Camp Wellfleet
Formerly Used Defense Site
Military Munitions Response Program
Wellfleet, Massachusetts

Public Meeting to Present the Proposed Plan

Prepared by
U.S. Army Corps of Engineers (USACE)
New England & Baltimore Districts

12 January 2022

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INTRODUCTION

The U.S. Army Corps of Engineers (USACE) is pleased to present the Proposed Plan for the Camp Wellfleet Formerly Used Defense Site (FUDS), Wellfleet, Massachusetts.

- The primary purpose of this Proposed Plan is to identify preferred remedial alternatives to mitigate unacceptable explosive hazards due to munitions and explosives of concern (MEC) that may remain within the Camp Wellfleet FUDS.
- This Proposed Plan was prepared to satisfy Section 117 (a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The Proposed Plan highlights the key factors that led to identifying USACE's preferred alternative.

PROJECT PERSONNEL

USACE

Gina Kaso ……Project Manager
Todd Beckwith…….. ……..MM Design Manager
Sally Rigione……..Community Relations Advisor
Elizabeth Gosselin……..Chief, Public Affairs

MassDEP

Leonard Pinaud……Chief, Bureau of Waste Site Cleanup
Kendall Walker……Bureau of Waste Site Cleanup

National Park Service

Brian Carlstrom……Superintendent
Nicole Brooks Taylor……Safety & Occupational Health Specialist

Town of Wellfleet

Rebecca Roughley …… Assistant Town Administrator

ERT (USACE Contractor)

Thomas Bachovchin……Project Manager

KEY DEFINITIONS

A few key definitions are provided to better understand the presentation of the Proposed Plan

- **Applicable or Relevant and Appropriate Requirements (ARARs) -** cleanup standards and substantive requirements promulgated under Federal or state law that address a hazardous substance, contaminant, remedial action, or location found at a CERCLA site. Relevant and appropriate requirements address situations similar to those encountered at a CERCLA site such that their use is well suited to the site.
- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) -** A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act that concerns hazardous substances.
- **Formerly Used Defense Site (FUDS) -** An area of an eligible FUDS property containing one or more releases or threatened releases of a similar response nature, treated as a discrete entity or consolidated grouping for response purposes. Projects are categorized by actions such as hazardous, toxic, and radioactive waste, military munitions response program, or building demolition/debris removal.
- **Munitions Constituents (MC)** - Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.
- **Munitions and Explosives of Concern (MEC) -** distinguishes specific categories of military munitions that may pose unique explosive safety risks, including UXO, DMM, or MC present in high enough concentrations to pose an explosive hazard.

KEY DEFINITIONS (CONTINUED)

- **Munitions Response Site (MRS) -** A discrete location within a Munitions Response Area that is known to require a munitions response.
- **Remedial Investigation (RI)** – A study that identifies the nature and extent of contamination at a site and provides information supporting the evaluation for the need for a remedy for a site where hazardous substances may be present.
- **Feasibility Study (FS)** - The FS serves as the mechanism for the development, screening, and detailed evaluation of alternative remedial actions to address issues identified in the Remedial Investigation.
- **Proposed Plan -** Supplements the RI/FS and provides the public with a reasonable opportunity to comment on the preferred alternative for remedial action, or alternative plans under consideration, and to participate in the selection of remedial action at a site.
- **Decision Document (DD)** - The documentation of remedial action decisions at non-National Priority List FUDS Properties. It is a public document that describes the cleanup action/remedy selected, the basis for the choice, and responds to public comments.
- **Land Use Controls (LUCs)** - Physical, legal, or administrative mechanisms that restrict the use of, or limit access to, real property to prevent/reduce risks to human health and the environment.
- **Remedial Action Objective (RAO)** - Objectives established for remedial actions to guide the development of alternatives and focus the comparison of remedial action alternatives. RAOs assist in clarifying the goal of minimizing risk and achieving an acceptable level of protection for human health and the environment.

PROJECT OVERVIEW

- This project falls under the Military Munitions Response Program (MMRP) of the Defense Environmental Restoration Program (DERP). The DoD established the MMRP to address MEC and munitions constituents (MC).
- Under the DERP, the U.S. Army is the DoD's lead Agency for FUDS, and USACE executes FUDS for the Army. USACE performs response activities throughout the Camp Wellfleet FUDS in accordance with CERCLA.
- USACE will finalize the preferred alternative selection for the Camp Wellfleet FUDS in a Decision Document after evaluating comments received from the public on this Proposed Plan and in coordination with the Massachusetts Department of Environmental Protection (MassDEP).

The CERCLA Process

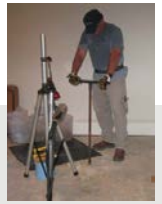
(The Comprehensive Environmental Response, Compensation, and Liability Act)

Preliminary Assessment

Site Inspection

Remedial Investigation

General Purpose: Collect data to characterize site conditions: Determine the nature of the waste; Assess risk to human health and the environment; & Evaluate treatment options.



Feasibility Study

General Purpose: To develop, screen, and evaluate alternatives for clean-up.

Information gathered as part of the RI influences the development of the FS which, in turn, may require further data collection and field investigations.

Decision Document

General Purpose: Select the alternative as well as provide an overview of the project. This would include site history, previous and current investigations, and characterization of contamination.

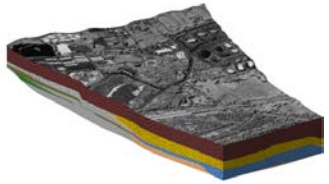
Proposed Plan

General Purpose: Presents the evaluation of clean-up alternatives and provides a recommendation for the preferred alternative.

