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FINAL AFTER ACTION REPORT NON-TIME CRITICAL INTERIM REMOVAL ACTION MAIN
ACCESS ROAD, LIGHTHOUSE AREA, TRAILS, AND BEACHES UNEXPLODED ORDNANCE
15 (UXO 15) ATLANTIC FLEET WEAPONS TRAINING AREA FORMER VIEQUES NAVAL
TRAINING RANGE VIEQUES ISLAND PUERTO RICO

02/01/2015
CH2M HILL

Final

**After Action Report
Non-Time Critical Interim Removal Action
Main Access Road, Lighthouse Area, Trails, and Beaches
UXO 15**

**Atlantic Fleet Weapons Training Area—Vieques
Former Vieques Naval Training Range
Vieques, Puerto Rico**

Contract Task Order 019

February 2015

Prepared for

**Department of the Navy
Naval Facilities Engineering Command
Atlantic**

Under the

**NAVFAC CLEAN Program
Contract N62470-11-D-8012**

Prepared by



CH2MHILL

Virginia Beach, Virginia

Executive Summary

This After Action Report documents the completion of a Non-Time Critical Removal Action (NTCRA) conducted to reduce the explosive hazard associated with potential munitions and explosives of concern (MEC)/material potentially presenting an explosive hazard (MPPEH) at UXO 15, located at the former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico. The NTCRA is intended to facilitate near-term public access via the main road to accessible areas around the historic Spanish lighthouse, including the adjacent parking area, trail, and beach. In addition, the NTCRA addressed two former trails and one sandy beach that are not planned for public access, but may be subject to wildlife management activities (**Figure ES-1**).

The interim removal action included the installation of hazard warning signs and educational kiosks to guide access along the main road to accessible areas around the lighthouse and adjacent beach and to deter access to the remaining restricted area of UXO 15. It also included MEC/MPPEH clearance in areas planned for public access where clearance activities had not previously been performed; no MEC/MPPEH was found during the clearance activity. Completion of the NTCRA has facilitated public access to these areas, at the discretion of the United States Fish and Wildlife Service (USFWS). Although public access is planned for the area around the historic lighthouse, UXO 15 as a whole will continue through the remainder of the full Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process.

NOTE: THIS SUMMARY IS PRESENTED IN ENGLISH AND SPANISH FOR THE CONVENIENCE OF THE READER. EVERY EFFORT HAS BEEN MADE FOR THE TRANSLATIONS TO BE AS ACCURATE AS REASONABLY POSSIBLE. HOWEVER, READERS SHOULD BE AWARE THAT THE ENGLISH VERSION OF THE TEXT IS THE OFFICIAL VERSION.

NOTA: ESTE RESUMEN SE PRESENTA EN INGLÉS Y EN ESPAÑOL PARA LA CONVENIENCIA DEL LECTOR. SE HA HECHO TODO LO POSIBLE PARA QUE LA TRADUCCIÓN SEA PRECISA EN LO MÁS RAZONABLEMENTE POSIBLE. SIN EMBARGO, LOS LECTORES DEBEN ESTAR AL TANTO QUE EL TEXTO EN INGLÉS ES LA VERSIÓN OFICIAL.

