Supplemental Environmental Assessment (SEA)

Hotel Range Renovation

Devens Reserve Forces Training Area

Fort Devens, Massachusetts

Prepared by:

Devens RFTA Environmental Division

Fort Devens, MA

October 2022

Finding of No Significant Impact (FNSI)
for the Supplemental Environmental Assessment
for Hotel Range Renovation at Devens Reserve Forces Training Area
Fort Devens, Massachusetts

1. Introduction. The U.S. Army Reserve (USAR) proposes to renovate the Hotel Range multipurpose machine gun range on the Devens Reserve Forces Training Area (RFTA) South Post. In its present condition, Hotel Range does not conform to current training and safety standards; its facilities are at the end of their lifecycle; and it is not able to sustain sufficient throughput to efficiently train soldiers. To evaluate the environmental effects associated with the Proposed Action, Devens RFTA staff prepared an Environmental Assessment (EA) and Supplemental Environmental Assessment (SEA) that comply with the National Environmental Policy Act of 1969 (NEPA, 42 United States Code [USC] 4321, et. seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR], Parts 1500-1508), Environmental Analysis of Army Actions (32 CFR Part 651), and Environmental Protection and Enhancement (Army Regulation [AR] 200-2).

This Finding of No Significant Impact (FNSI) incorporates the analysis and conclusions of the original EA (U.S. Army, 2020) and the SEA (incorporated by reference). The original EA and FONSI underwent public review from 08 May–08 June 2020.

2. Purpose and Need. The purpose of, and need for, this Proposed Action remains as described in the original EA (U.S. Army, 2020). The purpose of the Proposed Action is to reorient the Hotel Range so that the surface danger zone is entirely within the Devens RFTA property boundaries and to modernize the range facilities[1] and targetry to operate within current Army training standards. This SEA provides the results of the evaluation of the revised design (referred to as re-route design) and describes Wetland impacts and mitigation as a supplement to the original EA (U.S. Army, 2020). This document provides the current description of the Proposed Action and describes the expected effects the project will have that differ from those effects expected to result in the original Proposed Action.

3. Description of the Proposed Action and Wetland Impacts. Although the range has been in existence since 1980, reorientation of the range is necessary to eliminate a surface danger zone outside of Devens RFTA property. The reorientation of the range requires an approximate 5° counterclockwise rotation that will impact a small portion of forested land adjacent to the current footprint of Hotel Range. In addition to the reorientation, the Proposed Action includes modernization to meet current Army standards and demolition of the existing range support structures. The final design impacts Wetlands only in the downrange, previously developed portion of the range where minor changes to two existing earthen target mounds will result in 7,643 square feet (0.18 acres) of impacts to Wetland 6 (see Figures 2-1 and 2-2 in the SEA).

4. Identification and Evaluation of Practicable Alternatives. There is no alternative orientation or location on Devens RFTA for Hotel Range that would keep the surface danger zone within Devens RFTA property. The design of the range has been reduced from the standard Training

[1] The Devens RFTA South Post area is approximately 4,880 acres used for field training (U.S. Army, 2013, USAG Fort Devens, 2019) and the Hotel Range has been an active range since 1980.

Circular (TC) 25-8 Machine Gun Range from ten lanes to four lanes and reduced the length from a standard of 1,500 meters to 800 meters to confine the surface danger zone within the installation boundaries. A possible land acquisition strategy was considered to keep the firing line at its existing location. However, that was deemed highly unlikely to succeed as the land that would have to be acquired is part of a Massachusetts Wildlife Management Area. Acquisition of that land would also not completely resolve the safety issue as there is a railroad that crosses the surface danger zone of the current range immediately off post.

The Hotel Range multipurpose machine gun range renovation project is a vital training facility to reserve forces training in New England. The existing range is currently in use and used to train approximately 2,000 Soldiers annually. It is also used for advance marksmanship training for federal and local law enforcement in the region. The renovation of this range will bring it up to modern Army qualification standards which will provide Soldiers with high quality training and allow them to meet Army qualification standards for proficiency on 5.56MM, 7.62MM and 40MM weapon systems.

5. Assessment of Impact. Under the Proposed Action, 0.18 acres of Wetland 6 will be impacted. USAR has evaluated the Proposed Action pursuant to EO 11990 and determined that no practicable alternatives avoiding all Wetlands would meet the project purpose.

a. Water Resources. In the project design, the team attempted to avoid impacting this Wetland by reconfiguring the layout, but they were not able to reach a configuration that would simultaneously avoid all Wetlands and deliver the project's purpose to fulfill the Army's need. Previous designs for this project included the filling of Wetland 4, a small (0.03 acre) vernal pool. Substantial redesign efforts were made at the request of the Lancaster Conservation Commission to avoid the impact to Wetland 4. The final design impacts Wetlands only in the downrange, previously developed, portion of the range where 7,643 square feet (0.18 acres) of Wetland 6 disturbance is unavoidable. The final design also includes 56,192 square feet (1.29 acres) of woody vegetation clearing in Wetlands, and 170,320 square feet (3.91 acres) of woody vegetation clearing in the 100-foot Wetland buffer.

b. Biological Resources. Species present on South Post listed at the state level as threatened, endangered, rare (includes multiple designation), and species proposed for listing are included in the Fort Devens Integrated Natural Resources Management Plan (INRMP) (USAG Fort Devens, 2019). Species included in both the federal and state list were combined into a table, included in Appendix C, which assesses the habitat needs and potential presence in the vicinity of Hotel Range. Impacts on species that potentially use the woodlands and Wetlands in and surrounding the existing range would be minor to moderate over the short term and minor over the long term due to disturbance during forest clearing activities and the permanent loss of approximately 25 acres of forested habitat.

For the turtle species that may hibernate in or adjacent to the Wetlands that would be affected by Alternative 1 (spotted turtle, Blanding's turtle, and eastern box turtle), the Compensatory Mitigation Plan (CMP) outlines substantial mitigation measures. Which will reduce impacts to the species and improve turtle nesting habitat overtime.

6. Minimization of Impact from the Proposed Action. Wetland delineation of the Project Area identified six Wetlands and two other surface waters (streams). To the maximum extent possible the renovation of the range has been designed to avoid these Wetlands, streams, and their 25-

and 100-foot upland buffers. The final revised design avoids filling of the vernal pool but does include the 0.18 acres of impacts (filling) in the downrange Wetland 6 from changes to two earthen target mounds. These changes are unavoidable without impacting the functionality of the range.

A Compensatory Mitigation Plan (CMP, see Appendix A of the SEA) has been created which will replicate and restore a total of 21,260 square feet (0.49 acres) of wet meadow Wetland with an ongoing monitoring program to ensure the replication/restoration takes effect. This replication and restoration effort compared to the area of disturbance is more than a 2:1 ratio. Additional elements of the CMP include planting of 113,256 square feet (2.6 acres) of woody vegetation in Wetland buffers, construction of a dedicated amphibian/wildlife passage/culvert, and establishment of 5,227 square feet (0.12 acres) of turtle nesting habitat. No grubbing of or removal of stumps will occur in the Wetland areas requiring clearing of woody vegetation. Timber matting will be used for heavy machinery accessing Wetlands for vegetation clearing, and matting will be removed promptly as clearing is completed. Appropriate erosion and sediment controls will be installed between work areas and any Wetland resources downslope. The required and voluntary mitigation measures described in the CMP satisfy local and state permitting requirements under the Massachusetts Wetlands Protection Act. Devens RFTA purchased In-Lieu Fee (ILF) credits to satisfy federal mitigation requirements in accordance with Section 404 permitting under the Clean Water Act.

7. Public Review and Comment. The SEA, Draft FNSI, and draft FNPA will be available to the public for comment for 30 days. Printed copies of the SEA, Draft FNSI, and Draft FNPA will be available at the following Libraries: Ayer Public Library, Hazen Memorial Library in Shirley, Harvard Public Library, or Thayer Memorial Library in Lancaster. Printed copies of the SEA, Draft FNSI, and Draft FONPA can be sent through mail as hard copies. Point of Contact, Mr. Zygmunt Osiecki, can receive requests for mailed materials. Copies of the documents are also available on the internet at https://home.army.mil/devens/index.php. The public notice (Notice of Availability) will be published in the Harvard Press and the Worcester Telegram. Written comments will be considered for up to 30 days from the publication of the public notice. Written comments should be directed to Mr. Zygmunt Osiecki via email, at zygmunt.v.osiecki.civ@army.mil, or at the following address: 30 Quebec St. Bldg. 666, Box 10, Devens, MA 01434-4479.

8. Finding of No Significant Impact. Following an evaluation of the impacts associated with the Proposed Action and the impacts of alternatives to implement the Proposed Action, I find that the environmental effects of implementing the Proposed Action are not significant pursuant to NEPA and CEQ regulations. I find that there is no practicable alternative to the Proposed Action to further avoid impacts to Wetlands. Therefore, an Environmental Impact Statement (EIS) is unnecessary, and a FNSI is appropriate. Furthermore, pursuant to EO 11990, and as described above, the USAR will take all practicable measures to minimize impacts associated with the Proposed Action to and within Wetlands as evidenced in the CMP.

Approved by:

_____ _____

TRENT R. COLESTOCK Date
LTC, LG
Commanding

Finding of No Practicable Alternative for Proposed Hotel Range Renovation
Fort Devens, Massachusetts

Introduction

The U.S. Army Reserve (USAR) proposes to renovate the Hotel Range Multipurpose Machine Gun range on the Fort Devens South Post. In its present condition, Hotel Range does not conform to current training and safety standards; its facilities are at the end of their lifecycle; and it is not able to sustain sufficient throughput to efficiently train soldiers. To evaluate the effects associated with the Proposed Action, Devens staff prepared an Environmental Assessment (EA) that complies with the National Environmental Policy Act of 1969 (NEPA, 42 United States Code [USC] §4321, et. seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR], Parts 1500-1508), Environmental Analysis of Army Actions (32 CFR Part 651), and Environmental Protection and Enhancement (Army Regulation [AR] 200-2).

Executive Order (EO) 11990, Protection of Wetlands, requires that federal agencies provide leadership and take actions to minimize the destruction, loss, or degradation of Wetlands and to preserve and enhance the natural and beneficial values of Wetlands. The USAR must evaluate whether there is a practicable alternative to allowing the Proposed Action to impact a Wetland. The practicability of a given alternative is evaluated by determining whether it is available and capable of being done after considering pertinent factors, such as community welfare, environmental impact, statutory authority, legality, cost, technology, and engineering within the context of the project purpose. If the only practicable alternative requires unavoidable impacts to Wetlands, then the USAR must design or modify its action to minimize harm to Wetlands. Similarly, EO 11988, Floodplain Management, requires federal agencies to avoid impacts to floodplains. The Proposed Action does not impact floodplains. Therefore, this FNPA is presented pursuant to EO 11990, and hereby provides notice and explanation of why the Proposed Action would impact Wetlands.

Wetlands are areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. In 2018, a Wetland delineation was performed on the Proposed Action site, and in 2021 an additional Wetland delineation was conducted by Normandeau Associates in the downrange portion of the site (see Appendix A of the Supplemental Environmental Assessment). The delineations identified six Wetlands in the vicinity of the Proposed Action site.

Thereafter, the USAR must prepare and circulate a notice containing an explanation of why the Proposed Action would impact wetlands. This Finding of No Practicable Alternative incorporates the analysis and conclusions of the Environmental Assessment. The EA and FNSI underwent public review from May 8 – June 7, 2020. This FNPA has not undergone a separate public review.

The U.S. Army Reserve (USAR) has prepared a Supplemental Environmental Assessment (SEA) for the Hotel Range Multipurpose Machine Gun Range renovations to assess additional wetlands and monitoring and mitigation plans, which were not identified in the 2020 EA, that were identified through consultation with the Lancaster Conservation District. This FNPA will undergo public review alongside the SEA and FNSI for this SEA.

Notice of Wetland Involvement

In 2018, a wetland delineation was performed on the Proposed Action site, and in 2021 an additional wetland delineation was conducted. In delineating the wetlands, the ecologists used the methodologies presented in *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act* (MassDEP 1995), *Corps of Engineers Wetland Delineation Manual* (USACE 1987), and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0* (USACE 2012). The delineations identified six wetlands in the vicinity of the Proposed Action site.

Description of the Proposed Action

Although the range has been in existence since 1980, reorientation of the range is necessary to eliminate a surface danger zone outside of Fort Devens' property. The reorientation of the range requires an approximate 5° counterclockwise rotation that will impact a small portion of forested land adjacent to the current footprint of Hotel Range. In addition to the reorientation, the Proposed Action includes modernization to meet current Army standards and demolition of the existing range support structures.

Identification and Evaluation of Practicable Alternatives

There is no alternative orientation or location on Fort Devens for Hotel Range that would keep the surface danger zone within Fort Devens' property. The design of the range has been reduced from the standard TC 25-8 Machine Gun Range from ten (10) lanes to four (4) lanes and reduced the length from a standard of 1,500 meters to 800 meters in order to confine the surface danger zone within the installation boundaries. A possible land acquisition strategy was considered to keep the firing line at its existing location. However, that was deemed highly unlikely to succeed as the land that would have to be acquired is part of a Massachusetts Wildlife Management Area. Acquisition of that land would also not completely resolve the safety issue as there is a railroad that crosses the surface danger zone of the current range immediately off post.

