.

Because incoming personnel under the Proposed Action would come only for weekend training, there would be no influx of personnel on a permanent basis into the ROI. The AFRC would serve about 300 personnel on a rotating basis, mostly on weekends, with a maximum per weekend of 150. The facility would employ approximately 28 permanent, full-time personnel. No significant economic impact in the ROI would be expected during the operations phase of the Proposed Action. The new facility would realign the Army Reserve units, resulting from the closure of the Courcelle Brothers United States Army Reserve Center and Army Reserve Army Maintenance Support Activity in Rutland, and Army National Guard units from the Vermont Army National Guard Armory in Rutland.

The percentage of minority populations in Rutland County and the Town of Rutland are below the state of Vermont's percentage of minority population (3.2 percent) and well

below the national percentage of minorities for the year 2000 (25 percent) (U.S. Census Bureau 2000). There would be no environmental justice impacts, as impacts from the Proposed Action identified in this EA would not be localized or placed primarily on minority and/or low-income populations. Regional construction businesses would likely be used for the construction of proposed buildings. Hiring regional businesses that may employ minority and low-income employees would provide jobs for such workers within the region. This would constitute a minor, short-term positive impact to minority and low-income populations. However, the extent of this benefit would be dependent upon the degree to which minority or low-income persons are employed in these activities.

There are no schools, parks, or recreational areas in the immediate vicinity of the Route 7 & Post Road Site. The nearest residential area is approximately 525 feet from the site. In the current setting, there would be no environmental health and safety risks that might disproportionately affect children, because children would be restricted from the areas proposed for construction and operation of the AFRC.

4.10.2.2 Alternative 2

Socioeconomic impacts for Alternative 2 would be the same as for the Preferred Alternative. There are no schools, parks, or recreational areas in the immediate vicinity of the North Clarendon Site, although there are several residences located from 50 to 200 feet away. There would be no environmental health and safety risks that might disproportionately affect children, because children would be restricted from the areas proposed for construction and operation of the AFRC.

4.10.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to socioeconomics.

4.11 Transportation

4.11.1 AFFECTED ENVIRONMENT

This section describes the existing transportation conditions at and surrounding the Route 7 & Post Road and North Clarendon sites. Roadways and traffic are discussed first, followed by public transportation.

4.11.1.1 Roadways and Traffic

In general, sufficiency ratings for the Rutland Region indicate that the Federal and state highways that serve as principal arterials in the region are not satisfactory. Traffic volumes in the Region vary widely, from a few vehicles on rural roads to 23,000 vehicles per day traveling on segments of U.S. Route 7 in Rutland. The most heavily traveled roadway in the Region is in the Town of Rutland on U.S. Route 7, just north of U.S. Route 4. Volumes on all arterials and collectors have shown steady increases over the past 20 years. Within the central portion of the Region, traffic congestion is becoming an issue, especially at certain key intersections in the City of Rutland and the Town of Rutland. Traffic models predict a worsening situation in coming years (Rutland Regional Plan 2008). No improvement plans have been finalized for the roadways in the vicinity of either site.

Route 7 & Post Road Site. The Route 7 & Post Road Site is located in the Town of Rutland, north of the City of Rutland, adjacent to U.S. Route 7. Access to the site would be from Post Road. The intersection of U.S. Route 7 and Post Road has a traffic signal. U.S. Route 7 is a four-lane, paved highway running approximately north-south. U.S. Route 7 is one of three arterials located in Rutland, designed to accommodate volumes of more than 500 vehicles per hour and carry the bulk of through-traffic. Actual measured traffic volume on U.S. Route 7 as measured near U.S. Route 4 is an average of 20,626 vehicles per day in November 2008. Visibility along U.S. Route 7, near the site, is good (VTrans 2008). Post Road is a collector road and is used by commuters as a main city by-pass road. The Town of Rutland has no plans to improve the roadway in this area (Zingale 2009).

North Clarendon Site. The North Clarendon Site is located south of the City of Rutland in North Clarendon, and is adjacent to Route 7B. U.S. Route 7 in this area is a four-lane, paved, divided highway with Route 7B being a two-lane, paved local road running approximately north-south. Route 7B dead-ends at Cold River from both the north and south directions, immediately south of the North Clarendon Site. That is, the bridge over Cold River no longer exists therefore there is no through traffic route. As with the Route 7 & Post Road Site, traffic volume is measured at U.S. Route 7 and U.S. Route 4, and the actual measured traffic volume is an average of 20,626 vehicles per day in November 2008. Visibility along U.S. Route 7, near the site, is good (VTrans 2008). Middle Road is a two-lane road that runs along the western side of the property. This road could also be used for access to the site; however, the only access to Middle Road from the site currently is via a very narrow (approximately 25-foot wide) strip along the northern boundary.

4.11.1.2 Public Transportation

There is no direct transit service to the Route 7 & Post Road or North Clarendon sites. The Marble Valley Regional Transit District operates bus services, Monday through Fridays, 6:30 AM to 6:00 PM, and Saturdays 8:00 AM to 5:00 PM. The bus service makes five stops every weekday (four stops every weekend day) at the Diamond Run Mall which is within walking distance to the North Clarendon Site. The bus service also makes a stop at the intersection of Field Road and U.S. Route 7, less than a mile from the Route 7 & Post Road Site every half hour on weekdays, and every hour on Saturdays (Marble Valley Regional Transit System 2009).

The Rutland Airport is located within a 3-mile drive of both sites, and supports three outgoing and three incoming commuter flights each day from Boston Logan International Airport (Rutland Southern Vermont Regional Airport 2009).

4.11.2 CONSEQUENCES

Potential impacts to transportation are evaluated with respect to the potential for the Proposed Action to:

- Disrupt or improve current transportation patterns and systems;
- Deteriorate or improve existing levels of service; and

- Change existing levels of safety.

4.11.2.1 Alternative 1 – Preferred Alternative

Transportation impacts from the Preferred Alternative would not be significant with little to no long-term impacts. During the construction phases of the Proposed Action, a temporary increase in vehicular traffic into and out of the Route 7 & Post Road Site would occur.

After the construction is complete, potential long-term impacts associated with the operation of the proposed AFRC include an increased number of vehicles using U.S. Route 7 and Post Road. However, this increase in vehicular traffic would be limited to weekends when local traffic is less than normal weekday averages. The maximum expected use of the new facility would be 150 members per weekend, and there would be parking for 141 POVs. The increased traffic would not be significant compared to the number of vehicles using U.S. Route 7 near this intersection (over 20,000 vehicles per day) and would not cause a significant disruption to current transportation patterns on U.S. Route 7 near the Route 7 & Post Road Site.

Military vehicles traveling off site would cause only a minimal temporary disturbance to the local traffic flow when traveling in convoy. Because the U.S. Army Reserve and VTARNG frequently travel to Fort Ethan Allen, north of Rutland, for training, construction of the AFRC at this site would result in fewer military convoys travelling through the City of Rutland to get to the training site.

4.11.2.2 Alternative 2

Transportation impacts from Alternative 2 would not be significant with little to no long-term impacts. During construction, a temporary increase in vehicular traffic into and out of the North Clarendon Site would occur. Access to U.S. Route 7 would likely require alteration to the current interchange by the Vermont Agency of Transportation to accommodate the increase in weekend traffic. Such alterations could include reconfiguration, widening, signalization, or striping. It is unlikely that Middle Road, a narrow two-lane road, could be used to access the site without significant improvements, because the site frontage on Middle Road is very narrow (approximately 25-foot wide) and immediately south of a blind curve.

After construction is complete, an increased number of vehicles using U.S. Route 7 would still be expected. As with the Preferred Alternative Site, the increased traffic would not be significant compared to the number of vehicles using U.S. Route 7 in this area (over 20,000 vehicles per day) and would not cause a significant disruption to current transportation patterns on U.S. Route 7 in the area of the North Clarendon Site.

It would be desirable to utilize the existing signalized intersection located one lot north of the subject site. Impacts would be similar to those for the Preferred Alternative; however, there would be more traffic from military convoys travelling through Rutland en route to their training facility.

4.11.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to transportation.

4.12 Hazardous and Toxic Substances

4.12.1 AFFECTED ENVIRONMENT

This section describes the existing conditions of hazardous and toxic substances at the Route 7 & Post Road and North Clarendon sites. Management of hazardous materials and hazardous wastes are discussed also.

4.12.1.1 Hazardous Materials

Hazardous materials are those useable corrosive, toxic, flammable, and reactive materials that, when spilled or released, are dangerous to public health or the environment. Hazardous materials are required to be handled managed, treated, or stored properly by trained personnel under the following regulations: Department of Transportation Hazardous Materials, 49 CFR 172.101; EPA, 40 CFR 260 et seq.; and Occupational Safety and Health Administration Hazardous Communication, 29 CFR 1900.1200 and 29 CFR 1926.59.

The Route 7 & Post Road and North Clarendon sites are undeveloped; no records exist that indicate hazardous materials were ever stored or used at either site.

4.12.1.2 Hazardous Waste Disposal

Hazardous wastes are generated when substances, usually originating as hazardous materials, are disposed of and are no longer useable or recyclable and exhibit hazardous characteristics as define by the EPA.

The VANR Environmental Interest Locator does not indicate any Brownfield, ACT250 permit, hazardous waste site, hazardous waste site generator, or UST located on either the Route 7 & Post Road or North Clarendon site.

An Environmental Condition of Property (ECP) Report was completed to assist the Army in evaluating environmental risk relative to the U.S. Route 7 & Post Road Site, Rutland, Vermont. The ECP Report was conducted in conformance with American Society of Testing and Materials (ASTM) Standards for Phase I Environmental Site Assessments (ASTM E 1527-05). The ECP Report included environmental regulatory records review, visual site inspection of the U.S. Route 7 & Post Road Site, and interviews with applicable persons. The ECP is intended to identify Recognized Environmental Conditions (REC) affecting the property in order to satisfy requirements for the Landowner Liability Protections of CERCLA's All Appropriate Inquiry Rule (40 CFR Part 312) while additionally providing an understanding of potential environmental conditions which could impact purchase and implementation of the Proposed Action. The ECP Report did not identify any evidence of RECs in connection with the U.S. Route 7 & Post Road Site (USACE 2009).

4.12.2 CONSEQUENCES

Potential impacts to hazardous materials management are considered significant if the Proposed Action would:

- Result in noncompliance with applicable Federal and state regulations; or
- Increase the amounts generated or procured hazardous materials beyond current permitted capacities or management capabilities.

4.12.2.1 Alternative 1 – Preferred Alternative

Impacts to hazardous and toxic substances from the Preferred Alternative would not be significant. Construction activities would pose minimal adverse impacts due to the potential for spills and leaks from construction equipment. Potential adverse impacts associated with construction would be mitigated by contractor spill management plans and response equipment.

The proposed AFRC would consist primarily of administrative and office areas and associated AMSA/OMS with maintenance administrative support, service bays, and controlled waste storage area. Use and storage of hazardous materials for routine facilities maintenance would be minimal and would likely be limited to cleaning products, paints, and adhesives. Use and storage of hazardous materials for routine military vehicle maintenance would be minimal and would likely be limited to military vehicle maintenance liquids (e.g. motor oil, transmission fluid, brake fluid, hydraulic oil, general purpose grease, gasoline, diesel fuel, kerosene, and engine coolant) as well as acid for lead-acid batteries and cooling system refrigerant. General purpose detergents would be used in the tandem wash racks. Handling and storage of any hazardous materials would follow applicable regulations and label precautions. Facility plans would likely include floor drains for the OMS maintenance bays, that would likely convey flow through oil/water separators (OWS). The tandem vehicle wash racks would likely also flow through an OWS. An emergency standby generator and associated fuel source (diesel or liquid propane) supply would likely be used to ensure continued operation of the proposed AFRC while operating on emergency power.

Minor amounts of hazardous wastes would be generated and would be temporarily stored on site and collected by a contracted commercial transport, storage, and disposal operator for transportation to permitted disposal sites which may include special industrial landfills, hazardous waste facilities, and licensed recyclers. Hazardous waste management and disposal would be performed in accordance with the Army Reserve management plans and the VANR, Waste Management Division, which requires that any person who generates regulated hazardous waste shall notify the Division of such activity. A Hazardous Waste Handler Site ID Form is a regulatory requirement, not a certification or permit, and is required to be kept on file with the Waste Management Division (VANR 2007).

The Preferred Alternative would likely result in negligible short- and long-term adverse impacts, based on the potential for small spills and the overall use of hazardous materials

and disposal of hazardous waste from the proposed AFRC and associated AMSA/OMS. The U.S. Army Reserve's SPCC Plan (to be developed during construction of the proposed AFRC) would be implemented to reduce the potential impacts associated with hazardous materials resulting from construction and operation of the proposed AFRC.

4.12.2.2 Alternative 2

Impacts to hazardous and toxic substances from Alternative 2 would be the same as those for the Preferred Alternative. In addition, the northern third of the North Clarendon Site overlies a groundwater source protection area, which could require special considerations although none could be identified by the Town of Clarendon Zoning Administrator (LaFrancis 2009b).

4.12.2.3 No Action Alternative

Under the No Action Alternative, no impacts would occur to hazardous and toxic substances.

4.13 Utilities

4.13.1 AFFECTED ENVIRONMENT

This section describes existing utilities at the Route 7 & Post Road and North Clarendon sites. In general, the utility systems are classified as distribution and collection systems including water, sanitary sewer, storm drainage, electrical, natural gas, and industrial wastewater. Communication systems and solid waste disposal are also discussed in this section.

4.13.1.1 Potable Water Supply

Potable water can be defined as water fit for drinking, being free from contamination and not containing a sufficient quantity of saline material to be regarded as a mineral water. According to the Town of Rutland, Town Planner, potable water for the Route 7 & Post Road Site is available from the Rutland municipal distribution system via extension from one of three main lines to the east of the property. The City of Rutland owns the main lines and provides water (Zingale 2009).

A municipal source of potable water for the North Clarendon Site is currently not available. According to the Town of Clarendon's Zoning Administrator, potable water in Clarendon is typically obtained through drilling private water supply wells (LaFrancis 2009b). Currently, there are no drinking water or irrigation supply wells located on the North Clarendon Site. A potable water main, owned by the Town of Rutland, is located near the site on the town boundary with Rutland; the water is provided by the City of Rutland (LaFrancis 2009b). According to the Rutland Town Planner, the Mayor of the City of Rutland does not readily grant approval to purchase water for use in Clarendon (Zingale 2009).

4.13.1.2 Wastewater System

Wastewater collection for the Route 7 & Post Road Site is available from the City of Rutland's Sewer Department via a Town of Rutland-owned force main that runs north from the site along U.S. Route 7 toward a wastewater pump station (Zingale 2009).

According to the Town of Clarendon's Zoning Administrator, wastewater collection is available to the North Clarendon Site via a 4-inch force main owned by the members of a nearby industrial park. The wastewater discharges to a manhole where it is then picked up by the City of Rutland's sewer system and sent to the City-owned sewage treatment plant (LaFrancis 2009b).

4.13.1.3 Stormwater System

There are no stormwater discharge permits on record for either site. Currently, stormwater is handled primarily in open ditches.

4.13.1.4 Energy Sources

No electric power service is active at either site. Electric power servicing the nearby residences and businesses is provided by CVPS. An electrical substation and power lines are located near the Route 7 & Post Road Site and access to electricity at the North Clarendon Site should be within reach due to the various nearby residences and businesses with power lines running along U.S. Route 7 near the site.

According to the Rutland City Engineer, there are no natural gas pipelines in the area surrounding the city; all gas service is tanked propane. AmeriGas Propane, Inc. is a major supplier of propane for the city (Shelvey 2009).

4.13.1.5 Communication

No communication lines are currently active at either site. Local telephone service has been provided by Verizon; however, the area is currently transitioning to Fairpoint Communication (Zingale 2009). Active fiber optic and cable lines run along Route 7B. As with electricity, due to the various residences and businesses nearby both sites, access to communication lines is within reach with lines running along U.S. Route 7.

4.13.1.6 Solid Waste

Municipal solid waste disposal for the area is administered by the Rutland County Solid Waste District. Privately-owned waste removal services are available around the City of Rutland.

4.13.2 CONSEQUENCES

Effects on infrastructure are considered in terms of increases in demands on systems and the ability of existing systems to meet those demands. Potential effects to the environment could occur if the existing systems are insufficient to handle the increased demands requiring construction and operation of a new system. Utility demands include both construction and operations usage. Utility demands during the operations of the

Proposed Action are based on the facility square footage and personnel requirements and current usage at the existing AFRC in the City of Rutland. Individual segments that comprise the totality of the infrastructure are discussed below.

Potential impacts to the potable water system are considered significant if the Proposed Action would:

- Reduce potable water availability;
- Disrupt potable water distribution systems;
- Change water demands that affect regional potable supplies; or
- Generate contaminants that cause negative effects on water quality.

Potential impacts to the wastewater system are considered significant if the Proposed Action would:

- Cause additional inflow and infiltration and increased loads on the wastewater treatment that cannot be adequately treated; or
- Change wastewater composition that would alter wastewater treatment processes or consistently cause upsets of the wastewater treatment system.

Potential impacts to stormwater conveyance systems are considered significant if the Proposed Action would:

- Cause flow obstructions and increases to the stormwater drainage system;
- Accelerate deterioration of the stormwater drainage system; or
- Cause long-term interruptions of stormwater drainage system components.

Potential impacts to the electrical systems are considered significant if the Proposed Action would:

- Change regional electricity demands requiring major new components such as transmission lines, transformers, and substations; or
- Cause long-term disruptions in available electrical services.

Potential impacts to liquid fuel systems are considered significant if the Proposed Action would:

- Cause unsafe, inadequate, or noncompliant temporary or long-term storage or distribution systems; or
- Cause unreliable distribution of liquid fuels that cannot meet the mission and support requirements.

Potential impacts to solid waste are considered significant if the Proposed Action would increase solid waste such that it overwhelms local landfills.

4.13.2.1 Alternative 1 – Preferred Alternative

Impacts to utilities from the Preferred Alternative would not be significant. The new AFRC would accommodate approximately the same number of people as the existing AFRC located in the City of Rutland. Therefore, average water use, wastewater disposal, solid waste disposal, and communications requirements are expected to remain about the same, utilizing the same City of Rutland providers, as summarized below. The new facility would be about four times larger than the existing AFRC, thus a corresponding increase in the use of electricity and an increase in stormwater discharges would be expected. However, all facilities would be designed to meet the Leadership in Energy and Environmental Design (LEED) Silver design standards in accordance with the Army sustainability policies. The Army's decision to meet LEED Silver design standards will provide a more sustainable facility and will serve as a model for other new construction projects in the area that may be inspired to consider "green" building features.

Potable water demand of the new AFRC at the Route 7 & Post Road Site would be met by the City of Rutland via extension from one of three main lines to the east of the property (Zingale 2009).

Wastewater from the new AFRC would be collected and disposed through the City of Rutland's Sewer Department via a Town of Rutland-owned force main that runs north from the site along U.S. Route 7 toward a wastewater pump station (Zingale 2009).

Stormwater discharges from the facility would be managed in accordance with a SWPPP prepared by the Army. Stormwater management would be included in the design of the proposed AFRC and the appropriate permits would be obtained as discussed in Section 4.7.2.1.

Electrical service would be supplied by CVPS and would be extended to the site from nearby power lines. Access to communication lines for the new AFRC at the Route 7 & Post Road Site would be from extension of existing lines running along U.S. Route 7. Solid waste disposal at the AFRC would be accomplished by the Rutland County Solid Waste District.

Under the Preferred Alternative, irretrievable commitments of resources would occur from the consumptive use of electrical energy and fuel during the construction and operation phases of the proposed AFRC.

4.13.2.2 Alternative 2

Impacts to utilities from Alternative 2 would not be significant. For the North Clarendon Site, potable water would most likely be obtained from a new water supply well. However, since the Town of Rutland water main is located in close proximity (about 1,100 to 1,200 feet) to the site, it would be possible to utilize it if approval could be obtained from the City of Rutland's Mayor.

Wastewater collection from the new AFRC could be accomplished through a main owned by members of the nearby industrial park. The members of the industrial park would

vote whether to approve access to the sewer; although they typically allow commercial usage of the line (LaFrancis 2009b). If approval could not be obtained, a septic tank system would have to be installed.

Under Alternative 2, additional solid waste would be generated from the demolition of the dilapidated structure on site. Otherwise, utility impacts under Alternative 2 would be the same as those under the Preferred Alternative. Additional infrastructure would be needed for the extension of utilities and communications services to serve the project.

As for the Preferred Alternative, under Alternative 2, irretrievable commitments of resources would occur from the consumptive use of electrical energy and fuel during the construction and operation phases of the proposed AFRC.

4.13.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to utility systems.

4.14 Cumulative Effects

Cumulative effects are those environmental impacts that result from the incremental effects of other past, present, or reasonably foreseeable future actions when combined with the Proposed Action. CEQ regulations stipulate that the cumulative effects analysis within an EA consider the potential environmental impacts resulting from the “incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions” (40 CFR 1508.7). Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals.

The scope of the cumulative effect analysis involves evaluating impacts to environmental resources by geographic extent of the effects and the time frame in which the effects are expected to occur. Past, present, and reasonably foreseeable actions are identified first, followed by the cumulative effects that could result from these actions when combined with the Proposed Action.

4.14.1 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

The geographic area analyzed for cumulative effects includes both the proposed Route 7 & Post Road and the North Clarendon sites and approximately 1 mile surrounding the sites. No current or reasonably foreseeable future actions were identified within the 1-mile area surrounding either site (Matteson 2009, LaFrancis 2009a). Applicable past projects identified are those that have resulted in conversion of agriculture lands to developed lands.

4.14.2 CUMULATIVE EFFECTS SUMMARY

The Proposed Action when combined with past projects would result in cumulative long-term adverse impacts to land use, aesthetics, biological resources, geology and soils,

water resources, noise, and transportation from the conversion of additional land resources from rural/agriculture to urban and industrial. Cumulative impacts would not be significant as described below.

The conversion of additional land resources from rural/agriculture to urban and industrial would constitute an irreversible impact to land use because the land likely cannot be completely restored to its original condition. The Proposed Action would cause incremental impacts to aesthetics and visual resources as additional natural and agricultural areas would be converted to more developed areas. Incremental impacts to biological resources would occur by removing vegetation and causing the direct loss of plant and wildlife habitats in the general vicinity of the AFRC. However, cumulative impacts would not substantially diminish the quantity or quality of habitat for plants and animals, nor would they substantially diminish regional or local populations of plant or animal species.

Cumulative impacts to geology and soils would result from the addition of impervious surfaces to the general vicinity of the AFRC and conversion of additional prime farmland to other uses. In Rutland County, 9,700 acres of land were converted to development within recent years, of which 75 percent were agricultural lands (Rutland Regional Plan 2008). The loss of farmland, approximately 15 acres at the Route 7 & Post Road Site and about 14 acres at the North Clarendon Site would not significantly impact the soils of the area. Cumulative impacts on groundwater recharge from the addition of impervious surfaces also would not be significant since a large portion of the surrounding land still remains undeveloped or in agricultural production.

Incremental impacts to noise and transportation generated from additional traffic in the area would occur; however, traffic as a result of the Proposed Action would be mostly confined to weekends. Cumulative impacts to noise and transportation would not be significant.

4.15 Mitigation Summary

Mitigation measures are actions required for the specific purpose of reducing the environmental impacts of implementing a proposed or alternative action. An EA may specify mitigation measures that, if implemented, would prevent significant impacts that would otherwise require an environmental impact statement. No mitigation measures are required for the Proposed Action discussed in this EA because resulting impacts would not meet the significance criteria described for each resource in Section 4.0; that is, the impacts would not be significant.

As part of the Proposed Action, the Army has identified a number of actions that would be implemented to minimize unavoidable impacts at the Preferred Alternative Site. Many of these actions would be implemented in association with the proposed construction activities at the Preferred Alternative Site to minimize impacts to wetlands. These actions that the Army would take to minimize unavoidable impacts, as deemed appropriate, are provided in Table 4-6. In addition, the Army would acquire all applicable permits, including but not limited to those discussed in this EA, and work with

governmental agencies to comply with the respective regulations and avoid adverse impacts.

Table 4-6. Actions to Minimize Unavoidable Impacts at the Preferred Alternative Site.

Resource Area	Action to be Taken
Air Quality	<ul style="list-style-type: none"> Implement BMPs to minimize generation of fugitive dust during construction. Install a radon mitigation system during construction of the proposed AFRC. Following construction completion, measure the radon concentration, and if above acceptable EPA levels, install a fan system to vent radon from the facility. Monitor radon concentrations as an ongoing operational task.
Noise	<ul style="list-style-type: none"> Consider restricting construction activities generating loud noise to normal working hours. Use noise-controlled construction equipment to the extent possible.
Geology and Soils	<ul style="list-style-type: none"> Obtain a General Construction Permit and abide by requirements. Prepare and adhere to SWPPP.
Water Resources/Surface Water	<ul style="list-style-type: none"> Obtain State Stormwater Discharge Permit. Abide by "Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act" to maintain site hydrology as much as possible. Obtain Multi-Sector General Permit issued under the National Pollutant Discharge Elimination System (NPDES).
Hazardous and Toxic Substances	<ul style="list-style-type: none"> Submit Hazardous Waste Handler Site ID Form Prepare and abide by SPCC plan
Biological Resources (Wetlands)	<p>Pre-Construction Planning</p>
	<ul style="list-style-type: none"> Before construction begins, the construction contractor must file with the Army's Contracting Officer's Technical Representative a copy of its approved SWPPP prepared for compliance with the EPA's National Stormwater Program General Permit requirements. This plan must be available in the field and shall include a SPCC Plan. Before construction begins, the Army will submit a Regional General Permit Category 2 permit application package to the USACE New England District Office Regulatory Division, Vermont Project Office. The application letter will describe the project that includes the area of temporary wetlands crossings (if required), and scaled plans showing the existing and proposed conditions. Any wetland boundaries in and near the project will be clearly labeled along with the wetland impact. One environmental inspector or individual approved by the Contracting Officer's Technical Representative having knowledge of the wetland conditions of the project area and wetland mitigation and BMPs will be identified for construction activities. The individual should have stop work authority.
Biological Resources (Wetlands)	<p>Wetlands Erosion Control</p>
	<ul style="list-style-type: none"> Temporary erosion controls must be located along the edge of the construction work area and protect wetlands that are located outside of the construction work area (Wetlands 4, 5, 7, 8 and 12). Erosion control must be maintained throughout construction on a daily basis and reinstalled as necessary (such as after a knock down by equipment) until replaced by permanent erosion controls or restoration is complete.