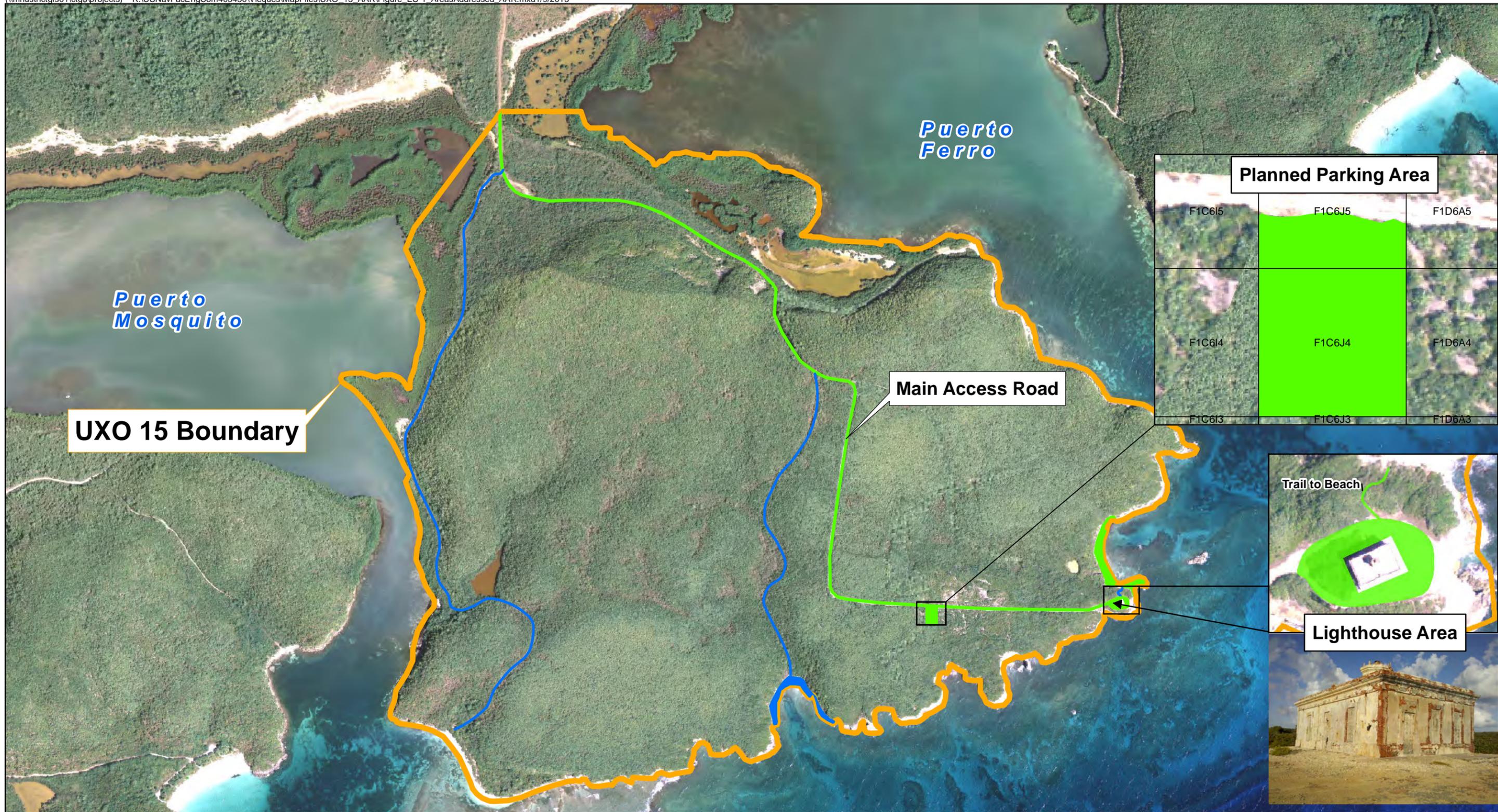
Resumen Ejecutivo

Este Informe *Luego de la Acción* documenta que se ha completado una Acción de Remoción de Tiempo No-Crítico (NTCRA por sus siglas en inglés) llevada a cabo para reducir el riesgo de explosión asociado con municiones y explosivos de preocupación potenciales (MEC por sus siglas en inglés)/material que potencialmente presenta un peligro de explosión (MPPEH por sus siglas en inglés) en UXO 15, localizado en el Antiguo Campo de Adiestramiento Naval de Vieques (VNTR por sus siglas en inglés). La NTCRA tiene como propósito facilitar el acceso público en un corto plazo a través de la carretera principal a las zonas accesibles cerca del histórico faro español, incluyendo el área de estacionamiento adyacente, vereda y playa. Adicionalmente, la NTCRA incluyó dos antiguas veredas y una playa arenosa que no estarán abiertas al público, pero pueden estar sujetas a actividades de manejo de vida silvestre (**Figura ES-1**).

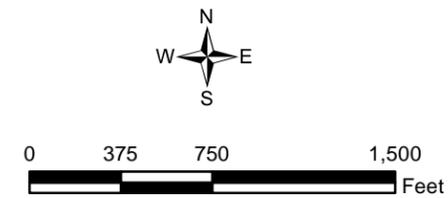
La acción de remoción interina incluyó la instalación de letreros de advertencia de peligros y quioscos educativos para demarcar el acceso desde la carretera principal hacia las zonas accesibles alrededor del faro y la playa adyacente, y para evitar el acceso a la zona restringida restante de UXO 15. También incluyó la remoción de MEC/MPPEH en las áreas planificadas para acceso público en las cuales no se habían llevado a cabo actividades de remoción. No se encontraron MEC/MPPEH durante la actividad de remoción. La culminación de las actividades del NTCRA facilitará el acceso del público a estas áreas, a discreción del Servicio de Pesca y Vida Silvestre de los EE.UU. (USFWS por sus siglas en inglés). Aunque el acceso al público se ha planificado para el área alrededor del faro histórico, actividades bajo el proceso de la Ley de Respuesta, Compensación, y Responsabilidad Ambiental (CERCLA por sus siglas en inglés) continuarán transcurriendo en la totalidad de UXO 15.

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- Legend**
- █ Area Addressed by NTCRA - Public Access Planned
 - █ Area Addressed by NTCRA - Restricted Access
 - UXO 15



2007 Aerial Imagery

Figure ES-1
Areas Addressed by NTCRA
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico

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Acronyms and Abbreviations

AAR	After Action Report
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Community Involvement Plan
CLEAN	Comprehensive Long-term Environmental Action—Navy
DGM	digital geophysical mapping
DMM	discarded military munitions
DNER	Department of Natural and Environmental Resources
DOI	Department of Interior
ECA	Eastern Conservation Area
EE/CA	Engineering Evaluation/Cost Assessment
EMA	Eastern Maneuver Area
EPA	US Environmental Protection Agency
EQB	Puerto Rico Environmental Quality Board
ERA	Expanded Range Assessment
ERP	Environmental Restoration Program
FCR	Field Change Request
LIA	Live Impact Area
MEC	Munitions and Explosives of Concern
MPPEH	Material Potentially Presenting an Explosive Hazard
MRA	Munitions Response Area
MRP	Munitions Response Program
NAVFAC	Naval Facilities Engineering Command, Atlantic Division
NTCRA	Non-Time Critical Removal Action
PI	Photo Identified
QA	Quality Assurance
QC	Quality Control
RAB	Restoration Advisory
RAO	Remedial Action Objective
RFI	Resource Conservation and Recovery Act Facility Investigation
RI	Remedial Investigation
RRD	Range-Related Debris
SI	Site Inspection
SIA	Surface Impact Area
US	United States
USAE	USA Environmental
USFWS	United States Fish and Wildlife Service
UXO	Unexploded ordnance
VNTR	Vieques Naval Training Range

Introduction

This After Action Report (AAR) documents the completion of a Non-Time Critical Removal Action (NTCRA) conducted to reduce the explosive hazard associated with potential munitions and explosives of concern (MEC)/material potentially presenting an explosive hazard (MPPEH) at UXO 15, located at the former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico (**Figure 1-1** and **Figure 1-2**). The NTCRA is intended to facilitate near-term public access via the main site access road to the area immediately surrounding the historic Spanish lighthouse, including the adjacent parking area, trail, and beach. In addition, the NTCRA addressed two former trails and one sandy beach that may be subject to trespassing (shown as “Restricted Access” in **Figure 1-2**).