This document is made available for public review and comment.

Removal Action

General Purpose: If prompt action is deemed appropriate prior to the completion of the RI/FS process, USACE will begin removal of the contaminants of concern.



Remedial Design/ Remedial Action

General Purpose: Implementation of the action determined in the Decision Document.

Long Term Monitoring

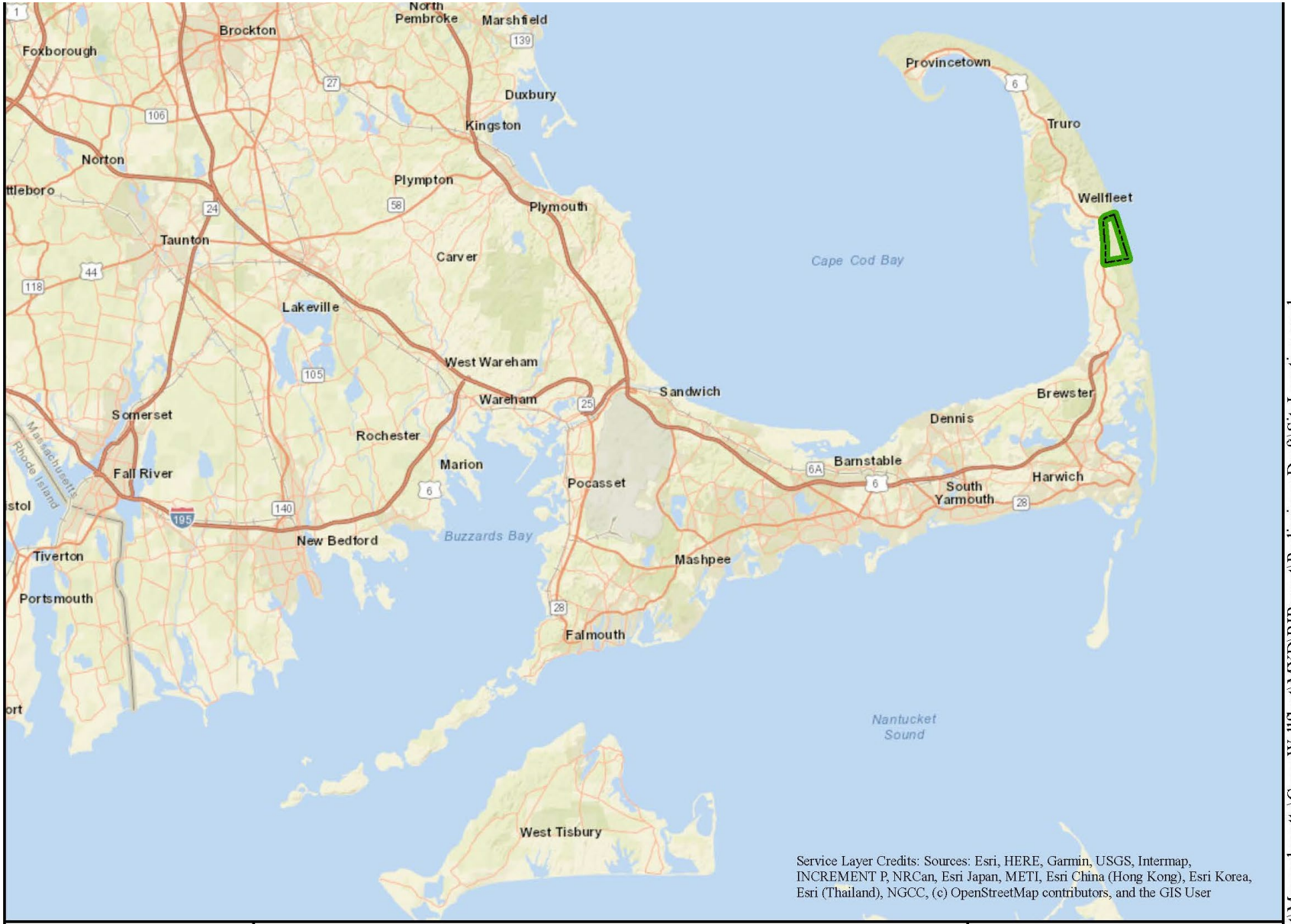
General Purpose: To conduct any long term monitoring necessary and conduct five year reviews of the Formerly Used Defense Site.

SITE BACKGROUND

❑ The Camp Wellfleet FUDS is located in the town of Wellfleet, Barnstable County, Massachusetts, approximately one mile east of South Wellfleet, MA, on the Cape Cod peninsula.

❑ The Camp Wellfleet FUDS consists of a total of 1,738 acres - of which approximately 1,688 acres are located in the Cape Cod National Seashore (CCNS) and 49.2 acres in the Town of Wellfleet.

❑ Figure 1 provides the site location (figures are located at the end of the presentation).



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Former Camp Wellfleet Boundary

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Figure B-1
Site Location

Former Camp Wellfleet
Wellfleet, Barnstable County, Massachusetts

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SITE BACKGROUND

- The Camp Wellfleet FUDS was previously used by the U.S. Army and U.S. Navy for training purposes, with the property being leased in 1942 for an anti-aircraft artillery training base, with an artillery firing line located along the beach cliff.
- From 1945 through the end of World War II, the Navy used the base as a radar training school supporting night fighter training, and for Dove missile training. From 1945 to 1961 the Camp also was used for training by National Guard troops and Active Army Reserve anti-aircraft artillery training units.
- Munitions used at Camp Wellfleet included MK 65 “Dove” practice bombs, 60-millimeter (mm), 90mm, and 105mm projectiles, .30 and .50 caliber ammunition, grenades, and rifle smoke grenades.
- Camp Wellfleet was officially closed in June 1961. The Department of the Interior acquired the land in August 1961 to establish and develop the CCNS. The majority of the Camp Wellfleet FUDS is currently owned by the National Park Service (NPS).