Resource Area	Action to be Taken
	<ul style="list-style-type: none"> • All extra work areas (such as staging areas and additional spoil storage areas) must be located at least 50 feet away from wetland boundaries, except where the adjacent upland consists of actively cultivated or rotated cropland or other disturbed land.
Biological Resources (Wetlands)	Utility Right-of-way Construction
	<ul style="list-style-type: none"> • All construction activities must be contained within the construction right-of-way for installation of the water line. • Installation of silt fence or other erosion control measure to minimize potential impacts resulting from construction of the water line right-of-way bordering Wetlands 10, 11, and 12. • After the water line installation is completed, the original grade between Wetlands 10 and 12 must be restored to maintain a nexus between them. • Temporary erosion control barriers would be removed during right-of-way cleanup.
Biological Resources (Wetlands)	Wetland Access and Equipment/Materials Considerations
	<ul style="list-style-type: none"> • The Army would limit construction equipment operating in wetland areas to that needed to construct the potential water line. All other construction equipment would use access roads located in upland areas to the maximum extent practicable. • All equipment would be parked overnight and/or fueled at least 100 feet from a waterbody or in an upland area at least 100 feet from a wetland boundary. If construction equipment must be refueled in a wetland or within 100 feet of any wetland boundary, the Army would follow the procedures outlined in the project-specific SPCC Plan. • Construction equipment operating in wetland areas would be limited to that needed to clear the construction right-of-way, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction right-of-way. • Hazardous materials, including chemicals, fuels, and lubricating oils would not be stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas. • All spoil would be placed in the construction right-of-way at least 10 feet from the wetland edge or in additional extra work areas as prior identified. • Rock, soil imported from outside the wetland, tree stumps, or brush riprap would not be used to support equipment on the construction right-of-way. • If standing water or saturated soils are present, or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, low-ground-weight construction equipment would be used, or normal equipment would be operated on timber riprap, prefabricated equipment mats, or terra mats. • Trees outside of the approved construction work area would not be cut to obtain timber for riprap or equipment mats. • The Army would attempt to use no more than two layers of timber riprap to support equipment on the construction right-of-way. • All project-related material used to support equipment on the construction right-of-way would be removed upon completion of construction.

Resource Area	Action to be Taken
Biological Resources (Wetlands)	Trench Dewatering, if necessary
	<ul style="list-style-type: none"> • The Army would dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in heavily silt-laden water flowing into any wetland. Dewatering structures would be removed as soon as possible after the completion of dewatering activities. • For each wetland crossed, a trench breaker would be installed at the base of slopes near the boundary between the wetland and adjacent upland areas (if a slope exists).
Biological Resources (Wetlands)	Restoration
	<ul style="list-style-type: none"> • The Army would not use fertilizer, lime, or mulch unless required in writing by the appropriate land management or state agency. • The Army would consult with the VANR or appropriate land management or state agency to develop a project-specific wetland restoration and/or revegetation plan. The restoration plan should include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of undesirable exotic species (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. • The Army would ensure that all disturbed areas successfully revegetate with wetland herbaceous and/or woody plant species. • Herbicides or pesticides would not be used in or within 100 feet of a wetland, except as allowed by the appropriate land management agency or state agency. • The Army would notify appropriate state authorities at least 48 hours before beginning trenching or blasting within the waterbody, or as specified in state permits.

- AFRC Armed Forces Reserve Center
- BMP best management practice
- EPA U.S. Environmental Protection Agency
- SPCC Spill Prevention, Control, and Countermeasures
- SWPPP Stormwater Pollution Prevention Plan
- USACE U.S. Army Corps of Engineers
- VANR Vermont Agency of Natural Resources

5.0 FINDINGS AND CONCLUSIONS

Direct, indirect, and cumulative impacts of Alternative 1, Alternative 2, and the No Action Alternative have been considered. Alternative 1 is the 99th RSC's Preferred Alternative because it best allows the Army to efficiently provide safe training facilities for Army Reserve and Army National Guard units that would use the facilities. No significant environmental impacts would occur. Cumulative impacts analysis resulted in no significant impact. Therefore, the issuance of a FNSI is warranted, and preparation of an environmental impact statement is not required. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law to be implemented if the Army is able to acquire land suitable for the construction of the facilities.

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9.0 PERSONS CONSULTED

Persons and agencies that were contacted for information for this EA are listed in this section regardless of whether a response was received.

Mr. Mike Adams
U.S Army Corps of Engineers
Vermont Project Office
8 Carmichael Street, Suite 205
Essex Junction, VT 05452

Mr. Tom Chapman, Supervisor
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial St., Suite 300
Concord, NH 03301

Mr. Robert Chicks, President
Stockbridge Munsee Community of
Wisconsin
N8476 Mo He Co Nuck Road
Bowler, WI 54416

Ms. Judy Doerner, State Conservationist
USDA-NRCS
356 Mountain View Drive, Suite 105
Colchester, VT 05446

Ms. Judith Ehrlich
Director of Operations and Project Review
Vermont Division for Historic Preservation
National Life Drive
Montpelier, VT 05602

Mr. Forrest Hammond
Wildlife Biologist
Vermont Fish & Wildlife Department
100 Mineral Street, Suite 302
Springfield, VT 05156

Mr. Robert LaFrancis
Zoning Administrator
Town of Clarendon
P.O. Box 30
Clarendon, VT 05759

Mr. Wayne Laroche, Commissioner
Vermont Fish & Wildlife Department
103 South Main Street
Waterbury, VT 05671-0501

Ms. Gale Licausi, Planning Commission
Town of Clarendon
P.O. Box 30
Clarendon, VT 05759

Mr. William Matteson
Town of Rutland, Planning Chairman
181 Business Route 4
Center Rutland, VT 05736

Ms. Laura Q. Pelosi, Commissioner
Vermont Department of Environmental
Conservation
Commissioner's Office
103 South Main Street, 1 South Building
Waterbury, VT 05671-0401

Mr. Alan Quackenbush
State Wetlands Coordinator
Vermont Agency of Natural Resources
103 S Main St-10 North
Waterbury, VT 05671-0408

Mr. Terry Ramborger
AECOM Environment
11 Phelp's Way
P.O. Box 506
Willington, CT 06279

Mr. Alan Shelvey, P.E.
City Engineer
City of Rutland
52 Washington St.
Rutland, VT 05702-0969

Ms. Julia Stearns, Wetland Scientist
AECOM Environment
11 Phelp's Way
P.O. Box 506
Willington, CT 06279

Ms. Martha H. Stuart
Soil Scientist/FPPA Contact
USDA-NRCS
28 FarmVu Drive
White River Junction, VT 05001

Mr. Bill Swain
Michael Baker Jr., Inc.
100 Airside Drive
Moon Township, PA 15108

Mr. Anthony Tur
Endangered Species Specialist
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, NH 03301-5087

Mr. Joseph Zingale, Jr.
Town Planning
Town of Rutland
181 Business Route 4
Center Rutland, VT 05736

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*Environmental Assessment for Construction of an
Armed Forces Reserve Center and
Implementation of BRAC 05 Recommendations at
Rutland, Vermont*

APPENDIX A

CONSULTATION AND COORDINATION

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APPENDIX A. CONSULTATION AND COORDINATION

This appendix contains the following consultation and coordination documents:

- Letters sent to the Vermont Division for Historic Preservation, State Historic Preservation Office dated January 14, October 5, and November 2, 2009
- Letters sent to the Stockbridge Munsee Community of Wisconsin dated January 14, October 5, and November 2, 2009
- Letter sent to the U.S. Department of Agriculture, Natural Resources Conservation Service dated January 20, 2009
- Letter sent to the U.S. Fish and Wildlife Service dated January 20, 2009
- Letter sent to the Vermont Department of Environmental Conservation dated January 20, 2009
- Letter sent to the Vermont Fish and Wildlife Department dated January 20, 2009
- E-mail received from the U.S. Department of Agriculture, Natural Resources Conservation Service with the completed Farmland Conversion Impact Rating Form on August 12, 2009
- Letter received from the U.S. Fish and Wildlife Service dated January 2, 2009
- Letter received from the U.S. Fish and Wildlife Service dated February 26, 2009
- E-mail received from the Vermont Fish and Wildlife Service dated February 19, 2009
- Letter received from the Stockbridge-Munsee Tribal Historic Preservation Office dated November 3, 2009
- Letter received from the Stockbridge-Munsee Tribal Historic Preservation Office dated November 18, 2009
- Concurrence received from the State Historic Preservation Office dated November 16, 2009
- E-mail communications between C. Major (AGEISS Inc.) and A. Quackenbush (State Wetlands Coordinator, Vermont Agency of Natural Resources) regarding wetlands at the Preferred Alternative Site
- E-mail communication from the U.S. Army Corps of Engineers, New England District Regulatory Division with editorial comments made during public review

The letters sent to the Vermont Division for Historic Preservation (January 14), the Stockbridge Munsee Community of Wisconsin (January 14), U.S. Fish and Wildlife Service, Vermont Department of Environmental Conservation, and Vermont Fish and Wildlife Department all contained the same attachments. These attachments are shown in this appendix following the letter sent to the Vermont Division for Historic Preservation. The letters sent to the Vermont Division for Historic Preservation (November 2) and the Stockbridge Munsee Community of Wisconsin (November 2) contained the same attachments. These attachments are shown in this appendix following the letter sent to the Vermont Division for Historic Preservation.



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5522 NASHVILLE STREET
FORT DIX, NEW JERSEY 08640-5000



REPLY TO
ATTENTION OF

January 14, 2009

Ms. Judith Ehrlich
Director of Operations and Project Review
Vermont Division for Historic Preservation
National Life Drive
Montpelier, Vermont 05602

Dear Ms. Ehrlich,

The Department of the Army is preparing an Environmental Assessment (EA) for the proposed construction of an Armed Forces Reserve Center (AFRC) in the Town of Rutland, Rutland County, Vermont as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). To enable implementation of these recommendations, the U.S. Army, in partnership with the 99th U.S. Army Reserve Regional Support Command, proposes to provide the necessary facilities at a site in the Town of Rutland, Vermont to support the changes in force structure. The EA is being prepared in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651). The purpose of this letter is to request your early input on the proposed federal action.

The Proposed Action includes the construction and operation of a new AFRC building, for which the Army would acquire new land for construction of these facilities. Two alternative sites for the Proposed Action are being evaluated.

- **Alternative 1 - Route 7 & Post Road Site** - The Army's preferred alternative is to acquire about 14 acres of a larger 104 acre parcel. The 14 acres is located adjacent to US Route 7 and Post Road in the Town of Rutland. The site is mostly open field with some topographic features that can be modified to meet construction requirements.
- **Alternative 2 - North Clarendon Site** - The second alternative site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7, but access to Route 7 may require alternation to the existing interchange, which would require coordination with the Vermont Department of Transportation. The entire site is vacant,

underdeveloped land, with the exception of a dilapidated, vacant residence that would have to be demolished.

Attachment 1 shows the general location of this undertaking; Attachment 2 shows the location of the proposed sites; and Attachments 3 and 4 are aerial photographs of the two alternative sites. The facilities would be permanent construction with reinforced concrete structures, and approximately 2.0 acres will be required for parking. Future site improvements are expected to occupy approximately 12 acres.

A literature review of the Master Site Files shows no known historical properties within the area of potential effect. However, a Phase 1 archaeological survey will be conducted at the preferred site to confirm the absence of any undiscovered cultural resources before the property is acquired by the Army. You will be provided with review copies of the Archaeological Survey and the Environmental Assessment.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact Mr. Craig Kelley at the following:

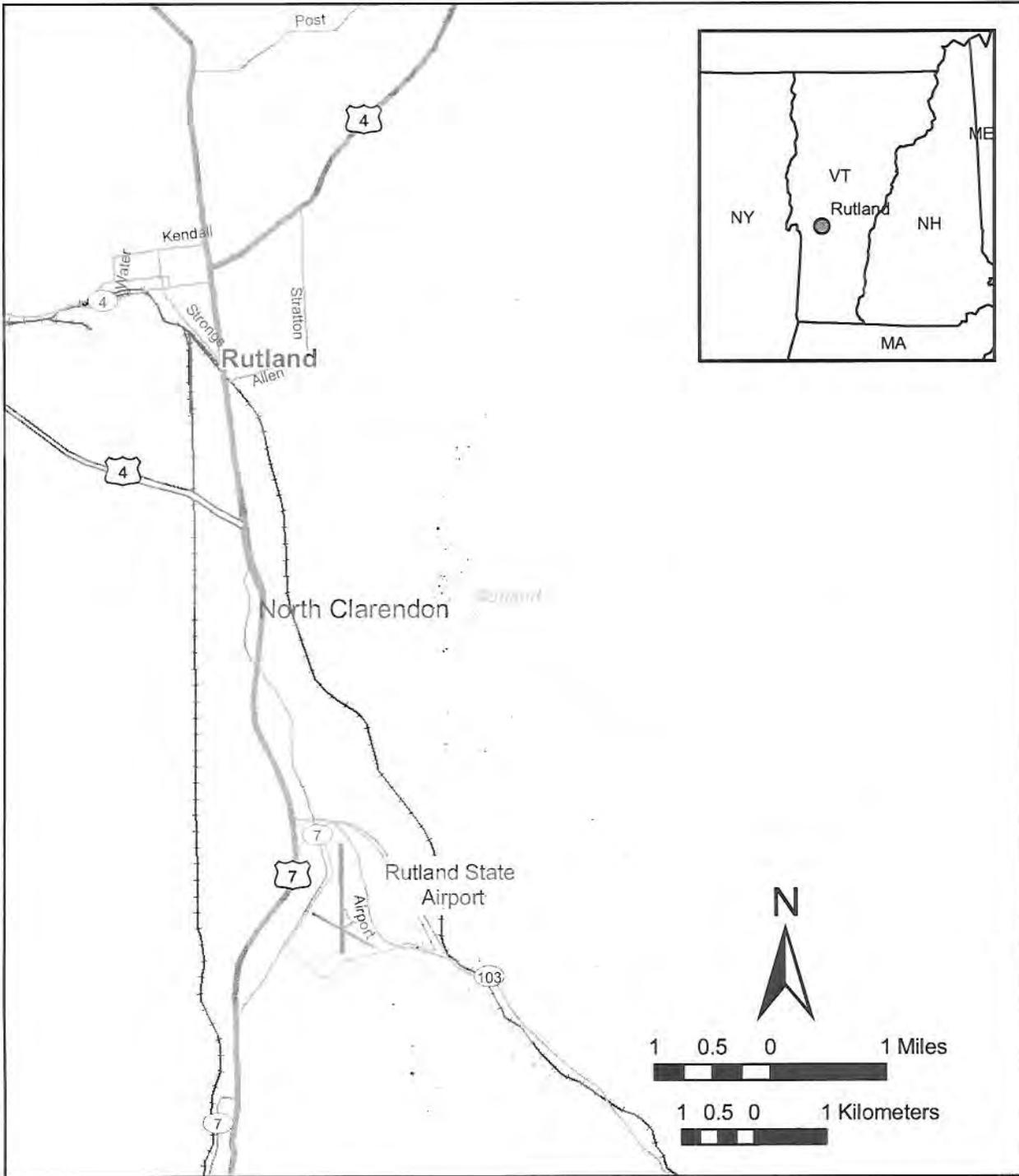
Craig Kelley, 99th RSC
NEPA Coordinator
(978) 796-2512
Craig.A.Kelley@usace.army.mil

Sincerely,


JOSEPH H. LEDLOW
Colonel, US Army Reserve
Regional Engineer

List of Attachments:

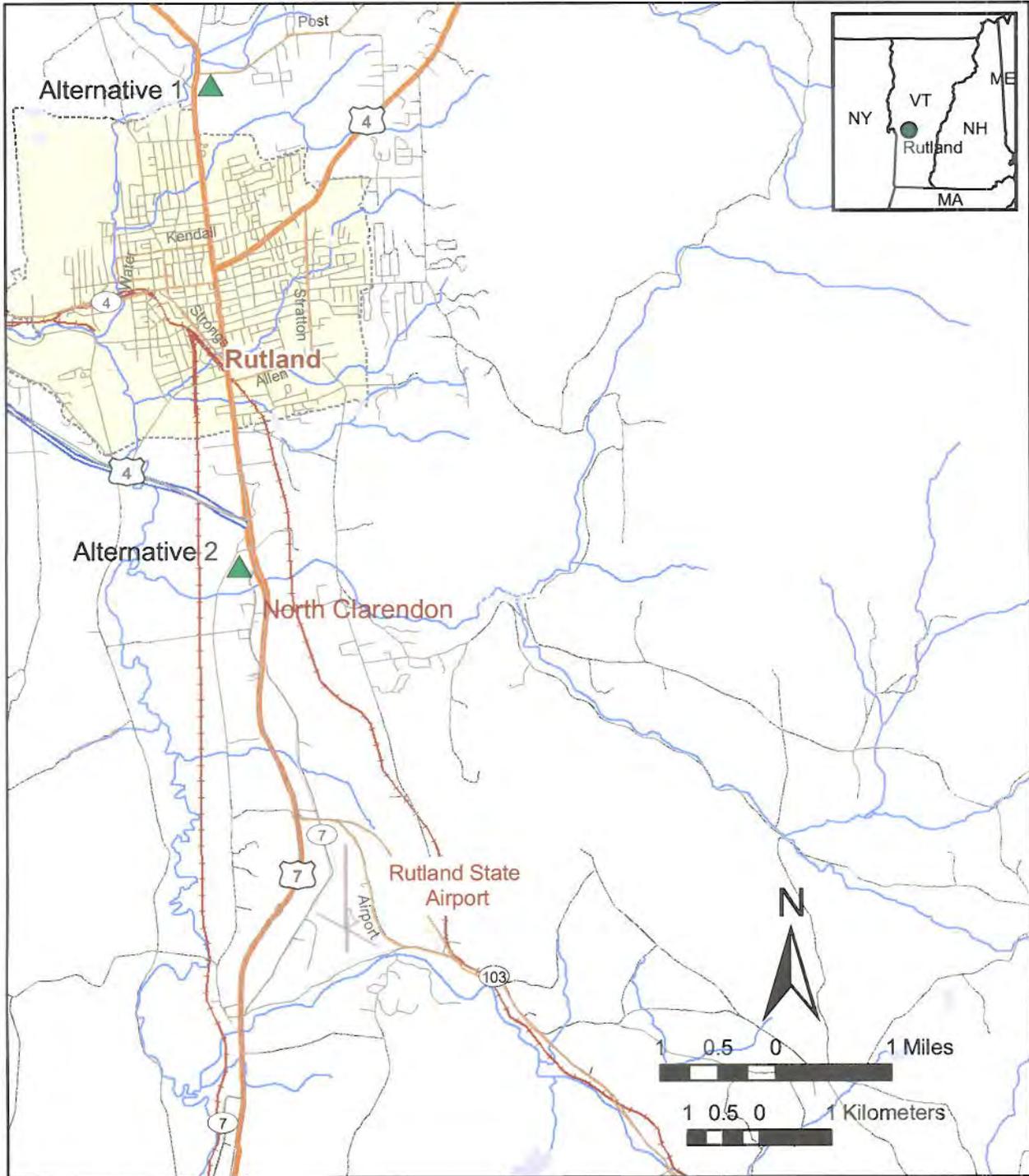
- 1 – Rutland, Vermont Location Map
- 2 – Location Map of the Proposed Sites
- 3 – Aerial Photograph of Alternative 1- Route 7 & Post Road Site
- 4 – Aerial Photograph of Alternative 2- North Clarendon Site



Prepared For:
 U.S Army Corps of Engineers, Mobile District

Attachment 1
 Rutland, Vermont Location Map





Prepared For:
 U.S Army Corps of Engineers, Mobile District

Attachment 2
 Location Map of the Proposed Sites





Legend

- Site Boundary of Preferred Alternative
- Major Contour
- Minor Contour
- FEMA Flood Zones
- Wetland Areas

Attachment 3

Aerial Photograph of the Route 7 and Post Road Site - Preferred Alternative



Prepared For:

U.S. Army Corps of Engineers, Mobile District



Map center: 462241, 119170

Legend

— Site Boundary

Attachment 4

Aerial Photograph of North Clarendon Site -
Alternative 2



Prepared For:

U.S. Army Corps of Engineers, Mobile District



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000

REPLY TO
ATTENTION OF

October 5, 2009

Ms. Judith Ehrlich
Director of Operations and Project Review
Vermont Division for Historic Preservation
National Life Drive
Montpelier, Vermont 05602

Dear Ms. Ehrlich:

The Department of the Army is continuing its consultation efforts for the proposed Rutland Armed Forces Reserve Center (AFRC) in accordance with section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended (PL 89-6650). Identification efforts for historic properties, as outlined in initial correspondence dated January 14, 2009 (Enclosure 1) included a full Phase I cultural resources inventory. The results of the inventory located two prehistoric sites consisting of large but low density scatters of non-diagnostic lithic debitage within the project area of potential effect (APE). The sites are recorded via state site numbers VT-RU-596 and VT-RU-597. Based on communications with Mr. Scott Dillon of your office, a testing plan was forwarded and has subsequently been carried out. Due to the presence of the identified sites, the Army also evaluated additional adjacent property for cultural resources.

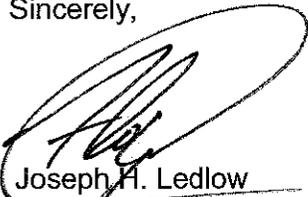
The archaeological testing found that the majority of both sites VT-RU-596 and VT-RU-597 fail to maintain integrity, features, or other in-tact components which are considered to have potential to add to the archaeological knowledge of the region. Based on the results of the testing, site VT-RU-596 is recommended as ineligible for listing on the National Register of Historic Places (NRHP). However, the southern portion of site VT-RU-597, specifically loci 4, contained a higher concentration of lithic debitage, stone tools, and a single pit feature which contained a blade cache. The cache contained 16 projectile points that are considered to date to the Middle Archaic period, ca. 6000-5000 B.C. Locus 4 is recommended eligible for the NRHP. A management summary outlining the data collected from the sites is provided as Enclosure 2.

The presence of wetlands and the archaeological remains within preferred site 1 has resulted in the Army moving its preferred location to the property adjacent to and east of the original preferred location (Enclosure 3). Therefore, the proposed AFRC construction will have no potential to effect archaeological sites VT-RU-596 or VT-RU-597.

Unfortunately, Phase I survey found two additional archaeological sites within the new preferred location APE (see figure 3, Enclosure 2). These sites consisted of two small loci of low density, non-diagnostic lithic debitage. Based on initial investigations and the discoveries made at site VT-RU-597, the Army is recommending further testing at these two loci in order to determine their NRHP significance. A testing plan has been developed and is attached for your review and comment (Enclosure 4).

Due to oncoming cold weather, the Army hopes to begin archeological testing of two loci as soon as possible. A management summary with Phase II testing will be provided to your office as soon as the field work has been completed. Your approval of the attached testing plan and our proposed path forward is requested. I would like to thank you in advance for your efforts, and would greatly appreciate a expedited response. Correspondence and other communication regarding this matter should be directed to Robyn Mock, 99th RSC DPW, Environmental Division, 5231 South Scott Plaza, Fort Dix, NJ 08640, Phone: (609)562-7662, Email: Robyn.Mock@usar.army.mil.

Sincerely,

FM: 
Joseph H. Ledlow
Colonel, US Army Reserve
Regional Engineer

Enclosure(s):

Enclosure 1: Original letter and figures

Enclosure 2: Management Summary

Enclosure 3: Map of new preferred location/APE

Enclosure 4: Phase II testing Plan



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000

REPLY TO
ATTENTION OF

November 2 , 2009

Ms. Judith Ehrlich
Director of Operations and Project Review
Vermont Division for Historic Preservation
National Life Drive
Montpelier, Vermont 05602

Dear Ms. Ehrlich:

The Department of the Army is continuing its consultation efforts for the proposed Rutland Armed Forces Reserve Center (AFRC) in accordance with section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended (PL 89-6650). Identification efforts were moved to a third location due to several factors including the discovery of significant cultural resources and wetlands. The property is located adjacent to and east of previous location and is referred to as the new preferred site (Enclosure 1). The site is located completely within Rutland County, Vermont.

The results of the inventory located two prehistoric sites consisting of low density scatters of non-diagnostic lithic debitage within the project area of potential effect (APE). The sites are recorded via state site numbers VT-RU-600 and VT-RU-601. In consultation with Mr. Scott Dillon of your office, a Phase II testing plan was developed. The plan was forwarded to your office and approved. The testing was completed between October 13 and October 22, 2009.

The archaeological testing found that both sites VT-RU-600 and VT-RU-601 fail to maintain integrity, features, or other in-tact components which are considered to have potential to add to the archaeological knowledge of the region. Based on the results of the testing, both sites VT-RU-600 and VT-RU-601 are recommended as ineligible for listing on the National Register of Historic Places (NRHP). A management summary outlining the data collected from the sites is provided for your review (Enclosure 2).

Based on the results of the inventory and subsequent Phase II testing, the APE of the proposed Rutland AFRC contains no sites eligible for the NRHP. Therefore, the Army has determined "no historic properties affected" by the proposed action as per 36CFR800.4(d)(1). The Army requests your concurrence with our recommendation that sites VT-RU-600 and VT-RU-601 are ineligible for listing on the NRHP. In addition, we request your concurrence with our determination of "no historic properties affected" by the proposed construction of the Rutland AFRC.