The Hotel Range multipurpose machine gun range renovation project is a vital training facility to reserve forces training in New England. The existing range is currently in use and used to train approximately 2000 Soldiers annually. It is also used for advance marksmanship training for federal and local law enforcement in the region. The renovation of this range will bring it up to modern Army qualification standards which will provide Soldiers with high quality training and allow them to meet Army qualification standards for proficiency on 5.56MM, 7.62MM and 40MM weapon systems.

Assessment of Impact to Wetlands

Under the Proposed Action, 0.02-acres of wetland will be impacted. USAR has evaluated the Proposed Action pursuant to EO 11990 and determined that no practicable alternatives avoiding all wetlands would meet the project purpose. In the project design, the team attempted to avoid impacting this wetland by reconfiguring the layout, but they were not able to reach a configuration that would simultaneously avoid all wetlands and deliver the project's purpose to fulfill the Army's need. Previous designs for this project included the filling of a small (0.03-acre) vernal pool. Substantial redesign efforts were made to avoid that impact and the final design avoids that impact. The final design impacts wetlands only in the downrange, previously developed, portion of the range where minor changes to two existing earthen target mounds will result in 374 square feet of wetland disturbance at one mound and 691 square feet at another.

Minimization of Impact from the Proposed Action

Wetland delineation of the Project Area identified six Wetlands and two other surface waters (streams). To the maximum extent possible the renovation of the range has been designed to avoid these Wetlands, streams, and their 25- and 100-foot upland buffers. The final revised design avoids filling of the vernal pool but does include the 0.18 acres of impacts (filling) in the downrange Wetland 6 from changes to two earthen target mounds. These changes are unavoidable without impacting the functionality of the range.

A Compensatory Mitigation Plan (CMP, see Appendix A of the SEA) has been created which will replicate and restore a total of 21,260 square feet (0.49 acres) of wet meadow Wetland with an ongoing monitoring program to ensure the replication/restoration takes effect. This replication and restoration effort compared to the area of disturbance is more than a 2:1 ratio. Additional elements of the CMP include planting of 113,256 square feet (2.6 acres) of woody vegetation in Wetland buffers, construction of a dedicated amphibian/wildlife passage/culvert, and establishment of 5,227 square feet (0.12 acres) of turtle nesting habitat. No grubbing of or removal of stumps will occur in the Wetland areas requiring clearing of woody vegetation. Timber matting will be used for heavy machinery accessing Wetlands for vegetation clearing, and matting will be removed promptly as clearing is completed. Appropriate erosion and sediment controls will be installed between work areas and any Wetland resources downslope. The required and voluntary mitigation measures described in the CMP satisfy local and state permitting requirements under the Massachusetts Wetlands Protection Act. Devens RFTA purchased In-Lieu Fee (ILF) credits to satisfy federal mitigation requirements in accordance with Section 404 permitting under the Clean Water Act.

Finding

Following an evaluation of the impacts associated with the Proposed Action and the impacts of alternatives to implement the Proposed Action, I find no practicable alternative to the Proposed Action to further avoid impacts to wetlands. Furthermore, pursuant to EO 11990, and as described above, the USAR will take all practicable measures to minimize impacts associated with the Proposed Action to and within wetlands.

Approved by:

Ms. Carla Coulson
Deputy Assistant Secretary of the Army
(Installations, Housing, and Partnerships)

Environmental Assessment Signature Sheet

Devens Reserve Forces Training Area

Devens, MA

Prepared by:

ZYGMUNT V. OSIECKI
Environmental Chief

Date

Reviewed and Recommended by:

GEORGE MARKT
Director DPW

Date

Approved by:

TRENT R. COLESTOCK
LTC, LG
Commanding

Date

Executive Summary

This Supplemental Environmental Assessment (SEA) was prepared for the Devens Reserve Forces Training Area (RFTA) to analyze the potential environmental and socioeconomic impacts associated with renovating and operating Hotel Range, a multipurpose machine gun range on Devens RFTA South Post.

This SEA covers changes to the original design and mitigation measures not specified in the original *Environmental Assessment (EA) for Hotel Range Renovation at U.S. Army Garrison Fort Devens, Massachusetts*, finalized July 2020, prepared by the U.S. Army.

The original EA (U.S. Army, 2020) concluded that the filling of Wetland 4 was of a minimal impact based on the size of the Wetland 4 relative to the overall size of the Wetland complex located on South Post. The area has also been an active range since 1980 and is a highly disturbed area. Substantial redesign efforts were made to avoid filling the Wetland 4 vernal pool at the request of the Lancaster Conservation Commission. Resulting impacts to the downrange, and previously disturbed, Wetland 6 require 404 and 401 permits in accordance with the Clean Water Act, and to mitigate the impacts to jurisdictional Wetlands through a Compensatory Mitigation Plan (CMP), which is detailed in Section 3.5 of this SEA.

The Proposed Action is to reorient and renovate the Hotel Range multipurpose machine gun range to conform to current training and safety standards. The reorientation of the range requires an approximate 5° counterclockwise rotation that will impact a small portion of forested land adjacent to the current footprint of Hotel Range. The Proposed Action also includes modernization to meet current Army standards and demolition of the existing range support structures.

There is no alternative orientation or location on Devens RFTA for Hotel Range that would keep the surface danger zone within Devens RFTA property. The design of the range has been substantially modified to avoid filling a small (0.03 acre) vernal pool (Wetland 4). The final design impacts Wetlands only in the downrange, previously developed, portion of the range where changes will result in 7,643 square feet of permanent impact to Wetland 6.

To alleviate potential effects associated with implementing the Proposed Action, and in accordance with Executive Order (EO) 11990, Protection of Wetlands, the Army is committed to minimizing the destruction, loss, or degradation of Wetlands and to preserve and enhance the natural and beneficial values of Wetland, the Army has prepared a CMP (Section 3.5 of this SEA) based on input provided by the U.S. Army Corps of Engineers (USACE), the Lancaster Conservation Commission, and other project team members and representatives of Devens RFTA, to replicate and restore a total of 21,260 square feet (0.49 acres) of wet meadow Wetlands and to provide on-site, permittee-responsible mitigation for permanent impacts to Wetlands associated with the Hotel Range Renovation project. These mitigation measures exceed the area of disturbance associated with this project by a 2:1 ratio.

Species present on South Post listed at the state level as threatened, endangered, rare (includes multiple designation), and species proposed for listing are included in the Fort Devens Integrated Natural Resources Management Plan (INRMP) (USAG Fort Devens, 2019). Species included in both the federal and state list were combined into a table, included in Appendix C, which assesses the habitat needs and potential presence in the vicinity of Hotel Range. Impacts on species that potentially use the woodlands and Wetlands in and surrounding the existing range would be minor to moderate over the short term and minor over the long term due to disturbance during forest

clearing activities and the permanent loss of approximately 25 acres of forested habitat.

For the turtle species that may hibernate in or adjacent to the Wetlands that would be affected by Alternative 1 (spotted turtle, Blanding's turtle, and eastern box turtle), the Compensatory Mitigation Plan (CMP) outlines substantial mitigation measures. Which will reduce impacts to the species and improve turtle nesting habitat overtime.

There is potential summer habitat for the northern long-eared bat NLEB within the Project Area. Section 3.3.2.1 of the original EA discusses the measures that Devens RFTA will follow to minimize potential impacts to the NLEB during construction activities (U.S. Army, 2020). As discussed in Section 3.2.1.2 of this SEA, an uplisting by the USFWS could restrict activities within the NLEB habitat, including tree clearing during specified time periods. An endangered listing could require presence/absence surveys and/or time of year restrictions for certain activities (Devens RFTA, 2022). Devens RFTA will work with USFWS to minimize impacts to the NLEB as required.

Table of Contents

List of Figures

List of Tables

Appendices

Abbreviations and Acronyms

Acronym	Definition
AOC	Area of Concern
AR	Army Regulation
APE	Area of Potential Effect
BGEPA	Bald and Golden Eagle Protection Act
BCC	Birds of Conservation Concern
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and LiabilityAct
CFR	Code of Federal Regulations
CMP	Compensatory Mitigation Plan
CMR	Code of Massachusetts Regulations
E	Seasonally Flooded or Saturated
EA	Environmental Assessment
EIS	Environmental Impact Statement
EM	Emergent
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESA	Endangered Species Act of 1973
FNPA	Finding of No Practicable Alternative
FNSI	Finding of No Significant Impact
FE	Federally Endangered
FT	Federally Threatened
HGM	Hydrogeomorphic
ICRMP	Integrated Cultural Resource Management Plan
ILF	In-Lieu Fee
INRMP	Integrated Natural Resource Management Plan
IPaC	Information for Planning and Consultation
MassDEP	Massachusetts Department of Environmental Protection
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NLEB	Northern Long-Eared Bat
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
NRHP	National Register of Historic Places
OBL	Obligate
P	Palustrine
$PM_{2.5}$	Particulate matter less than 2.5 micrometers
PM_{10}	Particulate matter less than 10 micrometers
PSC	Proposed Special Concern
RFTA	Reserve Forces Training Area
RTE	Rare, Threatened, and Endangered
SC	Special Concern
SE	State Endangered
SEA	Supplemental EA
SGCN	Species of Greatest Concerns and Needs
SHPO	State Historic Preservation Officer
SPIA	South Post Impact Area
ST	State Threatened
TC	Training Circular
TES	Threatened and Endangered Species
USACE	U.S. Army Corps of Engineers
USAG	U.S. Army Garrison
USAR	U.S. Army Reserve
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UXO	Unexploded Ordnance

1.0 Purpose, Need, and Scope

1.1 Introduction

Devens Reserve Forces Training Area (RFTA) prepared this Supplemental Environmental Assessment (SEA) under the National Environmental Policy Act of 1969 (NEPA). An SEA is necessary due to new circumstances and information relevant to environmental concerns from the proposed renovation of Hotel Range located at Devens RFTA South Post.

The original *Environmental Assessment (EA) for Hotel Range Renovation at U.S. Army Garrison Fort Devens, Massachusetts* (hereafter referred to as the "original EA") was finalized in July 2020 (U.S. Army, 2020). The Proposed Action in the original EA included the filling of a small (0.03 acre) vernal pool (Wetland 4). Per the Lancaster Conservation Commission request to avoid filling the vernal pool, substantial redesign efforts were made, and a Compensatory Mitigation Plan (CMP) drafted to address impacts to several locations of downrange Wetlands that had not yet been delineated at the time of the original EA (U.S. Army, 2020). The additional Wetland delineation and CMP are included in Appendix A.

This SEA covers necessary design changes to the original EA (U.S. Army, 2020) due to permit requirements established by the Lancaster Conservation Commission for on-site permittee-responsible mitigation for unavoidable impacts to the wet meadow Wetland (Wetland 6) present within the Project Area. Fill associated with the construction of several target mounds along the edges of Wetland 6 have a total impact area of 7,643 square feet (0.18 acres). The CMP aims to replicate or restore 21,260 square feet (0.49 acres) of Wetland, more than double the impact area of wet meadow Wetland. This will provide on-site, permittee-responsible mitigation for permanent impacts to Wetlands associated with the Hotel Range Renovation project.

1.2 Purpose and Need

The purpose of, and need for, this Proposed Action remains as described in the original EA (U.S. Army, 2020). The purpose of the Proposed Action is to reorient the Hotel Range so that the surface danger zone is entirely within the Devens RFTA property boundaries and to modernize the range facilities[2] and targetry to operate within current Army training standards. This SEA provides the results of the evaluation of the revised design (referred to as re-route design) and describes Wetland impacts and mitigation as a supplement to the original EA (U.S. Army, 2020). This document provides the current description of the Proposed Action and describes the expected effects the project will have that differ from those effects expected to result in the original Proposed Action.

1.3 Regulatory Framework

The purpose of an EA is to inform the public, determine if a Proposed Action would result in significant impacts to the environment, and enable leadership to make informed decisions on a Proposed Action. This SEA is prepared in accordance with NEPA (42 U.S. Code [USC] 4321 through 4347); Council on Environmental Quality's (CEQ's) Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500 through 1508); Army Regulation (AR) 200-1, Environmental Protection and Enhancement; and Environmental Analysis of Army Actions, 32 CFR Part 651.

[2] The Devens RFTA South Post area is approximately 4,880 acres used for field training (U.S. Army, 2013, USAG Fort Devens, 2019) and the Hotel Range has been an active range since 1980.

1.4 Use of this Supplemental Environmental Assessment

Devens RFTA will use this SEA to identify and analyze the potential environmental impacts associated with the Proposed Action and alternatives considered, including direct, indirect, and cumulative impacts. This SEA addresses the potential impacts of the Proposed Action and the No Action Alternative on affected resource areas. Per regulations (32 CFR 651.5(g)(1)), supplemental NEPA documentation is required when substantial changes are made to the proposed action, that are relevant to environmental concerns, or when there are significant new circumstances or information relevant to environmental concern and bearing on the proposed action or its impacts. For the purposes of this supplemental NEPA documentation, only those resource areas that may be impacted by the Proposed Action and alternatives, and which were not sufficiently analyzed in the original EA (U.S. Army, Hotel Range Renovations 2020), or which redesign efforts warrant additional analysis, are analyzed in detail in this SEA.