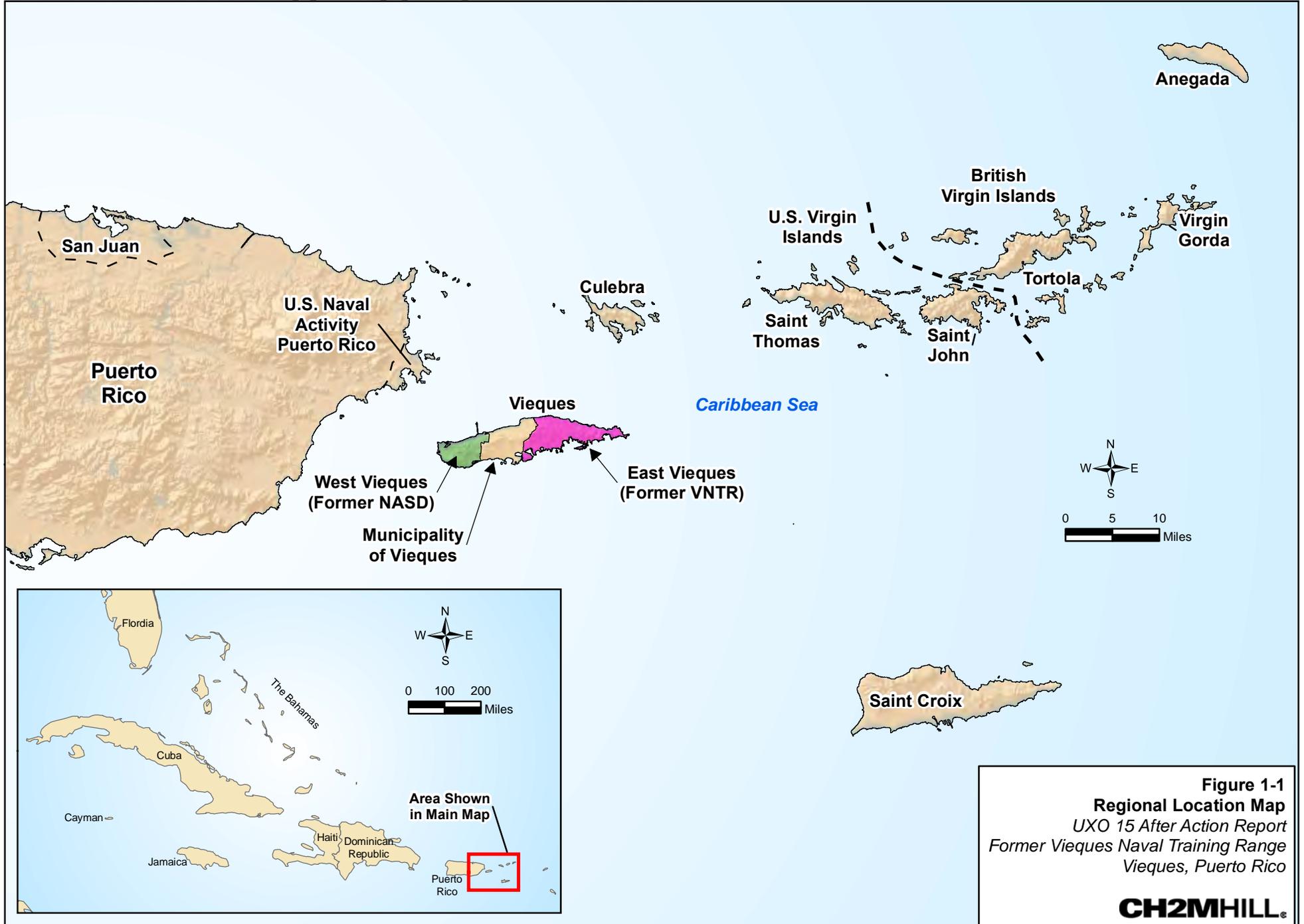
This AAR demonstrates that the Remedial Action Objectives (RAOs) for the interim removal action have been met and the work completed will facilitate public to access the areas addressed herein, as determined by the United States Fish and Wildlife Service (USFWS) as part of the Vieques National Wildlife Refuge. UXO 15 as a whole will continue its Remedial Investigation (RI) and the remainder of the full Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process.

This report was prepared under the Naval Facilities Engineering Command, Atlantic Division (NAVFAC), Comprehensive Long-term Environmental Action—Navy (CLEAN) 8012 Contract N62470-11-D8012, Contract Task Order (CTO) 019, for submittal to NAVFAC, the U.S. Environmental Protection Agency (EPA) Region 2, the Commonwealth of Puerto Rico Environmental Quality Board (EQB), Puerto Rico Department of Natural and Environmental Resources (DNER), and USFWS. NAVFAC, USEPA, EQB, DNER, and USFWS work jointly as the Vieques CERCLA Environmental Restoration Program (ERP) Technical Subcommittee.

The NTCRA was conducted in accordance with the following documents:

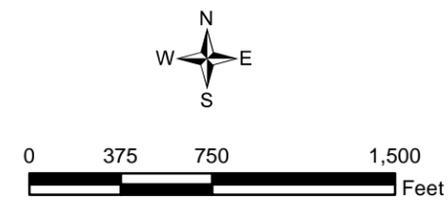
- Non-Time Critical Removal Action Work Plan, Main Access Road and Lighthouse Area, UXO 15 (CH2M HILL, 2014b)
- Non-Time Critical Removal Action Work Plan, Beaches and Select Roadways (CH2M HILL, 2008a) with Field Change Request (FCR) 2 (CH2M HILL, 2013) and FCR 3 (CH2M HILL, 2014a)
- Final Explosives Safety Submission for Former Vieques Naval Training Range (VNTR) and the Former Naval Ammunition Support Detachment (NASD), Amendment 3 (CH2M HILL, 2014d)

In order to help expedite the review of this document, the appropriate and relevant information from previously reviewed documents has been included in the text as bulleted lists and this document has been prepared in accordance with the *DoD/EPA Joint Guidance on Streamlined Site Closeout and NPL Deletion Process for DoD Facilities* (DoD and EPA, 2006).





- Legend**
- █ Area Addressed by NTCRA - Public Access Planned
 - █ Area Addressed by NTCRA - Restricted Access
 - UXO 15



2007 Aerial Imagery

Figure 1-2
Areas Addressed by NTCRA
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico

Site Information

This section presents a general summary of the background information provided in the UXO 15 Remedial Investigation Status Report (CH2M HILL, 2014c) and the UXO 15 NTCRA Engineering Evaluation/Cost Assessment (EE/CA) (CH2M HILL, 2014e).

2.1 Site Description and Background

- Vieques is located in the Caribbean Sea and is the largest offshore island of the Commonwealth of Puerto Rico; it is approximately 20 miles long and 4.5 miles wide (**Figure 1-1**).
- The former VNTR is situated in the eastern half of Vieques, and is bordered on the west by the community of Isabel Segunda, to the north by Vieques Sound, and to the south by the Caribbean Sea. The former VNTR consists of approximately 14,500 acres that were divided operationally into four Munitions Response Areas (MRAs) that from west to east comprise: the 10,673-acre Eastern Maneuver Area (EMA); the 2,500-acre Surface Impact Area (SIA); the 900-acre Live Impact Area (LIA), and the 200-acre Eastern Conservation Area (ECA) on the easternmost tip of Vieques (CH2M HILL, 2006) (**Figure 1-2** bottom inset).
- The EMA, which includes UXO 15, was established in 1947 and provided maneuvering areas for training by Marine amphibious units and battalion landing teams in exercises that included amphibious landings, small-arms fire, artillery and tank fire, shore fire control, and combat engineering tasks.
- UXO 15 is approximately 535 acres, located in the southwestern portion of the EMA, and includes Photo Identified (PI) Sites PI 9 and PI 13 (**Figure 2-1**). PI 9 was likely used for ammunition storage based on historical information, aerial photographs, and recent investigation. PI 13 may have been the firing point from which long-range artillery was launched to the LIA/SIA; however, no evidence of this use has been found during investigations within the area. A summary of the investigations conducted within or including UXO 15 is presented in Section 2.2.
- The former VNTR was transferred to the Department of Interior (DOI) in 2003 to be operated and managed by the USFWS as a National Wildlife Refuge.
- In 2007, USFWS constructed the main access road to the lighthouse (**Figure 2-1**) to allow workers access to the lighthouse and surrounding area; the road was built with geotextile followed by a 6-inch-thick aggregate.
- The Commonwealth of Puerto Rico and USFWS have recently requested that public access to the area around the historic Spanish lighthouse, including the adjacent beach, be accelerated.