I would like to thank you in advance for your efforts, and would greatly appreciate a response within thirty (30) days. Correspondence and other communication regarding this matter should be directed to Robyn Mock, 99th RSC DPW, Environmental Division, 5231 South Scott Plaza, Fort Dix, NJ 08640, Phone: (609)562-7662, Email: Robyn.Mock@usar.army.mil.

Sincerely,

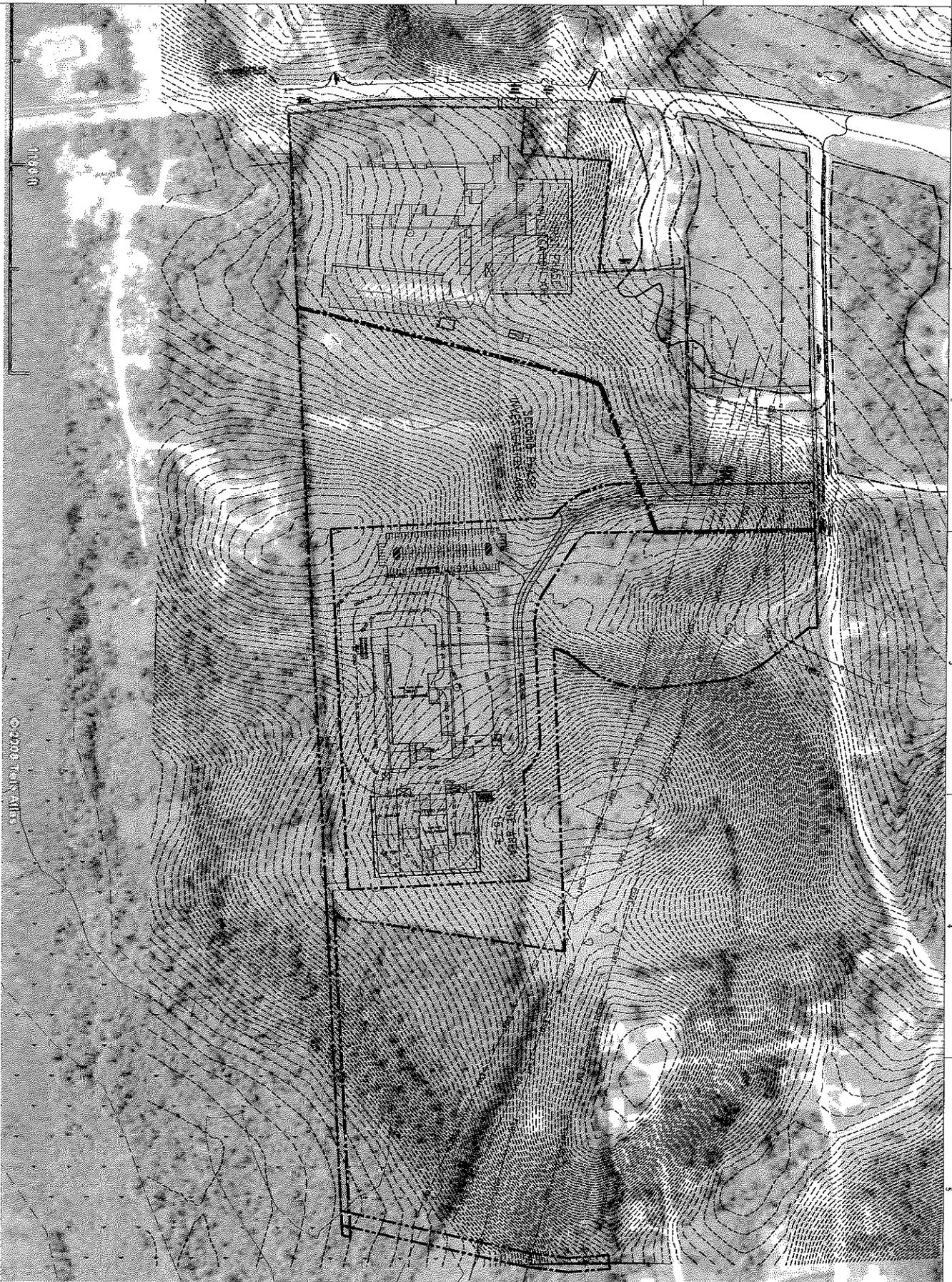
A handwritten signature in black ink, appearing to read "Joseph H. Ledlow". The signature is fluid and cursive, with the first name "Joseph" being the most prominent.

Joseph H. Ledlow
Colonel, US Army Reserve
Regional Engineer

Enclosures:

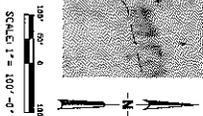
Enclosure 1: Additional Site Photos

Enclosure 2: Management Summary



SUPPORT VALUE ENGINEERING - II PAVS

SUPPORT VALUE ENGINEERING - II PAVS



Drawing Number
C-209
 Sheet X of 15

ARMED FORCES RESERVE CENTER
 RICHMOND, VIRGINIA
 US Army Corps of Engineers
 OVERALL ALTERNATIVE 7 LAYOUT PLAN

U.S. ARMY CORPS OF ENGINEERS
 LEXINGTON DISTRICT
Baker
 MICHAEL BAKER GROUP
 A unit of Baker International Corporation

Designer: J. Wagner Checker: W. Smith Engineer: R. Scirocco Date: APRIL 18, 2009	ARCHONMENT #0009
---	------------------

CONCEPTUAL PLANS

Phase II Testing at sites VT-RU-600 and VT-RU-601 in the Proposed Armed Forces Reserve Center, Rutland, Rutland County, Vermont

Management Summary

Northeast Archaeology Research Center, Inc.

10/28/09

Archaeological phase II testing at two newly identified Native American sites in the proposed Armed Forces Reserve Center, Rutland, Rutland County, Vermont was conducted by the Northeast Archaeology Research Center, Inc. (NE ARC) on behalf of Brockington & Associates from October 13th to 22nd, 2009. The archaeological sites (VT-RU-600 and VT-RU-601) were identified in the eastern parcel during the phase I survey conducted by NE ARC on August 11th to 16th, 2009 (Figures 1 and 2).

The phase II testing work at the two sites included the excavation of 125 .05 m x .05 m test pits, 8 1.0 m x 1.0 m test units, and 80 square meters of backhoe stripping to sample for cultural features. The purpose of the phase II testing at each of the two sites was to establish their significance in terms of the National Register of Historic Places (NRHP) through the determination of site context, the presence or absence of intact cultural deposits, cultural features, and diagnostic artifacts, and to determine potential project effects to the sites.

VT-RU-600

VT-RU-600 is located in the northeast corner of the APE. During the phase I survey, a portion of the site area was in use as a garden plot planted predominantly in pumpkins, but these vegetables had been harvested and the terrace was largely free of vegetation at the time of the recent phase II testing work. During the phase I survey two lithic flaked tools, a quartz projectile point tip and a quartz wedge were surface collected from the site area. One phase I survey test pit, T9-3, was also positive with a single quartz flake.

The site terrace is approximately 12 meters north to south and 50 meters east to west. To the north a large bedrock outcrop marks a steep upward incline in the topography and to the south the ground slopes at an acute angle toward a rock wall.

The phase II testing work at site VT-RU-600 consisted of the excavation of 54 0.5 m x 0.5 m test pits, 4 1.0 m x 1.0 m test units and 40 square meters of mechanical backhoe removal of the 'AP' soil horizon to examine subsurface contexts for cultural features (Figure 3). A grid was established in the site area using UTM (Universal Transverse Mercator) grid coordinates, and the entire landform was tested at 5 m intervals with 2.5 m interval testing around all positive, or potentially positive, test pits.

The soils consisted of a dark brown fine sand 'AP' horizon ranging from 8 cm-30 cm in thickness, a dark yellowish brown silty fine sand 'B' horizon ranging from 0 cm-15 cm in thickness and a light olive brown very fine sand 'C' horizon within which all test pits were terminated. The average test pit depth was 39 cm below ground surface. The

soils contained a heavy amount of pebbles, cobbles and boulders, with a high quantity of naturally occurring quartzite.

One Native American artifact was recovered during phase II testing in test pit N4833056 E663920. The artifact is a modified quartzite flake, which was recovered from the 'AP' soil horizon. A few other possibly cultural artifacts were also recovered but due to the large amounts of naturally occurring quartzite in the soil, they cannot be determined as unequivocally cultural.

During the excavations at the site, charcoal staining was apparent at the base of the plow zone in some of the test units and backhoe trenches. Samples were taken from four of these stains and will be processed in the lab; however they appear to be natural and not cultural features.

VT-RU-601

VT-RU-601 is located in the eastern portion of the APE on a knoll that was covered in rye during the phase I survey. By the time of the phase II excavations, the rye was cut and the area was free of vegetation. The knoll is approximately 30 m x 30 m with drainages located both to the east and west. During the initial phase I survey one chert flake was recovered from T7 P5.

The phase II testing work at site VT-RU-601 consisted of the excavation of 71 0.5 m x 0.5 m test pits, 4 1.0 m x 1.0 m test units and 40 square meters of mechanical backhoe removal of the 'AP' to examine subsurface contexts for cultural features (Figure 4). A grid was established in the site area using UTM grid coordinates, and the entire landform was tested at 5 m intervals with 2.5 m interval testing around all positive test pits.

The soils consisted of a dark yellowish brown very fine silt sand 'AP' horizon ranging from 10cm-31cm in thickness, and a light olive brown 'C' horizon within which all excavations were terminated. A few test pits had a yellowish brown thin remnant 'B' horizon. The average pit depth was 38 cm below ground surface. The soil was rocky with a heavy content of pebbles, cobbles and boulders of dolomite and quartzite.

A total of 12 Native American lithic flakes, 7 chert, 3 quartz and 2 quartzite, were recovered from six test pits and three test units over a horizontal area of approximately 300 square meters. All artifacts were recovered from the 'AP' soil horizon. No cultural features were found during the hand or mechanical excavations.

Conclusion and Recommendations

On the basis of the results of the phase II testing work conducted at sites VT-RU-600 and VT-RU-601, it is unlikely that either site is eligible for listing in the NRHP. The work plan developed for the phase II testing was achieved and an additional 37 0.5 m x 0.5 m test pits and an additional 20 square meters of mechanical excavation were completed. These excavations failed to yield significant artifacts, cultural features or other significant archaeological deposits. Based on current information, these sites likely represent small, ephemeral Native American activity areas of undetermined age, where past occupation left relatively little archaeological evidence. Given that the sites are deemed not likely to be eligible in terms of the NRHP, no further work is recommended.



Figure 1. Topographic map showing archaeological sites VT-RU-600 and VT-RU-601 in the proposed Armed Forces Reserve Center, Rutland, Rutland County, Vermont.

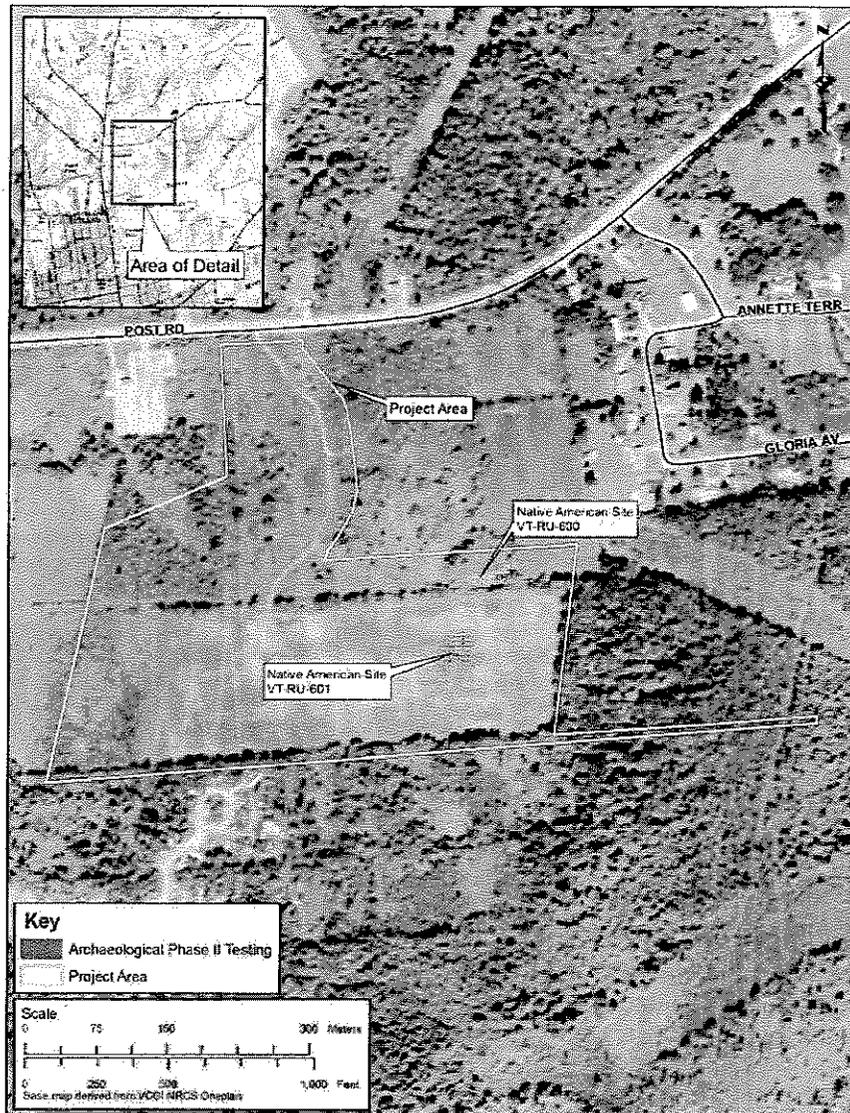


Figure 2. Aerial photograph showing the proposed Armed Forces Reserve Center and archaeological sites VT-RU-600 and VT-RU-601, Rutland, Rutland County Vermont.

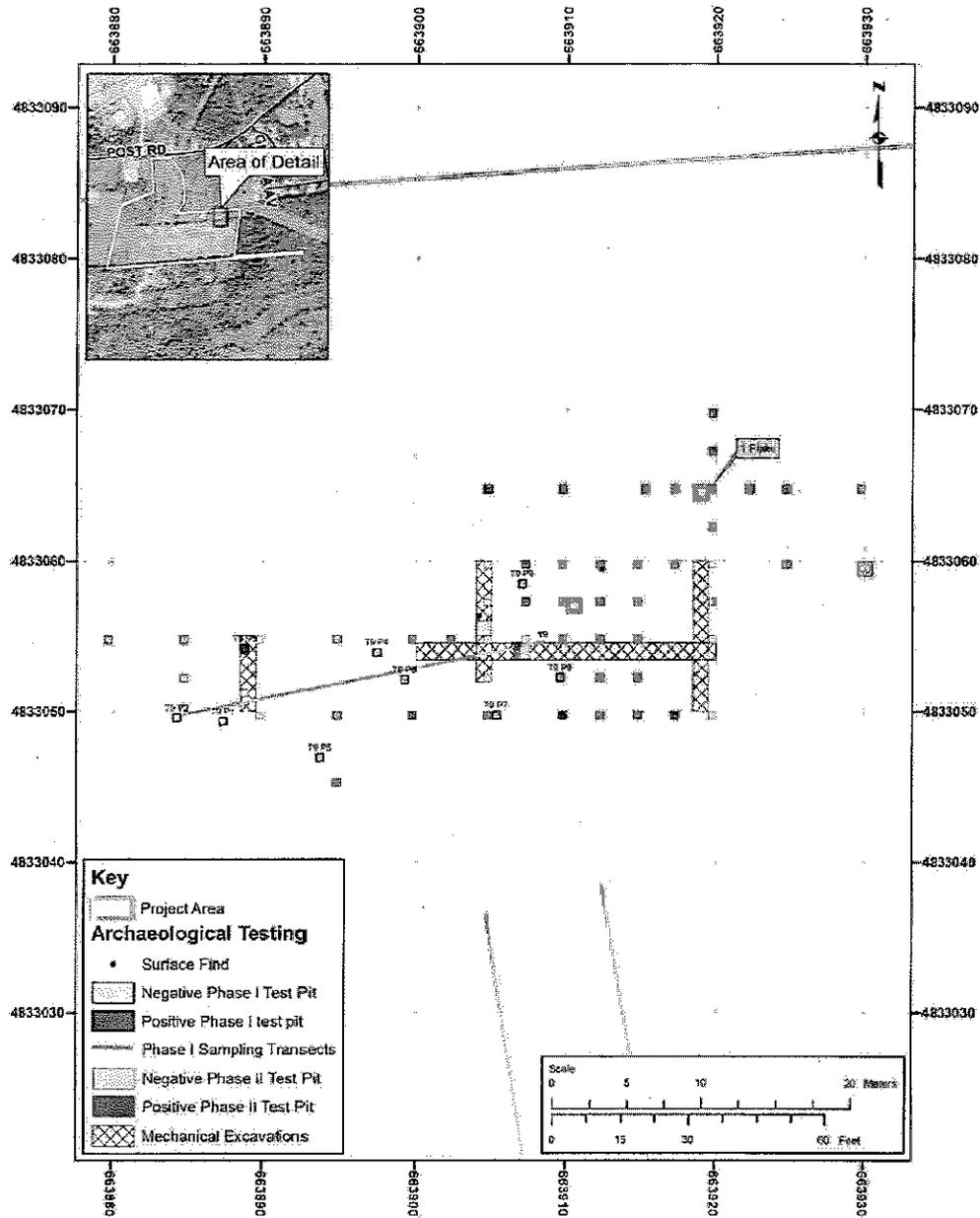


Figure 3. Site map showing archaeological excavations at site VT-RU-600 in the proposed Armed Forces Reserve Center, Rutland, Rutland County, Vermont.

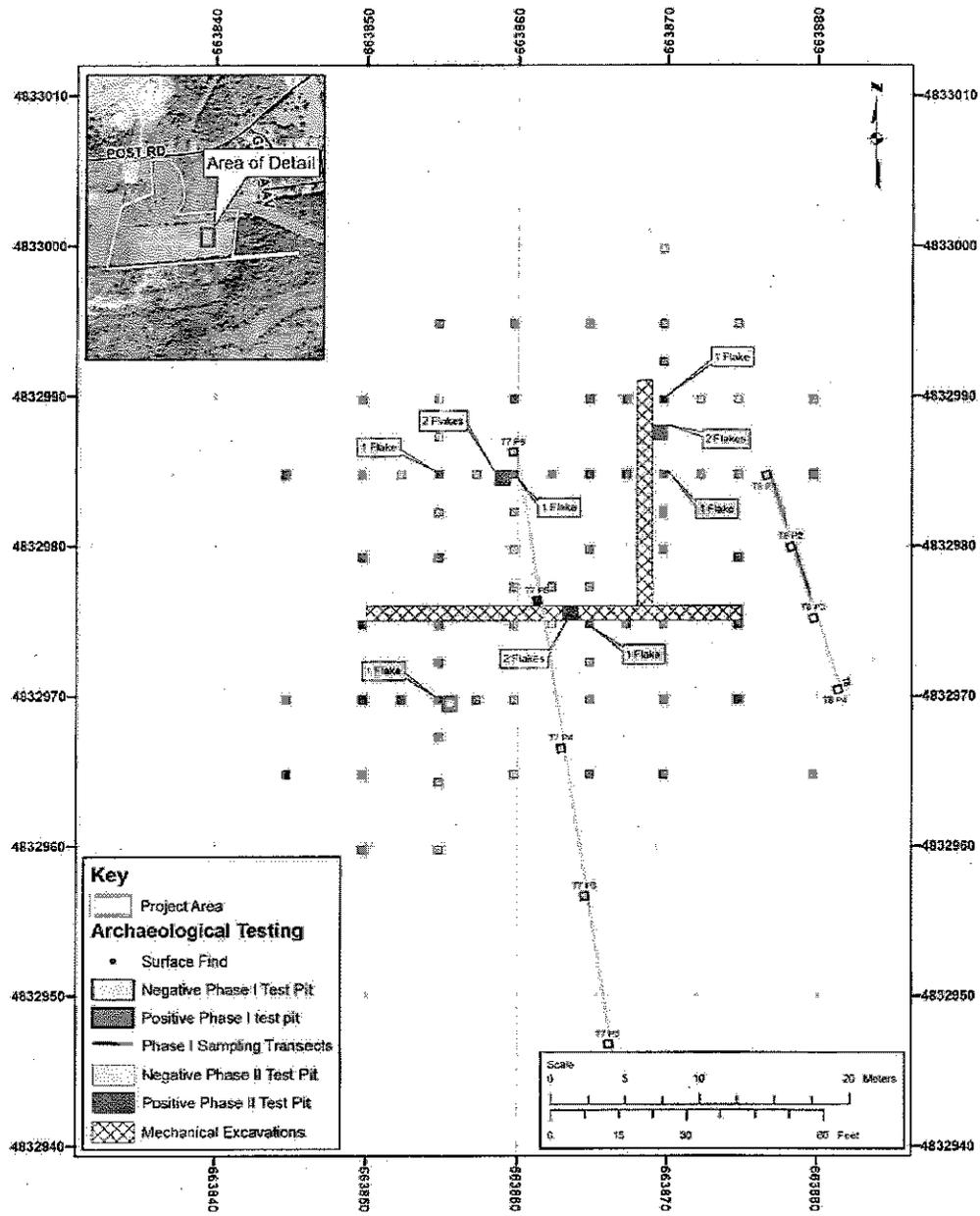


Figure 4. Site map showing archaeological excavations at site VT-RU-601 in the proposed Armed Forces Reserve Center, Rutland, Rutland County, Vermont.



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5522 NASHVILLE STREET
FORT DIX, NEW JERSEY 08640-5000



REPLY TO
ATTENTION OF

January 14, 2009

Robert Chicks, President
Stockbridge Munsee Community of Wisconsin
N8476 Mo He Co Nuck Road
Bowler, WI 54416

Dear Mr. Chicks,

The Department of the Army is preparing an Environmental Assessment (EA) for the proposed construction of an Armed Forces Reserve Center (AFRC) in the Town of Rutland, Rutland County, Vermont as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). To enable implementation of these recommendations, the U.S. Army, in partnership with the 99th U.S. Army Reserve Regional Support Command, proposes to provide the necessary facilities at a site in the Town of Rutland, Vermont to support the changes in force structure. The EA is being prepared in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651). The purpose of this letter is to request your early input on the proposed federal action.

The Proposed Action includes the construction and operation of a new AFRC building, for which the Army would acquire new land for construction of these facilities. Two alternative sites for the Proposed Action are being evaluated.

- **Alternative 1 - Route 7 & Post Road Site** - The Army's preferred alternative is to acquire about 14 acres of a larger 104 acre parcel. The 14 acres is located adjacent to US Route 7 and Post Road in the Town of Rutland. The site is mostly open field with some topographic features that can be modified to meet construction requirements.
- **Alternative 2 - North Clarendon Site** - The second alternative site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7, but access to Route 7 may require alternation to the existing interchange, which would require coordination with the Vermont Department of Transportation. The entire site is vacant,

underdeveloped land, with the exception of a dilapidated, vacant residence that would have to be demolished.

Attachment 1 shows the general location of this undertaking; Attachment 2 shows the location of the proposed sites; and Attachments 3 and 4 are aerial photographs of the two alternative sites. The facilities would be permanent construction with reinforced concrete structures, and approximately 2.0 acres will be required for parking. Future site improvements are expected to occupy approximately 12 acres.

A literature review of the Master Site Files shows no known historical properties within the area of potential effect. However, a Phase 1 archaeological survey will be conducted at the preferred site to confirm the absence of any undiscovered cultural resources before the property is acquired by the Army. You will be provided with review copies of the Archaeological Survey and the Environmental Assessment.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact Mr. Craig Kelley at the following:

Craig Kelley, 99th RSC
NEPA Coordinator
(978) 796-2512
Craig.A.Kelley@usace.army.mil

Sincerely,


JOSEPH H. LEDLOW
Colonel, US Army Reserve
Regional Engineer

List of Attachments:

- 1 – Rutland, Vermont Location Map
- 2 – Location Map of the Proposed Sites
- 3 – Aerial Photograph of Alternative 1- Route 7 & Post Road Site
- 4 – Aerial Photograph of Alternative 2- North Clarendon Site



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000

REPLY TO
ATTENTION OF

October 5, 2009

Robert Chicks, President
Stockbridge-Munsee Band
Mohican Nation
N8476 Mo He Co Nuck Road
Bowler, WI 54416

Dear Mr. Chicks:

The Department of the Army is continuing its consultation efforts for the proposed Rutland, Vermont Armed Forces Reserve Center (AFRC) in accordance with section 106 of the National Historic Preservation Act of 1966, as amended (PL 89-6650). Identification efforts for historic properties, as outlined in initial correspondence dated January 14, 2009 (Enclosure 1) included a full Phase I cultural resources inventory. The results of the inventory located two prehistoric sites consisting of large but low density scatters of non-diagnostic lithic debitage within the project area of potential effect (APE). The sites are recorded via Vermont state site numbers VT-RU-596 and VT-RU-597. A management summary outlining the data collected from the sites is provided as Enclosure 2.

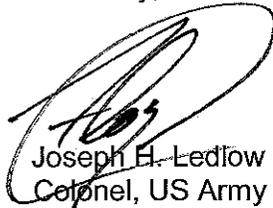
The presence of wetlands and the archaeological remains within preferred site 1 has resulted in the Army moving its preferred location to property adjacent to and east of the original location (Enclosure 3). Therefore, the proposed AFRC construction will have no effect on archaeological sites VT-RU-596 or VT-RU-597.

Phase I survey found two additional archaeological sites within the new preferred location APE (see figure 3, Attachment 2). These sites consisted of two small loci of low density, non-diagnostic lithic debitage. Based on initial investigations and the discoveries made at site VT-RU-597, the Army is recommending further testing at these two loci in order to determine their significance. A testing plan has been developed and is attached for your review and comment (Enclosure 4).