PREVIOUS INVESTIGATIONS/STUDIES

Many investigations have been performed to characterize the site.

❑ In 1991, an Inventory Project Report/Preliminary Assessment determined the site was eligible under the FUDS program. A 1994 Archives Search Report categorized areas as containing Munitions and Explosives of Concern (MEC), potentially containing MEC, or not containing MEC. A 1998 Topographic Engineering Center analysis of historical aerial photos included delineation of ground scars, excavations, and features such as bombing targets, gun emplacements, and ammunition supply points.

❑ Based on the conclusions of the these reports, an Engineering Evaluation and Cost analysis (EE/CA) investigation was completed in May 2000 that identified inert (do not pose an explosive hazard) munitions-related items, including four 1,000-pound MK 65 practice Dove missiles, and one 250-pound practice bomb.

❑ The Oak Ridge National Laboratory conducted a helicopter geophysical survey in March 2002 to map Unexploded Ordnance (UXO). The survey identified 345 anomalies resulting in removal actions in several focused areas of the Camp Wellfleet FUDS. These items included primarily miscellaneous munition parts.

PREVIOUS INVESTIGATIONS/STUDIES

- Various additional removal activities were conducted from approximately 2003 through 2005, resulting in the removal of over 3,400 pounds of munitions debris (MD). MD includes remnants of munitions after use. However, only a single MEC item was encountered.
- Other focused investigations included an Open Burn/Open Detonation area where 1,040 pounds of MD was removed; no MEC was encountered. A removal action was conducted in an area currently part of the large parking lot, where abundant MD was removed.
- Most recently, a comprehensive RI was completed (USACE, 2019) based on the previously identified areas that were determined to have MEC, have a potential for MEC, or no potential for MEC, with Areas of Interest (AOIs) being developed as the primary basis of investigation.
- The AOI configurations considered previous investigation and subsequent removal action results, historical aerial analysis, and the combining of areas of common past activities, resulting in six (6) AOIs that formed the basis of the RI. Five of the AOIs are land-based, while one is ocean-based. See Figure 2.

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Areas of Interest (AOIs)

- AOI-01
- AOI-02*
- AOI-03
- AOI-04
- AOI-05*
- AOI-06 (Inset)

- EE/CA Grids (100% of Anomalies Excavated, 2000)
- EE/CA Grid (Partial Excavation of Anomalies, 2000)
- Single Point Anomaly (100% Excavated, 2003 - 2004)
- Removal Area (100% of Anomalies Excavated, 2004 and 2005)
- EE/CA Areas
- U.S. Highway
- Roads
- Town of Wellfleet Parcel
- Former Camp Wellfleet Boundary
- Wellfleet (Town) Boundary

* The eastern boundary of AOI-02 and AOI-05 is the current shoreline downloaded from NOAA's Continuously Updated Shoreline Program, which attempts to provide updated imagery representing mean low tide.

Aerial Image and Inset Map Background: ESRI Online

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Figure B-2
Site Layout
Former Camp Wellfleet
Wellfleet, Barnstable County, Massachusetts

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SUMMARY OF SITE RISKS AND HAZARDS

The RI integrated the multiple investigation findings and determined the nature and extent of Munitions Constituents (MC) and MEC contamination for each AOI, and recommended whether further actions were warranted.

MC Risks--

❑ A comprehensive MC soil sampling program was conducted during the RI, with surface and subsurface soil samples collected from areas of the site considered to potentially contain the largest MC contaminant concentrations (areas where previous investigations identified MEC or MD).

❑ The MC sampling results indicated that project screening levels for soil were not exceeded, and therefore, no quantitative human health risk assessment or screening level ecological risk assessment was required. Accordingly, the RI Report concluded that <u>there is no unacceptable MC risk to either human or ecological receptors at the Camp Wellfleet FUDS</u>.

SUMMARY OF SITE RISKS AND HAZARDS

MEC Explosive Hazards--

❑ With regard to explosive risks that may remain at the Camp Wellfleet FUDS, MEC risk evaluations were determined for all AOIs using the USACE Risk Management Matrix Methodology (RMM), which defines acceptable and unacceptable risk from MEC based on the likelihood of an encounter, the severity of incident, the sensitivity of the munitions, and the likelihood for energy to be imparted on an item.

❑ Based on the RMM, the following AOIs present acceptable site conditions with regard to explosive risks, and therefore require no action:

➢ AOI-01, AOI-03, and AOI-04

❑ Based on the RMM, the following AOIs present unacceptable explosive risks due to MEC potentially remaining, and therefore actions are necessary to protect human health or the environment from the actual or threatened hazards described above:

➢ AOI-02, AOI-05, and AOI-06

FEASIBILITY STUDY

❑ A Feasibility Study (USACE 2021) was completed to evaluate remedial action alternatives to address the risks and hazards identified in the RI.

❑ Remedial Action Objectives (RAOs) describe what the cleanup is expected to accomplish, specifying the contaminants, media, receptors, exposure pathways, and preliminary remediation goals.