2.2 Previous Investigations

- The Preliminary Range Assessment of the former VNTR (CH2M HILL, 2003) identified PI 9 as a potential munitions response site based on aerial photograph analysis.
- The Phase I Resource Conservation and Recovery Act Facility Investigation (RFI) Report recommended PI 9 for further evaluation under the Munitions Response Program (MRP) and an inspection of potential MEC at PI 13 (CH2M HILL, 2004).
- The Expanded Range Assessment/Site Inspection (ERA/SI) identified 31 munitions debris (MD) items, one MPPEH item, and five debris piles (Piles A through E in **Figure 2-2**); munitions-related items encrusted in the rock in the eastern portion of PI 9; and two elevated anomaly density areas from an aerial magnetometer survey at UXO 15 (**Figure 2-2**); munitions were not identified along the main access road or areas around the lighthouse that are readily accessible. The ERA/SI recommended further investigation of the debris piles and encrusted munitions-related items and evaluation of the potential ecological and human health risks (CH2M HILL, 2010).

- A Remedial Investigation (RI) was initiated in 2012 to characterize the potential presence of subsurface munitions; characterize the potential for a release of hazardous constituents to soil and sediment from subsurface munitions (if found) and from the surface debris piles; characterize the extent of the encrusted munitions-related items; and determine the appropriate path forward for UXO 15. As part of the RI activities Debris Piles A through E were investigated and removed; however during the removal activities an additional pile, Debris Pile F, was discovered and also addressed (as noted in the RI Status Report [CH2M HILL, 2013]). The RI is ongoing (CH2M HILL, 2013). During the investigation to date, only one MEC item (a teargas grenade classified as a discarded military munitions [DMM]) was found at the site on the ground surface and no MEC was found in the subsurface. Several berms were found throughout the northern portion of the site that will be the subject of future evaluation as part of the RI. The locations of the items found on the ground surface and the berms are presented in **Figure 2-2**. The locations of the subsurface items found during the intrusive investigation are shown on **Figure 2-3**.
- During the 2007 road construction activity, an embankment for drainage was constructed along the road buffer up to 11 feet from the edge of the road; anomaly avoidance support was provided during which no MEC was identified along the road or the shoulders.
- An EE/CA presented the evaluation of interim removal action alternatives for this NTCRA (CH2M HILL, 2014e). The EE/CA evaluated three alternatives, comprising No Action, Hazard Warning Signs and Educational Kiosks, and Fence with Hazard Warning Signs and Educational Kiosks. A public notice for the EE/CA was published in the newspaper *Primera Hora* on March 21, 2014; the EE/CA was available for public comment from March 24 through May 7, 2014. No public comments were received by the stakeholder agencies.



Legend

- PI Areas
- UXO 15

2007 Aerial Imagery

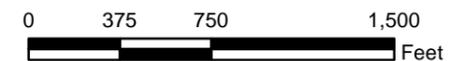
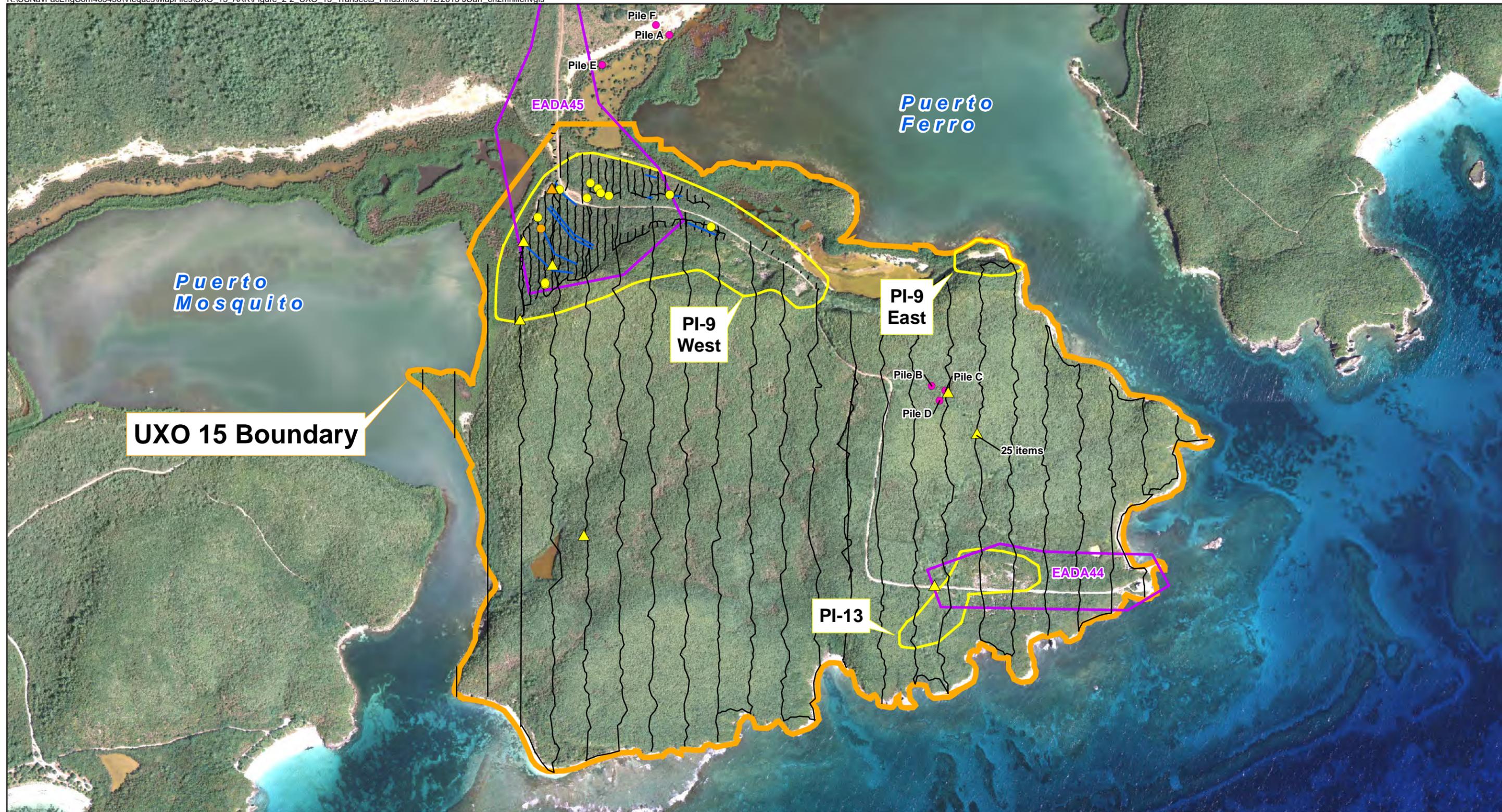