Due to oncoming cold weather, the Army hopes to begin archeological testing of two loci as soon as possible. A management summary with Phase II testing will be provided to your office as soon as the field work has been completed. Your approval of the attached testing plan and our proposed path forward is requested. I would like to thank you in advance for your efforts, and would greatly appreciate a expedited response. Correspondence and other communication regarding this matter should be directed to Robyn Mock, 99th RSC DPW, Environmental Division, 5231 South Scott Plaza, Fort Dix, NJ 08640, Phone: (609)562-7662, Email: Robyn.Mock@usar.army.mil.

Sincerely,

Jon:



Joseph E. Ledlow
Colonel, US Army Reserve
Regional Engineer

Enclosure(s):

Enclosure 1: Original letter and figures

Enclosure 2: Management Summary

Enclosure 3: Map of new preferred location/APE

Enclosure 4: Phase II testing Plan



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000

REPLY TO
ATTENTION OF

November 2, 2009

Robert Chicks, President
Stockbridge-Munsee Band
Mohican Nation
N8476 Mo He Co Nuck Road
Bowler, WI 54416

Dear Mr. Chicks:

The Department of the Army is continuing its consultation efforts for the proposed Rutland Armed Forces Reserve Center (AFRC) in accordance with section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended (PL 89-6650). Identification efforts were moved to a third location due to several factors including the discovery of significant cultural resources and wetlands. The property is located adjacent to and east of previous location and is referred to as the new preferred site (Enclosure 1). The site is located completely within Rutland County, Vermont.

The results of the inventory located two prehistoric sites consisting of low density scatters of non-diagnostic lithic debitage within the project area of potential effect (APE). The sites are recorded via state site numbers VT-RU-600 and VT-RU-601. In consultation with Mr. Scott Dillon of the Vermont Division of Historic Preservation, a Phase II testing plan was developed. The plan was forwarded to your tribe on October 5, 2009.

The archaeological testing found that both sites VT-RU-600 and VT-RU-601 fail to maintain integrity, features, or other in-tact components which are considered to have potential to add to the archaeological knowledge of the region. Based on the results of the testing, both sites VT-RU-600 and VT-RU-601 are recommended as ineligible for listing on the National Register of Historic Places (NRHP). A management summary outlining the data collected from the sites is provided for your review (Enclosure 2).

Based on the results of the inventory and subsequent Phase II testing, the APE of the proposed Rutland AFRC contains no sites eligible for the NRHP. Therefore, the Army has determined "no historic properties affected" by the proposed action as per 36CFR800.4 (d)(1).

At this time, the Army plans to conclude consultation concerning this project and move forward with its proposal to construct the Rutland AFRC. I would like to thank you in advance for your efforts, and would greatly appreciate a response within thirty (30) days. Correspondence and other communication regarding this matter should be directed to Robyn Mock, 99th RSC DPW, Environmental Division, 5231 South Scott Plaza, Fort Dix, NJ 08640, Phone: (609)562-7662, Email: Robyn.Mock@usar.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph H. Ledlow". The signature is written in a cursive style with a prominent initial "J".

Joseph H. Ledlow
Colonel, US Army Reserve
Regional Engineer

Enclosures:

Enclosure 1: Additional Site Photos

Enclosure 2: Management Summary



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000



REPLY TO
ATTENTION OF

January 20, 2009

Ms. Judy Doerner, State Conservationist
USDA-NRCS
356 Mountain View Drive
Suite 105
Colchester, Vermont 05446

Dear Ms. Doerner:

The U.S. Army Reserve (USAR), 99th Regional Support Command (RSC) is proposing to construct a new Armed Forces Reserve Center (AFRC) in the vicinity of Rutland, Vermont as part of the restructuring of military bases as required by the Defense Base Closure and Realignment Act that became law in November 2005. The Army will provide the necessary facilities to implement the recommendations, and is preparing an environmental assessment (EA) to analyze and document the environmental effects. The purpose of this letter and attached evaluation form is to request input and/or concurrence from the Natural Resources Conservation Service on the proposed federal action. A location map is enclosed that indicates the area of the proposed project.

The Army has selected two sites to analyze in the EA. These two alternatives that are being evaluated for construction of the AFRC are comprised of prime farmland, prime farmland if drained, or farmland of state importance. The total construction improvements are expected to occupy about 12 acres. Attachments 1 and 2 show the general vicinity and locations of the two alternatives, respectively.

The following realignment actions are to occur in the vicinity of Rutland, Vermont:

"Close Army Reserve Center, Courcelle Brothers and associated Organizational Maintenance Shop, Rutland, VT; close Army Reserve Army Maintenance Support Activity, Rutland, VT and relocate all units to a new Armed Forces Reserve Center and Organizational Maintenance Facility in the vicinity of Rutland, VT, if the Army is able to acquire land suitable for the construction of the facilities. The new AFRC and Maintenance Activity shall have the ability to accommodate units from the following facility: Vermont Army National Guard Armory Rutland, VT; if the state decides to relocate those National Guard units."

The Proposed Action includes the construction of a new 300-member AFRC, Organizational Maintenance Shop (OMS) and unheated storage building. The maximum expected use of the new facility would be about 150 members per weekend, and there would be parking for about 140 privately-owned vehicles (taking into account those who would carpool or use public transportation). The facility would employ 28 permanent full-time personnel from the 99th RSC and Vermont Army National Guard.

Alternative 1 – Route 7 & Post Road Site

The Army's preferred alternative is to acquire about 14 acres of a larger 104 acre parcel. The 14 acres are located adjacent to US Route 7 and Post Road in the Town of Rutland. The site is mostly open field with some topographic features that can be modified to meet construction requirements.

The site is currently not zoned, but the Town of Rutland's proposed zoning regulations indicate this area would be zoned as commercial. Attachment 3 shows an aerial photograph of the Route 7 & Post Road Site.

Summary of Alternative 1 Potential Effects on Prime Farmland. For Alternative 1- Route 7 & Post Road Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 10 acres of prime farmland and approximately 2 acres of farmland of statewide importance.

Alternative 2 – North Clarendon Site

The second alternative site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7, but access to Route 7 may require alternation to the existing interchange, which would require coordination with the Vermont Department of Transportation. The entire site is vacant, underdeveloped land, with the exception of a dilapidated, vacant residence that would have to be demolished. The zoning for this area is residential/commercial. Attachment 4 shows an aerial photograph of the Route 7 & Post Road Site.

Summary of Alternative 2 Potential Effects on Prime Farmland. For Alternative 2- North Clarendon Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 11.5 acres of prime farmland and approximately 0.5 acres of farmland of statewide importance

Although the Farmland Protection Policy Act (7 CFR Parts 657 and 658) exempts urban lands and lands that are used for national defense purposes [7 CFR 658.3(b)] from the provisions of the Farmland Protection Policy Act, we are including a Farmland Conversion Impact Rating Form (Attachment 5), with Parts I and III completed, for your consideration.

We feel the conversion of about 12 acres of prime farmland and farmland of statewide importance at the either of the proposed sites is consistent with the Farmland Protection Policy Act and regional land use planning efforts. We look forward to your assessment. If you have questions or require further information, please contact Mr. Craig Kelley at the following:

Craig Kelley, 99th RSC East
NEPA Coordinator
Attn: ARRC-SNJ-PW-E
11 Saratoga Boulevard
Ayer, Massachusetts 01432-5216
(978) 796-2512
Craig.A.Kelley@usace.army.mil

Sincerely,



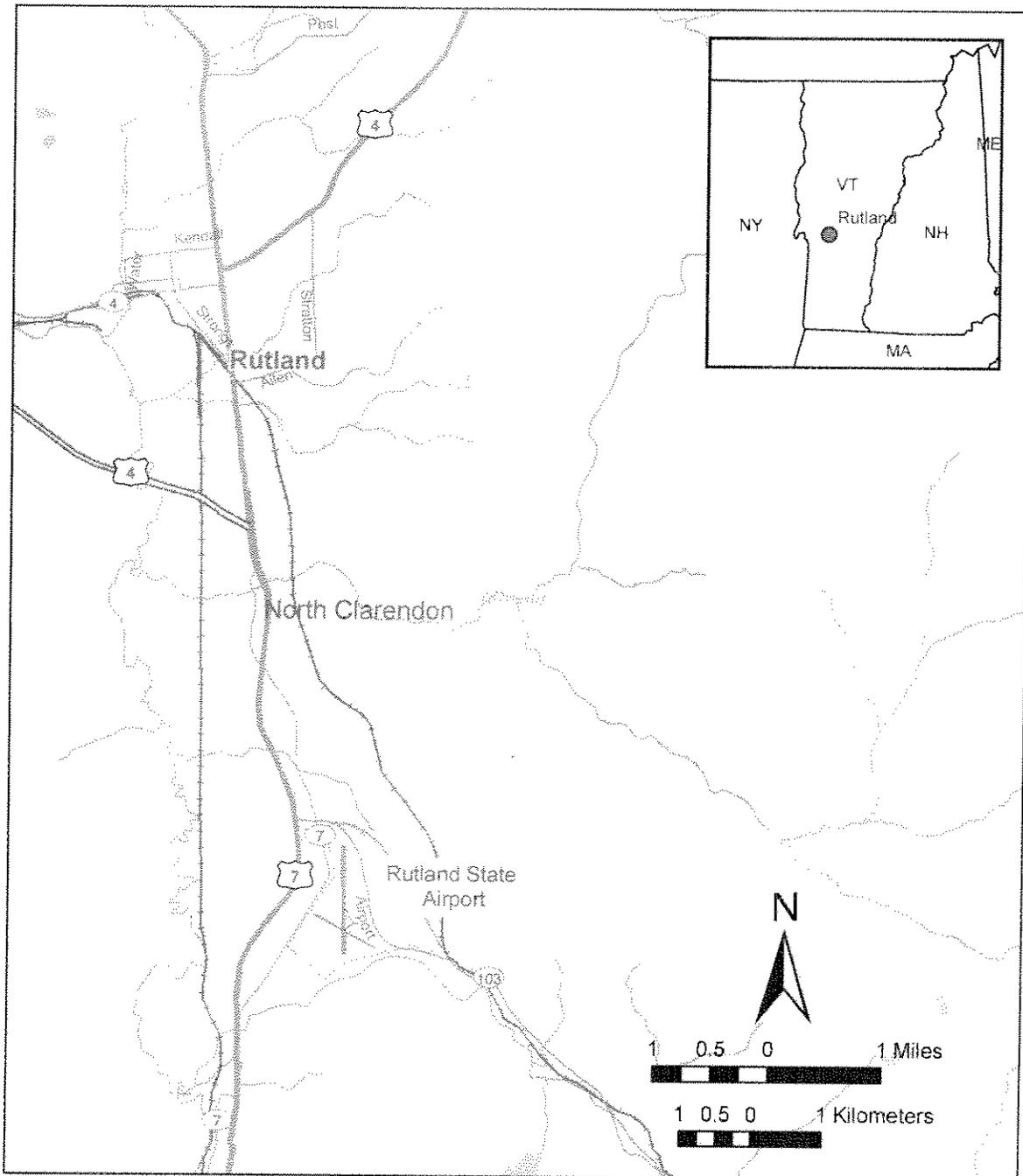
JOSEPH H. LEDLOW
Colonel, US Army Reserve
Regional Engineer

Copy to:

Ms. Martha H. Stuart, Soil Scientist/FPPA Contact
USDA-Natural Resources Conservation Service
28 FarmVu Drive
White River Junction, VT 05001

Attachments:

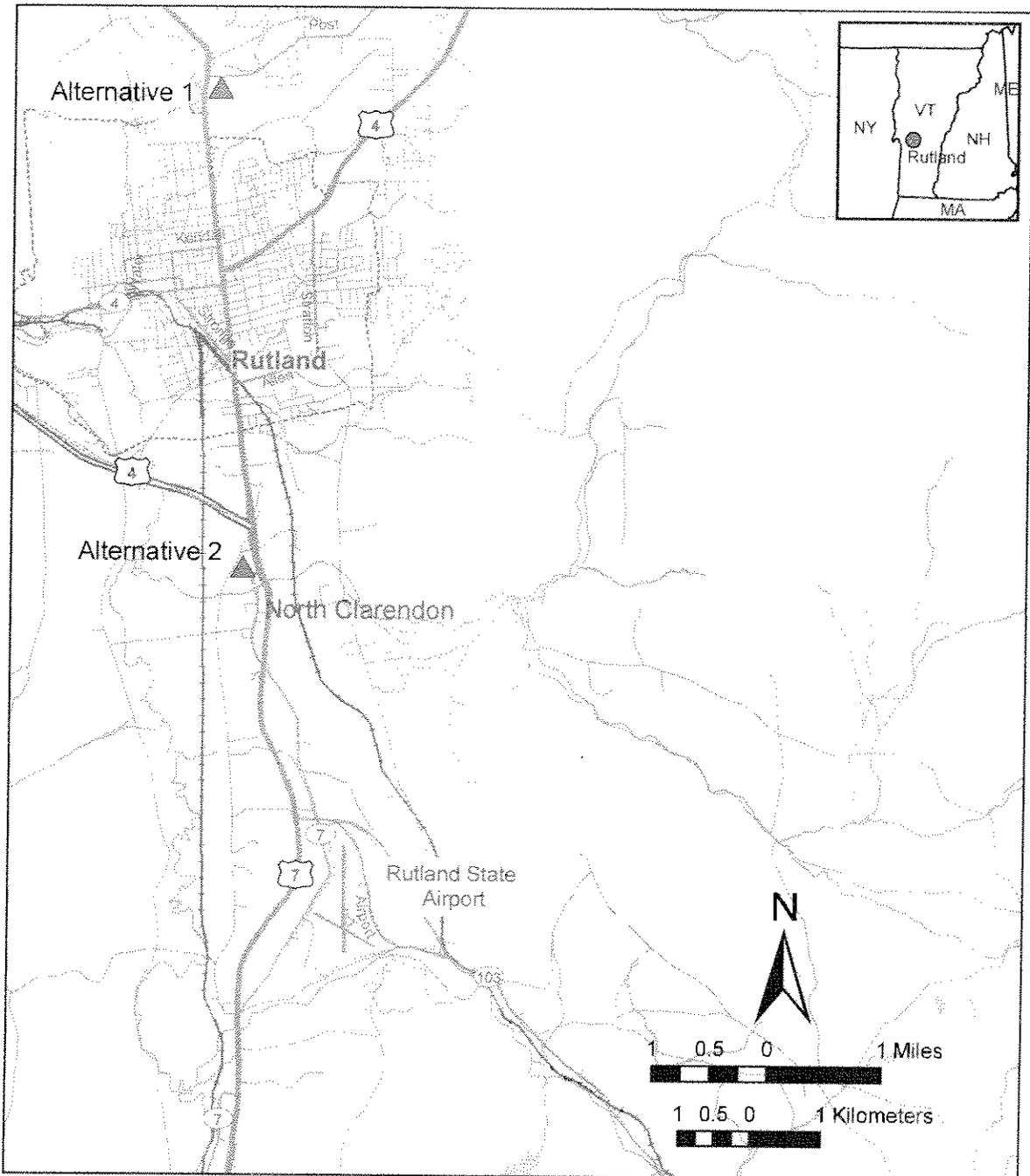
- Attachment 1 – Rutland VT Location Map
- Attachment 2 – Rutland VT Sites
- Attachment 3 – Aerial Photograph of Alternative 1- Route 7 & Post Road Site
- Attachment 4 – Aerial Photograph of Alternative 2 - North Clarendon Site
- Attachment 5 –Farmland Conversion Impact Rating Form