❑ For the Camp Wellfleet FUDS, remedial alternatives were developed for unacceptable explosive hazards posed by MEC potentially remaining at the three AOIs. The RAOs are:

- For land-based AOI-02 and AOI-05: eliminate unacceptable risk due to the presence of MEC to a depth of 3 feet below ground surface (bgs) to address direct contact by park personnel and recreational users, and direct contact of MEC in the subsurface to 6 feet bgs by maintenance workers, such that acceptable conditions are achieved.
- For ocean-based AOI-06: eliminate unacceptable risk due to the presence of MEC on or beneath the sea floor (approximately 2 ft bgs) to address direct contact by park personnel, visitors (swimmers), and divers, to a water depth of 120 feet, and the potential for interaction resulting from the use of fishing nets to the maximum depth of the AOI, such that an acceptable condition is achieved.

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)

ARARs are site-specific and involve evaluation of federal and state environmental laws regarding contaminants of concern, site characteristics, and proposed remedial alternatives. In the FS, the ARARs were specifically reviewed relative to each remedial alternative. The following ARARs have been identified for the Camp Wellfleet FUDS:

❑ Federal Statutes/Laws

- Endangered Species Act [16 USC 1538(a)(1)(B) (1991, as amended); 16 USC 1536(a)(2); 50 CFR 402.01(a); 50 CFR 402.14(i)].
- Migratory Bird Treaty Act of 1918 [16 U.S.C. 703(a)].
- Clean Water Act (Sections 404/401). 40 CFR Part 230.10.
- Resource Conservation and Recovery Act (RCRA) [40 CFR 264.601/602/603].

ARARS

❑ State Statutes/Laws

- MassDEP Endangered Species Act, Code of Massachusetts (CMR) regulations 321 CMR 10.04(1).
- Massachusetts Wetlands Protection Act, 310 CMR 10.25(5)-(7), 310 CMR 10.27(3), (6), & (7), 310 CMR 10.28(3) & (6), 310 CMR 10.30 (4) & (6), and 310 CMR 10.34 (4)-(5).
- Massachusetts Waterways Regulation, 310 CMR 9.40(2)(b) (1st sentence), 310 CMR 9.40(3)(b) (1st sentence).
- Massachusetts Contingency Plan (MCP) Upper Concentration Limits. 310 CMR 40.0996.
- Massachusetts Division of Water Pollution Control; 401 Water Quality Certification, 314 CMR 9.06(2)(1st sentence), 314 CMR 9.07(1)(a)(1st sentence).
- Massachusetts Surface Water Quality Standards, substantive portions of 314 CMR 4.04(1), 314 CMR 4.05(4)(a), 4.05(3)(b), & 4.05(5).
- Ocean Sanctuaries Act M.G.L. c. 132A, ss. 15 (3) & (4).

EVALUATION OF REMEDIAL ALTERNATIVES

❑ General categories of technologies for addressing MEC, such as detection, removal, and disposal, were identified and screened in the FS. Four remedial alternatives were identified:

- **Alternative 1: No Action** – would involve leaving the subject areas in their current condition. This alternative does not provide for additional investigation for or removal of MEC items, and does not provide for any active or passive land use controls to reduce the potential for exposure. No Action is evaluated to satisfy the National Contingency Plan requirement to consider this alternative as a baseline against which other alternatives are compared.
- **Alternative 2: Land Use Controls (LUCs)** – for the Camp Wellfleet FUDS, LUCs may include the use of signage installed in appropriate locations to limit access by providing awareness of potential hazards, education (training, pamphlets, flyers) concerning the hazards suspected to be present within the AOI, and periodic visual inspections to evaluate changing site conditions.
- **Alternative 3: Partial MEC Removal with LUCs** - entails conducting a partial MEC removal down to 3 feet bgs and implementing educational and notification LUCs should there be a need to go deeper than that for maintenance or construction activities.

EVALUATION OF REMEDIAL ALTERNATIVES

- **Alternative 3: Partial MEC Removal with LUCs (continued)** - for the water AOI, the partial removal would include items on the sea floor and approximately 2 feet beneath it, and the footprint would extend to the 120 feet recreational diver depth limit, almost 3 miles out from the shoreline.
- **Alternative 4: MEC Removal to Unlimited Use/Unrestricted Exposure** – DERP requires an action to remediate a site to a condition that allows for UU/UE, so this alternative would include complete removal and subsequent destruction of MEC such that LUCs would not be required.

❑ These four remedial alternatives were evaluated against three broad criteria: effectiveness, implementability, and cost.

❑ This broad screen concluded that Alternative 4 was not effective in the short term, was not technically/administratively feasible, and was cost prohibitive. Therefore, Alternative 4 was not retained for the more detailed comparative analysis of alternatives.

EVALUATION OF REMEDIAL ALTERNATIVES

❑ USEPA developed nine criteria to address CERCLA requirements for selecting remedial alternatives. These criteria were used to evaluate the alternatives for each of the three AOIs individually, and then against one another, in order to select a preferred alternative. The criteria are:

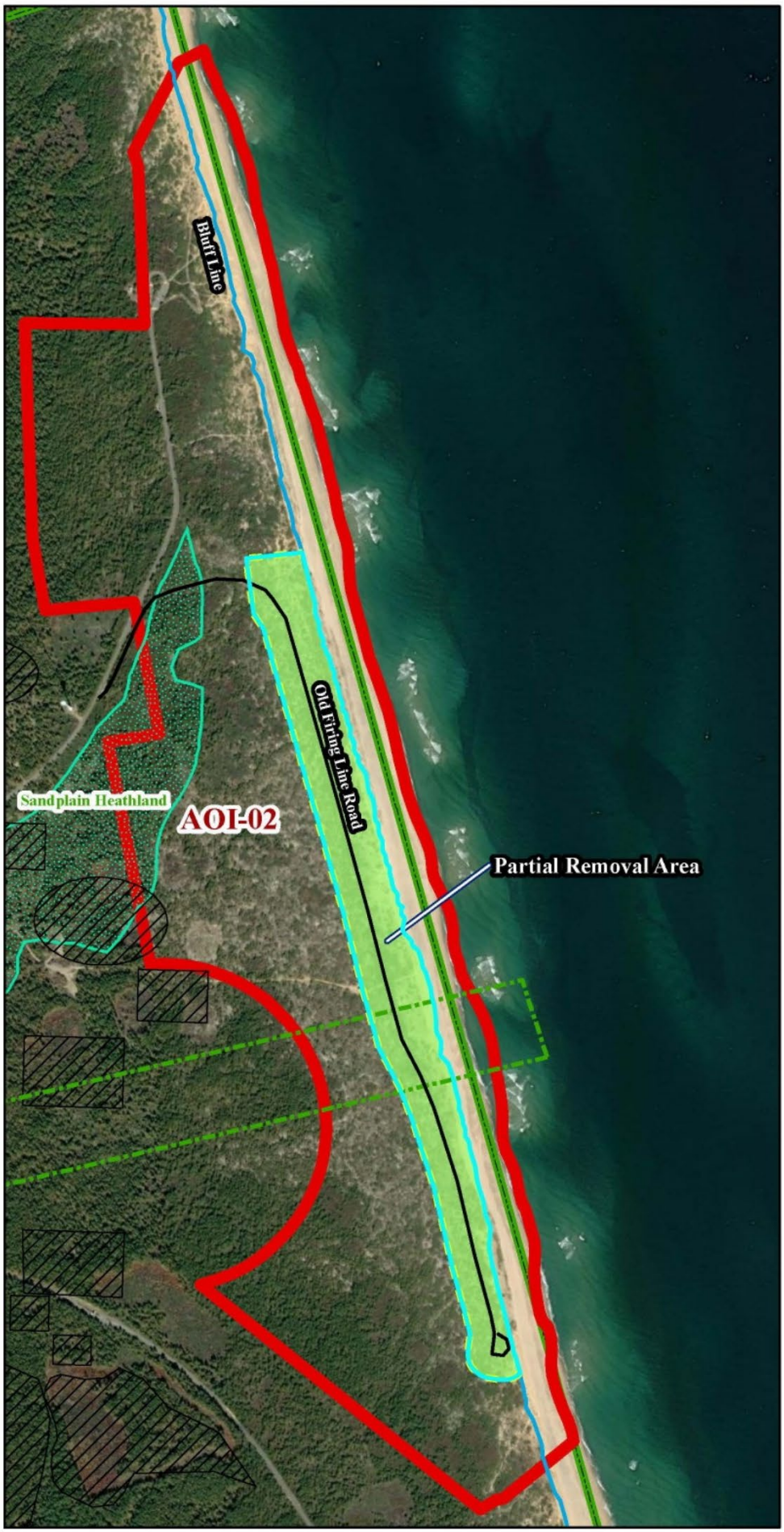
- Threshold
  - Overall Protectiveness of Human Health and the Environment
  - Compliance with ARARs
- Balancing
  - Long-term Effectiveness and Permanence
  - Reduction in Toxicity, Mobility, or Volume through Treatment
  - Short-Term Effectiveness
  - Implementability
  - Cost
- Modifying
  - State/Support Agency Acceptance
  - Community Acceptance

EVALUATION OF REMEDIAL ALTERNATIVES FOR AOI-02

- **AOI-02** (Figure 3)

AOI	Usage	Munition Findings	Acreage
AOI-02	Artillery Firing Line for anti-aircraft artillery	MEC (76mm anti-aircraft artillery). Miscellaneous MD.	275

- The table on the next slide presents the detailed analysis of alternatives for AOI-02.



Legend

- 150 ft Partial Removal Limit (associated with Alternative 3)
- Partial Removal Area (associated with Alternative 3) (39.2 Acres)
- Historical Firing Line Road
- Approximate Bluff Location (2015)
- NHESP Natural Community Sandplain Heathland
- AOI-02 Boundary
- Areas Ineligible for Work by Request of the Cape Cod National Seashore National Park Service (CCNS NPS) due to Ongoing Research or Habitat Establishment
- Camp Wellfleet Boundary
- Town of Wellfleet Parcel

NHESP - Natural Heritage & Endangered Species Program

Aerial: ESRI Online
Natural Communities: NHESP BioMap2 Core Habitat Priority Natural Communities

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Figure B-3
AOI-02
Former Camp Wellfleet
Wellfleet, Barnstable County, Massachusetts

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DETAILED ANALYSIS OF ALTERNATIVES FOR AOI-02

Table 8.1: Summary of Detailed Analysis of Explosive Risks Remedial Alternatives – AOI-02

	Screening Criterion	Alternative 1: No Action	Alternative 2: Land Use Controls	Alternative 3: Partial MEC Removal with LUCs
Threshold	Overall Protection of Human Health and Environment\1	○	●	●
	Compliance with ARARs	●	●	●
Balancing	Long-Term Effectiveness	○	◑	●
	Reduction of Toxicity, Mobility and Volume Through Treatment\2	○	○	●
	Short-Term Effectiveness	○	●	◑
	Implementability	●	●	◑
	Cost\3	**$0.00**	**$629,800**	**$1,949,800**
Modifying\4	State Acceptance	TBD	TBD	TBD
	Community Acceptance	TBD	TBD	TBD

● Favorable ('YES' for threshold criteria)
◑ Moderately Favorable
○ Not Favorable ('NO' for threshold criteria)

\1 – Favorable for this criterion requires achieving 'Acceptable' site conditions using the RMM (see Appendix B of the FS).
\2 – For MEC, this criterion addresses reduction of volume of MEC.
\3 - Costs were developed using Remedial Action Cost Engineering and Requirements (RACER) software. O&M for a 30-year duration is included, as applicable, for an alternative. Details provided in Appendix C of the FS.
\4 – The Modifying criteria of state and community acceptance are 'To Be Determined (TBD)' following review and input from these parties.