1.5 Public Participation and Involvement

The U.S. Army invites public participation in the NEPA process. Consideration of the views and information of all interested personal promote 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 and disadvantaged, and Native American Groups are urged to participate in that decision making process.

Public participation opportunity with respect to this SEA and decision making on the Proposed Action are guided by 32 CFR Part 651. Upon completion, the SEA will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI) and Finding of No Practicable Alternative (FNPA). At the end of the 30-day public review period the U.S. Army will consider any comment submitted by individuals, agencies, or organizations on the Proposed Action, SEA, or Draft FNSI and FNPA. If no significant impact is expected the U.S. Army may then execute the FNSI and FNPA and proceed with implementing the Proposed Action. If it is determined prior to issuance of a final FNSI and FNPA that implementation of the Proposed Action would result in significant impacts, the U.S. Army will publish in the *Federal Register* a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) or commit to mitigation actions sufficient to reduce impacts below significance levels.

2.0 Description of the Proposed Action

2.1 Proposed Action

The Proposed Action is the reorientation of an existing multipurpose machine gun range to align the surface danger zone fully within Devens RFTA property and to update/renovate the facilities and safety features to meet current Army standards identified in Army Training Circular (TC) 28-8. Since the original EA (U.S. Army, 2020), new information relevant to environmental concerns has resulted in the following changes to the Proposed Action:

1. Re-route of the access road to avoid the filling of the small (0.03 acre) vernal pool (Wetland 4). The reroute will not include any additional tree clearing that wasn't described in the original EA because the line-of-sight would remain the same. This reroute was made simply to avoid vernal pool (Wetland 4).
2. Significant new information resulted from the additional Wetland delineation of the downrange area that was completed in May 2021 (Normandeau Associates, 2021; see Appendix A). This study concluded that Wetland 6 was within the Project Area. This delineated Wetland falls under the applicable regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. The range was redesigned to minimize impacts to Wetland 6, but some impacts were unavoidable.
3. A CMP (Normandeau Associates, 2022; see Appendix A) was prepared to satisfy Wetland mitigation and restoration measures as required by the Order of Conditions issued by the Lancaster Conservation Commission in accordance with the Massachusetts Wetlands Protection Act. (See Appendix B)
4. Devens RFTA purchased credits from the In-Lieu Fee (ILF) Program to satisfy USACE mitigation requirements in accordance with the Section 404 permit.

Wetland locations are shown on Figures 2-1 and 2-2, below.

2.2 Criteria for Evaluating Alternatives

The criteria for evaluating alternatives have not changed since the original EA, see Section 2.2 of that document (U.S. Army, 2020).

2.3 Alternatives Considered but Eliminated from Further Consideration

Alternative 2 from the original EA (U.S. Army, 2020) was to construct a five-lane range which would meet the purpose and need but offered an additional firing lane compared to Alternative 1, the Preferred Alternative. Alternative 2 has been eliminated from consideration in this SEA for the following reasons: (1) the additional amount of disturbance needed in tree clearing and Wetland impacts would require additional permitting actions and costs that are untenable; (2) redesign of the Preferred Alternative has already taken substantial time and costs that are hindering the progress of this project; and (3) additional protections to encompass the additional lanes and berms would have to be established to ensure stray fire does not exit the boundaries of the range.

Additional alternatives eliminated from further consideration in the original EA (U.S. Army, 2020) include: (1) renovating and extending the life of the current range; (2) new construction on site of the existing range; (3) realigning the range further north; (4) location change; (5) land acquisition - these alternatives were eliminated from further consideration because they do not meet one or more of the requirements identified in Section 2.2 of the original EA (U.S. Army, 2020).

2.4 Alternatives Carried Forward for Analysis

2.4.1 Alternative 1: Four-Lane Range (Preferred Alternative)

Alternative 1 remains the Preferred Alternative in this SEA because it best meets the screening criteria, the project purpose and need, and minimizes environmental impacts. Minor changes were made to the Alternative 1 design since the original EA (U.S. Army, 2020) including:

1. a re-route of the access road to avoid impacting Wetland 4,
2. additional impacts to downrange Wetlands and the relocation of target mounds to minimize these impacts, and
3. the development of a CMP which will replicate and restore impacted Wetlands at greater than a 2:1 ratio.

The full description of Alternative 1 can be found in Section 2.3.1 of the original EA (U.S. Army, 2020). The proposed design of Alternative 1 is shown on Figures 2-1 and 2-2, below.

2.4.2 No Action Alternative

The No Action Alternative remains the same as in the original EA (U.S. Army, 2020). Under the No Action Alternative, the Proposed Action would not be implemented. The surface danger zone would continue to extend outside the Devens RFTA property. The range would continue to operate with outdated facilities and targetry that do not comply with current Army training standards. The No Action Alternative would not meet the purpose of, and need for, the Proposed Action; however, the No Action Alternative is carried forward for analysis in this SEA to serve as a baseline against which the effects of the action alternatives can be evaluated.

Figure 2-1. Current and Proposed Hotel Range Configuration

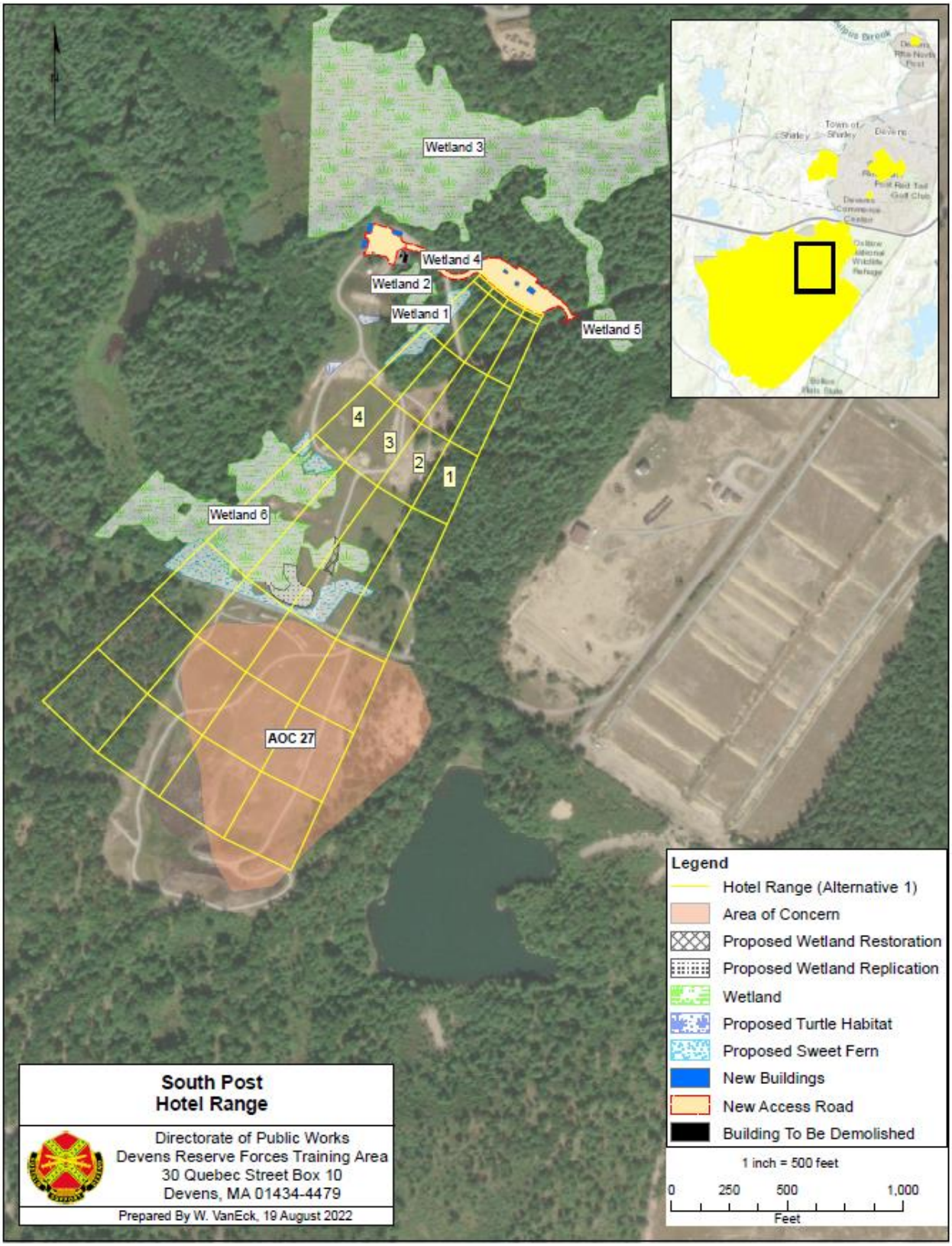
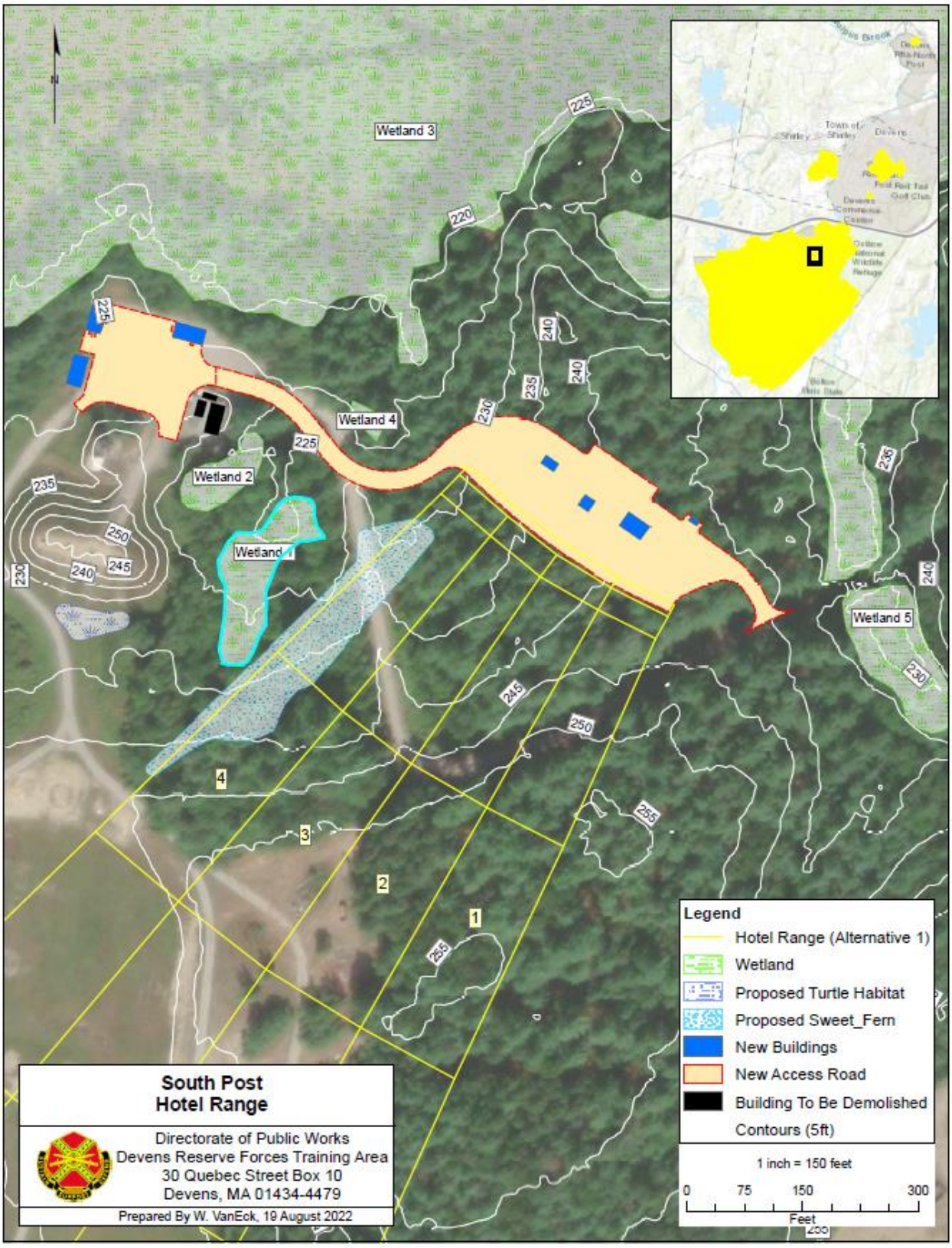


Figure 2-2. Alternative 1 Hotel Range, Firing Line View



3.0 Affected Environment, Environmental Consequences, and Mitigation

This section describes environmental resources and baseline conditions that could be directly or indirectly affected by Alternative 1. Analyses of the potential effects that could be expected from the implementation of Alternative 1 are provided for the following: human health and safety, biological resources, geology and soils, and water resources. Cumulative effects that could result from the implementation of the Alternative 1 are also analyzed.