Figure 2-1
UXO 15 Site Features
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico

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- Legend**
- RI
 - MPPEH Item
 - MD Item
 - ERA/SI
 - ▲ MEC Item
 - ▲ MD Items
 - Debris Pile
 - Berm Location
 - Transect
 - Elevated Anomaly Density Area (EADA)
 - PI Site
 - UXO15

The yellow triangles shown have one MD item per location except for a single location which has 25 MD items as listed on the figure.

2007 Aerial Imagery

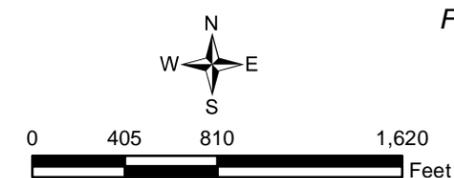
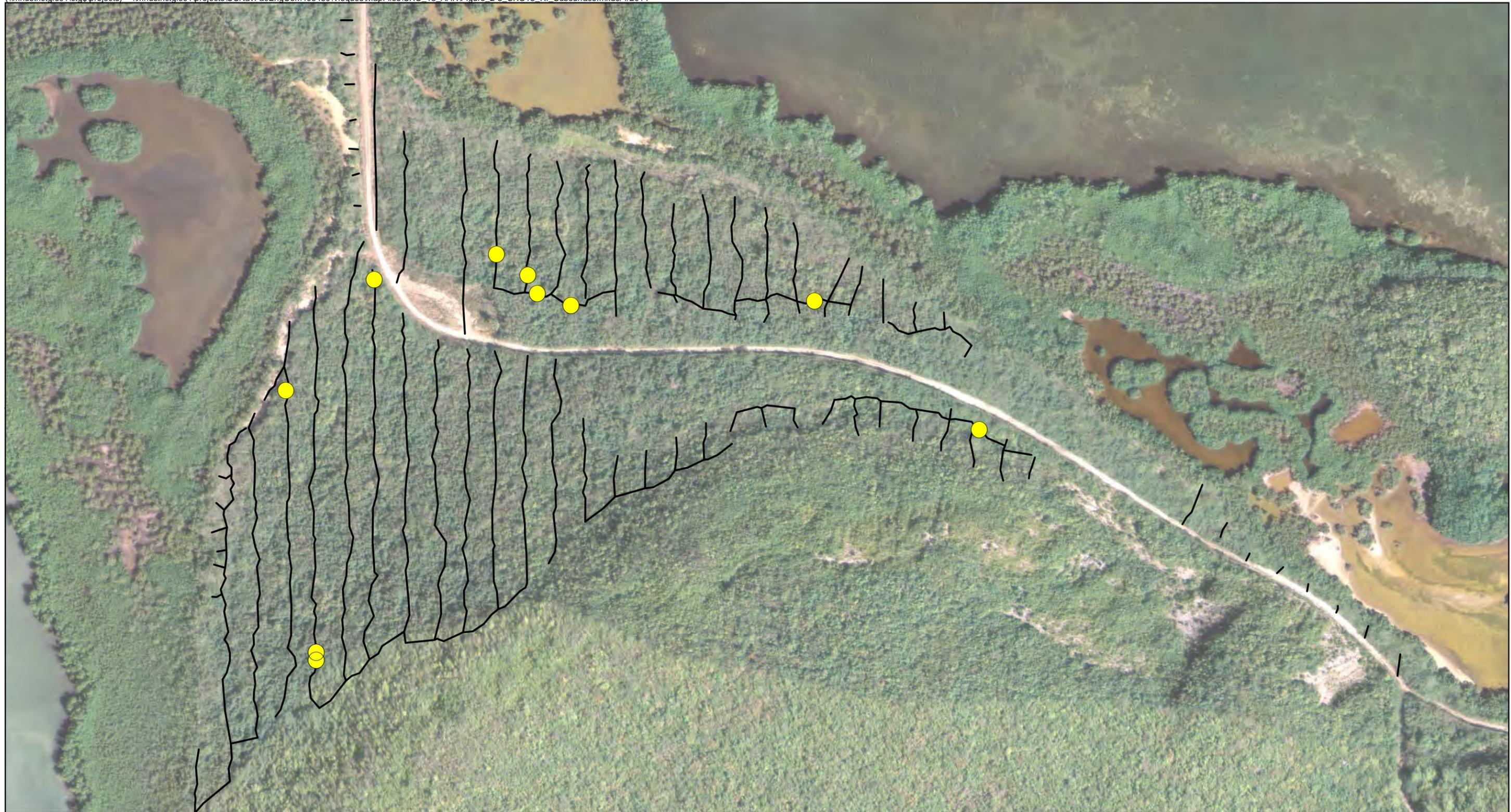


Figure 2-2
UXO 15 Transects and Finds
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico



Legend
● MD Item
— Surveyed Transect

2007 Aerial Imagery



Figure 2-3
UXO 15 RI Subsurface Items
UXO 15 After Action Report
Former Vieques Naval Training Range
Vieques, Puerto Rico

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Remedial Action Objectives

The goal of the NTCRA was to facilitate accelerated public access to the areas around the lighthouse desired by USFWS while the site as a whole continues through the full CERCLA process. To accomplish this, the approach to the interim removal action was to guide access along the main road to accessible areas around the lighthouse and adjacent beach, to deter access to the remaining (restricted) area of UXO 15, and to perform MEC/MPPEH clearance in areas planned for public access where clearance activities had not previously been performed. The areas intended for public access are shown in **Figure 1-2**.