PREFERRED ALTERNATIVE FOR AOI-02

<u>Alternative 2: Land Use Controls</u>, is the recommended preferred remedial alternative to achieve the explosive risks RAOs for AOI-02.

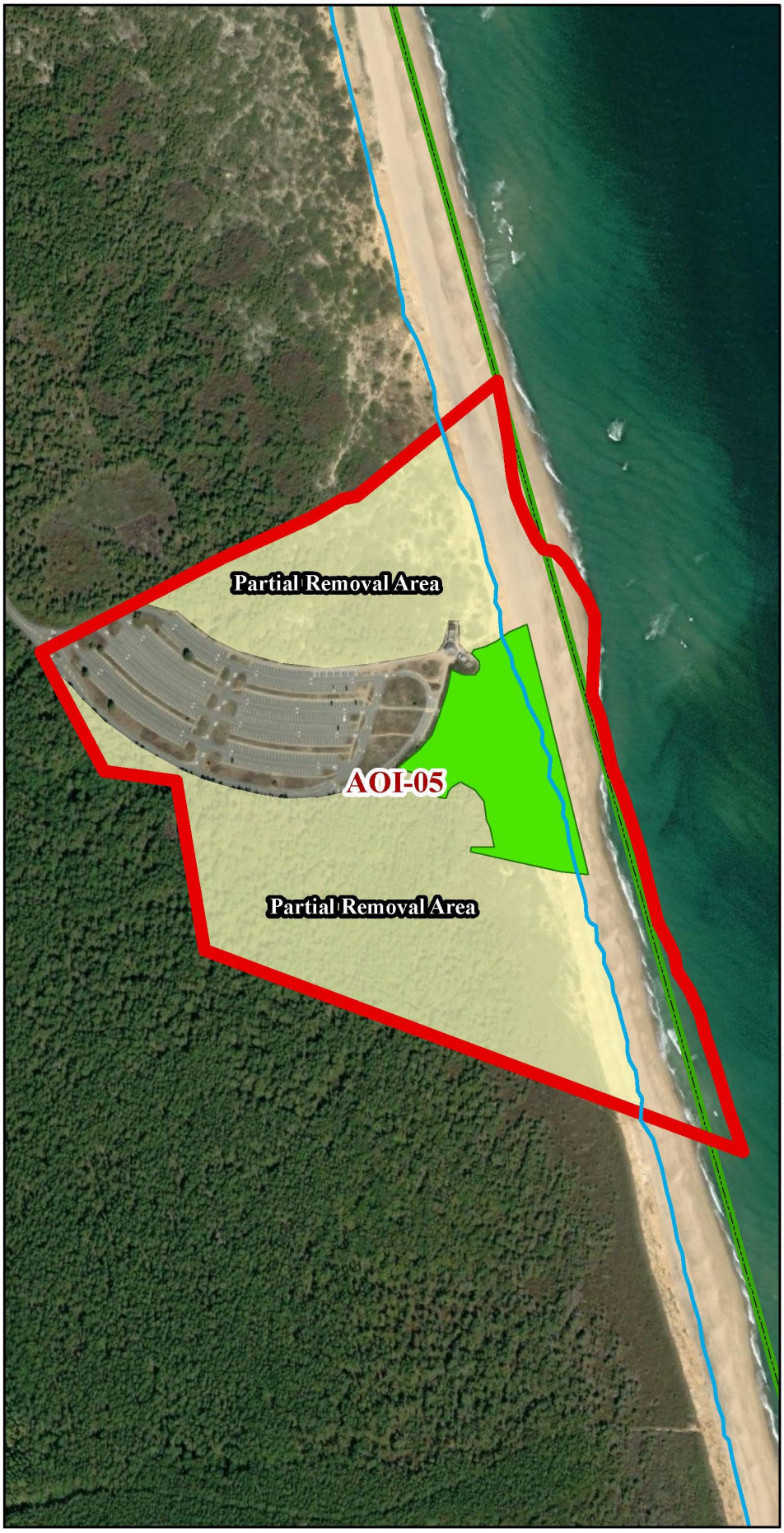
- ❑ Alternative 2 is protective of human health and the environment, using LUCs to limit access to the AOI-02 areas.
- ❑ It will comply with all ARARs through coordination with NPS, USFWS, MassDEP, and the Town of Wellfleet to minimize any disturbance and not cause a take of any protected species.
- ❑ It is moderately favorable for long-term effectiveness by informing the public of the explosive risks, minimizing human exposure, and is favorable in the short-term because the estimated time to meet the RAOs would be short.
- ❑ It is favorable in meeting the implementability criterion as it is technically feasible to install signage, produce educational materials, and provide notifications of intrusive work, and the materials to implement this alternative are readily available.
- ❑ While Alternative 3 had one more moderately favorable ranking, it was significantly more costly than Alternative 2.