Based on a review of Alternative 1, the impact analysis in the original EA, and the CMP, some resources would either not be impacted or assumed to be sufficiently evaluated in the original EA (U.S. Army, 2020; Normandeau Associates, 2022). Therefore, those environmental resources are not re-evaluated in detail in this SEA. This SEA briefly describes each resource that is eliminated from detailed evaluation, along with reasons why that resource is not analyzed in detail. These resources are:

- Air Quality
- Cultural Resources
- Hazardous and Toxic Materials and Waste
- Human Health and Safety

The following resource areas were analyzed in detail in this SEA for potential impacts from implementation of Alternative 1:

- Cumulative Effects
- Biological Resources
- Geology and Soils
- Groundwater, Surface Water, and Wetlands

Effects on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For this analysis, the intensity of impacts will be classified as negligible, minor, moderate, significant, or beneficial. The intensity thresholds are defined as follows:

- **Negligible:** A resource would not be affected, or the effects would be at or below the level of detection, and changes would not result in any measurable or perceptible consequences.

- **Minor:** Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.

- **Moderate:** Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.

- **Significant:** Effects on a resource would be obvious, long-term, and would have substantial consequences on a regional scale. Extensive mitigation

measures to offset the adverse effects would be required and success of the mitigation measures would not be guaranteed.

- **Beneficial:** Effects on a resource would be beneficial when compared to the forecasted future without project condition.

3.1 Resources Eliminated from Further Consideration

Per the CEQ regulations (40 CFR Part 1500), Federal agencies may focus their NEPA analysis on resource areas that could be affected by a Proposed Action and omit discussing resource areas that would not be affected (see 32 CFR 651.5(g)(2)).

Certain resources were not carried forward for detailed analysis in the original EA because there would be no potential for direct, indirect, or cumulative impacts from implementation of the Proposed Action, or the impacts were determined to be negligible (Section 3 in the original EA [U.S. Army, 2020]). Changes to the Proposed Action described in this SEA do not warrant analysis of these resources. These resources include Energy and Infrastructure; Noise; Land Use; Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety; Traffic and Transportation; and Visual Resources.

Certain resources which were analyzed in the original EA were eliminated from further analysis in this SEA because they would not result in any new or substantially more severe or significant direct and indirect effects, including short and long-term effects, than were previously evaluated in the original EA (U.S. Army, 2020; see 40 CFR 1501.11[c](2)). These resources and their analysis are summarized in the following subsections.

3.1.1 Air Quality

In the original EA (U.S. Army, 2020), Air Quality was examined in detail per the Clean Air Act, the U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for specific pollutants of concern, called criteria pollutants, which are carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, particulate matter less than or equal to 10 micrometers (PM_{10}), particulate matter less than or equal to 2.5 micrometers ($PM_{2.5}$), and lead. NAAQS represent the maximum levels of background pollutants that are considered safe, with an adequate margin of safety, to protect public health and welfare.

Hotel Range, located on South Post, is within Worcester County, Massachusetts, which is within the Central Massachusetts Intrastate Air Quality Control Region (40 CFR 81.142). This area is designated as being in attainment for all criteria pollutants. Previously, it was designated as being in moderate nonattainment for the 1997 8-hour ozone standard; however, the 1997 8-hour ozone standard was revoked in 2015 (USEPA, 2019a). Therefore, the General Conformity Rule does not apply to this action because the Proposed Action would not be within a nonattainment or a maintenance area.

To eliminate repetitive documentation, Air Quality has been eliminated from further consideration to focus on issues that are ripe for decision and exclude from consideration issues already decided or not yet ripe (see 40 CFR 1501.11[c](2)). The changes made to avoid impact to the Wetland 4 vernal pool and the proposed mitigation measures do not change the size of the project, its location, or the approximate area of potential effect. To avoid replicative analyses, Air Quality is eliminated from further consideration as it has been adequately considered in the original EA (U.S. Army, 2020).

3.1.2 Cultural Resources

In the original EA (U.S. Army, 2020), cultural resources were considered in detail. Cultural resources include any prehistoric or historic district, site, building, structure, or object significant in American history, architecture, archeology, engineering, or culture that is listed in or are potentially eligible for listing in the National Register of Historic Places (NRHP). Cultural resources include artifacts, records and material remains related to undertakings on historic properties eligible for or listed on the NRHP. All buildings over 50 years old on Devens RFTA have been evaluated for their potential eligibility in the NRHP.

Analysis was drawn from surveys completed and documented in the Army Reserve, Integrated Cultural Resource Management Plan (ICRMP) Historic Properties Component; Final Report (U.S. Army Reserve, 2002). Only one hangar on the former Army Airfield is potentially eligible for listing on the NRHP. The Hotel Range and the existing firing line berm were built in 1980. The buildings currently at the range were built in 1993. An Area of Potential Effect (APE) for built and archaeological resources covers the entire proposed boundary for the Hotel Range renovation. Devens RFTA consulted with the State Historic Preservation Officer (SHPO) who concurred there are no known resources eligible for or listed on the NRHP within or near the project area. The Draft Final ICRMP (U.S. Army Garrison [USAG] Fort Devens, 2022), prepared for fiscal years 2022 through 2027, supports the analysis drawn from the original EA (U.S. Army, 2020).

To eliminate repetitive documentation, Cultural Resources have been eliminated from further consideration to focus on issues that are ripe for decision and exclude from consideration issues already decided or not yet ripe (see 40 CFR 1501.11[c](2)). The changes made to avoid impact to the Wetland 4 vernal pool and the proposed mitigation measures do not change the size of the project, its location, or the approximate area of potential effect. To avoid replicative analyses, Cultural Resources is eliminated from further consideration as it has been adequately considered in the original EA (U.S. Army, 2020).

3.1.3 Hazardous and Toxic Materials

In the original EA (U.S. Army, 2020), hazardous and toxic materials were considered in detail; to include routine maintenance activities and operations on South Post which require the use, handling, and storage of hazardous and toxic materials such as petroleum, oils, lubricants, cleaners, paint, paint thinners, solvents, batteries, and pesticides; as well as Comprehensive Environmental Response and Liability Act (CERCLA) status and ongoing monitoring activities.

The network of long-term groundwater monitoring wells associated with Area of Concern (AOC) 27 (Hotel Range) in the South Post Impact Area (SPIA) will not be impacted by the planned renovation of the Hotel Range, as all wells are located outside of the areas to be re-graded. Regardless, all renovation activities will be coordinated with ongoing monitoring activities at AOC 27 to ensure compliance with CERCLA requirements.

All hazardous materials are handled, used, and stored in accordance with Army guidelines and regulations (AR 200-1, Environmental Protection and Enhancement). From historic use of the range, there are likely unexploded ordinance (UXO) present. UXO clearance was conducted in the existing Hotel Range footprint in October to November 2021. Hotel Range is currently used exclusively for firing small-caliber automatic weapons, which use non-explosive ammunition. The ammunition used at Hotel Range is lead-free rounds with a steel tip and copper core. Lead and lead compounds are subject to reporting under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA). Under EPCRA, Devens RFTA submits annual Toxics Release Inventory for the lead and copper ammunition used at all ranges on South Post.

To eliminate repetitive documentation, hazardous and toxic materials have been eliminated from further consideration to focus on issues that are ripe for decision and exclude from consideration issues already decided or not yet ripe (see 40 CFR 1501.11[c](2)). The changes made to avoid impact to the Wetland 4 vernal pool and the proposed mitigation measures do not change the size of the project, its location, or the approximate area of potential effect. To avoid replicative analyses, hazardous and toxic materials is eliminated from further consideration as it has been adequately considered in the original EA (U.S. Army, 2020).

3.1.4 Human Health and Safety

To avoid replicative analyses, human health and safety consideration is eliminated from further consideration as it has been adequately considered in the original EA (U.S. Army, 2020). The changes made to avoid impact to the Wetland 4 vernal pool and the proposed mitigation measures do not change the frequency of use of the range, or the caliber used at the range; the ammunition currently used at the range is the Enhanced Performance Round that consists of lead-free rounds with a steel tip and copper core. Safety protocols would continue to be followed and use of the range would continue to occur under controlled conditions. The potential for wildfires at the range would not change under Alternative 1. Therefore, implementation of the Alternative 1 would not result in significant impacts on human health and safety. Under the No Action Alternative, Hotel Range would continue to be used in the current range configuration. The surface danger zone would continue to extend beyond the boundaries of South Post, resulting in continued minor, adverse, impacts on human health and safety. Devens RFTA would continue to pursue an annual waiver with the Town of Lancaster and Commonwealth of Massachusetts for operation of the range under this surface danger zone. The surface danger zone would also continue to cross a railway, posing potential safety concerns. In addition, the targetry at the range would continue to age, resulting in potential deterioration and the continuance of challenges and delays during training. Under the No Action Alternative, Hotel Range would not meet Army safety and training standards and requirements, creating potential adverse impacts on human health and safety.

3.1.5 Geology and Soils

To avoid replicative analyses, geology and soils is eliminated from further consideration as it has been adequately considered in the original EA (U.S. Army, 2020). Under authority of the Clean Water Act, any construction activity that disturbs more than 1-acre of soil is required to obtain a Construction General Permit. As part of the Construction General Permit, as required under the National Pollutant Discharge Elimination System (NPDES) program, a Stormwater Pollution Prevention Plan is required (USEPA, 2019b). The development of this plan, which includes Best Management Practices (BMPs) and minimization measures, would minimizes short-term runoff and erosion impacts on soils during construction activities for Alternative 1.

3.2 Biological Resources

3.2.1 Affected Environment

3.2.1.1 Habitat

A description of Devens RFTA's natural setting is included in Section 3.3.1.1 of the original EA (U.S. Army, 2020). Revisions to this section, described below, are related to the additional downrange Wetland delineation and changes in Wetland impacts.

A Wetland survey was done in 2018 in the vicinity of Hotel Range (Normandeau Associates, 2018). The survey delineated the jurisdictional boundaries of the Wetlands (total of five). On 26 January 2020, USACE issued a determination that Wetland 4 (presumed to be the only Wetland in question) was not a water of the United States and therefore not within the jurisdiction of the USACE under Section 404 of the Clean Water Act. At the time of the original EA (U.S. Army, 2020), Wetland 6 had not been delineated.

On 26 April 2021, an additional Wetland delineation study was conducted on the downrange portion of the proposed Project Area (Normandeau Associates, 2021). The findings of the delineation study established boundaries within the study area for Wetlands and other waters in accordance with the regulatory requirements. The report concluded that Wetland 6 was within the Project Area. This delineated Wetland falls under the applicable regulatory jurisdiction of the USACE under Section 404 of the Clean Water Act.

The two Wetland delineations identified six Wetlands in the proposed project site (see Figure 3-1, below). In the vicinity of Hotel Range and the Proposed Action, there are four small Wetlands located near the edge of the proposed firing range fan and adjacent to the proposed berm (Wetlands 1, 2, 4, and 5; see Figure 3-2, below). Slightly further to the north of Hotel Range, there is a large Wetland associated with Slate Rock Pond (Wetland 3). Lastly, there is a large Wetland (Wetland 6) located in the downrange Project Area. Detailed descriptions of Wetlands 1 through 5 are included in Section 3.7.1.3 of the original EA (U.S. Army, 2020). A detailed description of Wetland 6 in the Project Area is located in Section 3.3.1.2 of this SEA.

One of the Wetlands, Wetland 4, meets the applicable criteria for designation as a vernal pool (Oxbow Associates, 2019). Substantial redesign of the project has taken place since the original EA to avoid impact to this vernal pool; however, these redesign efforts will impact Wetland 6 (U.S. Army, 2020). In addition, some disturbance is anticipated to occur within the 25-foot and 100-foot buffer zones of all Wetlands except for Wetland 5 (no disturbance). Table 3-1, below, lists the Wetland and buffer zone disturbance by Wetland ID.

The moderate, permanent impacts to Wetlands proposed by Alternative 1 consist of fill associated with construction of target mounts at several locations along the edges of Wetland 6 for a total impact area of 7,643 square feet (0.18 acres). A CMP has been created to replicate and restore 21,260 square feet (0.49 acres) of wet meadow Wetland to alleviate the impact of Alternative 1. The CMP is discussed in detail in Section 3.5 of this SEA and is included in Appendix A.

Table 3-1. Wetland and Buffer Zone Disturbance

WETLAND AND BUFFER ZONE DISTURBANCE						
WETLAND ID	**PROPOSED DISTURBANCE IN WETLAND (c.f.)**	**PROPOSED DISTURBANCE IN WETLAND (s.f.)**	**PROPOSED DISTURBANCE WITHIN 25' BUFFER (c.f.)**	**PROPOSED DISTURBANCE WITHIN 25' BUFFER (s.f.)**	**PROPOSED DISTURBANCE WITHIN 100' BUFFER (c.f.)**	**PROPOSED DISTURBANCE WITHIN 100' BUFFER (s.f.)**
WETLAND 1	CUT: 0 FILL: 0	0	CUT: 0 FILL: 596	518	CUT: 3174 FILL: 35554	7439
WETLAND 2	CUT: 0 FILL: 0	0	CUT: 4 FILL: 182	338	CUT: 3199 FILL: 18610	10304
WETLAND 3	CUT: 0 FILL: 0	0	CUT: 0 FILL: 0	0	CUT: 846 FILL: 57033	25178
WETLAND 4	CUT: 0 FILL: 0	0	CUT: 0 FILL: 4989	1700	CUT: 0 FILL: 116906	12494
WETLAND 5	CUT: 0 FILL: 0	0	CUT: 0 FILL: 0	0	CUT: 0 FILL: 0	0
WETLAND 6	CUT: 0 FILL: 32637	7643	CUT: 6199 FILL: 38101	18587	CUT: 34240 FILL: 66647	46996

3.2.1.2 Threatened and Endangered Species (TES)

An updated list of federally protected species potentially present within the Project Area was obtained from the U.S. Fish and Wildlife Service (USFWS) through their Information for Planning and Consultation (IPaC) tool for this SEA. The northern long-eared bat (NLEB; *Myotis septentrionalis*) remains the only federally threatened species (vegetation or wildlife) that has the potential to be present within the Project Area. The monarch butterfly (*Danaus plexippus*) remains a Candidate for listing under the Endangered Species Act (ESA). Devens RFTA initiated consultation with the USFWS regarding the NLEB on 10 August 2022 (see Appendix B).