Prepared For:
 U.S Army Corps of Engineers, Mobile District

Attachment 1
 Rutland, Vermont Location Map



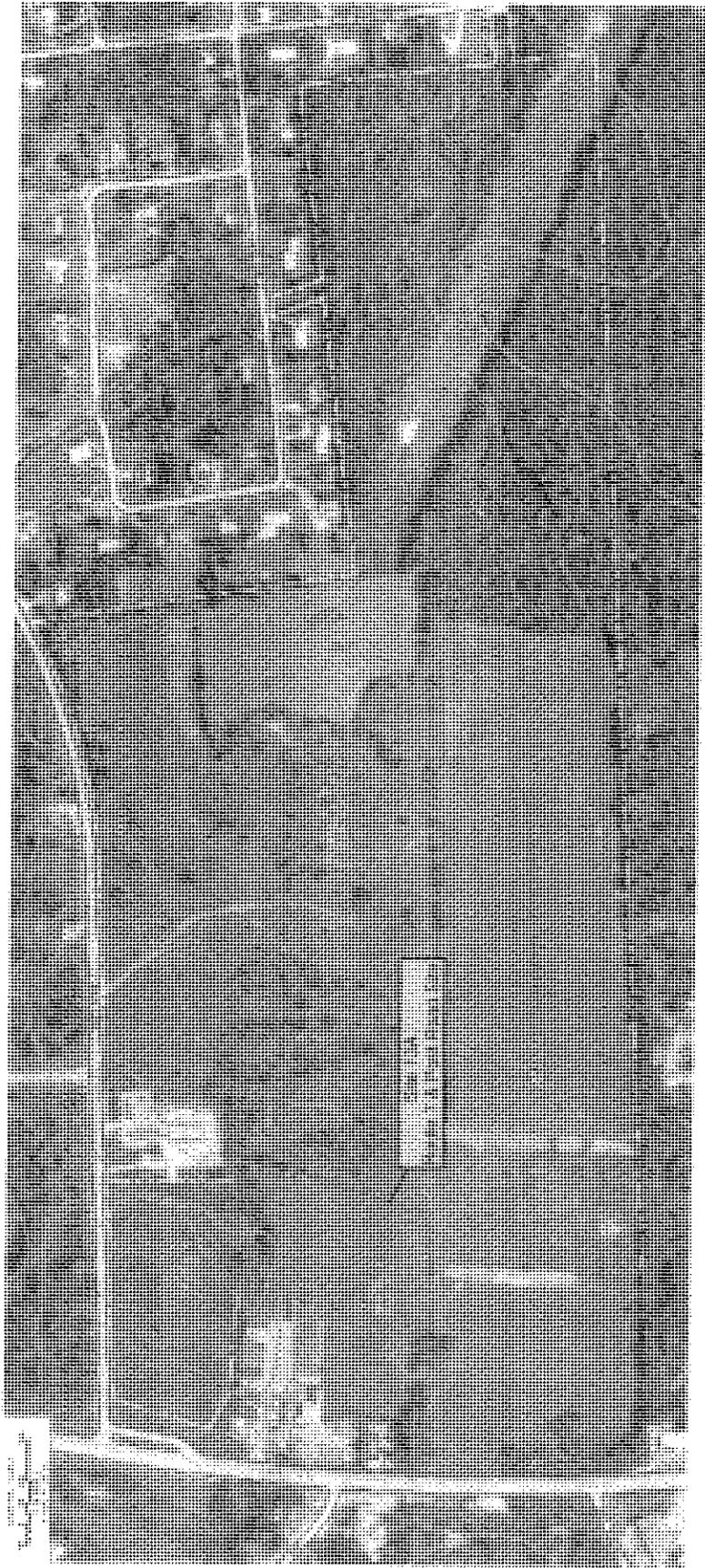


- ▲ Site Location
- Road
- - - Drainage

Prepared For:
 U.S Army Corps of Engineers, Mobile District

Attachment 2
 Location Map of the Proposed Sites





Legend

- Site Boundary of Preferred Alternative
- - - Major Contour
- Minor Contour
- - - - FEMA Flood Zones
- ~~~~~ Wetland Areas

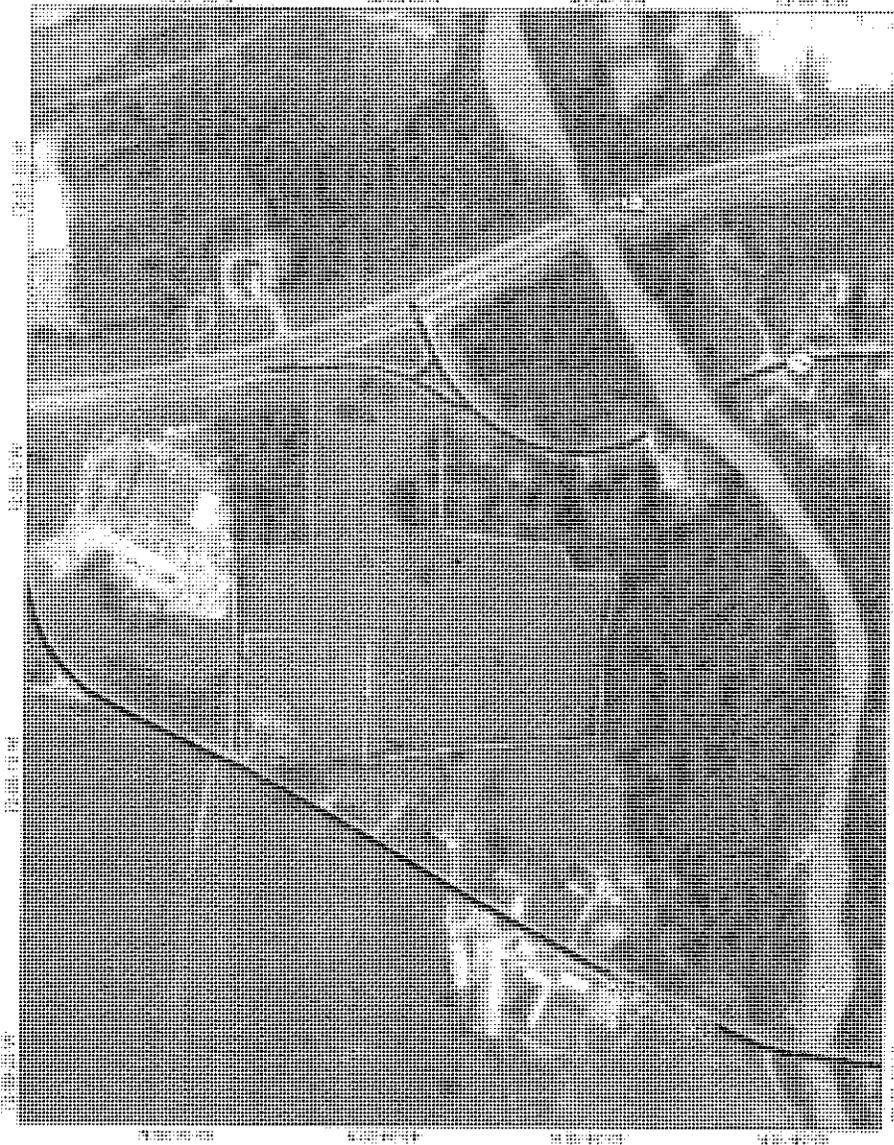
Prepared For:

U.S. Army Corps of Engineers, Mobile District

Attachment 3

Aerial Photograph of the Route 7 and Post Road Site - Preferred Alternative





Map center: 462241, 119170



Legend

Site Boundary

Prepared For:

U.S. Army Corps of Engineers, Mobile District

Attachment 4

Aerial Photograph of North Clarendon Site -
Alternative 2



Site Assessment Scoring for the Twelve Factors Used in FPPA

The Site Assessment criteria used in the Farmland Protection Policy Act (FPPA) rule are designed to assess important factors other than the agricultural value of the land when determining which alternative sites should receive the highest level of protection from conversion to non agricultural uses.

Twelve factors are used for Site Assessment and ten factors for corridor-type sites. Each factor is listed in an outline form, without detailed definitions or guidelines to follow in the rating process. The purpose of this document is to expand the definitions of use of each of the twelve Site Assessment factors so that all persons can have a clear understanding as to what each factor is intended to evaluate and how points are assigned for given conditions.

In each of the 12 factors a number rating system is used to determine which sites deserve the most protection from conversion to non-farm uses. The higher the number value given to a proposed site, the more protection it will receive. The maximum scores are 10, 15 and 20 points, depending upon the relative importance of each particular question. If a question significantly relates to why a parcel of land should not be converted, the question has a maximum possible protection value of 20, whereas a question which does not have such a significant impact upon whether a site would be converted, would have fewer maximum points possible, for example 10.

The following guidelines should be used in rating the twelve Site Assessment criteria:

1. How much land is in non-urban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent:	15 points
90-20 percent:	14 to 1 points
Less than 20 percent:	0 points

This factor is designed to evaluate the extent to which the area within one mile of the proposed site is non-urban area. For purposes of this rule, "non-urban" should include:

- Agricultural land (crop-fruit trees, nuts, oilseed)
- Range land
- Forest land
- Golf Courses
- Non paved parks and recreational areas
- Mining sites
- Farm Storage
- Lakes, ponds and other water bodies
- Rural roads, and through roads without houses or buildings
- Open space
- Wetlands
- Fish production
- Pasture or hayland

Urban uses include:

- Houses (other than farm houses)
- Apartment buildings
- Commercial buildings
- Industrial buildings
- Paved recreational areas (i.e. tennis courts)
- Streets in areas with 30 structures per 40 acres
- Gas stations

- Equipment, supply stores
- Off-farm storage
- Processing plants
- Shopping malls
- Utilities/Services
- Medical buildings

In rating this factor, an area one-mile from the outer edge of the proposed site should be outlined on a current photo; the areas that are urban should be outlined. For rural houses and other buildings with unknown sizes, use 1 and 1/3 acres per structure. For roads with houses on only one side, use one half of road for urban and one half for non-urban.

The purpose of this rating process is to insure that the most valuable and viable farmlands are protected from development projects sponsored by the Federal Government. With this goal in mind, factor S1 suggests that the more agricultural lands surrounding the parcel boundary in question, the more protection from development this site should receive. Accordingly, a site with a large quantity of non-urban land surrounding it will receive a greater number of points for protection from development. Thus, where more than 90 percent of the area around the proposed site (do not include the proposed site in this assessment) is non-urban, assign 15 points. Where 20 percent or less is non-urban, assign 0 points. Where the area lies between 20 and 90 percent non-urban, assign appropriate points from 14 to 1, as noted below.

Percent Non-Urban Land within 1 mile	Points
90 percent or greater	15
85 to 89 percent	14
80 to 84 percent	13
75 to 79 percent	12
70 to 74 percent	11
65 to 69 percent	10
60 to 64 percent	9
55 to 59 percent	8
50 to 54 percent	7
45 to 49 percent	6
40 to 44 percent	5
35 to 39 percent	4
30 to 24 percent	3
25 to 29 percent	2
21 to 24 percent	1
20 percent or less	0

2. How much of the perimeter of the site borders on land in non-urban use?

More than 90 percent:	10 points
90 to 20 percent:	9 to 1 point(s)
Less than 20 percent:	0 points

This factor is designed to evaluate the extent to which the land adjacent to the proposed site is non-urban use. Where factor #1 evaluates the general location of the proposed site, this factor evaluates the immediate perimeter of the site. The definition of urban and non-urban uses in factor #1 should be used for this factor.

In rating the second factor, measure the perimeter of the site that is in non-urban and urban use. Where more than 90 percent of the perimeter is in non-urban use, score this factor 10 points. Where less than 20 percent, assign 0 points. If a road is next to the perimeter, class the area according to the

use on the other side of the road for that area. Use 1 and 1/3 acre per structure if not otherwise known. Where 20 to 90 percent of the perimeter is non-urban, assign points as noted below:

Percentage of Perimeter Bordering Land	Points
90 percent or greater	10
82 to 89 percent	9
74 to 81 percent	8
65 to 73 percent	7
58 to 65 percent	6
50 to 57 percent	5
42 to 49 percent	4
34 to 41 percent	3
27 to 33 percent	2
21 to 26 percent	1
20 percent or Less	0

3. How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last ten years?

More than 90 percent:	20 points
90 to 20 percent:	19 to 1 point(s)
Less than 20 percent:	0 points

This factor is designed to evaluate the extent to which the proposed conversion site has been used or managed for agricultural purposes in the past 10 years.

Land is being farmed when it is used or managed for food or fiber, to include timber products, fruit, nuts, grapes, grain, forage, oil seed, fish and meat, poultry and dairy products.

Land that has been left to grow up to native vegetation without management or harvest will be considered as abandoned and therefore not farmed. The proposed conversion site should be evaluated and rated according to the percent, of the site farmed.

If more than 90 percent of the site has been farmed 5 of the last 10 years score the site as follows:

Percentage of Site Farmed	Points
90 percent or greater	20
86 to 89 percent	19
82 to 85 percent	18
78 to 81 percent	17
74 to 77 percent	16
70 to 73 percent	15
66 to 69 percent	14
62 to 65 percent	13
58 to 61 percent	12
54 to 57 percent	11
50 to 53 percent	10
46 to 49 percent	9
42 to 45 percent	8
38 to 41 percent	7
35 to 37 percent	6
32 to 34 percent	5
29 to 31 percent	4
26 to 28 percent	3

23 to 25 percent	2
20 to 22 percent percent or Less	1
Less than 20 percent	0

4. Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected:	20 points
Site is not protected:	0 points

This factor is designed to evaluate the extent to which state and local government and private programs have made efforts to protect this site from conversion.

State and local policies and programs to protect farmland include:

State Policies and Programs to Protect Farmland

1. Tax Relief:

A. Differential Assessment: Agricultural lands are taxed on their agricultural use value, rather than at market value. As a result, farmers pay fewer taxes on their land, which helps keep them in business, and therefore helps to insure that the farmland will not be converted to nonagricultural uses.

1. Preferential Assessment for Property Tax: Landowners with parcels of land used for agriculture are given the privilege of differential assessment.
2. Deferred Taxation for Property Tax: Landowners are deterred from converting their land to nonfarm uses, because if they do so, they must pay back taxes at market value.
3. Restrictive Agreement for Property Tax: Landowners who want to receive Differential Assessment must agree to keep their land in - eligible use.

B. Income Tax Credits

Circuit Breaker Tax Credits: Authorize an eligible owner of farmland to apply some or all of the property taxes on his or her farmland and farm structures as a tax credit against the owner's state income tax.

C. Estate and Inheritance Tax Benefits

Farm Use Valuation for Death Tax: Exemption of state tax liability to eligible farm estates.

2. "Right to farm" laws:

Prohibits local governments from enacting laws which will place restrictions upon normally accepted farming practices, for example, the generation of noise, odor or dust.

3. Agricultural Districting:

Wherein farmers voluntarily organize districts of agricultural land to be legally recognized geographic areas. These farmers receive benefits, such as protection from annexation, in exchange for keeping land within the district for a given number of years.

4. Land Use Controls: Agricultural Zoning.

Types of Agricultural Zoning Ordinances include:

- A. Exclusive: In which the agricultural zone is restricted to only farm-related dwellings, with, for example, a minimum of 40 acres per dwelling unit.
- B. Non-Exclusive: In which non-farm dwellings are allowed, but the density remains low, such as 20 acres per dwelling unit.

Additional Zoning techniques include:

- A. Sliding Scale: This method looks at zoning according to the total size of the parcel owned. For example, the number of dwelling units per a given number of acres may change from county to county according to the existing land acreage to dwelling unit ratio of surrounding parcels of land within the specific area.
- B. Point System or Numerical Approach: Approaches land use permits on a case by case basis.

LESA: The LESA system (Land Evaluation-Site Assessment) is used as a tool to help assess options for land use on an evaluation of productivity weighed against commitment to urban development.
- C. Conditional Use: Based upon the evaluation on a case by case basis by the Board of Zoning Adjustment. Also may include the method of using special land use permits.

5. Development Rights:

- A. Purchase of Development Rights (PDR): Where development rights are purchased by Government action.

Buffer Zoning Districts: Buffer Zoning Districts are an example of land purchased by Government action. This land is included in zoning ordinances in order to preserve and protect agricultural lands from non-farm land uses encroaching upon them.

- B. Transfer of Development Rights (TDR): Development rights are transferable for use in other locations designated as receiving areas. TDR is considered a locally based action (not state), because it requires a voluntary decision on the part of the individual landowners.

6. Governor's Executive Order: Policy made by the Governor, stating the importance of agriculture, and the preservation of agricultural lands. The Governor orders the state agencies to avoid the unnecessary conversion of important farmland to nonagricultural uses.

7. Voluntary State Programs:

- A. California's Program of Restrictive Agreements and Differential Assessments: The California Land Conservation Act of 1965, commonly known as the Williamson Act, allows cities, counties and individual landowners to form agricultural preserves and enter into contracts for 10 or more years to insure that these parcels of land remain strictly for agricultural use. Since 1972 the Act has extended eligibility to recreational and open space lands such as scenic highway corridors, salt ponds and wildlife preserves. These contractually restricted lands may be taxed differentially for their real value. One hundred-acre districts constitute the minimum land size eligible.

Suggestion: An improved version of the Act would state that if the land is converted after the contract expires, the landowner must pay the difference in the taxes between market value for the land and the agricultural tax value which he or she had been

paying under the Act. This measure would help to insure that farmland would not be converted after the 10 year period ends.

- B. Maryland Agricultural Land Preservation Program: Agricultural landowners within agricultural districts have the opportunity to sell their development rights to the Maryland Land Preservation Foundation under the agreement that these landowners will not subdivide or develop their land for an initial period of five years. After five years the landowner may terminate the agreement with one year notice.

As is stated above under the California Williamson Act, the landowner should pay the back taxes on the property if he or she decides to convert the land after the contract expires, in order to discourage such conversions.

- C. Wisconsin Income Tax Incentive Program: The Wisconsin Farmland Preservation Program of December 1977 encourages local jurisdictions in Wisconsin to adopt agricultural preservation plans or exclusive agricultural district zoning ordinances in exchange for credit against state income tax and exemption from special utility assessment. Eligible candidates include local governments and landowners with at least 35 acres of land per dwelling unit in agricultural use and gross farm profits of at least \$6,000 per year, or \$18,000 over three years.

8. Mandatory State Programs:

- A. The Environmental Control Act in the state of Vermont was adopted in 1970 by the Vermont State Legislature. The Act established an environmental board with 9 members (appointed by the Governor) to implement a planning process and a permit system to screen most subdivisions and development proposals according to specific criteria stated in the law. The planning process consists of an interim and a final Land Capability and Development Plan, the latter of which acts as a policy plan to control development. The policies are written in order to:
- prevent air and water pollution;
 - protect scenic or natural beauty, historic sites and rare and irreplaceable natural areas; and
 - consider the impacts of growth and reduction of development on areas of primary agricultural soils.
- B. The California State Coastal Commission: In 1976 the Coastal Act was passed to establish a permanent Coastal Commission with permit and planning authority. The purpose of the Coastal Commission was and is to protect the sensitive coastal zone environment and its resources, while accommodating the social and economic needs of the state. The Commission has the power to regulate development in the coastal zones by issuing permits on a case by case basis until local agencies can develop their own coastal plans, which must be certified by the Coastal Commission.
- C. Hawaii's Program of State Zoning: In 1961, the Hawaii State Legislature established Act 187, the Land Use Law, to protect the farmland and the welfare of the local people of Hawaii by planning to avoid "unnecessary urbanization". The Law made all state lands into four districts: agricultural, conservation, rural and urban. The Governor appointed members to a State Land Use Commission, whose duties were to uphold the Law and form the boundaries of the four districts. In addition to state zoning, the Land Use Law introduced a program of Differential Assessment, wherein agricultural landowners paid taxes on their land for its agricultural use value, rather than its market value.
- D. The Oregon Land Use Act of 1973: This act established the Land Conservation and Development Commission (LCDC) to provide statewide planning goals and guidelines.

Under this Act, Oregon cities and counties are each required to draw up a comprehensive plan, consistent with statewide planning goals. Agricultural land preservation is high on the list of state goals to be followed locally.

If the proposed site is subject to or has used one or more of the above farmland protection programs or policies, score the site 20 points. If none of the above policies or programs apply to this site, score 0 points.

5. How close is the site to an urban built-up area?

The site is 2 miles or more from an urban built-up area	15 points
The site is more than 1 mile but less than 2 miles from an urban built-up area	10 points
The site is less than 1 mile from, but is not adjacent to an urban built-up area	5 points
The site is adjacent to an urban built-up area	0 points

This factor is designed to evaluate the extent to which the proposed site is located next to an existing urban area. The urban built-up area must be 2500 population. The measurement from the built-up area should be made from the point at which the density is 30 structures per 40 acres and with no open or non-urban land existing between the major built-up areas and this point. Suburbs adjacent to cities or urban built-up areas should be considered as part of that urban area.

For greater accuracy, use the following chart to determine how much protection the site should receive according to its distance from an urban area. See chart below:

Distance From Perimeter of Site to Urban Area	Points
More than 10,560 feet	15
9,860 to 10,559 feet	14
9,160 to 9,859 feet	13
8,460 to 9,159 feet	12
7,760 to 8,459 feet	11
7,060 to 7,759 feet	10
6,360 to 7,059 feet	9
5,660 to 6,359 feet	8
4,960 to 5,659 feet	7
4,260 to 4,959 feet	6
3,560 to 4,259 feet	5
2,860 to 3,559 feet	4
2,160 to 2,859 feet	3
1,460 to 2,159 feet	2
760 to 1,459 feet	1
Less than 760 feet (adjacent)	0

6. How close is the site to water lines, sewer lines and/or other local facilities and services whose capacities and design would promote nonagricultural use?

None of the services exist nearer than 3 miles from the site	15 points
Some of the services exist more than one but less than 3 miles from the site	10 points
All of the services exist within 1/2 mile of the site	0 points

This question determines how much infrastructure (water, sewer, etc.) is in place which could facilitate nonagricultural development. The fewer facilities in place, the more difficult it is to develop an area. Thus, if a proposed site is further away from these services (more than 3 miles distance away), the site should be awarded the highest number of points (15). As the distance of the parcel of land to services decreases, the number of points awarded declines as well. So, when the site is equal to or further than 1 mile but less than 3 miles away from services, it should be given 10 points. Accordingly, if this distance is 1/2 mile to less than 1 mile, award 5 points; and if the distance from land to services is less than 1/2 mile, award 0 points.

Distance to public facilities should be measured from the perimeter of the parcel in question to the nearest site(s) where necessary facilities are located. If there is more than one distance (i.e. from site to water and from site to sewer), use the average distance (add all distances and then divide by the number of different distances to get the average).

Facilities which could promote nonagricultural use include:

- Water lines
- Sewer lines
- Power lines
- Gas lines
- Circulation (roads)
- Fire and police protection
- Schools

7. Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the county? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage of Farm Units in Operation with \$1,000 or more in sales.)

As large or larger:	10 points
Below average: Deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more is below average	9 to 0 points

This factor is designed to determine how much protection the site should receive, according to its size in relation to the average size of farming units within the county. The larger the parcel of land, the more agricultural use value the land possesses, and vice versa. Thus, if the farm unit is as large or larger than the county average, it receives the maximum number of points (10). The smaller the parcel of land compared to the county average, the fewer number of points given. Please see below:

Parcel Size in Relation to Average County Size	Points
Same size or larger than average (100 percent)	10
95 percent of average	9
90 percent of average	8
85 percent of average	7
80 percent of average	6
75 percent of average	5
70 percent of average	4
65 percent of average	3
60 percent of average	2
55 percent of average	1
50 percent or below county average	0

State and local Natural Resources Conservation Service offices will have the average farm size information, provided by the latest available Census of Agriculture data

8. If this site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project	10 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project	9 to 1 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project	0 points

This factor tackles the question of how the proposed development will affect the rest of the land on the farm. The site which deserves the most protection from conversion will receive the greatest number of points, and vice versa. For example, if the project is small, such as an extension on a house, the rest of the agricultural land would remain farmable, and thus a lower number of points is given to the site. Whereas if a large-scale highway is planned, a greater portion of the land (not including the site) will become non-farmable, since access to the farmland will be blocked; and thus, the site should receive the highest number of points (10) as protection from conversion.

Conversion uses of the Site Which Would Make the Rest of the Land Non-Farmable by Interfering with Land Patterns

Conversions which make the rest of the property nonfarmable include any development which blocks accessibility to the rest of the site. Examples are highways, railroads, dams or development along the front of a site restricting access to the rest of the property.

The point scoring is as follows:

Amount of Land Not Including the Site Which Will Become Non-Farmable	Points
25 percent or greater	10
23 - 24 percent	9
21 - 22 percent	8
19 - 20 percent	7
17 - 18 percent	6
15 - 16 percent	5
13 - 14 percent	4
11 - 12 percent	3
9 - 11 percent	2
6 - 8 percent	1
5 percent or less	0

9. Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available	5 points
Some required services are available	4 to 1 point(s)
No required services are available	0 points

This factor is used to assess whether there are adequate support facilities, activities and industry to keep the farming business in business. The more support facilities available to the agricultural

landowner, the more feasible it is for him or her to stay in production. In addition, agricultural support facilities are compatible with farmland. This fact is important, because some land uses are not compatible; for example, development next to farmland can be dangerous to the welfare of the agricultural land, as a result of pressure from the neighbors who often do not appreciate the noise, smells and dust intrinsic to farmland. Thus, when all required agricultural support services are available, the maximum number of points (5) are awarded. When some services are available, 4 to 1 point(s) are awarded; and consequently, when no services are available, no points are given. See below:

Percent of Services Available	Points
100 percent	5
75 to 99 percent	4
50 to 74 percent	3
25 to 49 percent	2
1 to 24 percent	1
No services	0

10. Does the site have substantial and well-maintained on farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment	20 points
Moderate amount of non-farm investment	19 to 1 point(s)
No on-farm investments	0 points

This factor assesses the quantity of agricultural facilities in place on the proposed site. If a significant agricultural infrastructure exists, the site should continue to be used for farming, and thus the parcel will receive the highest amount of points towards protection from conversion or development. If there is little on farm investment, the site will receive comparatively less protection. See-below:

Amount of On-farm Investment	Points
As much or more than necessary to maintain production (100 percent)	20
95 to 99 percent	19
90 to 94 percent	18
85 to 89 percent	17
80 to 84 percent	16
75 to 79 percent	15
70 to 74 percent	14
65 to 69 percent	13
60 to 64 percent	12
55 to 59 percent	11
50 to 54 percent	10
45 to 49 percent	9
40 to 44 percent	8
35 to 39 percent	7
30 to 34 percent	6
25 to 29 percent	5
20 to 24 percent	4
15 to 19 percent	3
10 to 14 percent	2
5 to 9 percent	1
0 to 4 percent	0

11. Would the project at this site, by converting farmland to nonagricultural use, reduce the support for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted	10 points
Some reduction in demand for support services if the site is converted	9 to 1 point(s)
No significant reduction in demand for support services if the site is converted	0 points

This factor determines whether there are other agriculturally related activities, businesses or jobs dependent upon the working of the pre-converted site in order for the others to remain in production. The more people and farming activities relying upon this land, the more protection it should receive from conversion. Thus, if a substantial reduction in demand for support services were to occur as a result of conversions, the proposed site would receive a high score of 10; some reduction in demand would receive 9 to 1 point(s), and no significant reduction in demand would receive no points.

Specific points are outlined as follows:

Amount of Reduction in Support Services if Site is Converted to Nonagricultural Use	Points
Substantial reduction (100 percent)	10
90 to 99 percent	9
80 to 89 percent	8
70 to 79 percent	7
60 to 69 percent	6
50 to 59 percent	5
40 to 49 percent	4
30 to 39 percent	3
20 to 29 percent	2
10 to 19 percent	1
No significant reduction (0 to 9 percent)	0

12. Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of the surrounding farmland to nonagricultural use?

Proposed project is incompatible with existing agricultural use of surrounding farmland	10 points
Proposed project is tolerable of existing agricultural use of surrounding farmland	9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland	0 points

Factor 12 determines whether conversion of the proposed agricultural site will eventually cause the conversion of neighboring farmland as a result of incompatibility of use of the first with the latter. The more incompatible the proposed conversion is with agriculture, the more protection this site receives from conversion. Therefore, if the proposed conversion is incompatible with agriculture, the site receives 10 points. If the project is tolerable with agriculture, it receives 9 to 1 points; and if the proposed conversion is compatible with agriculture, it receives 0 points.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 1/15/09			
Name Of Project Armed Forces Reserve Center		Federal Agency Involved U.S. Army Corps of Engineers			
Proposed Land Use Armed Forces Training Facility		County And State Rutland County, Vermont			
PART II (To be completed by NRCS)		Date Request Received By NRCS			
Does the site contain prime, unique, statewide or local important farmland? <i>(If no, the FPPA does not apply -- do not complete additional parts of this form).</i>		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %			
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		12.0	12.0		
B. Total Acres To Be Converted Indirectly		0.0	0.0		
C. Total Acres In Site		12.0	12.0	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Criterion					
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		0	0	0	0
PART VI (To be completed by Federal Agency)					
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use	15	12	12		
2. Perimeter In Nonurban Use	10	8	9		
3. Percent Of Site Being Farmed	20	0	0		
4. Protection Provided By State And Local Government	20	0	0		
5. Distance From Urban Builtup Area	15	5	10		
6. Distance To Urban Support Services	15	0	0		
7. Size Of Present Farm Unit Compared To Average	10	0	0		
8. Creation Of Nonfarmable Farmland	10	0	0		
9. Availability Of Farm Support Services	5	5	5		
10. On-Farm Investments	20	0	0		
11. Effects Of Conversion On Farm Support Services	10	0	0		
12. Compatibility With Existing Agricultural Use	10	0	0		
TOTAL SITE ASSESSMENT POINTS	160	30	36	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	30	36	0	0