EVALUATION OF REMEDIAL ALTERNATIVES FOR AOI-05

- **AOI-05** (Figure 4)

AOI	Usage	Munition Findings	Acreage
AOI-05	Rocket Range and Small Arms Range	MD indicative of MEC (high explosive frag from 3.5-in rockets and 105mm projectiles). Miscellaneous MD.	56.1

- The table on the next slide presents the detailed analysis of alternatives for AOI-05.



Legend

- Approximate Bluff Location (2015)
- Partial Removal Area (associated with Alternative 3) (30.1 Acres)
- AOI-05 Boundary
- Removal Area (100% of Anomalies Excavated, 2004 and 2005)
- Camp Wellfleet Boundary

Aerial: ESRI Online

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Figure B-4
AOI-05
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DETAILED ANALYSIS OF ALTERNATIVES FOR AOI-05

Table 8.2: Summary of Detailed Analysis of Explosive Risks Remedial Alternatives – AOI-05

	Screening Criterion	Alternative 1: No Action	Alternative 2: Land Use Controls	Alternative 3: Partial MEC Removal with LUCs
Threshold	Overall Protection of Human Health and Environment\1	○	●	●
	Compliance with ARARs	●	●	●
Balancing	Long-Term Effectiveness	○	◑	●
	Reduction of Toxicity, Mobility and Volume Through Treatment\2	○	○	●
	Short-Term Effectiveness	○	●	◑
	Implementability	●	●	◑
	Cost\3	**$0.00**	**$622,900**	**$1,772,600**
Modifying\4	State Acceptance	TBD	TBD	TBD
	Community Acceptance	TBD	TBD	TBD

● Favorable ('YES' for threshold criteria)
◑ Moderately Favorable
○ Not Favorable ('NO' for threshold criteria)

\1 – Favorable for this criterion requires achieving 'Acceptable' site conditions using the RMM (see Appendix B of the FS).
\2 – For MEC, this criterion addresses reduction of volume of MEC.
\3 - Costs were developed using RACER software. O&M for a 30-year duration is included, as applicable, for an alternative. Details provided in Appendix C of the FS.
\4 – The Modifying criteria of state and community acceptance are 'To Be Determined (TBD)' following review and input from these parties.

PREFERRED ALTERNATIVE FOR AOI-05

<u>Alternative 2: Land Use Controls</u>, is the recommended preferred remedial alternative to achieve the explosive risks RAOs for AOI-05.

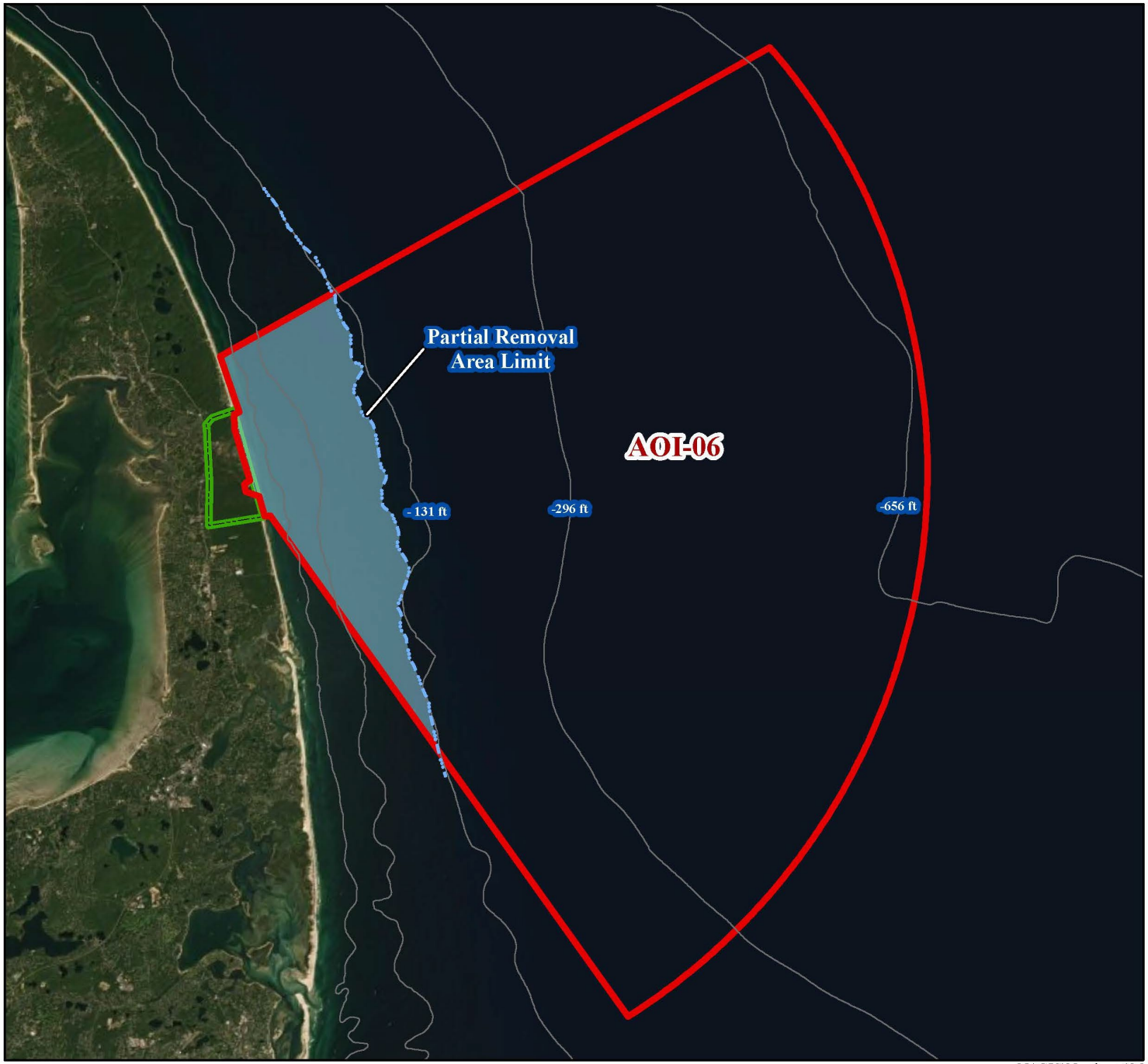
- ❑ Alternative 2 is protective of human health and the environment, using LUCs to limit access to the AOI-05 areas.
- ❑ It will comply with all ARARs through coordination with NPS and USFWS to minimize any disturbance and not cause a take of any protected species.
- ❑ It is moderately favorable for long-term effectiveness by informing the public of the explosive risks, and the estimated time to meet the RAOs would be short.
- ❑ It is favorable in meeting the implementability criterion as it is technically feasible to install signage, produce educational materials, and provide notifications of intrusive work, and the materials to implement this alternative are readily available.
- ❑ While Alternative 3 had one more moderately favorable ranking, it was significantly more costly than Alternative 2.