On 22 March 2022, the USFWS announced a proposal to reclassify the NLEB as endangered under the ESA (USFWS, 2022). A final decision is anticipated for November 2022, with the final rule anticipated to be effective as soon as December 2022. An uplisting by the USFWS would reinitiate the ESA consultation due to a change in circumstances and could restrict activities within the NLEB habitat and could require presence/absence surveys (Devens RFTA, 2022). If the NLEB is uplisted, Devens RFTA would assume the species is present and only cut timber between November 1st and March 31st, avoiding the NLEB active season.

There is no change to the conclusions of the original EA regarding the potential habitat for the NLEB and monarch butterfly at the Project Area (see Section 3.3.1.2 of the original EA [U.S. Army, 2020]). To summarize, while the NLEB is potentially present in the Project Area due to the presence of suitable summer habitat and proximity to a hibernaculum, the probability of presence in any given location is relatively low due to the low population numbers for this species (U.S. Army, 2020). And it is unlikely that the site would provide abundant habitat for the monarch butterfly due to frequent mowing (U.S. Army, 2020).

A list of species present on South Post listed at the state level as threatened, endangered, rare (includes multiple designation), and species proposed for listing, are included in the Fort Devens Integrated Natural Resources Management Plan (INRMP) (USAG Fort Devens, 2019). Species included in both the federal and state list were combined into a table, included in Appendix C, which assesses the habitat needs and potential presence in the vicinity of Hotel Range. This table

has been updated from the original EA to include a note about the potential uplisting of the NLEB from threatened to endangered.

Additional species that have the potential to be present in the Project Area are discussed in Section 3.3.1.2 of the original EA (U.S. Army, 2020).

3.2.1.3 Migratory Birds

Effects to migratory birds are adequately discussed in Section 3.3.1.3 of the original EA (U.S. Army, 2020). Devens RFTA will not cut timber between May 1st and August 31st to minimize impacts to birds. Additional time of year restrictions for timber cutting may be implemented if the NLEB is uplisted to endangered (see Section 3.2.1.2 of the original EA [U.S. Army, 2020]).

3.2.2 Environmental Consequences

Table 3-2, below, summarizes potential short- and long-term impacts resulting from each alternative.

3.2.2.1 Alternative 1: Four-Lane Range (Preferred Alternative)

The environmental impacts of Alternative 1 have changed since the original EA (U.S. Army, 2020) due to the avoiding disturbance of the vernal pool (Wetland 4), additional impacts to Wetland 6, creation and restoration of Wetlands in accordance with the CMP, and the potential uplisting of the NLEB from threatened to endangered under the ESA. Overall, Alternative 1 would continue to result in negligible-to-moderate, short-term impacts and negligible-to-minor long-term impacts on species if present. Changes to effects on biological resources based on the revised Alternative 1 discussed in the SEA are as follows.

Impacts on species that potentially use the woodlands and Wetlands in and surrounding the existing range would be minor to moderate over the short term and minor over the long term due to disturbance during forest clearing activities and the permanent loss of approximately 25 acres of forested habitat, which comprises only 0.62 percent of the forested habitat on Devens RFTA (2,908 acres), and the 7,643 square feet (0.18 acres) of permanent impact to Wetland 6, as determined by the additional Wetland delineation completed in 2021 (Normandeau Associates, 2021, see Appendix A). Impacts on species in Wetland 4, a vernal pool, are now avoided.

As noted in Section 3.3.1.2 of the original EA (U.S. Army, 2020), there is potential summer habitat for the NLEB within the Project Area. Section 3.3.2.1 of the original EA discusses the voluntary measures that Devens RFTA will follow to minimize potential impacts to the NLEB during construction activities (U.S. Army, 2020). As discussed in Section 3.2.1.2 of this SEA, an uplisting by the USFWS could restrict activities within the NLEB habitat, including tree clearing during specified time periods. An endangered listing could require presence/absence surveys and/or time of year restrictions for certain activities (Devens RFTA, 2022). Devens RFTA will work with USFWS to minimize impacts to the NLEB as required.

For the turtle species that may hibernate in or adjacent to the Wetlands that would be affected by Alternative 1 (spotted turtle, Blanding's turtle, and eastern box turtle), it may be possible to reduce potential impacts by conducting thorough surveys during the summer when these species are active, removing them from the Wetland habitat, and installing exclusionary fencing or another barrier that would prevent them from entering this area to hibernate. This technique has been used with some success for highway construction projects (MNR, Pembroke District, 2014; Wetlands Institute, 2019).

The spotted turtle spends most of its time in vernal pool, Wetland, and pond habitat, and only ventures into upland habitat to use the open habitat in the existing range for nesting (MassWildlife, 2015a). Alternative 1 would have minor short- and long-term impacts due to the impacts to Wetland 6, which could be minimized by using BMPs such as surveys and exclusionary fencing. Minor, short-term impacts would also be expected due to potential runoff impacts or noise disturbance from construction equipment.

Blanding's turtle has a similar life history to the spotted turtle, spending most of its life cycle in vernal pools, marshes, and Wetlands. Alternative 1 would have minor, short- and long-term impacts due to the impacts to Wetland 6, which could be minimized by using BMPs such as surveys and exclusionary fencing. This species may also venture into the existing open range habitat to nest and may pass through the forested upland habitat to travel between Wetland habitats. Additionally, this species sometimes uses nearby forested upland habitat during the summer months for aestivation (MassWildlife, 2015b). Due to the voluntary conservation measures being followed to avoid impacts on the NLEB (cutting down trees only after October 31 and before April 1), it is not expected that there would be any direct impacts on this species due to forest clearing. Voluntary conservation measures for this species could include restricting the use of motorized vehicles off established roads or maneuver trails within 300 feet of Wetlands, water bodies, or vernal pools during the period between 15 October and 15 March (MassWildlife, 2016).

The wood turtle spends most of its life in large streams, which makes Stream 2 the most likely potential habitat for this species within the Project Area (see Figure 3-2, below). This species has been known to range throughout field and forested upland habitat within a half mile range (MassWildlife, 2015c). If present in the upland habitat during the time of construction, moderate, short-term impacts would be anticipated, as this species would be forced to evacuate the area, though it is less likely that direct impacts would occur because voluntary conservation measures for the NLEB are being implemented. The wood turtle is unlikely to be directly affected from the impact to Wetland 6 under Alternative 1. Other minor, short-term impacts could result from potential runoff or noise disturbance from construction equipment. Only minor, long-term impacts on this species are expected due to a reduction in the availability of upland habitat.

The eastern box turtle is more of a habitat generalist than the other turtle species and can regularly be found near marsh edges, bogs, swales, fens, stream banks, brushy fields, or woodlands (MassWildlife, n.d.). Alternative 1 would have minor, short- and long-term impacts due to the impacts to Wetland 6, which could be minimized by using BMPs such as surveys and exclusionary fencing. Due to its potential presence in upland forest habitat, this species could experience moderate, short-term impacts due to habitat loss, but direct impacts on individuals are less likely due to timing restrictions that the installation would be following for the NLEB. Only minor, long-term impacts are anticipated due to loss of upland forest and Wetland habitat.

The blue spotted salamander inhabits forested areas near vernal pool or swamp breeding habitat but is often found in forested habitat greater than 100 meters away from this breeding habitat. Winters are spent underground in forested upland habitat (MassWildlife, n.d.). Due to this lifecycle, moderate, short-term impacts on the species would be possible if the species is present, including direct impacts on individuals hibernating in the upland forest habitat that would be cleared. Minor, long-term impacts would be anticipated due to a loss of upland and Wetland habitat.

The northern leopard frog spends most of its life near swamps and streams and can equally be

found in upland fields, grasslands, wet meadows, and forested areas (MassWildlife, n.d.). Due to its potential presence in upland habitat, moderate, short-term impacts would be possible due to direct impacts on some individuals. Minor, long-term impacts would be anticipated due to a loss of upland habitat.

The CMP was developed to provide on-site, permittee-responsible mitigation for permanent impacts to Wetlands associated with Alternative 1. The required mitigation would result in long-term increases in wet meadow Wetland habitat and Wetland buffer habitat in addition to the voluntary mitigation measures of establishing turtle nesting habitat, installing amphibian/wildlife crossing culverts to connect Wetland 2 to Wetland 3 and Wetland 1 to Wetland 4, and installing informative signage.

Impacts to other plant and wildlife species discussed in Section 3.3.1.2 of the original EA (U.S. Army, 2020) are not discussed here to avoid duplication, but remain as the possible effects of Alternative 1.

3.2.2.2 No Action Alternative

Under the No Action Alternative, there would be no change in the existing range, and there would be no change in the current operations. Therefore, no additional impacts on wildlife or habitat would occur.

Table 3-2. Environmental Consequences Analysis for Potentially Present Species

Common Name	Scientific Name	Federal Status	State Status	Alternative 1 Short-Term Impacts	Alternative 1 Long-Term Impacts
Plants					
Midland sedge	*Carex mesochorea*	None	SE	Negligible	Negligible
Houghton's flatsedge	*Cyperus houghtonii*	None	SE	Minor	Negligible
Early wild rye	*Elymus macgregorii*	None	Watch List	Moderate	Minor
Bicknell's crane's bill	*Geranium bicknellii*	None	Watch List	Negligible	Negligible
New England blazing star	*Liatris scariosa var. novaeangliae*	None	SC	Negligible	Negligible
Wild lupine	*Lupinus perennis*	None	Watch List	Negligible	Negligible
Climbing fern	*Lygodium palmatum*	None	SC	Moderate	Minor
Wild senna	*Senna hebecarpa*	None	SE	Negligible	Negligible
Reptiles					
Spotted turtle	*Clemys guttata*	Under Review	None	Minor	Negligible
Blanding's turtle	*Emydoidea blandingii*	Under Review	ST	Minor	Negligible
Wood turtle	*Glyptemys insculpta*	Under Review	SC	Moderate	Minor
Eastern box turtle	*Terrapene carolina*	None	SC	Moderate	Minor
Amphibians					
Blue spotted salamander	*Ambystoma laterale*	None	SC	Moderate	Minor
Northern leopard frog	*Lithobates pipiens*	None	SGCN	Moderate	Minor

Common Name	Scientific Name	Federal Status	State Status	Alternative 1 Short-Term Impacts	Alternative 1 Long-Term Impacts
Birds					
Eastern Whippoorwill	*Antrostomus vociferus*	None	SC	Minor	Negligible
Upland sandpiper	*Bartramia longicauda*	MBTA	SE	Minor	Negligible
Northern harrier	*Circus cyaneus*	MBTA	ST	Negligible	Negligible
Blackpoll warbler	*Dendroica striata*	MBTA	SC	Minor	Negligible
Peregrine falcon	*Falco peregrinus*	MBTA	SC	Negligible	Negligible
Common loon	*Gavia immer*	MBTA	SC	Minor	Negligible
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, MBTA	SC	Negligible	Negligible
Mammals					
Northern long-eared bat	*Myotis septentrionalis*	FT[1]	SE	Minor	Negligible
Water shrew	*Sorex palustris*	None	SC	Minor	Negligible
Invertebrates					
Monarch butterfly	*Danaus plexippus*	Candidate	None	Minor	Negligible
Twilight moth	*Lycia rachelae*	None	SE	Minor	Negligible
Pink sallow moth	*Psetraglaea carnosa*	None	SC	Negligible	Negligible

Notes: FT = federally threatened; MBTA = Migratory Bird Treaty Act; BGEPA = Bald and Golden Eagle Protection Act; SE = state endangered; ST = state threatened; SC = Special Concern; SGCN = Species of Greatest Conservation Need.

[1]The northern long-eared bat (NLEB) is currently under consideration by the USFWS for uplisting to endangered. See Section 3.2.1.2 of this SEA.

3.3 Water Resources

3.3.1 Affected Environment

3.3.1.1 Surface Water

Effects to surface water are adequately discussed in Section 3.7.1.1 of the original EA (U.S. Army, 2020). Nearby water resources are shown on Figure 3-1, below.

3.3.1.2 Groundwater

Effects to groundwater are adequately discussed in Section 3.7.1.2 of the original EA (U.S. Army, 2020).

3.3.1.1 Wetlands

Regulatory authorities on Wetland impacts are discussed in Section 3.7.1.3 of the original EA (U.S. Army, 2020).