TOTAL POINTS (Total of above 2 lines)	260	30	36	0	0
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Reason For Selection:					

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form.

Step 2 - Originator will send copies A, B and C together with maps indicating locations of site(s), to the Natural Resources Conservation Service (NRCS) local field office and retain copy D for their files. (Note: NRCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the NRCS State Conservationist in each state).

Step 3 - NRCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 - In cases where farmland covered by the FPPA will be converted by the proposed project, NRCS field offices will complete Parts II, IV and V of the form.

Step 5 - NRCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained for NRCS records).

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 - The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in § 658.5 (b) of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria #5 and #6 will not apply and will, be weighed zero, however, criterion #8 will be weighed a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned relative adjustments must be made to maintain the maximum total weight points at 160.

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site "A."}$$

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor-type site or design alternative for protection as farmland along with the land evaluation information.

For Water and Waste Programs, corridor analyses are not applicable for distribution or collection networks. Analyses are applicable for transmission or trunk lines where placement of the lines are flexible.

- (1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
- | | |
|--------------------------|-----------------------|
| (2) More than 90 percent | (3) 15 points |
| (4) 90 to 20 percent | (5) 14 to 1 point(s). |
| (6) Less than 20 percent | (7) 0 points |
- (2) How much of the perimeter of the site borders on land in nonurban use?
- | | |
|--------------------------|-------------------|
| (3) More than 90 percent | (4) 10 point(s) |
| (5) 90 to 20 percent | (6) 9 to 1 points |
| (7) less than 20 percent | (8) 0 points |
- (3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
- | | |
|--------------------------|----------------------|
| (4) More than 90 percent | (5) 20 points |
| (6) 90 to 20 percent | (7) 19 to 1 point(s) |
| (8) Less than 20 percent | (9) 0 points |
- (4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
- | | |
|-----------------------|-----------|
| Site is protected | 20 points |
| Site is not protected | 0 points |
- (5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage of Farm Units in Operation with \$1,000 or more in sales.)
- | | |
|---|---------------|
| As large or larger | 10 points |
| Below average deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average | 9 to 0 points |
- (6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
- | | |
|--|------------------|
| Acreage equal to more than 25 percent of acres directly converted by the project | 25 points |
| Acreage equal to between 25 and 5 percent of the acres directly converted by the project | 1 to 24 point(s) |
| Acreage equal to less than 5 percent of the acres directly converted by the project | 0 points |

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available	5 points
Some required services are available	4 to 1 point(s)
No required services are available	0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment	20 points
Moderate amount of on-farm investment	19 to 1 point(s)
No on-farm investment	0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted	25 points
Some reduction in demand for support services if the site is converted	1 to 24 point(s)
No significant reduction in demand for support services if the site is converted	0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland	10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland	9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland	0 points



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000



REPLY TO
ATTENTION OF

January 20, 2009

Mr. Tom Chapman, Supervisor
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial St., Suite 300
Concord, NH 03301

Dear Mr. Chapman:

The Department of the Army is preparing an Environmental Assessment (EA) for the proposed construction of an Armed Forces Reserve Center (AFRC) in the Town of Rutland, Rutland County, Vermont as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). To enable implementation of these recommendations, the U.S. Army, in partnership with the 99th U.S. Army Reserve Regional Support Command, proposes to provide the necessary facilities at a site in the Town of Rutland, Vermont to support the changes in force structure. The EA is being prepared in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651). This letter is to request your Department's comments on this proposed project pursuant to the Fish and Wildlife Coordination Act, as amended, and to request your concurrence that under Section 7 of the Endangered Species Act that there are no federally endangered or threatened species on the sites under consideration. Four location maps are enclosed to aid you in your work.

Proposed Action. The Proposed Action includes the construction and operation of a new AFRC building, for which the Army would acquire new land for construction of these facilities. The Proposed Action includes the construction and operation of the following facilities:

- 63,301-square-foot AFRC training building to provide administrative, educational, assembly, library, learning center, vault, weapons simulator, and physical fitness areas for two Army Reserve units and three Army National Guard units
- 7,756-square-foot OMS to provide work bays and maintenance administrative support
- 3,313-square-foot Organizational Unit Storage

Future site improvements are expected to occupy approximately 12 acres. The Army would acquire new land for construction of these facilities. Activities at the AFRC would be training-related, with no weapons firing. On training weekends, reservists would either commute to the AFRC or stay in local hotels. Activities at the OMS would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. A maximum of

approximately 152 vehicles including high mobility multi-purpose wheeled vehicles (HMMWVs or Humvees), semi tractors, and commercial cars and trucks are anticipated as a result of the realignment of Army Reserve and Army National Guard units to the new AFRC. In addition, a maximum of approximately 113 flat bed, cargo, and specialty trailers are also anticipated. The military vehicles and equipment kept on-site would generally be parked empty or loaded with equipment relevant for training. Occasionally, some of these vehicles could be staged and then moved as a convoy for off-site training.

The new AFRC would serve about 300 personnel on a rotating basis, mostly on weekends. The new facility would realign the Army Reserve and Army National Guard units, resulting from the closure of the Courcelle Brothers United States Army Reserve Center and Army Reserve Army Maintenance Support Activity, as directed by BRAC 05. The facility would employ approximately 28 permanent full-time personnel. The maximum expected use of the new facility would be about 150 members per weekend, and there would be parking for 141 privately-owned vehicles (taking into account those who would carpool or use public transportation).

Alternatives. Two alternative sites for the Proposed Action are being evaluated.

- **Alternative 1- Route 7 & Post Road Site** - The Army's preferred alternative is to acquire about 14 acres of a larger 104 acre parcel. The 14 acres are located adjacent to US Route 7 and Post Road in the Town of Rutland. The site is mostly open field with some topographic features that can be modified to meet construction requirements.
- **Alternative 2- North Clarendon Site** - The second alternative site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7, but access to Route 7 may require alternation to the existing interchange, which would require coordination with the Vermont Department of Transportation. The entire site is vacant, underdeveloped land, with the exception of a dilapidated, vacant residence that would have to be demolished.

Attachment 1 shows the general location of this undertaking; Attachment 2 shows the location of the proposed sites; and Attachments 3 and 4 are aerial photographs of the two alternative sites. The facilities would be permanent construction with reinforced concrete structures, and approximately 2.0 acres will be required for parking. Future site improvements are expected to occupy approximately 12 acres.

Summary Potential Effects on Protected Species and Habitats

Protected Species: The 99th RSC is not aware of any resident protected species at either of the sites. The U.S. Fish and Wildlife Service (USFWS) New England Field Office website was accessed to determine if any federally-listed species occur in the vicinity of the project location. The three-step process provided on the website was followed, including reviewing the information on Vermont's Nongame and Natural Heritage Program website. In addition, the Vermont Agency of Natural Resources Environmental Locator was reviewed. Based on our queries, no rare, threatened, or endangered species or natural communities of concern are known to occur in the vicinity of the either of the two proposed project locations. Therefore, no impacts to any Federal or State protected species are expected to occur as a result of the Proposed Action.

Habitat: The AFRC and OMS would be built on land that is open and undeveloped. For Alternative 1- Route 7 & Post Road Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 10 acres of prime farmland and

approximately 2 acres of farmland of statewide importance. For Alternative 2- North Clarendon Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 11.5 acres of prime farmland and approximately 0.5 acres of farmland of statewide importance. The property contains farmland subject to the Farmland Protection Policy Act. The Natural Resources Conservation Service in Rutland has been consulted concerning the potential loss of prime farmland.

Our initial assessment indicates the planned facilities would result in the direct long-term conversion of approximately 12 acres of very low productivity habitat for ground-dwelling or nesting species and that post-construction impacts to wildlife from operation of the AFRC and OMS would not be significant.

Wetlands: If necessary, a wetlands delineation will be conducted to determine if wetlands on the sites are considered to be jurisdictional wetlands under Section 404 of the Clean Water Act. If the wetlands constitute jurisdictional wetlands, and if the final construction footprint cannot be changed to avoid the wetland, appropriate mitigation would be coordinated and developed through USACE. If it is not a regulatory wetland, special consideration would still have to be made during the design, construction, and operational phases of the AFRC to account for the presence of this feature.

We would appreciate any input you may have on the proposed action and the sites being considered. The Army does not anticipate any impacts to any Federal or State protected species as a result of the Proposed Action. If you have questions or require further information, please contact Mr. Craig Kelley at the following:

Craig Kelley, 99th RSC
NEPA Coordinator
(978) 796-2512
Craig.A.Kelley@usace.army.mil

Sincerely,



JOSEPH H. LEDLOW
Colonel, US Army Reserve
Regional Engineer

Attachments:

- Attachment 1 – Rutland VT Location Map
- Attachment 2 – Rutland VT Sites
- Attachment 3 – Aerial Photograph of Alternative 1- Route 7 & Post Road Site
- Attachment 4 – Aerial Photograph of Alternative 2 - North Clarendon Site

Copy to:

Mr. Anthony Tur
Endangered Species Specialist
U.S. Fish and Wildlife Service



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000



REPLY TO
ATTENTION OF

January 20, 2009

Laura Q. Pelosi, Commissioner
Vermont Department of Environmental Conservation
Commissioner's Office
103 South Main Street, 1 South Building
Waterbury, Vermont 05671-0401

Dear Ms. Pelosi:

The Department of the Army is preparing an Environmental Assessment (EA) for the proposed construction of an Armed Forces Reserve Center (AFRC) in the Town of Rutland, Rutland County, Vermont as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). To enable implementation of these recommendations, the U.S. Army, in partnership with the 99th U.S. Army Reserve Regional Support Command (RSC), proposes to provide the necessary facilities at a site in the Town of Rutland, Vermont to support the changes in force structure. The EA is being prepared in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651). The purpose of this letter is to request your comments on the proposed federal action.

Proposed Action. The Proposed Action includes the construction and operation of a new AFRC building, for which the Army would acquire new land for construction of these facilities. The Proposed Action includes the construction and operation of the following facilities:

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Future site improvements are expected to occupy approximately 12 acres. The Army would acquire new land for construction of these facilities. Activities at the AFRC would be training-related, with no weapons firing. On training weekends, reservists would either commute to the AFRC or stay in local hotels. Activities at the OMS would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. A maximum of approximately 152 vehicles including high mobility multi-purpose wheeled vehicles (HMMWVs or Humvees), semi tractors, and commercial cars and trucks are anticipated as a result of the

realignment of Army Reserve and Army National Guard units to the new AFRC. In addition, a maximum of approximately 113 flat bed, cargo, and specialty trailers are also anticipated. The military vehicles and equipment kept on-site would generally be parked empty or loaded with equipment relevant for training. Occasionally, some of these vehicles could be staged and then moved as a convoy for off-site training.

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Alternatives. Two alternative sites for the Proposed Action are being evaluated.

- **Alternative 1- Route 7 & Post Road Site** - The Army's preferred alternative is to acquire about 14 acres of a larger 104 acre parcel. The 14 acres are located adjacent to US Route 7 and Post Road in the Town of Rutland. The site is mostly open field with some topographic features that can be modified to meet construction requirements.
- **Alternative 2- North Clarendon Site** - The second alternative site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7, but access to Route 7 may require alternation to the existing interchange, which would require coordination with the Vermont Department of Transportation. The entire site is vacant, underdeveloped land, with the exception of a dilapidated, vacant residence that would have to be demolished.

Attachment 1 shows the general location of this undertaking; Attachment 2 shows the location of the proposed sites; and Attachments 3 and 4 are aerial photographs of the two alternative sites. The facilities would be permanent construction with reinforced concrete structures, and approximately 2.0 acres will be required for parking. Future site improvements are expected to occupy approximately 12 acres.

Summary Potential Effects on Protected Species and Habitats

Protected Species: The 99th RSC is not aware of any resident protected species at either site. The U.S. Fish and Wildlife Service (USFWS) New England Field Office website was accessed to determine if any federally-listed species occur in the vicinity of the project location. The three-step process provided on the website was followed, including reviewing the information Vermont's Nongame and Natural Heritage Program website. In addition, the Vermont Agency of Natural Resources Environmental Locator was reviewed. Based on our queries, no rare, threatened, or endangered species or natural communities of concern are known to occur in the vicinity of either of the two proposed project location. Therefore, no impacts to any Federal or State protected species are expected to occur as a result of the Proposed Action.

Habitat: The AFRC and OMS would be built on land that is open and undeveloped. For Alternative 1- Route 7 & Post Road Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 10 acres of prime farmland and approximately 2 acres of farmland of statewide importance. For Alternative 2- North Clarendon Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 11.5 acres of prime farmland and approximately 0.5 acres of farmland of

statewide importance. The property contains farmland subject to the Farmland Protection Policy Act. The Natural Resources Conservation Service in Rutland has been consulted concerning the potential loss of prime farmland.

Our initial assessment indicates the planned facilities would result in the direct long-term conversion of approximately 12 acres of very low productivity habitat for ground-dwelling or nesting species and that post-construction impacts to wildlife from operation of the AFRC and OMS would not be significant.

Wetlands: A wetlands delineation will be conducted to determine if wetlands on the sites are considered to be jurisdictional wetlands under Section 404 of the CWA. If the wetlands constitute jurisdictional wetlands, and if the final construction footprint cannot be changed to avoid the wetland, appropriate mitigation would be coordinated and developed through USACE. If it is not a regulatory wetland, special consideration would still have to be made during the design, construction, and operational phases of the AFRC to account for the presence of this feature.

We would appreciate any input you may have on the proposed action and the sites being considered. The Army does not anticipate any impacts to any Federal or State protected species as a result of the Proposed Action. If you have questions or require further information, please contact Mr. Craig Kelley at the following:

Craig Kelley, 99th RSC
NEPA Coordinator
(978) 796-2512
Craig.A.Kelley@usace.army.mil

Sincerely,


JOSEPH H. LEDLOW
Colonel, US Army Reserve
Regional Engineer

Attachments:

- Attachment 1 – Rutland VT Location Map
- Attachment 2 – Rutland VT Sites
- Attachment 3 – Aerial Photograph of Alternative 1- Route 7 & Post Road Site
- Attachment 4 – Aerial Photograph of Alternative 2 - North Clarendon Site



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000



REPLY TO
ATTENTION OF

January 20, 2009

Wayne Laroche, Commissioner
Vermont Fish & Wildlife Department
103 South Main Street
Waterbury, VT 05671-0501

Dear Mr. Laroche:

The Department of the Army is preparing an Environmental Assessment (EA) for the proposed construction of an Armed Forces Reserve Center (AFRC) in the Town of Rutland, Rutland County, Vermont as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). To enable implementation of these recommendations, the U.S. Army, in partnership with the 99th U.S. Army Reserve Regional Support Command (RSC), proposes to provide the necessary facilities at a site in the Town of Rutland, Vermont to support the changes in force structure. The EA is being prepared in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651). The purpose of this letter is to request your comments on the proposed federal action.

Proposed Action. The Proposed Action includes the construction and operation of a new AFRC building, for which the Army would acquire new land for construction of these facilities. The Proposed Action includes the construction and operation of the following facilities:

- 63,301-square-foot AFRC training building to provide administrative, educational, assembly, library, learning center, vault, weapons simulator, and physical fitness areas for two Army Reserve units and three Army National Guard units
- 7,756-square-foot OMS to provide work bays and maintenance administrative support
- 3,313-square-foot Organizational Unit Storage

Future site improvements are expected to occupy approximately 12 acres. The Army would acquire new land for construction of these facilities. Activities at the AFRC would be training-related, with no weapons firing. On training weekends, reservists would either commute to the AFRC or stay in local hotels. Activities at the OMS would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. A maximum of approximately 152 vehicles including high mobility multi-purpose wheeled vehicles (HMMWVs or Humvees), semi tractors, and commercial cars and trucks are anticipated as a result of the

realignment of Army Reserve and Army National Guard units to the new AFRC. In addition, a maximum of approximately 113 flat bed, cargo, and specialty trailers are also anticipated. The military vehicles and equipment kept on-site would generally be parked empty or loaded with equipment relevant for training. Occasionally, some of these vehicles could be staged and then moved as a convoy for off-site training.

The new AFRC would serve about 300 personnel on a rotating basis, mostly on weekends. The new facility would realign the Army Reserve and Army National Guard units, resulting from the closure of the Courcelle Brothers United States Army Reserve Center and Army Reserve Army Maintenance Support Activity, as directed by BRAC 05. The facility would employ approximately 28 permanent full-time personnel. The maximum expected use of the new facility would be about 150 members per weekend, and there would be parking for 141 privately-owned vehicles (taking into account those who would carpool or use public transportation).

Alternatives. Two alternative sites for the Proposed Action are being evaluated.

- **Alternative 1- Route 7 & Post Road Site** - The Army's preferred alternative is to acquire about 14 acres of a larger 104 acre parcel. The 14 acres are located adjacent to US Route 7 and Post Road in the Town of Rutland. The site is mostly open field with some topographic features that can be modified to meet construction requirements.
- **Alternative 2- North Clarendon Site** - The second alternative site consists of two parcels totaling about 16.5 acres in North Clarendon, Rutland County, Vermont. The site is adjacent to Route 7, but access to Route 7 may require alternation to the existing interchange, which would require coordination with the Vermont Department of Transportation. The entire site is vacant, underdeveloped land, with the exception of a dilapidated, vacant residence that would have to be demolished.

Attachment 1 shows the general location of this undertaking; Attachment 2 shows the location of the proposed sites; and Attachments 3 and 4 are aerial photographs of the two alternative sites. The facilities would be permanent construction with reinforced concrete structures, and approximately 2.0 acres will be required for parking. Future site improvements are expected to occupy approximately 12 acres.

Summary Potential Effects on Protected Species and Habitats

Protected Species: The 99th RSC is not aware of any resident protected species at either of the two sites. The U.S. Fish and Wildlife Service (USFWS) New England Field Office website was accessed to determine if any federally-listed species occur in the vicinity of the project location. The three-step process provided on the website was followed, including reviewing the information Vermont's Nongame and Natural Heritage Program website. In addition, the Vermont Agency of Natural Resources Environmental Locator was reviewed. Based on our queries, no rare, threatened, or endangered species or natural communities of concern are known to occur in the vicinity of either of the proposed project location. Therefore, no impacts to any Federal or State protected species are expected to occur as a result of the Proposed Action.

Habitat: The AFRC and OMS would be built on land that is open and undeveloped. For Alternative 1- Route 7 & Post Road Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 10 acres of prime farmland and approximately 2 acres of farmland of statewide importance. For Alternative 2- North Clarendon Site, our initial assessment indicates that the planned facilities would result in the direct long-term loss of about 11.5 acres of prime farmland and approximately 0.5 acres of farmland of

statewide importance. The Natural Resources Conservation Service in Rutland has been consulted concerning the potential loss of prime farmland.

Our initial assessment indicates the planned facilities would result in the direct long-term loss of approximately 12 acres of very low productivity habitat for ground-dwelling or nesting species and that post-construction impacts to wildlife from operation of the AFRC and OMS would not be significant.

Wetlands: If necessary a wetlands delineation will be conducted to determine if wetlands on the sites are considered to be jurisdictional wetlands under Section 404 of the Clean Water Act. If the wetlands constitute jurisdictional wetlands, and if the final construction footprint cannot be changed to avoid the wetland, appropriate mitigation would be coordinated and developed through USACE. If it is not a regulatory wetland, special consideration would still have to be made during the design, construction, and operational phases of the AFRC to account for the presence of this feature.

We would appreciate any input you may have on the proposed action and the sites being considered. The Army does not anticipate any impacts to any Federal or State protected species as a result of the Proposed Action. If you have questions or require further information, please contact Mr. Craig Kelley at the following:

Craig Kelley, 99th RSC
NEPA Coordinator
(978) 796-2512
Craig.A.Kelley@usace.army.mil

Sincerely,


JOSEPH H. LEDLOW
Colonel, US Army Reserve
Regional Engineer

Attachments:

- Attachment 1 – Rutland VT Location Map
- Attachment 2 – Rutland VT Sites
- Attachment 3 – Aerial Photograph of Alternative 1- Route 7 & Post Road Site
- Attachment 4 – Aerial Photograph of Alternative 2 - North Clarendon Site

Copy to:

Mr. Forrest Hammond
Wildlife Biologist
Vermont Fish & Wildlife Department
100 Mineral Street, Suite 302
Springfield, VT 05156

From: Stuart, Martha - White River Jct, VT [mailto:Martha.Stuart@vt.usda.gov]
Sent: Wednesday, August 12, 2009 3:02 PM
To: melissar@ageiss.com
Cc: 'Bargerhuff, Kirk E NAE'; 'C. Lee Major'
Subject: RE: Expanded acreage at Rutland, VT

Melissa,

I have attached a revised AD-1006 to cover the expanded acreage of the proposed project area. The new proposal actually gets a lower FPPA score because the expanded acres include about 14 acres that are not prime farmland or farmland of statewide importance, and that brings the overall relative value down. The project still has no problem as far as the Farmland Protection Policy Act is concerned, mainly because there is already a significant amount of development in the area.

Let me know if I can be of any further assistance.

Martha

Martha H. Stuart
Farmland Protection Policy Act (FPPA) Contact for Vermont
Soil Scientist/Database Specialist
USDA-Natural Resources Conservation Service
28 FarmVu Drive
White River Junction, VT 05001
802-295-7942 ext. 28

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)	Date Of Land Evaluation Request 1/15/09
Name Of Project Armed Forces Reserve Center	Federal Agency Involved U.S. Army Corps of Engineers
Proposed Land Use Armed Forces Training Facility	County And State Rutland County, Vermont

PART II (To be completed by NRCS)		Date Request Received By NRCS 8/12/09	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
		Acres Irrigated 0	Average Farm Size 195 acres
Major Crop(s) dairy-corn silage	Farmable Land In Govt. Jurisdiction Acres: 403,962 % 67	Amount Of Farmland As Defined in FPPA Acres: 118,855 % 20	
Name Of Land Evaluation System Used Rutland County	Name Of Local Site Assessment System defined below	Date Land Evaluation Returned By NRCS 8/12/09	

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	12.0	12.0	12.0	
B. Total Acres To Be Converted Indirectly	0.0	0.0	42.0	
C. Total Acres In Site	12.0	12.0	54.0	0.0

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	10.0	11.5	32.8	
B. Total Acres Statewide And Local Important Farmland	2.0	0.5	5.4	
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.0	0.0	0.0	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	3.7	3.2	20.7	

PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	86	99	74	0