EVALUATION OF REMEDIAL ALTERNATIVES FOR AOI-06

- **AOI-06** (Figure 5)

AOI	Usage	Munition Findings	Acreage
AOI-06	Range Fan of Artillery Targets in Ocean	MEC presence assumed based on 20 years of firing. Potential types: 76mm anti-aircraft artillery, 90 and 105mm projectiles, 3.5” rockets.	167,856

- The table on the next slide presents the detailed analysis of alternatives for AOI-06.



Legend

- Partial Removal Area Limit (associated with Alternative 3)
- 120 ft Deep Recreational Diver's Limit (15,693 Acres)
- AOI-06
- Bathymetric Contours
- Camp Wellfleet Boundary

Aerial: ESRI Online
Bathymetry: EOEA Coastal Zone Management - Mass GIS
http://www.state.ma.us/mgis/
120 ft depth line derrived from NOAA navigation chart.

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Figure B-5
AOI-06
Former Camp Wellfleet
Wellfleet, Barnstable County, Massachusetts

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DETAILED ANALYSIS OF ALTERNATIVES FOR AOI-06

Table 8.3: Summary of Detailed Analysis of Explosive Risks Remedial Alternatives – AOI-06

	Screening Criterion	Alternative 1: No Action	Alternative 2: Land Use Controls	Alternative 3: Partial MEC Removal with LUCs
Threshold	Overall Protection of Human Health and Environment\1	○	●	●
	Compliance with ARARs	●	●	●
Balancing	Long-Term Effectiveness	○	◑	◑
	Reduction of Toxicity, Mobility and Volume Through Treatment\2	○	○	◑
	Short-Term Effectiveness	○	●	◑
	Implementability	●	●	◑
	Cost\3	**$0.00**	**$608,000**	**$155,525,900**
Modifying\4	State Acceptance	TBD	TBD	TBD
	Community Acceptance	TBD	TBD	TBD

● Favorable ('YES' for threshold criteria)
◑ Moderately Favorable
○ Not Favorable ('NO' for threshold criteria)

\1 – Favorable for this criterion requires achieving 'Acceptable' site conditions using the RMM (see Appendix B of the FS).
\2 – For MEC, this criterion addresses reduction of volume of MEC.
\3 - Costs were developed using RACER software. O&M for a 30-year duration is included, as applicable, for an alternative. Details provided in Appendix C of the FS.
\4 – The Modifying criteria of state and community acceptance are 'To Be Determined (TBD)' following review and input from these parties.

PREFERRED ALTERNATIVE FOR AOI-06

<u>Alternative 2: Land Use Controls</u>, is the recommended preferred remedial alternative to achieve the explosive risks RAOs for AOI-06.

- Alternative 2 was ranked favorable for more criteria than were the other alternatives.
- It is protective of human health and the environment, is compliant with ARARs, is effective in the short term, and is favorable for implementability.
- Alternative 3 was favorable for only two criteria. The Alternative 2 cost is relatively low while the Alternative 3 cost is significant.

SUMMARY OF PREFERRED ALTERNATIVES

- For AOI-02, AOI-05, and AOI-06, it is the judgment of USACE that the preferred alternatives identified in the Proposed Plan, or one of the other alternatives considered in the detailed analysis (other than No Action), are necessary to protect human health or the environment from the actual or threatened hazards described.
- Based on information currently available, USACE believes the preferred alternatives meet the threshold criteria and provide the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria.
- USACE expects the preferred alternative to satisfy the following statutory requirements of CERCLA § 121(b): (1) be protective of human health and the environment; (2) comply with ARARs; (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element.

NEXT STEPS

❑ Public comments will be taken under consideration and responses will be prepared.

❑ Prepare a Decision Document that documents the remedial alternatives selected.

- ➢Public comments received will be summarized and the responses provided in the Responsiveness Summary section of the Decision Document. Note that comments provided during this virtual meeting can be included as a formal comment if requested by the commenter.

❑ The Final Decision Document will be placed on the New England District website at:

https://www.nae.usace.army.mil/Missions/Projects-Topics/Camp-Wellfleet-FUDS/

QUESTIONS OR COMMENTS

USACE invites questions and comments on this Proposed Plan throughout the public comment period (through February 06, 2022).

These can be submitted in writing or via email to:

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