As stated in the EE/CA (CH2M HILL, 2014e), the RAOs for the NTCRA are:

- Reduce the potential explosive hazard associated with access to the area around the historic lighthouse at UXO 15.
- Reduce the potential for unauthorized access to restricted areas of UXO 15.

Removal Action

This section provides the details of the NTCRA, including the installation of the hazard warning signs and educational kiosks and MEC clearance activities. Representative photographs are provided in **Appendix A**.

4.1 Vegetation Cutting

- Prior to vegetation cutting to facilitate sign/kiosk installation and MEC clearance, USFWS was consulted to ensure that any protected plant species were identified and protected from being cut or damaged. USFWS identified a location along the southern edge of the road near the lighthouse where a protected species, *Varronia rupicola*, is present, and this area was avoided (**Figure 4-1**).
- From July 11 through July 14, 2014, vegetation was cut up to 11 feet from the edge of the road along both sides of the road to facilitate the positioning and installation of the warning signs and kiosks. Vegetation cutting was conducted by Trapper Johns, a CH2M HILL subcontractor.
- On August 6, 2014, and prior to MEC clearance activities, vegetation cutting was conducted at the planned parking area, around the lighthouse, and along the trails, in consultation with USFWS. Vegetation cutting activities were performed by USAE Environmental (USAE).

4.2 Regulatory Site Visit for Sign and Kiosk Locations

- All hazard warning sign and educational kiosk locations were selected in the field on July 23, 2014, by representatives from the Navy, EPA, PREQB, and USFWS (**Figure 4-1**). Sign and kiosk locations were selected to ensure visibility by the public accessing the lighthouse area and adjacent beach once opened by USFWS.

4.3 Hazard Warning Sign Installation

- Thirty-three hazard warning signs were installed from August 27 through August 29, 2014 (**Figure 4-1** and **Appendix A**). The text of each sign was provided in both Spanish and English, as shown in **Appendix B**. Three different sign types were installed based on the location of the sign, as follows:
 - “Explosive Hazard! Stay on Road, No Parking” – 25 signs
 - “Explosive Hazard! No Access Beyond This Point” – 6 signs
 - “Explosive Hazard! For Your Safety Stay on Marked Trail” – 2 signs
- Each sign is approximately 17-inches by 22-inches (width x height). Other than on the beach, the tops of the signs are nominally 5 feet above the ground surface on 2-inch metal U-channel sign posts. Unexploded ordnance (UXO)-qualified personnel provided MEC avoidance support during the sign installation activities. The signs on the beach were constructed of concrete blocks that are approximately 18-inches high and 23-inches in diameter. The concrete blocks are painted yellow with the warning message and graphic stenciled on the block.

4.4 Educational Kiosk Installation

- Two wooden educational kiosks were installed from August 6 through August 13, 2014; one kiosk was installed near the location of the access gate along the main access road and one kiosk was installed adjacent to the lighthouse (**Figure 4-1**). UXO-qualified personnel provided MEC avoidance support during the kiosk installation activities.
- Each kiosk was constructed on 12-foot by 6-foot concrete pads and provides three display panels; each kiosk has two 3-foot by 3-foot panels for displaying MEC awareness and reporting procedures/USFWS-specific information and one 5-foot by 3-foot (width x height) panel for displaying the location of the access road, the historic lighthouse, the kiosks, the areas permitted for public access, and the restricted areas.

4.5 MEC Clearance

All MEC clearance activities, including quality control (QC) inspections, were conducted by the Navy's munitions response contractor, USAE. All quality assurance (QA) inspections were conducted by the Navy's Title II services contractor, CH2M HILL.

MEC clearance was conducted at the two easternmost beaches (**Figure 4-2**) in accordance with the NTCRA for the roads and beaches (CH2M HILL, 2008a), modified via Field Change Request 2, which was approved by EPA and PREQB on January 14, 2014. The scope of this activity was to determine the presence of subsurface anomalies in the sandy beach areas between the existing vegetation line at the beaches and the edge of the water (using digital geophysical mapping [DGM]) and intrusively investigate all anomalies to a depth of 4 feet or until refusal/water was encountered.

MEC clearance at the lighthouse area, parking area, and trails (**Figure 4-2**) was conducted in accordance with the NTCRA for the roads and beaches (CH2M HILL, 2008a), modified via Field Change Request 3, which was approved by EPA and PREQB on July 6 and 7, 2014, respectively. Due to the historic use of the area and the shallow bedrock, "mag-and-dig" procedures were used for MEC surface and subsurface clearance (estimated to an approximate depth of 1 foot).

4.5.1 Beaches

- MEC surface clearance was conducted at the two beaches to facilitate the DGM survey and subsequent subsurface MEC clearance. UXO technicians swept the beach with a geophysical instrument (magnetometer) to locate potential MEC and metal debris on the surface of the beach. No MEC/MPPEH or any other metallic items were identified on the surface.
- A DGM survey was conducted using a Geonics EM-61 MK2 by CH2M HILL from June 5 through June 6, 2014; a total of 22 subsurface anomalies were identified at the two beaches that were subsequently intrusively investigated. The results of the anomaly investigation are presented below and shown in **Figure 4-3**. It should be noted that the entire sandy areas of the two beaches were surveyed and, due to the dynamic nature of the beaches, the existing footprint of the sandy beach area was smaller at the time of the NTCRA than it appears on the aerial photograph from 2007 that was used to create **Figure 4-3**.
 - 18 cultural debris items identified as general trash.
 - 2 QC seeds placed prior to DGM activities to ensure the DGM equipment was capable of identifying anomalies at the site and to verify the positional accuracy of the DGM results.
 - 2 "no finds" where the anomaly location was re-acquired and the millivolt (mV) reading for the reacquire was below the minimum anomaly threshold (2.5 mV) established in the work plan for the NTCRA for the roads and beaches (CH2M HILL, 2008a).
- CH2M HILL provided real-time QA of the anomaly investigations. All locations passed QA inspection.

4.5.2 Lighthouse Area

- Surface and subsurface MEC clearance was conducted using a "mag-and-dig" approach adjacent to the lighthouse (approximately 0.25 acre) from August 6 through August 8, 2014. The area adjacent to the lighthouse was divided into grids to allow for complete inspection by the UXO technicians using a geophysical instrument (magnetometer) to locate potential MEC.
- 460 pieces of scrap metal classified as range-related debris (RRD) were identified and removed; no MEC/MPPEH or MD was identified.
- The activity passed all QA inspections.

4.5.3 Planned Parking Area

- USFWS identified the location of the planned parking area (21 meters by 25 meters) to the south of the main access road near the lighthouse during the regulatory site visit (**Figure 4-1**).