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PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use	15	12	12	12	
2. Perimeter In Nonurban Use	10	8	9	8	
3. Percent Of Site Being Farmed	20	0	0	0	
4. Protection Provided By State And Local Government	20	0	0	0	
5. Distance From Urban Builtup Area	15	5	10	5	
6. Distance To Urban Support Services	15	0	0	0	
7. Size Of Present Farm Unit Compared To Average	10	0	0	0	
8. Creation Of Nonfarmable Farmland	10	0	0	0	
9. Availability Of Farm Support Services	5	5	5	5	
10. On-Farm Investments	20	0	0	0	
11. Effects Of Conversion On Farm Support Services	10	0	0	0	
12. Compatibility With Existing Agricultural Use	10	0	0	0	
TOTAL SITE ASSESSMENT POINTS	160	30	36	30	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	86	99	74	0
Total Site Assessment (From Part VI above or a local site assessment)	160	30	36	30	0
TOTAL POINTS (Total of above 2 lines)	260	116	135	104	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Reason For Selection: NOTE: Site C is actually Site A with an expanded project area (AD-1006 updated August 12, 2009)



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
<http://www.fws.gov/northeast/newenglandfieldoffice>

January 2, 2009

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm>

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
<http://www.fws.gov/northeast/newenglandfieldoffice>

February 26, 2009

Reference: Project Location
EA, Armed Forces Reserve Center Rutland, VT

Joseph H. Ledlow
Colonel, U.S. Army Reserve
Department of the Army
Headquarters, 99th Regional Support Command
5231 South Scott Plaza
Fort Dix, NJ 08640-5000

Dear Colonel Ledlow:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activity(ies) referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes our review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

In order to curtail the need to contact this office in the future for updated lists of federally-listed or proposed threatened or endangered species and critical habitats, please visit the Endangered Species Consultation page on the New England Field Office's website:

www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm

In addition, there is a link to procedures that may allow you to conclude if habitat for a listed species is present in the project area. If no habitat exists, then no federally-listed species are present in the project area and there is no need to contact us for further consultation. If the above conclusion

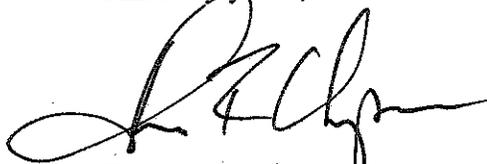
Joseph H. Ledlow
February 26, 2009

2

cannot be reached, further consultation with this office is advised. Information describing the nature and location of the proposed activity that should be provided to us for further informal consultation can be found at the above-referenced site.

Thank you for your coordination. Please contact Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'T. Chapman', with a large, sweeping flourish at the end.

Thomas R. Chapman
Supervisor
New England Field Office

Original Message-----

From: Marshall, Everett [mailto:everett.marshall@state.vt.us]

Sent: Thursday, February 19, 2009 11:13 AM

To: Bargerhuff, Kirk E NAE

Subject: RE: GeoTech Borings_Armed Forces Reserve Centers in White River Junction and Rutland_Federal and State T & E Species clearances

Dear Kirk Bargerhuff:

Sorry for the slow reply. I have reviewed the Department's database for potential impacts to rare, threatened and endangered species and significant natural communities. A search reveals none of these resources for the two alternative sites in Rutland and the two sites in White River Junction. Furthermore, based on the current land use at the sites I would not expect any impacts to rare, threatened and endangered species and significant natural communities.

Please contact me if you have any questions.

Everett Marshall
Biologist/Information Manager
Nongame & Natural Heritage Program

Vermont Fish & Wildlife Dept.
103 South Main St.
Waterbury VT 05671-0501
Tel: 802-241-3715; Fax: 802-241-3295

Stockbridge-Munsee Tribal Historic Preservation Office

Sherry White - Tribal Historic Preservation Officer

W13447 Camp 14 Road

P.O. Box 70

Bowler, WI 54416

November 3, 2009

Robyn Mock
99th RSC DPW, Environmental Division
5231 South Scott Plaza
Fort Dix, NJ 08640

RE: Rutland Vermont Armed Forces Reserve Center

Dear Ms. Mock:

Thank you for contacting the Stockbridge-Munsee Tribe regarding the above referenced project. The Tribe is committed to protecting archaeological sites that are important to tribal heritage, culture and religion. Furthermore, the tribe is particularly concerned with archaeological sites that may contain burial remains and associated funerary objects.

As described in your correspondence, the proposed ground disturbing activity of this project does not appear to endanger archaeological sites of interest to the Stockbridge-Munsee Tribe; therefore, the tribe will refer you to your State Archaeologist and your state's Office of Historical Preservation regarding the need for archaeological surveys of further investigation. Should either of these agencies recommend an archaeological survey of the proposed construction site, we ask that our office be informed of the results of the survey should anything be found that is determined to be Native American, including copies of site forms and reports. Also, any changes to the above referenced project should be resubmitted to the Historic Preservation Office.

Should this project inadvertently uncover an archaeological site that is Native American, even after an archaeological survey, we request that you immediately contact the appropriate state agencies, as well as the Stockbridge-Munsee Tribe. Also, we ask that you halt all construction and ground disturbing activities until the Tribe and these state agencies are consulted.

We appreciate your cooperation in notifying the Tribal Historic Preservation Office. Should you have any questions, feel free to contact me.

Sincerely,



Sherry White,
Tribal Historic Preservation Officer

Stockbridge-Munsee Tribal Historic Preservation Office

Sherry White - Tribal Historic Preservation Officer

W13447 Camp 14 Road

P.O. Box 70

Bowler, WI 54416

November 18, 2009

Robyn Mock
99th RSC DPW, Environmental Division
5231 South Scott Plaza
Fort Dix, NJ 08640

RE: Rutland Armed Forces Reserve Center

Dear Ms. Mock:

Thank you for contacting the Stockbridge-Munsee Tribe regarding the above referenced project. The Tribe is committed to protecting archaeological sites that are important to tribal heritage, culture and religion. Furthermore, the tribe is particularly concerned with archaeological sites that may contain human burial remains and associated funerary objects.

As described in your correspondence, the proposed ground disturbing activity of this project does not appear to endanger archaeological sites of interest to the Stockbridge-Munsee Tribe, therefore, the Tribe will defer to your State Archaeologist and your state's Office of Historical Preservation regarding the need for archaeological surveys of further investigation. Should either of these agencies recommend an archaeological survey of the proposed construction site, we ask that the Stockbridge-Munsee Tribe be informed of the results of the survey, including copies of site forms and reports, if anything is found that is determined to be Native American. Also, any changes to the above referenced project should be resubmitted to the Historic Preservation Office.

Should this project inadvertently uncover a Native American archaeological site, even after an archaeological survey, we request that you immediately contact the appropriate state agencies, as well as the Stockbridge-Munsee Tribe. Also, we ask that you halt all construction and ground disturbing activities until the Tribe and these state agencies are consulted.

We appreciate your cooperation in notifying the Tribal Historic Preservation Office. Should you have any questions, feel free to contact me.

Sincerely,



Sherry White,
Tribal Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, 99TH REGIONAL SUPPORT COMMAND
5231 SOUTH SCOTT PLAZA
FORT DIX, NEW JERSEY 08640-5000

REPLY TO
ATTENTION OF

November 2, 2009

CONCUR
SHPO

N. E. Bove
DATE 11/16/09

RECEIVED
NOV 9 2009

BY: _____

Ms. Judith Ehrlich
Director of Operations and Project Review
Vermont Division for Historic Preservation
National Life Drive
Montpelier, Vermont 05602

Dear Ms. Ehrlich:

The Department of the Army is continuing its consultation efforts for the proposed Rutland Armed Forces Reserve Center (AFRC) in accordance with section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended (PL 89-6650). Identification efforts were moved to a third location due to several factors including the discovery of significant cultural resources and wetlands. The property is located adjacent to and east of previous location and is referred to as the new preferred site (Enclosure 1). The site is located completely within Rutland County, Vermont.

The results of the inventory located two prehistoric sites consisting of low density scatters of non-diagnostic lithic debitage within the project area of potential effect (APE). The sites are recorded via state site numbers VT-RU-600 and VT-RU-601. In consultation with Mr. Scott Dillon of your office, a Phase II testing plan was developed. The plan was forwarded to your office and approved. The testing was completed between October 13 and October 22, 2009.

The archaeological testing found that both sites VT-RU-600 and VT-RU-601 fail to maintain integrity, features, or other in-tact components which are considered to have potential to add to the archaeological knowledge of the region. Based on the results of the testing, both sites VT-RU-600 and VT-RU-601 are recommended as ineligible for listing on the National Register of Historic Places (NRHP). A management summary outlining the data collected from the sites is provided for your review (Enclosure 2).

Based on the results of the inventory and subsequent Phase II testing, the APE of the proposed Rutland AFRC contains no sites eligible for the NRHP. Therefore, the Army has determined "no historic properties affected" by the proposed action as per 36CFR800.4(d)(1). The Army requests your concurrence with our recommendation that sites VT-RU-600 and VT-RU-601 are ineligible for listing on the NRHP. In addition, we request your concurrence with our determination of "no historic properties affected" by the proposed construction of the Rutland AFRC.

I would like to thank you in advance for your efforts, and would greatly appreciate a response within thirty (30) days. Correspondence and other communication regarding this matter should be directed to Robyn Mock, 99th RSC DPW, Environmental Division, 5231 South Scott Plaza, Fort Dix, NJ 08640, Phone: (609)562-7662, Email: Robyn.Mock@usar.army.mil.

Sincerely,

A handwritten signature in cursive script, appearing to read "Joseph H. Ledlow".

Joseph H. Ledlow
Colonel, US Army Reserve
Regional Engineer

Enclosures:

Enclosure 1: Additional Site Photos

Enclosure 2: Management Summary

C. Lee Major

From: Quackenbush, Alan [Alan.Quackenbush@state.vt.us]
Sent: Monday, November 30, 2009 10:41 AM
To: 'C. Lee Major'
Cc: 'Michael.S.Adams@usace.army.mil'
Subject: RE: Armed Forces Reserve Center: Rutland VT

Categories: Red Category

Sorry for the mix-up last week. I was in the field for several days before the holiday.

I did get a chance to review your report. Thanks. It was very thorough.

Wetland 13 is a Class Three wetland, and no Conditional Use Determination is required. We will be reviewing the GP application when it comes in.

Thanks for avoiding impacts to significant wetlands and their buffers. - AQ

From: C. Lee Major [mailto:charlesm@ageiss.com]
Sent: Monday, November 30, 2009 7:37 AM
To: Quackenbush, Alan
Subject: FW: Armed Forces Reserve Center: Rutland VT
Importance: High

Mr. Quackenbush:

I'm attempting to resend this as your mailbox was full the first attempt.

Lee

C. Lee Major, Jr.
Environmental Engineer
AGEISS, Inc.
5738 N F-41, Oscoda, MI, 48750
(989) 739-8406
charlesm@ageiss.com

NOTICE: This message is for the designated recipient only and may contain privileged or confidential information. If you have received it in error, please notify the sender immediately and delete the original. Any other use of this e-mail is prohibited.

From: C. Lee Major [mailto:charlesm@ageiss.com]
Sent: Wednesday, November 25, 2009 3:45 PM
To: 'Quackenbush, Alan'
Cc: 'Bargerhuff, Kirk (USACE-NAE)'; 'Russ, Melissa (AGEISS)'
Subject: RE: Armed Forces Reserve Center: Rutland VT

Mr. Quackenbush:

Mr. Bargerhuff and I missed you this morning for a conference call so I will summarize for you our findings and conclusions. I ask you to review the attached documents and the summary below and respond on Monday, 30Nov09 if at all possible so the Army may meet its 01Dec09 Environmental Assessment release deadline.

The Army proposes to construct and operate an Armed Forces Reserve Center (AFRC) at a location north of the City of Rutland, southeast of the intersection of U.S. Route 7 & Post Road (attached figure - *111153 C-212 (2) – optimized.pdf*).

The Army has completed a wetlands delineation (attached letter report to Mr. Mike Adams, USACE VT Project Office – *Combined FinalRutlandVT – optimized.pdf*) and determined 12 jurisdictional wetlands exist at the site, of Class Two and Three according to VT Wetland Rules (See attached email from Mr. Terry Ramborger, AECOM Environmental – Northeast Region regarding wetland Class - *email - T. Ramborger re Rutland wetland classification 20091124*).

The Army has made every effort to shift the footprint of the proposed AFRC to avoid impacts to wetlands, but an unavoidable impact to wetland 13 is expected (*111153 C-212 (2) – optimized.pdf*). Wetland 13 is approximately 7,612 square feet in area and is described as a Palustrine Emergent Marsh situated in an agricultural field (*Combined FinalRutlandVT – optimized.pdf*).

The Army is preparing a PGP 2 permit application following current New England District Office Regulatory Division Application and Plan Guideline Checklist for submittal to the USACE Regulatory in the New England District Office with the USACE Louisville as the applicant. Mr. Adams, USACE VT Project Office advised that due the size and nature of Wetland 13, his office will not require mitigation of its loss.

It is my understanding that as a Class Three wetland, there are no restrictions on development with respect to the VT Wetlands Rules for Wetland 13. That is, no permitting or mitigation is necessary as a result of the loss of Wetland 13, according to VT Wetland Rules.

The other wetlands delineated at the site will not be impacted as a result of the construction of the proposed AFRC as they are outside the footprint of the AFRC. Additionally, a 50-foot buffer will be maintained around all Class Two wetlands per VT Wetland Rules.

Installation of a water line between Wetlands 12 and 10 will involve the temporary disturbance of the nexus connecting these two wetlands. Upon completion of water line installation the Army will restore the grade between Wetlands 12 and 10 to its current state, maintaining the nexus, as required by Mr. Adams, USACE VT Project Office.

Although USACE VT Project Office indicated mitigation is not required under the CWA, and our interpretation of the VT Wetlands Rules indicate no mitigation is necessary for the loss of Class Three wetlands, it is the Army's intention to follow EO 11990 (Protection of Wetlands) and the "no net loss" policy with respect to the unavoidable loss of Wetland 13. The Army plans to mitigate the loss of 7,612 square feet of Wetland 13 through offsetting replication.

Thank you for your time and I look forward to discussing these matters with you next Monday, if at all possible.

Thank you.

C. Lee Major, Jr.
Environmental Engineer
AGEISS, Inc.
5738 N F-41, Oscoda, MI, 48750
(989) 739-8406
charlesm@ageiss.com

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From: Quackenbush, Alan [mailto:Alan.Quackenbush@state.vt.us]
Sent: Tuesday, November 24, 2009 11:31 AM
To: 'C. Lee Major'

Cc: Bargerhuff, Kirk (USACE-NAE); Russ, Melissa (AGEISS)

Subject: RE: Armed Forces Reserve Center: Rutland VT

Hi all,

Just catching up on my e-mails from last week. I have out in the field most days taking advantage of the nice weather. Are you around tomorrow? - AQ

From: C. Lee Major [mailto:charlesm@ageiss.com]

Sent: Friday, November 20, 2009 11:00 AM

To: Quackenbush, Alan

Cc: Bargerhuff, Kirk (USACE-NAE); Russ, Melissa (AGEISS)

Subject: Armed Forces Reserve Center: Rutland VT

Mr. Quackenbush:

I am part of the team preparing an environmental assessment for the proposed construction of an Armed Forces Reserve Center (AFRC) in Rutland, VT.

I am requesting your participation in a conference call to discuss wetlands on the site of a proposed AFRC north of Rutland, VT just south of Post Road and associated impacts.

You have been in contact w/ Mr. Kirk Bargerhuff, NAE regarding White River Junction, VT earlier.

AECOM Environment – Northeast has delineated 12 individual wetlands on the site (see attached letter report to Mr. Adams)

Mr. Mike Adams, USACE VT Project Office has been consulted regarding potential impacts.

The attached proposed AFRC layout indicates that wetland 13 will be impacted. Additionally, the proposed water line extension has been routed to avoid identified wetlands 10, 11, and 12 but will temporarily impact the nexus between wetlands 10 and 12. Mr. Adams has made it clear that the grade in this area needs to be restored to current conditions following water line installation in order to maintain this nexus.

I realize this is short notice, but would you be available today to discuss these matters with myself, Ms. Melissa Russ, AGEISS and Kirk Bargerhuff, NAE? Otherwise, would you be available on Tuesday of next week?

Thank you.

Lee

C. Lee Major, Jr.

Environmental Engineer

AGEISS, Inc.

5738 N F-41, Oscoda, MI, 48750

(989) 739-8406

charlesm@ageiss.com

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-----Original Message-----

From: Adams, Michael S NAE

Sent: Friday, January 29, 2010 12:04 PM

To: Bargerhuff, Kirk E NAE

Subject: RE: AFRC Rutland VT open of 30-day public review under NEPA

Kirk,

This is in reference to the Final Environmental Assessment for the Armed Forces Reserve Center in Rutland, Vermont. I reviewed the document and have the following comments:

1. The USACE has a "Regional" General Permit in Vermont, not a Programmatic.

2. The New England Regulatory Division office in Vermont is commonly referred to as the Vermont Project Office, not Field.

3. Page 21 - North Clarendon Site. This site has a fair amount of wetland on the parcel, therefore, I would not describe the site as "dry".

4. Page 41 - The EA states that white-tailed deer and turkey are in the area. During a 6 November 2009 site visit, an adjacent landowner to the Preferred Alternative site indicated that a bear has visited his bee hives located on the parcel.

5. Page 61 - Communication. Fairpoint Communications has purchased Verizon in Vermont.

In a 25 January 2010 telephone conversation, Terry Ramborger with AECOM indicated that an application for review under the VTGP will be submitted soon.

Please call or email me with any questions.

Best Regards,

Michael S. Adams

Senior Project Manager

U.S. Army Corps of Engineers

New England District

8 Carmichael Street, Suite 205

Essex Junction, Vermont 05452

(802)872-2893

*Environmental Assessment for Construction of an
Armed Forces Reserve Center and
Implementation of BRAC 05 Recommendations at
Rutland, Vermont*

APPENDIX B

WETLANDS INVESTIGATION REPORT

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APPENDIX B. WETLANDS INVESTIGATION REPORT

This appendix provides the Wetlands Investigation Report for the Rutland Proposed Action at the Preferred Alternative Site.

November 16, 2009

**Michael Adams
U.S. Army Corps of Engineers
New England District
Vermont Project Office
8 Carmichael Street
Suite 205
Essex Junction, VT 05452**

RE: AFRC, Post Road, Rutland, VT Wetland Investigation of First and Second Phase Investigation Areas.

Dear Mike:

This final letter report provides a summary of wetland inventories and delineations conducted at a site located at the corner of US Route 7 and Post Road in Rutland, Vermont (Appendix A, Figure 1 Site Locus). The wetland site survey has been performed in support of construction of an Armed Forces Reserve Center (AFRC) and implementation of Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended. The U.S. Army proposes to provide the necessary facilities to support the changes in force structure and the consolidations of reserve units for implementation of the Base RAC Commission's recommendations. The Army's Proposed Action includes acquisition of land for construction of AFRC facilities in Rutland, VT.

In support of these actions AECOM wetland scientists have conducted site visits on July 22, July 23, October 22, and most recently in accompaniment of yourself and Mike Sheehan on November 6, 2009, in order to identify and delineate all wetland resources on this site.

Field efforts conducted have included delineation and characterization of all wetland resource areas subject to protection under the Vermont Wetland Rules and Federal Regulations. Wetland resources at the site were delineated following the methodology prescribed by the 1987 *Corps of Engineers Wetlands Delineation Manual (Manual)*; the *DRAFT Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*; and the *Vermont Wetland Rules*. In most situations on this site, areas exhibiting a dominance of wetland vegetation in conjunction with hydric soils or other positive indicators of a wetland hydrologic regime were marked in the field. In some situations on this site, positive indicators of hydrophytic vegetation, hydric soils, and/or wetland hydrology could not be found due to the effects of recent agricultural activities and methods described for "Atypical" situations in the Manual were applied. In both cases wetlands were marked using sequentially numbered pink surveyors tape. Flags were marked using a numeric sequence, which included wetland number and flag number (e.g. 1-1 to 1-10) for identification purposes. The flags were subsequently surveyed in the field using a Trimble ProXH Global Positioning System (GPS), reviewed for accuracy and mapped, as shown on Figure 2 in Appendix A.

In addition, wetlands were classified according to *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al. 1979) as noted in the descriptions below. These classifications included palustrine forested (PFO), palustrine scrub shrub (PSS) or palustrine emergent (PEM) wetlands.

Representative photos were taken and included in Appendix B. Army Corps documentation was completed on-site at wetland 2, adjacent to wetlands 3, at 6, 8, 12 and 13, as representative of the typical wetlands on site, and enclosed in Appendix C.

Outlined below is a brief description of each wetland area delineated. These descriptions include a Cowardin classification; vegetation noted along with US Fish & Wildlife Service National Indicator Status and Scientific Plant Name; soils information from the USDA Natural Resources Conservation Service Web Soil Survey, as well as field conditions noted; hydrologic indicators observed in the field and other notes.

Wetland Area 1 (Flags 1 - 6)

Wetland 1 is located in the southwest corner of the site and abuts US Route 7. This wetland consists of a mix of Palustrine Forested Wetland (PFO) and Palustrine Scrub Shrub (PSS). This area is situated at a lower elevation than surrounding topography and water from adjacent uplands tends to accumulate in this wetland. Standing water was noted within this wetland, at the time of the site visit. Two approximately 16-inch culverts (1 corrugated metal pipe (cmp) & 1 reinforced metal pipe (rcp)) were noted along the wetland's western boundary, where flow was directed away from Wetland 1 under US Route 7.

The vegetated community noted in this wetland included: American elm (*Ulmus americana* - FACW-), box-elder (*Acer negundo* - FAC+), hemlock-parsley (*Conioselinum chinense* - FACW), hairy willow-herb (*Epilobium hisutum* - FACW), jewelweed (*Impatiens capensis* - FACW), poison ivy (*Toxicodendron radicans* - FAC), sensitive fern (*Onoclea sensibilis* - FACW), nightshade (*Solanum dulcamara* - FAC-), goldenrod (*Solidago spp.*), and blue vervain (*Verbena hastata* - FACW+).

USDA Natural Resources Conservation Service Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>) mapped this area with Galway-Nellis-Farmington complex (39B), 3 – 8% slopes. These soils are well drained, however soils noted in the field were identified as poorly drained. Other hydrologic indicators observed within Wetland 1 included inundated soils and water stained leaves.

Wetland Area 2 (Flags 1 - 35)

Wetland 2 is a large wetland system located in the southwest corner of the site between two active agricultural fields. This wetland originates from the south, beyond the southern property boundary, and extends northward through the site bordering an intermittent stream channel. A culvert located at the Wetland's northern extent connects Wetland 2 to Wetland 3, which eventually connects to a Vermont classified Significant Wetland off site. During the site investigation standing water was observed throughout Wetland 2 and a noted ephemeral channel carried flow in a northerly direction.

Wetland 2 consists primarily of PSS and Palustrine Emergent Marsh (PEM) wetlands and includes a vegetated community of American elm, box-elder, willow (*Salix sp.*), silky dogwood (*Cornus amomum* - FACW), joe-pye-weed (*Eupatoriadelphus maculatus* - FACW), boneset (*Eupatorium perfoliatum* - FACW+), fox sedge (*Carex vulpinoidea* - OBL), barberpole sedge (*Scirpus microcarpus* - OBL), timothy (*Phleum pratense* - FACU), blue vervain, phalaris (*Phalaris arundinacea* - FACW+), goldenrod, jewelweed, and sensitive fern. Pasture lands surround this wetland area.

Web Soil Survey maps of the area identify soils 66B – Georgia and Amenia soils, 3 – 8% slopes & 67B – Georgia and Amenia soils, 3-8% slopes, very stony in this area. These soils are moderately well drained,

AFRC, Wetland Report Post Road, Rutland, VT

while soils noted during the site visit in the wetland were poorly drained. Other hydrologic indicators observed within this area included inundated soils, water marks, and drainage patterns.

Corps documentation forms were completed for this wetland and enclosed.

Wetland Area 3 (Flags 1 - 14)

Wetland 3 is located north of Wetland 2 and lies in the northwest corner of the site. As mentioned above, Wetland 3 is connected to Wetland 2 by means of a culvert located to the south of the wetland. The culvert appears to have been installed to allow access between adjacent farm fields. Wetland 3 is associated with a Vermont Significant Wetland off site. This Wetland is a PEM type wetland situated between adjacent farm fields and a PFO fringe. Flags 1-12 demarcate PEM, while flags 13-14 lie within the PFO portion.

The vegetated community noted in this area included: Box-elder, honeysuckle (*Lonicera* sp.), interrupted fern (*Osmunda claytoniana* - FAC), marsh horsetail (*Equisetum pratense* - FACW), common reed (*Phragmites australis* - FACW), goldenrod, and sensitive fern. Drainage patterns within the wetland provided additional indications of hydrology.

Web Soil Survey maps of the area identify soils 66B – Georgia and Amenia soils, 3 – 8% slopes & 109 – Teel silt loam, sandy substratum in this area. These soils are moderately well drained, while soils noted in the field were poorly drained.

Corps documentation forms were completed for the upland adjacent to this wetland and enclosed.

Wetland Area 4 (Flags 1 - 9 and 4-4A - 4-4U)

Wetland 4 is located in the northern portion of the site, immediately south of the existing Vermont Electric Company (VELCO) electric substation off of Post Road. It is also connected to Wetland 5, situated to the east. Flows from both wetland areas connect and flow northward via a culvert under the substation, noted at flag 5-8. This area is primarily a PEM wetland, with a small portion being PSS. Standing water, water stained leaves, drainage patterns, and inundated soils were noted within this wetland. The vegetated community noted in this area included: phalaris, sensitive fern, and cattails (*Typha latifolia* - OBL).

Soils mapped in this area, according to Web Soil Survey, are 68A – Massena silt loam, 0-8% slopes, very stony. These soils are somewhat poorly drained. However, soils noted in the field were poorly drained.

Wetland Area 5 (Flags 1 - 14)