The 2018 and 2021 Wetland delineations in the vicinity of Hotel Range and the Proposed Action delineated thejurisdictional boundaries of the Wetlands (Normandeau Associates, 2018 and 2021). The 2021 report concluded that Wetland 6, the only Wetland with direct impacts from the final design, likely falls under jurisdiction of the federal Clean Water Act (which includes state/local regulatory jurisdiction by Massachusetts Department of Environmental Protection [MassDEP] and Town of Lancaster) (Normandeau Associates, 2021). USACE concurred on the Wetland delineation findings. Descriptions of Wetlands 1 through 5 were included in Section 3.7.1.3 of the original EA (U.S. Army, 2020). A description of Wetland 6 and the findings of the additional Wetland delineation report (Normandeau Associates, 2021) are summarized below. The revised design impacts Wetland 6 and the 100-foot buffers of Wetlands 1, 2, 3, 4, and 6. Wetland and buffer impact locations are shown on Figure 3-2, below.

The permanent impacts to Wetlands proposed by the Alternative 1 consist of fill associated with construction of target mounts at several locations along the edges of Wetland 6 for a totalimpact area of 7,643 square feet (0.18 acres). The Cowardin classification of the directly impacted Wetland areas are PEM1E, indicating the areas are palustrine Wetland (P) that includes emergent (EM) areas that are persistent (1) and seasonally flooded/saturated (E), commonly referred to as wet meadow Wetland. The hydrogeomorphic (HGM) class of the impacted Wetland areas is “Depressional”, meaning that the Wetland occurs in a topographic depression where the dominant water sources are precipitation, groundwater discharge, and both interflow and overland flow from adjacent uplands. The overall direction of flow in Wetland 6 is from east to west. Much of these Wetlands, including Wetland 6, have been substantially disturbed or altered over the years as evidenced by grading, fill piles for targets, ditching, and correspondingly disturbed soil profiles throughout. Soils were hydric with either a dark A-horizon with a high organic content over a depleted B-horizon with redoximorphic features or a mucky, organic horizon over a depleted B-horizon. Sedges, like tussock sedge (*Carex stricta*, obligate [OBL]), cattails (*Typha latifolia*, OBL), and grasses such as *Calamagrostis canadensis* (OBL) were common emergent hydrophytes observed. The principal functions and services/values impacted by the Proposed Alternative include Groundwater Recharge/Discharge, Floodflow Alteration, and Sediment/Toxicant/Pathogen Retention. The proposed Wetland impacts do not include impacts to any streams; vernal pools; submerged aquatic vegetation; rare, threatened, and endangered (RTE) species; or other aquatic resources.

Figure 3-1. Water Resources Near Hotel Range

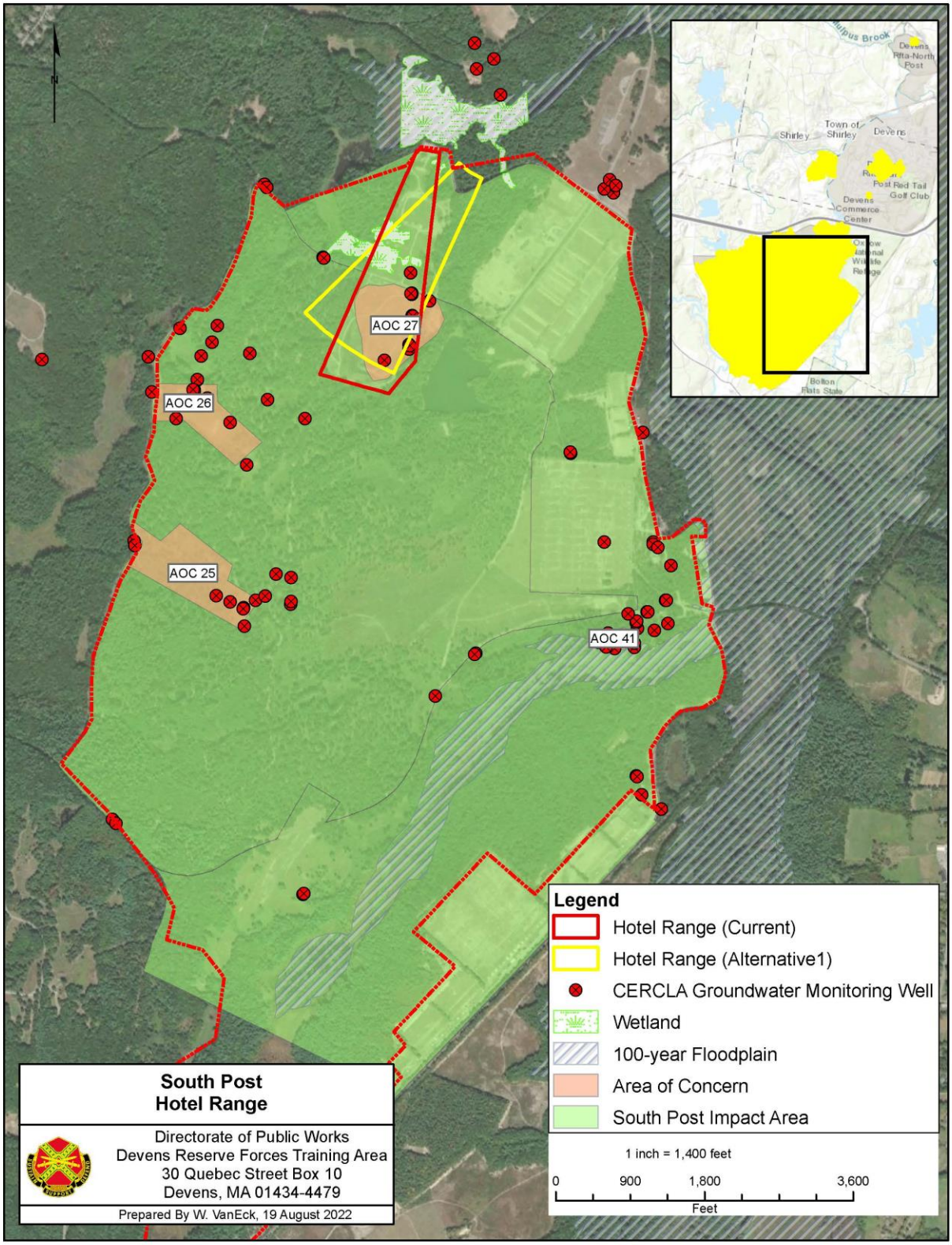
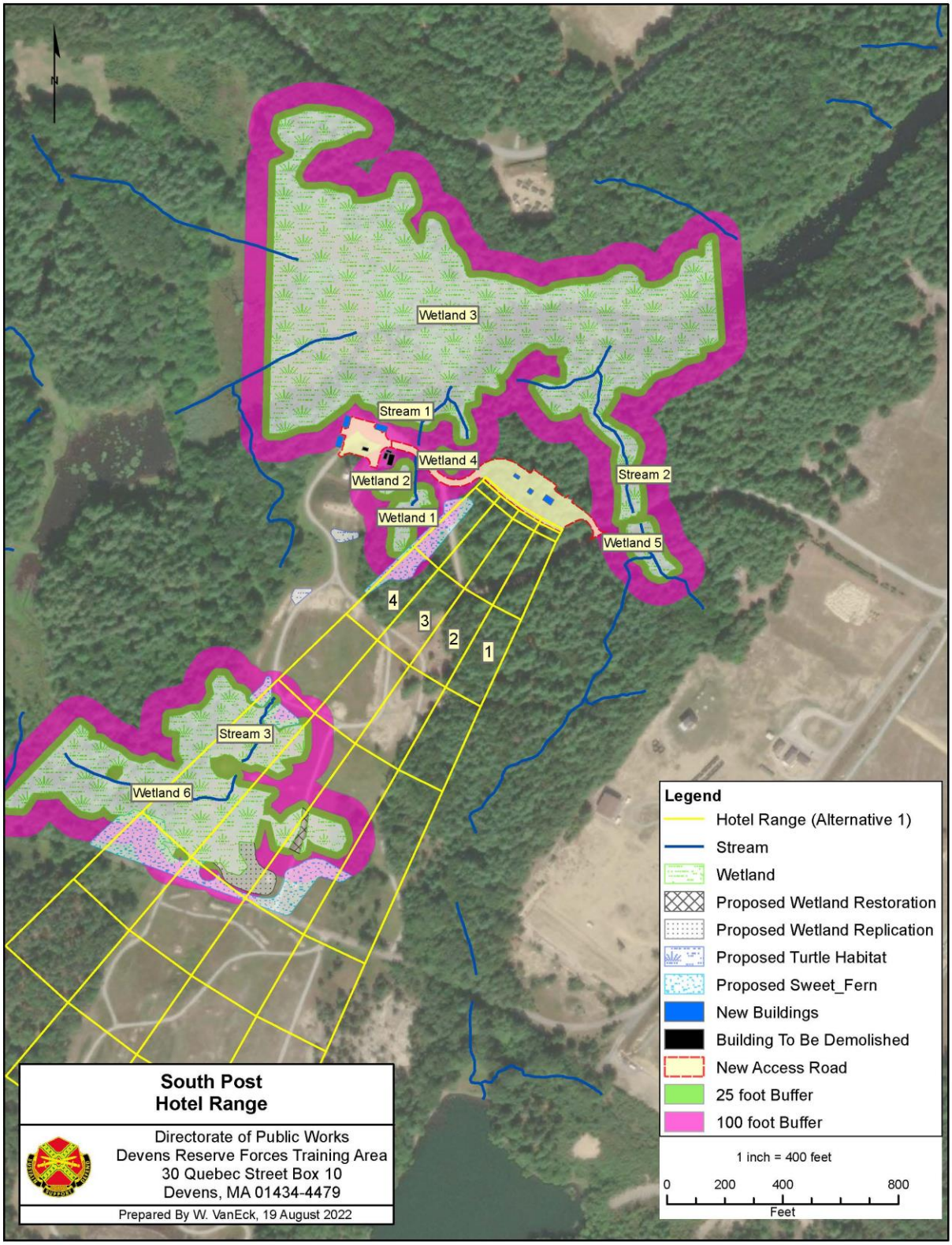


Figure 3-2. Alternative 1 Floodplains and Wetland Buffers



3.3.1.2 Vernal Pools

There is one potential vernal pool within the Project Area (Wetland 4). The access road was re-routed in the final design to avoid direct impact to Wetland 4. However, the Alternative 1 design will impact the 100-foot boundary of Wetland 4. Vernal pools are protected under the Massachusetts Wetlands Protection Act Regulations (310 Code of Massachusetts Regulations [CMR] 10.00), which protects certified vernal pools up to 100 feet beyond the pool boundary (Natural Heritage and Endangered Species Program, 2009). The Lancaster Wetlands Protection Bylaw incorporates a 100-foot buffer for vernal pools regardless of certification status.

3.3.1.3 Floodplains

There are no floodplains within Hotel Range or the Project Area. See Section 3.7.1.5 of the original EA for more information (U.S. Army, 2020).

3.3.2 Environmental Consequences

3.3.2.1 Alternative 1: Four-Lane Range (Preferred Alternative)

Surface Water

Consequences to surface water are adequately described in Section 3.7.2.1 of the original EA (U.S. Army, 2020). There would be negligible, long-term impacts on surface water associated with the implementation of Alternative 1.

Groundwater

Consequences to groundwater are adequately described in Section 3.7.2.1 of the original EA (U.S. Army, 2020). There would be short-term and long-term, negligible-to-minor impacts on groundwater associated with the implementation of Alternative 1.

Wetlands

Section 3.7.2.1 of the original EA described impacts to Wetland 4 associated with the construction of an unpaved access road (U.S. Army, 2020). In accordance with comments from the Lancaster Conservation Commission, the access road has been re-routed to avoid Wetland 4.

The Lancaster Conservation Commission requested that the downrange, previously impacted Wetlands be delineated. Wetland 6 was identified by this delineation (Normandeau Associates, 2020; see Appendix A). The implementation of Alternative 1 would result in permanent impacts to Wetland 6 through fill associated with construction of target mounts at several locations along the edges of Wetland 6, for a total impact of 7,643 square feet (0.18 acres). There would be no other direct impacts on surrounding jurisdictional Wetlands. Construction of the sheet pile retaining wall, tree clearing and grading activities, and construction of the unpaved access road would intersect with the 100-foot buffer zone at Wetlands 1, 2, 3, and 4. Demolition of existing buildings and new building construction would intersect with the 100-foot buffer zone at Wetlands 2 and 3.

USACE concurred on the classification and boundaries of the Wetlands in the vicinity of the Alternative 1. Minor, short-term, indirect adverse impacts on Wetlands would be expected from soil grading, removal of vegetation, and building construction and demolition within 100 feet of Wetlands. Devens RFTA would apply BMPs to reduce impacts on the Wetlands in the Project Area and would comply with all state and local permitting requirements where needed.

For discharge of dredged and fill material into Waters of the United States, including Wetlands, Section 404 (federal) and Section 401 (state) permits are required under the Clean Water Act, where specific requirements and mitigation measures are defined based on the extent of the project. USACE issued a General 404 Permit for to Devens RFTA on 05 April 2022. The permit expires 05 April 2024 if construction is underway by April of 2023. Devens RFTA elected to purchase ILF credits to satisfy the mitigation requirements of the permit.