- Surface and subsurface MEC clearance was conducted using a “mag-and-dig” approach for the parking area on August 7, 2014. The parking area was divided into grids to allow for complete inspection by the UXO technicians using a geophysical instrument (magnetometer) to locate potential MEC.
- 236 pieces of RRD were removed; no MEC/MPPEH or MD was identified.
- The activity passed all QA inspections.

4.5.4 Trails

- Surface and subsurface MEC clearance was conducted using a “mag-and-dig” approach along the three trails identified in **Figure 4-2**; UXO technicians inspected the trails using a geophysical instrument (magnetometer) to locate potential MEC.
- No MEC/MPPEH or debris were identified.
- The trails passed all QA inspections.



- Legend**
- ★ "No Access Beyond This Point" Warning Sign
 - "Stay On Road" Warning Sign
 - ▲ "Stay on Marked Trail" Warning Sign
 - Educational Kiosk
 - Planned Parking Area
 - Area Containing *Varronia rupicola*

- PI Areas
- UXO 15

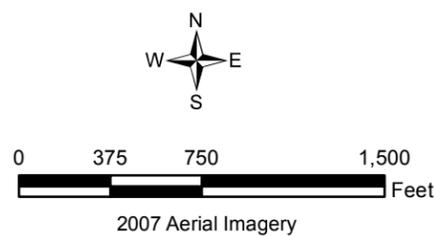
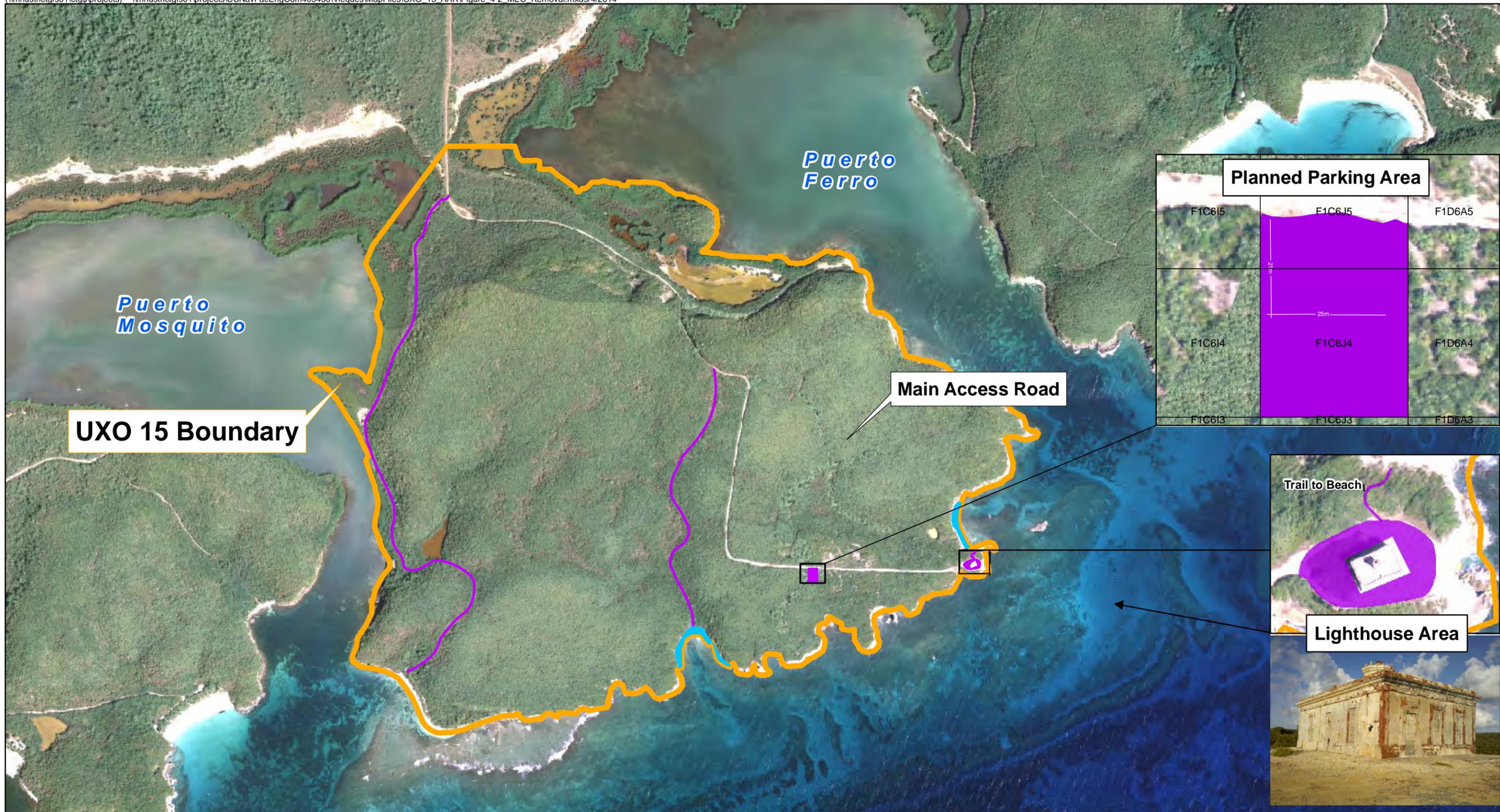


Figure 4-1
Location of Educational Kiosks and Hazard Warning Signs
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico



- Legend**
- "Mag-and-Dig" MEC Clearance Area
 - DGM with Anomaly Investigation Area
 - UXO 15