Wetland 5 is located along the southern and eastern boundaries of the VELCO electric substation. Wetland 5 is connected to Wetland 4 along its western boundary. Drainage patterns were clearly visible in this area. This area is primarily a PFO wetland and included a vegetated community of Larch (*Larix laricina* - FACW), white pine (*Pinus strobus* - FACU), buckthorn (*Rhamnus frangula* - FAC), silky dogwood, cattails, sensitive fern, and goldenrod.

Soils mapped in this area, according to Web Soil survey, are 68A – Massena silt loam, 0-8% slopes, very stony and 41C – Farmington-Galway-Galoo complex, 5-25% slopes, very rocky. These soils range from somewhat poorly drained to somewhat excessively drained. Soils noted in the field were poorly drained.

Wetland Area 6 (Flags 1 - 20)

Wetland 6 is located adjacent to Post Road, just east of the existing VELCO substation. Situated down slope of adjacent uplands, Wetland 6 collects hydrology from upland drainage. This wetland is primarily a PSS/PFO with portions of PEM intermixed. The vegetated community included: Larch, box-elder, meadowsweet (*Spiraea latifolia* - FAC), steeplebush (*Spiraea tomentosa* - FACW), joe-pye-weed, cattails, phalaris, sensitive fern, marsh fern (*Thelypteris thelypteroides* - FACW+), royal fern (*Osmunda regalis* - OBL), cotton grass (*Eriophorum virginicum* - OBL) and purple loosestrife (*Lythrum salicaria* - FACW+).

Soils mapped in this area, according to Web Soil survey, are 67B – Georgia and Amenia soils, 3-8% slopes, very stony. These soils are moderately well drained. However, soils noted in the field were poorly drained.

Inundated soil, water stained leaves, and drainage patterns were noted in this area. A culvert under Post Road connects this wetland to a Vermont Significant wetland, located north of Post Road off site.

Corps documentation forms were completed in this area and enclosed.

Wetland Area 7 (Flags 1 - 4)

Wetland 7 is located along the southern boundary of the site and within an active rye (*Secale cereale*) field. This wetland extends further south, beyond the limits of the property. The surveyed portion of the wetland is classified as a PEM wetland that includes a vegetated community of joe-pye-weed, cattails, sensitive fern, and umbrella sedge (*Cyperus strigosus* - FACW). Ponded water was observed in the wetland during the site visit.

Soils mapped in this area, according to Web Soil survey, are 25B – Belgrade silt loam, 3-8% slopes. Belgrade soils are moderately well drained. Soils noted in the field were poorly drained.

Wetland Area 8 (Flags 1 - 7)

Similar to Wetland 7, Wetland 8 is located along the southern boundary and within an active rye field. In addition, Wetland 8 extends further south beyond the limits of the property. Ponded water was observed within this area during the site visit. Identified as a PEM wetland, this wetland has a vegetated community that included joe-pye-weed, umbrella sedge, woodland horsetail (*Equisetum sylvaticum* – FACW), and smartweed (*Polygonum hydropiper* - OBL).

Soils mapped in this area, according to Web Soil survey, are 25B – Belgrade silt loam, 3-8% slopes. Belgrade soils are moderately well drained. Soils noted in the field were poorly drained.

Wetland Area 10 (part formerly 9) (Flags 1 - 4, 5 - 19 [west], 5 - 7 [east], and 15-1 - 15-16)

Wetland 10 is located at the east end of the site. Reflagging of this wetland on November 6 resulted in the incorporation of the previously flagged wetland Area 9. This area is described as a hemlock dominated PFO wetland. Pools of standing water, inundated soils, and water stained leaves were noted within this area. The vegetated community includes hemlock (*Tsuga canadensis* - FACU), red maple (*Acer rubrum* - FAC), cinnamon fern (*Osmunda cinnemomea* - FACW), new york fern (*Thelypteris noveboracensis* - FAC), sphagnum moss (*Sphagnum sp.* - OBL), rue (*Thalictrum sp.*), jack-in-the-pulpit (*Arisaema triphyllum* - FACW-), jewelweed, and sensitive fern.

AFRC, Wetland Report Post Road, Rutland, VT

Soils mapped in this area, according to Web Soil survey, are 23 – Adrian muck, a very poorly drained soil. This soil was noted in the field.

Wetland Area 11 (Flags 1 - 3)

Wetland 11 is similar to Wetland 10, separated by the existing water line & gravel road, to the far east of the site.

Wetland Area 12 (Flags 1 - 6, 5A - 13A, and 14-1 - 14-22)

Wetland 12 is located along the eastern most portion of the site, partly within an active rye field and partly within an adjacent wooded area. The portion in the rye field drains eastward into the adjacent forested area, which eventually drains to a much larger forested wetland off the property. This Wetland is best described as a PEM in the rye field area, while further east it is a PFO wetland. Ponded water was noted in the field area on the day of the site visit in July. The vegetated community within Wetland 12 included red maple, cinnamon fern, sensitive fern, phalaris, smartweed, and sedges (*Carex sp.*).

Soils mapped in this area, according to Web Soil survey, are 30B – Paxton fine sandy loam, 2-8% slopes. Paxton soils are well drained soils with a restrictive layer. However, soils noted in the field were poorly drained.

Wetland Area 13 (Flags 1 - 7)

Wetland 13 is located in the north central portion of the site and within an active rye field. This wetland is best described as a PEM wetland. Rutting and ponded water was noted on the day of the site visit in November. This area is located entirely within the rye field and vegetation is highly disturbed. Vegetative species noted included: rye, sedges, clover (*Trifolium pretense* – FACU-), and hairy willow-herb.

Soils mapped in this area, according to Web Soil survey, are 39B – Galway-Nellis-Farmington complex, 3-8% slopes. These soils are all well drained soils. However, soils noted in the field were hydric, per the *DRAFT Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*.

Corps documentation forms were completed for this wetland and enclosed.

We trust the enclosed information addresses all of your questions in the areas reviewed by AECOM, you and Mike Sheehan and the delineation of this site can be finalized. Should you have any questions regarding this information, please do not hesitate to contact me via email at terry.ramborger@aecom.com or by phone at 978-589-3180.

Sincerely,



Terry Ramborger
Senior Wetland Scientist

Appendix A

Survey Figures

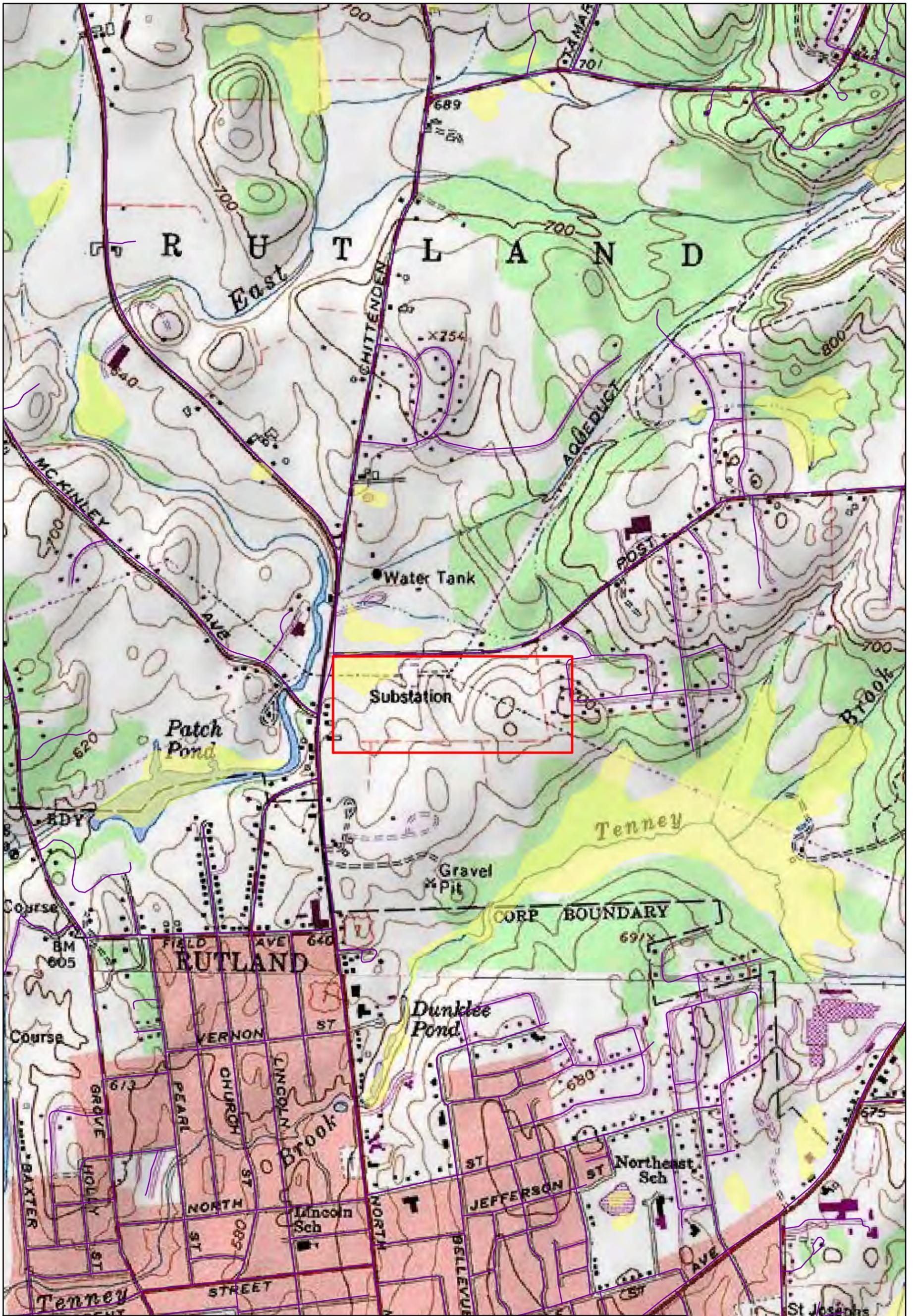
Appendix B

Survey Photos

Appendix C

Corps Data Forms

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Legend

- Vermont Significant Wetlands

1 inch = 1,000 feet

Wetland Assessment		
Route 7 Rutland, VT		
SCALE	DATE	PROJECT NO.
1:12,000	07/09	13636-002

AECOM
Figure Number
1



ery Date: Jul 20, 2003 43°37'57.76"N 72°58'16.22"W elev 662 ft © 2009 Tele Atlas

Eye alt 4953 ft

AECOM

ARMED FORCES RESERVE CENTER
RUTLAND, VERMONT

13636-002

DATE: November, 2009 DRWN: JS SCALE: 1" = 250'

FIGURE 2



Wetland 1, view east,



Wetland 2, view north



Wetland 2



Wetland 6, view south.



Wetland 6, view north.



Wetland 7, view west.



Wetland 8, view west.



Wetland 10, view west.



Wetland 10, view east.

PROJECT TITLE: Rutland ACOE

TRANSECT: Flag 2-3Z PLOT: Wetland

DELINEATOR(S): T. Rambarger / J. Stearns

DATE: 7/23/09

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	DOM	NWI Status
<u>Trees</u>					
	None				
<u>Saplings</u>					
	None				
<u>Shrubs</u>					
	Salix sp.	10.5	100		—
<u>Herbaceous</u>					
	Graminae	63	40	✓	—
	Carex vulpinoidea	38	24	✓	OBL
	Solidago spp.	20.5	13		—
	Scirpus rubrotinctus	20.5	13		OBL
	Onoclea sensibilis	10.5	6		FACW
	Phleum pratense	3.0	2		FACU
	Verbena hastata	3.0	2		FACW+

HYDROPHYTES

NON-HYDROPHYTES

OBL FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A): _____

Non-hydrophytes Subtotal (B): _____

PERCENT HYDROPHYTES (100A/A+B): 50

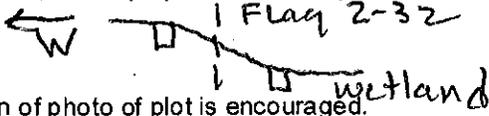
HYDROLOGY

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA

- OBSERVATIONS:
 - Depth to Free Water: surface
 - Depth to Saturation (including capillary fringe): _____
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland
- OTHER (explain): _____

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A	10YR 3/1	-	fine sandy loam
6-20+	B _w	2.5Y 6/2	many fine 10YR 5/6 redoximorphic features	sandy loam

HYDRIC SOIL INDICATOR(S):

XI.A

REFERENCE(S):

NEIWPCC April 2004, Field Indicators for Identifying Hydric Soils in New England

OPTIONAL SOIL DATA

Taxonomic subgroup: *Acric Endoaquepts*
 Soil drainage class: *poorly*
 Depth to active water table: *surface*
 NTCHS hydric soil criterion:

REFERENCE(S):

Web base Soil Survey @ <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps NE 1991 Soil Drainage Classes Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Hydric soils criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE:

Rutland ACOE

TRANSECT:

Flag 2-32 PLOT: wetland

PROJECT TITLE: Rutland ACOE TRANSECT: Flag 2-32 PLOT: Upland
 DELINEATOR(S): T. Rambonger / J. Stearns DATE: 7/23/09

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	D O M	NWI Status
<u>Trees</u>	None				
<u>Saplings</u>	None				
<u>Shrubs</u>	None				
<u>Herbaceous</u>	Grosses (Hayfield)	85.5	73	✓	-
	Phalaris arundinacea	20.5	18		FACW+
	Phleum pratense	10.5	9		FACU

HYDROPHYTES				NON-HYDROPHYTES		
<u>OBL</u>	<u>FACW</u>	<u>FAC</u>	<u>*OTHER</u>	<u>FAC-</u>	<u>FACU</u>	<u>UPL</u>
Hydrophytes Subtotal (A): _____				Non-hydrophytes Subtotal (B): _____		
PERCENT HYDROPHYTES (100A/A+B): <u>0</u>						

HYDROLOGY

RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: _____

NO RECORDED DATA

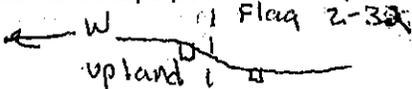
OBSERVATIONS:
 Depth to Free Water: _____
 Depth to Saturation (including capillary fringe): _____
 Altered Hydrology (explain): _____

N/A

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland

OTHER (explain): _____

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (Inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-12	Ap	10 YR 3/2	—	fine sandy loam
12-20+	Bw	10 YR 4/3	—	sandy loam

HYDRIC SOIL INDICATOR(S): —	REFERENCE(S): —
--------------------------------	--------------------

OPTIONAL SOIL DATA Taxonomic subgroup: <u>Typic Entrodepts</u> Soil drainage class: <u>well</u> Depth to active water table: <u>>20"</u> NTCHS hydric soil criterion: <u>—</u>	REFERENCE(S): <u>Web Base Soil Survey @ http://websoilsurvey.nrcs.usda.gov US Corps of Engineers, New England 1991 Soil Drainage Classes - Draft Guidelines</u>
---	---

CONCLUSIONS		YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Hydric soils criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Wetland hydrology criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

PROJECT TITLE: <u>Rutland ACOE</u>	TRANSECT: <u>Flag 2-3a</u>	PLOT: <u>Upland</u>
------------------------------------	----------------------------	---------------------

Upland Area Adjacent to Wetland 3

PROJECT TITLE: Rutland ACOE

TRANSECT: upland

PLOT: upland

DELINEATOR(S): T. Zamborger / J. Stearns

DATE: 10/22/09
 Soils 6
 New flag 3-11

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	DOM	NWI Status
<u>Trees</u>	none				
<u>Saplings</u>	none				
<u>Shrubs</u>	none				
<u>Herbaceous</u>					
	Graminae	85.5	89	✓	—
	Carex sp.	10.5	11		—
Open field					

HYDROPHYTES				NON-HYDROPHYTES		
OBL	FACW	FAC	OTHER	FAC-	FACU	UPL
Hydrophytes Subtotal (A): 0				Non-hydrophytes Subtotal (B):		
PERCENT HYDROPHYTES (100A/A+B): 0						

HYDROLOGY

RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: _____

NO RECORDED DATA

OBSERVATIONS:
 Depth to Free Water: _____
 Depth to Saturation (including capillary fringe): _____
 Altered Hydrology (explain): _____

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland

OTHER (explain): _____

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-16	Ap	10YR 3/2	—	sandy loam
16-24+	Bw	2.5Y 4/3 5Y 5/2	10YR 5/6 many fine + medium	Sandy loam

HYDRIC SOIL INDICATOR(S): — REFERENCE(S): —

OPTIONAL SOIL DATA

Taxonomic subgroup: Aquic Entrodepts
 Soil drainage class: moderately well
 Depth to active water table: > 24"
 NTCHS hydric soil criterion:

REFERENCE(S):
 web base soil survey @ <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps of Engineers (1991) Soil Drainage Classes - Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	open field
Hydric soils criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wetland hydrology criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

CENAE-PT Version 9/1/04 Page 2

PROJECT TITLE: Rwtland ACDE TRANSECT: upland 3/5/6 PLOT: upland

Flag 3-11

PROJECT TITLE: Rutland ACOE

TRANSECT: Flag 6-3 PLOT: Wetland

DELINEATOR(S): T. Ramborger / J. Stearns

DATE: 7/23/09

VEGETATION

Stratum and Species

Observed Dominance

Relative Dominance

DOM

NWI Status

Trees
None

Saplings
None

Shrubs
None

Herbaceous

Solidago spp

38

54

✓

—

Onoclea sensibilis

20.5

29

✓

FACW

Spiraea latifolia

3.0

4

FAC

Spiraea tomentosa

3.0

4

FACW

Thelypteris palustris (thelypteroides)

3.0

4

FACW+

Osmunda regalis

3.0

4

OBL

HYDROPHYTES

NON-HYDROPHYTES

OBL FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A):

Non-hydrophytes Subtotal (B):

PERCENT HYDROPHYTES (100A/A+B): 50

HYDROLOGY

RECORDED DATA

Stream, lake, or tidal gage

Identification: _____

Aerial photography

Identification: _____

Other

Identification: _____

NO RECORDED DATA

OBSERVATIONS:

Depth to Free Water: surface

Depth to Saturation (including capillary fringe): _____

Altered Hydrology (explain): _____

Inundated

Saturated in upper 12"

Water Marks

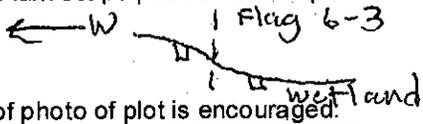
Drift Lines

Sediment Deposits

Drainage Patterns within Wetland

OTHER (explain): disturbed area, former ag field; power pole in wetland

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A	10YR 3/2	—	fine sandy loam
6-17	Bw1	2.5Y 4/2	many fine + medium 7.5YR 4/4	loamy sand
17+	Bw2	5Y 5/2	redoximorphic features	fine sand

HYDRIC SOIL INDICATOR(S):

XI.A

REFERENCE(S):

NEIWPCC, April 2004, Field Indicators for Identifying Hydric Soils in New England

OPTIONAL SOIL DATA

Taxonomic subgroup: *Aeric Endoaquepts*
 Soil drainage class: *Poorly*
 Depth to active water table: *surface*
 NTCHS hydric soil criterion:

REFERENCE(S):

webBase Soil Survey @ <http://websoilsurvey.nrcs.usda.gov>
 vs Corps of Engineers New England 1991 gov
 Soil Drainage Classes - Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Hydric soils criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE: Rutland ACDE

TRANSECT: Flag 6-3 PLOT: wetland

PROJECT TITLE: Izutland ACOE

TRANSECT: Flag 6-3 PLOT: Upland

DELINEATOR(S): T. Rumberger / J. Stearns DATE: 7/23/09

VEGETATION

Stratum and Species

Observed Dominance

Relative Dominance

DOM

NWI Status

Trees
None

Saplings
None

Shrubs
Lonicera morrowii

Herbaceous

Rubus flagellaris
Achillea millefolium
Solidago sp.
Parthenocissus quinquefolia
Oenoclea sensibilis

38

38

✓

UPL

38

38

✓

FACU

10.5

11

—

10.5

11

FACU

3.0

2

FACW

HYDROPHYTES

NON-HYDROPHYTES

OBL FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A): _____

Non-hydrophytes Subtotal (B): _____

PERCENT HYDROPHYTES (100A/A+B): 0

HYDROLOGY

RECORDED DATA

Stream, lake, or tidal gage

Identification: _____

Aerial photography

Identification: _____

Other

Identification: _____

NO RECORDED DATA

OBSERVATIONS:

Depth to Free Water: _____

Depth to Saturation (including capillary fringe): _____

Altered Hydrology (explain): _____

Inundated

Saturated in upper 12"

Water Marks

Drift Lines

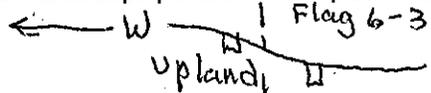
Sediment Deposits

Drainage Patterns within Wetland

OTHER (explain): _____

N/A

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-4	A	10YR 3/2	—	fine sandy loam
4-19	Bw1	10YR 4/3	—	sandy loam
19+	Bw2	10YR 5/4	—	sandy loam

HYDRIC SOIL INDICATOR(S): — REFERENCE(S): —

OPTIONAL SOIL DATA

Taxonomic subgroup: *Typic Entrodepts*
 Soil drainage class: *well*
 Depth to active water table: *>19"*
 NTCHS hydric soil criterion: —

REFERENCE(S):
*web base soil survey <http://websoilsurvey.nrcs.usda.gov>
 US Corps of Engineers, New England 1991
 Soil drainage classes - Draft Guidelines*

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hydric soils criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wetland hydrology criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>ATC</i>

CENAE-R-PT Version 9/1/04 Page 2

PROJECT TITLE: *Rutland ACOE* TRANSECT: *Flag 6-3* PLOT: *upland*

Area 8

PROJECT TITLE: Wetland ACOE

TRANSECT: Wetland Area 8 Flag 8-3

PLOT: Wetland

DELINEATOR(S): T. Rambarger / J. Stearns

DATE: 10/22/09

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	DOM	NWI Status
<u>Trees</u>					
	<u>Salix sp. 10" DBH</u>	<u>79</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>-</u>
<u>Saplings</u>					
	<u>none</u>				
<u>Shrubs</u>					
	<u>none</u>				
<u>Herbaceous</u>					
	<u>Cyperus strigosus</u>	<u>85.5</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
<u>Secale cereale (Rye) field</u>					

HYDROPHYTES

NON-HYDROPHYTES

OBL 1 FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A): 1

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 100

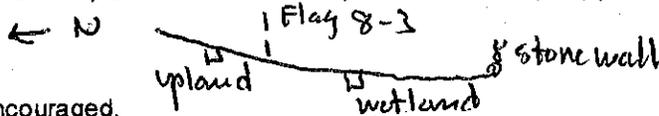
HYDROLOGY

- RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: _____
- NO RECORDED DATA

- OBSERVATIONS:
 Depth to Free Water: 13" in test hole, rutting water, & standing water
 Depth to Saturation (including capillary fringe): surface
 Altered Hydrology (explain): Active Ag field

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland
- OTHER (explain): water accumulates in this area, then flows southward to larger wetland off-site dominated by Phragmites

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-15	Ap	6ky 1 10Y 3/1	N 2.5/1 few medium	fine sandy loam
15-24+	Bw1	10YR 5/4	7.5YR 4/4 many fine + medium	fine sandy loam

HYDRIC SOIL INDICATOR(S):

XI.B

REFERENCE(S):

NE LUFGC April 2004 Field Indicators for Identifying Hydric Soils in New England

OPTIONAL SOIL DATA

Taxonomic subgroup: Aeric Epiaquept
 Soil drainage class: Poorly
 Depth to active water table: 13"
 NTCHS hydric soil criterion:

REFERENCE(S):

web base soil survey <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps WE 1991 Soil Drainage Classes - Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Hydric soils criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE: Rutland ACDE

TRANSECT: Area 8 Flag 8-3 PLOT: Wetland

Area B

PROJECT TITLE: Rutland ACDE

TRANSECT: ^{Wetland} Area 8

PLOT: Upland

DELINEATOR(S): T. Rombarger / J Stearns

DATE: 10/22/09

VEGETATION

Stratum and Species

Observed
Dominance

Relative
Dominance

D
O
M

NWI Status

Trees
none

Saplings
none

Shrubs
none

Herbaceous

Secale cereale

Graminae

Carex sp

85.5

64

✓

UPL

38

28

✓

—

10.5

8

—

Secale cereale (Rye) field

HYDROPHYTES

NON-HYDROPHYTES

OBL FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A): 0

Non-hydrophytes Subtotal (B): 1

PERCENT HYDROPHYTES (100A/A+B): 0

HYDROLOGY

- RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: _____

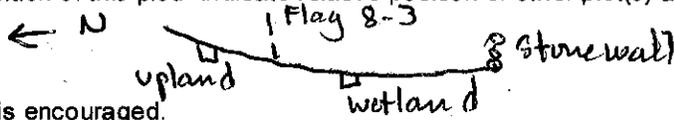
NO RECORDED DATA

- OBSERVATIONS:
 Depth to Free Water: 15"
 Depth to Saturation (including capillary fringe): _____
 Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland

OTHER (explain): _____

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (Inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-16	Ap	2.5Y 3/2	7.5YR 4/3 few fine	fine sandy loam
16-24	Bw	2.5Y 5/3	—	sandy loam

HYDRIC SOIL INDICATOR(S):

—

REFERENCE(S):

—

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup: Aquic Dystric Entrodepts
 Soil drainage class: mod. well
 Depth to active water table: 15"
 NTCHS hydric soil criterion:

web base soil survey @ <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps NE 1991 Soil Drainage class observation
 draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hydric soils criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wetland hydrology criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

PROJECT TITLE: Rutland ACDE

TRANSECT: Area 8 PLOT: upland

PROJECT TITLE: Rutland ACOE

TRANSECT: Flag 12-9A

PLOT: wetland

DELINEATOR(S): T. Rambarger / J. Stearns

DATE: 10/22/09

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	DOM	NWI Status
<u>Trees</u>	none				
<u>Saplings</u>	none				
<u>Shrubs</u>	none				
<u>Herbaceous</u>					
	Graminae	63	52	✓	—
	Secale cereale	38	31	✓	UPL
	Carex sp.	20.5	17		—
<p>This is an atypical situation where rye is the dominant plant.</p> <p>Secale cereale (Rye) field</p>					

HYDROPHYTES				NON-HYDROPHYTES		
OBL	FACW	FAC	*OTHER	FAC-	FACU	UPL
Hydrophytes Subtotal (A): 0				Non-hydrophytes Subtotal (B): 1		
PERCENT HYDROPHYTES (100A/A+B): 0						

HYDROLOGY

RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: _____

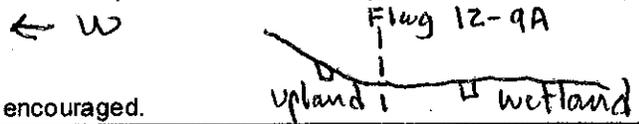
NO RECORDED DATA

OBSERVATIONS:
 Depth to Free Water: 18", secondary pit - water table at 14"
 Depth to Saturation (including capillary fringe): surface
 Altered Hydrology (explain): Active Ag field

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland

OTHER (explain): Rutting in area due to Ag. activities

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-12	Ap	Gley 1 10Y 4/1	7.5YR 4/3 many medium	fine sandy loam
12-16	Bw1	5Y 5/2	10YR 5/6 many fine & medium	fine sandy loam
16-24+	Bw2	5Y 5/3 5Y 6/2	7.5YR 5/6 many medium	fine sandy loam

HYDRIC SOIL INDICATOR(S):

XI.B

REFERENCE(S):

NEIWPCC April 2004, Field Indicators for Identifying Hydric Soils in New England.

OPTIONAL SOIL DATA

Taxonomic subgroup: *Aeric Endoaquepts*
 Soil drainage class: *poorly*
 Depth to active water table: *14-18"*
 NTCHS hydric soil criterion:

REFERENCE(S):

web base soil survey @ <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps NE 1991 Soil Drainage Classes - Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Active Ag field (Secale cereale) Rye
Hydric soils criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE: Rutland ACDE

TRANSECT: Flag 12-9A PLOT: Wetland

PROJECT TITLE: Rutland ACDE TRANSECT: Flag 12-9A PLOT: Upland
 DELINEATOR(S): T. Rauborger / J. Stearns DATE: 10/22/09

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	DOM	NWI Status
<u>Trees</u>	none				
<u>Saplings</u>	none				
<u>Shrubs</u>	none				
<u>Herbaceous</u>					
	Graminæ	63	61	✓	-
	Secale cereale	38	37	✓	upL
	Carex sp.	3	2		-

This is an atypical situation where rye is the dominant plant.

Secale cereale (Rye) field

HYDROPHYTES				NON-HYDROPHYTES		
OBL	FACW	FAC	*OTHER	FAC-	FACU	UPL
Hydrophytes Subtotal (A): 0				Non-hydrophytes Subtotal (B): 1		
PERCENT HYDROPHYTES (100A/A+B): 0						

HYDROLOGY

RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: _____

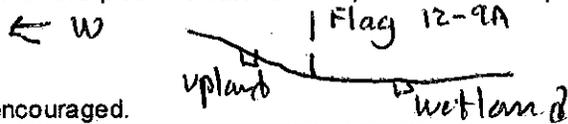
NO RECORDED DATA

OBSERVATIONS:
 Depth to Free Water: 18"
 Depth to Saturation (including capillary fringe): _____
 Altered Hydrology (explain): _____

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland

OTHER (explain): _____

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-10	Ap	5Y 5/3	10YR 4/4 few fine	fine sandy loam
10-16	Bw1	2.5Y 5/3	10YR 5/6 many fine	fine sandy loam
16-24+	Bw2	<u>5Y 5/3</u> 5Y 5/2	10YR 4/4 many fine	fine sandy loam

HYDRIC SOIL INDICATOR(S):

REFERENCE(S):

OPTIONAL SOIL DATA

Taxonomic subgroup: ~~Alf~~ **Alvic Dystrudepts**
 Soil drainage class: **mod well**
 Depth to active water table: **12"**
 NTCHS hydric soil criterion:

REFERENCE(S):

web base soil survey @ <http://websoilsurvey.nrcs.usda.gov>
US Army Corps of Engineers 1991 Soil Drainage Classes Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hydric soils criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wetland hydrology criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

PROJECT TITLE: **Rutland ACDE**

TRANSECT: **Flag 12-9A**

PLOT: **upland**

PROJECT TITLE: Rutland ACOE

TRANSECT: Flag 13-1 PLOT: wetland

DELINEATOR(S): T. Ramborger / J. Stearns

DATE: 11/6/09

VEGETATION

Stratum and Species

Observed Dominance

Relative Dominance

DOM

NWI Status

Trees

none

Saplings

none

shrubs

none

Herbaceous

Graminae

38

34

✓

Secale cereale

63

57

✓ UPL

Trifolium pratense

3

3

Epilobium sp.

3

3

Carex sp.

3

3

This is an atypical situation where rye is the dominant plant.

Secale cereale (rye) field

HYDROPHYTES

NON-HYDROPHYTES

OBL FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A): 0

Non-hydrophytes Subtotal (B): 1

PERCENT HYDROPHYTES (100A/A+B): 0

HYDROLOGY

RECORDED DATA

Stream, lake, or tidal gage

Identification:

Aerial photography

Identification:

Other

Identification:

NO RECORDED DATA

OBSERVATIONS:

Depth to Free Water: 14"

Depth to Saturation (including capillary fringe): surface

Altered Hydrology (explain): Active Ag field, rutted

Inundated

Saturated in upper 12"

Water Marks

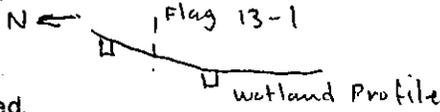
Drift Lines

Sediment Deposits

Drainage Patterns within Wetland

OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-12	Ap	10YR 3/2	7.5YR 4/4	sandy loam
12-20+	Bw	2.5Y 4/3 2.5Y 4/2	7.5YR common fine —	sandy loam

HYDRIC SOIL INDICATOR(S):

XI.B

REFERENCE(S):

NEIWPCC. April 2004. Field Indicators for Identifying Hydric Soils in New England.

OPTIONAL SOIL DATA

Taxonomic subgroup: *Aeric Epiaquept*
 Soil drainage class: *Poorly*
 Depth to active water table: *14"*
 NTCHS hydric soil criterion:

REFERENCE(S):

Web based soil survey @ <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps. of Engineers 1991 Soil Drainage Classes - Draft
 observation Guideline

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Active Ag field (Secale cereale) rye
Hydric soils criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE: Rutland ACDE

TRANSECT: Flag 13-1

PLOT: wetland

PROJECT TITLE: Rutland ACOE

TRANSECT: Flag 13-1

PLOT: Upland

DELINEATOR(S): T. Ramborger / J. Stearns

DATE: 11/6/09

VEGETATION

Stratum and Species

Observed Dominance

Relative Dominance

DOM

NWI Status

Trees

none

Saplings

none

Shrubs

none

Herbaceous

Graminal

Secale cereale

85.5

69

✓

—

38

31

✓

UPL

This is an atypical situation where rye is the dominant plant.

Secale cereale (rye) field

HYDROPHYTES

NON-HYDROPHYTES

OBL FACW FAC *OTHER

FAC- FACU UPL

Hydrophytes Subtotal (A): 2

Non-hydrophytes Subtotal (B): 1

PERCENT HYDROPHYTES (100A/A+B): 0

HYDROLOGY

RECORDED DATA

Stream, lake, or tidal gage

Identification: _____

Aerial photography

Identification: _____

Other

Identification: _____

NO RECORDED DATA

OBSERVATIONS:

Depth to Free Water: _____

Depth to Saturation (including capillary fringe): _____

Altered Hydrology (explain): _____

Inundated

Saturated in upper 12"

Water Marks

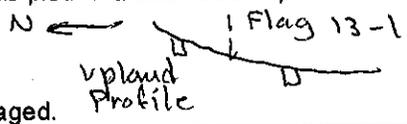
Drift Lines

Sediment Deposits

Drainage Patterns within Wetland

OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (inches)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-13	Ap	10YR 3/2	—	sandy loam
13-20+	Bw	10YR 5/3 2.5Y 4/3	—	sandy loam

HYDRIC SOIL INDICATOR(S): — REFERENCE(S): —

OPTIONAL SOIL DATA REFERENCE(S):
 Taxonomic subgroup: Typic Entrodepts
 Soil drainage class: well
 Depth to active water table: > 20"
 NTCHS hydric soil criterion:
 web base soil survey @ <http://websoilsurvey.nrcs.usda.gov>
 US Army Corps of Engineers 1991 Soil Drainage Classes Draft Guidelines

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rye field
Hydric soils criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wetland hydrology criterion met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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PROJECT TITLE: Rutland ACDE TRANSECT: Flag 13-1 PLOT: upland

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*Environmental Assessment for Construction of an
Armed Forces Reserve Center and
Implementation of BRAC 05 Recommendations at
Rutland, Vermont*

APPENDIX C

ECONOMIC IMPACT FORECAST SYSTEM REPORT

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APPENDIX C. ECONOMIC IMPACT FORECAST SYSTEM REPORT

This appendix provides the Economic Impact Forecast System Report for the Rutland Proposed Action.

EIFS REPORT

PROJECT NAME

Rutland

STUDY AREA

50021 Rutland, VT

FORECAST INPUT

Change In Local Expenditures	\$20,115,000
Change In Civilian Employment	0
Average Income of Affected Civilian	\$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Employment Multiplier	2.64	
Income Multiplier	2.64	
Sales Volume - Direct	\$20,115,000	
Sales Volume - Induced	\$32,988,600	
Sales Volume - Total	\$53,103,600	2.73%
Income - Direct	\$4,271,427	
Income - Induced)	\$7,005,142	
Income - Total(place of work)	\$11,276,570	0.8%
Employment - Direct	129	
Employment - Induced	212	
Employment - Total	341	0.91%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	13.22 %	11.05 %	3.54 %	1.98 %
Negative RTV	-4.83 %	-4.43 %	-2.63 %	-0.48 %

***** End of Report *****