For any construction or alteration of the land near Waters of the Commonwealth and associated resource areas, the Commonwealth of Massachusetts requires a 100-foot buffer zone in accordance with the Wetlands Protection Act, and the Town of Lancaster requires a 100-foot buffer zone and a 25-foot no-build or no-alteration zone in accordance with the Lancaster Wetlands Protection Bylaw (Chapters 215 and 306). Vegetation removal, regrading, and construction within 100 feet of a Wetland requires coordination before work is started. A CMP has been created to offset impacts on Wetlands through coordination and consultation with the Lancaster Conservation Commission (see Appendix A). Such mitigation will ultimately improve the Wetland area through initiating 21,260 square feet (0.49 acres) of replicated and restored wet meadow Wetland with an ongoing monitoring program to ensure the replicated/restored Wetlands are functioning properly.

Short-term, minor direct impacts from grading activities, removal of vegetation, and placement of fill/gravel would occur directly within the 100-foot buffer zone of Wetlands 2, 3, and 5. Minor, indirect impacts on Wetlands would be expected from grading, tree clearing, and construction activities as the influx of surface water and sediments would temporarily increase. However, sedimentation into the Wetlands would be minimized in the long term using construction BMPs. Changes in local drainage patterns from loss of vegetation and grading would be temporary and would not be significant. Impacts would not be expected to be long term as long-term use of the range would not directly interfere or affect Wetland habitat and would not directly cause poor water quality, loss of groundwater recharge, and/or significant loss of wildlife habitat.

With implementation of sediment- and erosion-control measures during construction and coordination with USACE, the Lancaster Conservation Commission, and MassDEP, long-term impacts on Wetlands would be minor, and there would be short-term, minor, direct and indirect impacts with implementation of Alternative 1.

Vernal Pools

Substantial redesign efforts were made to eliminate direct impacts to the vernal pool in the Project Area, Wetland 4, in the final design. The final design will impact the 100-foot buffer of Wetland 4.

Floodplains

Consequences to groundwater are adequately described in Section 3.7.2.1 of the original EA (U.S. Army, 2020). Implementation of Alternative 1 would not occur within the floodplain and, therefore, would not adversely affect floodplains.

3.3.2.2 No Action Alternative

The No Action Alternative would result in continuation of existing conditions in and around South Post. No grading or construction would occur to renovate Hotel Range, and range operations would continue at present levels. There would be no change from current conditions; therefore, there would be no change in water resources.

3.4 Cumulative Effects

The following is a discussion of the resource areas that have the potential for cumulative effects based on the above evaluation criteria for Alternative 1.

3.4.1 Past, Present, and Reasonably Foreseeable Actions

This section describes past, present, and reasonably foreseeable future projects at, and near, Alternative 1. The new range control facility near the main entrance to South Post was under construction during the preparation of the original EA (U.S. Army, 2020). Construction has since been completed. There are no other projects currently planned for the Alternative 1 locale. The descriptions of the ongoing military mission activities, Superfund cleanup activities, and implementation of the INRMP remain unchanged since the original EA and can be found in Section 3.8.1 of the original EA (U.S. Army, 2020).

3.4.2 Cumulative Impact Analysis

Impacts associated with Alternative 1 are expected to be minor, as described in Section 3 of this SEA. Cumulative impacts were evaluated for each resource area in terms of the past, present, and future actions described in Section 3.4.1 of this SEA and are summarized in Table 3-3.

Table 3-3. Cumulative Impact Analysis

Resource Area	Alternative 1 (Preferred Alternative)
Air Quality	Cumulative impacts would not be significant. See Section 3.8.2.1 of the original EA.
Human Health and Safety	Cumulative impacts would not be significant. See Section 3.8.2.2 of the original EA.
Biological Resources	Cumulative impacts would not be significant. The Wetland creation and restoration in excess of a 2:1 ratio to the impacts of Alternative 1 in addition to the habitat improvements detailed in the CMP would create a long-term positive effect on water resources at Hotel Range. See Section 3.8.2.3 of the original EA.
Cultural Resources	Cumulative impacts would not be significant. See Section 3.8.2.4 of the original EA.
Hazardous and Toxic Materials and Waste	Cumulative impacts would not be significant. See Section 3.8.2.5 of the original EA.
Geology and Soils	Cumulative impacts would not be significant. See Section 3.8.2.6 of the original EA.
Water Resources	Cumulative impacts would not be significant. The Wetland creation and restoration in excess of a 2:1 ratio to the impacts of Alternative 1 in addition to the habitat improvements detailed in the CMP would create a long-term positive effect on water resources at Hotel Range. See Section 3.8.2.7 of the original EA.

3.5 Compensatory Mitigation Plan

3.5.1 Affected Environment

A CMP (Appendix A) has been drafted to provide permittee-responsible mitigation measures in the understanding that the Hotel Range Renovation project will have unavoidable impacts to wet meadow Wetland present within the Project Area. At the request of the Lancaster Conservation Commission, permittee-responsible Wetland replication would be conducted within the project boundaries to mitigate impacts of Alternative 1.

Permanent impacts to Wetlands proposed by Alternative 1 consist of fill associated with construction of target mounts at several locations along the edges of Wetland 6 for a total impact area of 7,643 square feet (0.18 acres). The Cowardin classification of the directly impacted Wetland areas are PEM1E, commonly referred to as wet meadow Wetland. The HGM class of the impacted Wetland areas is “Depressional”, meaning that the Wetland occurs in a topographic depression where the dominant water sources are precipitation, groundwater discharge, and both interflow and overland flow from adjacent uplands. The overall direction of flow in Wetland 6 is from east to west.

Constructed in 1980, the Hotel Range required substantial land alteration to create the necessary characteristics of an operable live-fire training range. The existing wet meadow Wetland would have been drastically altered at that time and much of what would be disturbed in Alternative 1 is resultant of those initial construction activities. Many of these Wetlands have been substantially disturbed or altered over the years as evidenced by grading, fill piles for targets, ditching, and correspondingly disturbed soil profiles throughout. Soils were hydric with either a dark A-horizon with a high organic content over a depleted B-horizon with redoximorphic features or a mucky, organic horizon over a depleted B-horizon. Sedges, like tussock sedge (*Carex stricta*, OBL), cattails (*Typha latifolia*, OBL), and grasses such as *Calamagrostis canadensis* (OBL) were common emergent hydrophytes observed. The principal functions and services/values impacted by Alternative 1 include Groundwater Recharge/Discharge, Floodflow Alteration, and Sediment/Toxicant/Pathogen Retention. The proposed Wetland impacts do not include impacts to any streams, vernal pools, submerged aquatic vegetation, RTE species, or other aquatic resources.

3.5.2 Environmental Consequences

The level of impact on water resources for implementing Alternative 1 is detailed in Section 3.3 of this SEA. A moderate impact to the existing wet meadow Wetlands is unavoidable for the construction of Alternative 1; however, long-term effects based on the implementation of mitigation measures will prove to be beneficial.

As defined in Section 3.0 of this SEA, Moderate effects are described as effects on a resource which would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable. It is expected that the long-term effects of implementing Alternative 1 in conjunction with the implementation of the CMP will have beneficial effects.

The total impact area of Wetland 6 is 7,643 square feet (0.18 acres). It should be noted that the Wetlands existing today were highly disturbed during the initial construction of the Hotel Range in 1980.

While impacts to Wetland 6 are unavoidable, the proposed mitigation plan will replicate and

restore 21,260 square feet (0.49 acres) of wet meadow Wetland to provide on-site, permittee-responsible mitigation at a 2:1 ratio of the impacted area. The proposed Wetland replication consists of 17,227 square feet of Wetland creation that will tie in with existing Wetland area and 4,033 square feet of Wetland restoration achieved through removal of an existing gravel roadway separating two existing Wetland areas. No additional Wetland impacts are associated with the proposed Wetland creation.

The first Wetland mitigation site consists of 17,277 square feet (0.40 acres) of wet meadow Wetland to be constructed off the southeastern corner of Wetland 6. Currently, the area is upland with an overall northwestern slope to the Wetland boundary. This area is currently a mowed and maintained open grassland/meadow. The site's elevation will be regraded to tie in with the adjacent Wetland (Wetland 6) with an overall slope of approximately 0.5-1% to the northwest, towards Wetland 6.

The second Wetland mitigation site consists of 4,033 square feet (0.09 acres) of wet meadow Wetland to be constructed between two portions of Wetlands 6. Currently, a gravel roadway running north to south divides the two delineated areas of Wetland 6 at this location. Assessment of the area during Wetland delineation and characterization suggested these existing Wetlands were likely a single contiguous Wetland system prior to construction of the road. Removal of the gravel road and restoration of the area's grade to elevations matching those observed in both portions of Wetlands 6 on either side will restore the hydrological connection between these two areas.

Construction of these in-kind Wetland replications will create wet meadow Wetland area in excess of a 2:1 ratio to compensate for the lost Wetland area due to fill. They will also compensate for the impacted functions and services/values by restoring hydraulic connection between Wetlands within the greater landscape and by increasing the overall areal footprint of the impacted Wetland area (Wetland 6).

Five years post-construction monitoring of the mitigation Wetland to confirm successful establishment is proposed. Observations will occur once per year in late summer/early fall and will consist of an assessment quantifying the replication Wetlands progress towards meeting the performance standards outlined above. Additional observations may be conducted should an instance of disruption to the replication Wetlands be reported.

The special conditions of the permit with the Lancaster Conservation Commission Order of Conditions will be followed to minimize the impacts to wetlands and the environment, and to comply with the implementation of the CMP, the size of the replication/restoration, and the ongoing monitoring of these mitigation measures, the long-term effects of implementing Alternative 1 would therefore be beneficial. (See Appendix B.)

3.5.3 No Action Alternative

The No Action Alternatives would result in continuation of existing conditions in and around South Post. No grading or construction would occur to renovate Hotel Range, and range operations would continue at present levels. There would be no change from current conditions; therefore, there would be no change in water resources.

4.0 Conclusion

4.1 Summary of Environmental Consequences

As assessed in this SEA, the initial impacts to Wetland 6 would have lasting negative effects; however, implementation of the CMP and ongoing monitoring measures, in addition to the size of the replication/restoration, would have long-term beneficial effects. The remaining areas of consideration were adequately covered in the original EA (U.S. Army, 2020). Other areas of consideration evidenced in this SEA conclude that there would not be significant impacts involved in the changes made to the design of this project which were necessary to avoid damage to the existing vernal pool.

4.2 Unavoidable Adverse Impacts

This SEA has determined that implementing Alternative 1 would result in impacts to Wetland 6 but that mitigation measures would alleviate, if not benefit, the long-term effects. Adverse impacts from Alternative 1 on air quality, human health and safety, hazardous and toxic materials and waste, geology and soils, and water resources would be, in general, localized, of short-term duration, and minimized through BMPs. Long-term adverse impacts from implementing Alternative 1 include the loss of habitat and the filling of Wetland 6. These impacts are considered unavoidable adverse impacts. Additional impacts were examined in detail in the original EA (U.S. Army, 2020).

4.3 Summary

Based on the findings of this SEA, implementation of Alternative 1 would result in initial impacts to wet meadow Wetland areas but the long-term effects evidenced in the CMP may be beneficial and would not result in significant impacts on the natural or human environment due to avoidance, minimization, or mitigation measures required in accordance with Massachusetts Wetlands Protection Act permitting and Section 404 permitting under the Clean Water Act. Therefore, pursuant to NEPA and EO 11990, the preparation of an EIS is not required, and issuance of a FNSI and FNPA is warranted.

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References included in the 2020 EA are still relevant for evaluating the affected environment and informing the scope of potential effects (see Section 7 of the original EA [U.S. Army, 2020]). The above-referenced citations reflect additional information that was referenced in this SEA.

Appendix A. Additional Wetland Delineation and Compensatory Mitigation Plan

Contents of Appendix A

Appendix B. Agency Consultation

Contents of Appendix B

Appendix C. Federal- and State-Listed Species with Potential to Occur near Hotel Range

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
Plants					
Cat-tail sedge	*Carex typhina*	None	ST	Riparian habitat.	Unlikely – This species is potentially present in nearby Wetland features but is unlikely to be present within the proposed range.
Midland sedge	*Carex mesochorea*	None	SE	Dry, open grassland habitat that is regularly disturbed by mowing or fire.	Potentially Present – This species is potentially present within the existing range.
Houghton's flatsedge	*Cyperus houghtonii*	None	SE	Dry soil conditions such as those found in a sloping sandplain or the exposed fine sand of an esker; associates with trees such as jack pine (*Pinus banksiana*), red pine (*Pinus resinosa*), sweet birch (*Betula lenta*), and scrub oak (*Quercus ilicifolia*) and herbaceous species such as little bluestem (*Schizachyrium scoparium*) and wild lupine (*Lupinus perennis*).	Potentially Present – This species is potentially present in both the existing range and the surrounding woodlands.
Ovate spike-sedge	*Eleocharis ovata*	None	SE	Sandy freshwater margins of large and mid-size rivers, lakes, and ponds.	Unlikely – This species is potentially present in nearby Wetland features but is unlikely to be present within the proposed range.
Early wild rye	*Elymus macgregorii*	None	Watch List	Moist, deep, alluvial, residual, calcareous, or other base-rich soils in woods and thickets.	Potentially Present – This species is potentially present in the forested areas surrounding the existing range.
Bicknell's cranesbill	*Geranium bicknellii*	None	Watch List	Open woods, fields, lake shores, roadsides. Prefers open sites, disturbed soils, and recently burned areas.	Potentially Present – This species is potentially present in the open area of the existing range.
Small whorled pogonia	*Isotria medeoloides*	FT	SE	Older hardwood stands of beech, birch, maple, oak, and hickory. Slopes near small streams and areas with small canopy gaps that allow light to reach the forest floor. Grows best in areas with acidic soils with a thick layer of dead leaves and sparse to moderate ground cover.	Unlikely – While the forested areas surrounding the existing range exhibit some suitable habitat characteristics, this species has not been found before on the installation, and the USFWS IPaC report prepared for this project did not indicate its potential presence.

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
New England blazing star	*Liatris scariosa var. novaeangliae*	None	SC	Dry, sandy grasslands, clearing, and barrens.	Potentially Present – This species is potentially present in the existing range, but it is less likely to be present due to mowing the range throughout the growing season.
Wild lupine	*Lupinus perennis*	None	Watch List	Dry, sandy, open fields and woodlands.	Potentially Present – This species is potentially present in the existing range.
Climbing fern	*Lygodium palmatum*	None	SC	Forested swamps, shrub swamps, and transitional hardwoods, especially moist pine-oak-maple woods with an open understory. Prefers acidic soils that are sandy and rich in humus, but nutrient-poor.	Potentially Present – Habitat for this species is potentially present in the woodlands surrounding the existing range.
Three-leaved Solomon's seal	*Maianthemum trifolium*	None	Watch List	Bogs, fens, in cool areas of wet woods.	Unlikely – This species is potentially present in nearby Wetland features but is unlikely to be present within the proposed range.
Philadelphia panic grass	*Panicum philadelphicum sp.*	None	SC	Open, full sun along sandy shores of lakes, streams, and Wetlands.	Unlikely – This species is potentially present in nearby Wetland features but is unlikely to be present within the proposed range.
Wild senna	*Senna hebecarpa*	None	SE	Areas with a history of disturbance: roadsides, fields, agricultural lands, rights-of-way, and the scour zone along stream edges. Wetlands and moist uplands, especially those with rich alluvial soil. Not typically found in areas with a forest canopy.	Potentially Present – This species is potentially present within the existing range.
Small bur-reed	*Sparganium natans*	None	SE	Lakes and ponds.	Unlikely – This species is potentially present in nearby Slate Rock Pond but is unlikely to be present within the proposed range.
Fish					
Bridle shiner	*Notropis bifrenatus*	None	SC	Lakes, ponds, medium to large-sized rivers, small streams.	Unlikely – This species is potentially present in nearby Slate Rock Pond but is unlikely to be present within the proposed range.

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
Reptiles					
Spotted turtle	*Clemys guttata*	Under Review	None	Vernal pools, shrub swamps, forested swamps. Uplands adjacent to water features are occasionally used, and nesting occurs in sunny, well-drained soil in open meadows, fields, or along roadsides.	Potentially Present – This species is potentially present in nearby vernal pool, Wetland, and pond habitat and may use open habitat in the existing range for nesting. It has been observed elsewhere on the installation.
Blanding's turtle	*Emydoidea blandingii*	Under Review	ST	Vernal pools, marshes, scrub-shrub Wetlands, open Wetlands. Overwinters in Wetlands. Estivates during thesummer in upland forest or along forest/field edges. Nesting occurs in open areas with well-drained loamy or sandy soils.	Potentially Present – This species is potentially present in nearby vernal pool, Wetland, and pond habitat and may use open habitat in the existing range for nesting. Upland forests may also be used by this species during the summer months. It has been observed elsewhere on the installation.
Wood turtle	*Glyptemys insculpta*	Under Review	SC	Rivers and large streams, riparian Wetlands, riparianforests, hayfields.	Potentially Present – This species is potentially present in a perennial stream just east of the existing range, in which case the surrounding woodlands within a half mile could potentially be used by this species. It has been observed elsewhere on the installation.
Eastern box turtle	*Terrapene carolina*	None	SC	Dry and moist woodlands, brushy fields, thickets, marsh edges, bogs, swales, fens, stream banks, and well-drained bottomland.	Potentially Present – This species is potentially present and may use habitat throughout the range and surrounding area. It has been observed elsewhere on the installation.
Amphibians					
Blue spotted salamander	*Ambystoma laterale*	None	SC	Deciduous and coniferous forests (northern hardwoods, spruce-fir upland) with sandy to loamy soils. Vernal pools, shrub swamps, wooded swamps, floodplain swamps, and marshes.	Potentially Present – This species is potentially present and may use nearby vernal pool habitat and upland habitat in the woodlands surrounding the existing range. It has been observed elsewhere on the installation.

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
Northern leopard frog	*Lithobates pipiens*	None	SGCN	Along shrubby or marshy margins of water sources, large shrub swamps near streams for overwintering and breeding. Upland fields, grasslands, wet meadows, and forested areas during late spring through early fall.	Potentially Present – This species is potentially present and may use Wetland habitat surrounding Slate Rock Pond for overwintering and breeding. The existing range and surrounding woodland could potentially serve as habitat through the rest of the year. It has been observed elsewhere on the installation.
Birds					
Grasshopper sparrow	*Ammodramus savannarum*	MBTA	ST	Grasslands, pastures, hayfields, airfields, sandplains within pine barrens, habitat with relatively low stem densities and limited ground litter.	Unlikely – While this species is present elsewhere on the installation at Turner Drop Zone, it is unlikely to be present at Hotel Range due to a lack of vegetative structure: there are only short grasses, with no bunch grasses present.
Eastern Whippoorwill	*Antrostomus vociferus*	None	SC	Young forests and shrublands, pitch pine/scrub oak upland forests near to open areas.	Potentially Present – This species is potentially present in the woodlands surrounding the existing range. It has been observed elsewhere on the installation.
Upland sandpiper	*Bartramia longicauda*	MBTA	SE	Open grassy fields, wet meadows, pastures, including mown grassy strips adjacent to airport runways.	Potentially Present – This species is potentially present in open habitat on the existing range. It has been observed elsewhere on the installation.
American bittern	*Botaurus lentiginosus*	MBTA	SE	Marshes and wet meadows; peatlands.	Unlikely – This species potentially uses Wetland habitat surrounding Slate Rock Pond but is unlikely to be present within the proposed range. It has been observed elsewhere on the installation.
Northern harrier	*Circus cyaneus*	MBTA	ST	Wet meadows, grasslands, abandoned fields, and marshes.	Potentially Present – This species potentially uses the existing range habitat, but data show that this species is an uncommon summer resident that prefers open field habitat near the coast. Winter range is located further to the south. It has been observed elsewhere on the installation.

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
Blackpoll warbler	*Dendroica striata*	MBTA	SC	Breed in young stands of evergreens and alder or willow thickets. Migrates through evergreen and deciduous forests.	Potentially Present – This species potentially utilizes woodland habitat during migration but is highly unlikely to use nearby habitat for breeding: in recent years prior to 2019, the only breeding population has occurred at high elevation on Mount Greylock in western Massachusetts. It has been observed elsewhere on the installation.
Peregrine falcon	*Falco peregrinus*	MBTA	SC	Prefer wide-open spaces. Commonly nest on cliffs or tall man-made structures.	Potentially Present – This species potentially uses habitat on site during migration or during longer foraging excursions. It is highly unlikely that this species nests nearby due to the lack of suitable cliff habitat. It has been observed elsewhere on the installation.
Common loon	*Gavia immer*	MBTA	SC	Breed on quiet, remote freshwater lakes.	Potentially Present – This species is potentially present at nearby Slate Rock Pond but prefers larger lakes. It has been observed elsewhere on the installation.
Bald eagle	*Haliaeetus leucocephalus*	BGEPA MBTA	SC	Nests in forested areas near large bodies of water. Often perches on tall, mature deciduous or coniferous trees that allow for an expansive view of the surroundings.	Potentially Present – This species potentially flies over the site and may use Slate Rock Pond for foraging. There are known nesting locations to the northwest at Lake Shirley and to the south at Wachusett Reservoir. It has been observed elsewhere on the installation.
Pied-billed grebe	*Podilymbus podiceps*	MBTA	SE	Marshes, lakes, large pond. Wetlands with an abundant supply of vegetation to provide cover and nesting materials.	Unlikely – This species potentially uses habitat in nearby Slate Rock Pond but is unlikely to be present within the proposed range. It has been observed elsewhere on the installation.

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
Vesper sparrow	*Pooecetes gramineus*	MBTA	ST	Tall woody vegetation interspersed within grassland is preferred over completely open habitat.	Unlikely – This species is unlikely to be present within the woodlands or the open short grassland habitat of the existing range. It has been observed elsewhere on the installation.
Eastern meadowlark	*Sturnella magna*	None	SC	Breeds in grasslands, meadows, and weedy pastures. Prefers moderately tall grasslands with abundant litter cover and a high proportion of grass.	Unlikely – This species is unlikely to be present within the woodlands or the open short grassland habitat of the existing range. It has been observed elsewhere on the installation.
Mammals					
Northern long-eared bat	*Myotis septentrionalis*	FT[1]	SE	Summer roost tree and maternity colony habitat includes hollow trees or trees with loose, decaying bark. Winter hibernacula habitat includes features such as caves and mines.	Historical Presence/ Potentially Present – A site visit did not indicate the presence of hibernacula, but there are some snags and tree species such as shagbark hickory that may provide roosting habitat for bats during the summer season. The nearest winter hibernaculum is just over ten miles away and there are no known, documented, maternity colony roost trees within 60 miles.
Water shrew	*Sorex palustris*	None	SC	Vernal pools, lakes, ponds, and forested swamps. Most commonly found near swift-moving streams with a rocky bed, usually near a heavily wooded conifer or mixed forest. May be more numerous in areas where beaver are present.	Potentially Present – This species is potentially present in water features near the Project Area. None of the nearby streams meet the preferred habitat description; however, they are sandy or mud bottomed. It has been observed elsewhere on the installation.
Invertebrates					
Monarch butterfly	*Danaus plexippus*	Candidate	None	Open fields and meadows. Requires milkweed plants for reproduction.	Potentially Present – Although the existing range is mostly composed of short grasses, there are some wildflowers and other weeds present that could provide food to migrating butterflies. Although none were observed during a site visit in September 2019, it is possible that milkweed plants are present that could serve as host plants.

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence near Hotel Range
Rusty patched bumblebee	*Bombus affinis*	FE	None	Grasslands with abundant flowering plants.	Unlikely – This species is unlikely to be present due to a lack of suitable grassland habitat.
Sandplain euchlaena	*Euchlaena madusaria*	None	SC	Fire-influenced barrens communities (with scrub oak and blueberry understories). Host plant: polyphagous, often lowbush blueberries (*Vaccinium spp*.).	Unlikely – This species is unlikely to be present due to a lack of suitable vegetation on the existing range. The short grasses present do not provide habitat for this species.
Twilight moth	*Lycia rachelae*	None	SE	Fire-influenced barrens communities (with scrub oak and blueberry understories). Host plant: polyphagous, preference for species in the *Populus* and *Salix* genera.	Potentially Present – This species potentially utilizes woodland habitat surrounding the range, although its preferred pitch pine-scrub oak barrens habitat is not present in the Project Area.
Pink sallow moth	*Psetraglaea carnosa*	None	SC	Fire-influenced barrens communities (with scrub oak and blueberry understories), acidic bogs and swamps, and occasionally logged areas, old fields, or rights-of-way. Host plant: lowbush blueberry (*Vaccinium spp*.).	Potentially Present – This species potentially utilizes Wetlands associated with nearby Slate rock Pond but is less likely to be found in the existing range or surrounding woodlands.
Pine barrens speranza	*Speranza exonerata*	None	SC	Fire-influenced barrens communities (with scrub oak and blueberry understories). Host plant: scrub oak (*Quercus ilicifolia*).	Unlikely – this species is unlikely to be present due to a lack of suitable habitat.
Pine barrens zanclognatha	*Zanclognatha martha*	None	SC	Fire-influenced barrens communities (with scrub oak and blueberry understories). Host plant: pitch pine (*Pinus rigida*).	Unlikely – this species is unlikely to be present due to a lack of suitable habitat.
Ringed boghaunter	*Willamsonia lintneri*	None	ST	Acidic sedge fens and sphagnum bogs with wet pools or troughs, surrounded by woodlands.	Unlikely – this species is unlikely to be present due to a lack of suitable habitat.

Notes: FT = federally threatened; FE = federally endangered; BCC = federal bird of conservation concern; MBTA = Migratory Bird Treaty Act; BGEPA = Bald and Golden Eagle Protection Act; PSC = Proposed Special Concern; SE = state endangered; ST = state threatened; SC = Special Concern; SGCN = Species of Greatest Conservation Need.

Sources: MassWildlife, n.d.; Richardson, 2019; Normandeau Associates, 2018; Native Plant Trust; NatureServe, 2019; The Cornell Lab of Ornithology; MassAudubon, n.d.; USFWS, 2015; MassWildlife, 2019; USAG Fort Devens, 2019; USEPA, n.d.; USFWS, 2019.

[1]The northern long-eared bat (NELB) is currently under consideration by the USFWS for uplisting to endangered. See Section 3.2.1.2 of this SEA.