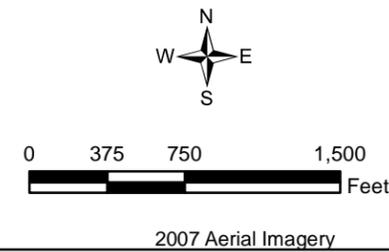
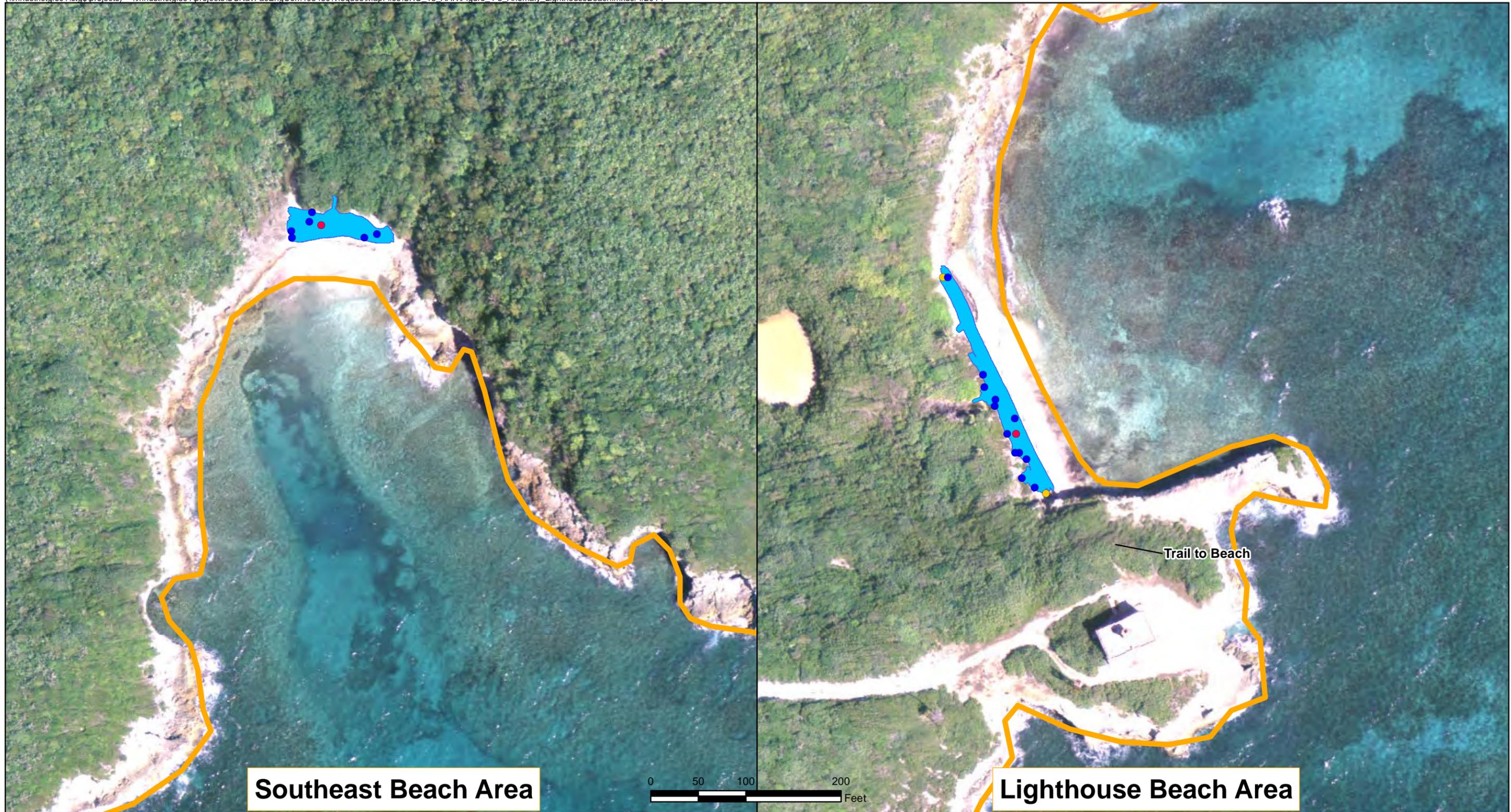


Figure 4-2
MEC Clearance Areas
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico



- Legend**
- Cultural Debris
 - No Find
 - QC Seed
 - UXO 15
 - DGM Area



2007 Aerial Imagery

Figure 4-3
Southeast Beach and Lighthouse Beach
Anomaly Investigation Results
 UXO 15 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico

Demonstration of Completion

Performance results demonstrating that the RAOs for the NTCRA have been met are summarized in **Table 5-1**.

TABLE 5-1
Remedial Action Performance Results

RAO	Performance Results
Reduce the potential explosive hazard associated with access to the area around the historic lighthouse at UXO 15	<ul style="list-style-type: none"> • The aggregate and geotextile placed during the 2007 main access road construction presents a physical barrier to exposure to potential MEC within the subsurface along the road. • MEC clearance was conducted adjacent to the lighthouse, parking area, trails, and beaches. No MEC/MPPEH was identified on the ground surface or within the subsurface.
Reduce the potential for unauthorized access to restricted areas of UXO 15	<ul style="list-style-type: none"> • Hazard warning signs and educational kiosks installed and the dense vegetation act as deterrents to accessing restricted portions of the site and guide site visitors along the planned publically accessible areas.

Ongoing Activities

The activities in the bulleted list below will be performed at least until the final remedy for UXO 15 has been selected and formalized through a Record of Decision. For these activities, a Land Use Control Implementation Plan (LUCIP) will be developed following finalization of this After Action Report to provide the details of the sign and kiosk maintenance plan and mechanisms for requiring/providing MEC avoidance support for intrusive work along the road.

- The Navy will monitor, repair, and/or replace damaged signs and kiosk posters as part of a sign maintenance program for the former VNTR. Replacement may be due to damage to the signs/posters or due to changing information relevant to hazards associated with the area and access to the site.
- Intrusive activities performed on the main access road beneath the constructed road's geotextile layer, along the shoulders of the road, within the lighthouse area and parking area, or at the beaches and trails will require MEC avoidance support.

SECTION 7

Community Relations

Community participation for the environmental restoration activities for the former VNTR includes Restoration Advisory Board (RAB) meetings, public meetings, public information repository, RAB and public comment periods, fact sheets, public notices, and a public website. The Community Involvement Plan (CIP) for Vieques is updated periodically to adjust to the needs of the program and the community and provides detailed information on community participation; the CIP can be found in the Administrative Record for Vieques.

The EE/CAs for the NTCRAs were made available for public review; the associated NTCRA work plans were submitted for RAB review and, once finalized, placed in the Administrative Record with the EE/CAs. No written comments, concerns, or questions were received by the Navy, the PREQB, or the EPA during the public comment periods.

SECTION 8

Certification Statement

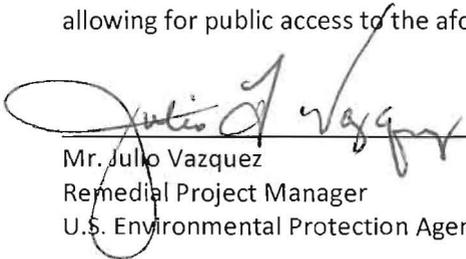
On behalf of the United States (U.S.) Department of the Navy, I certify that this document memorializes the completion of the RAOs applicable to the NTCRAs, and that the completion of the NTCRAs allows for public site access to the area around the lighthouse, including the adjacent parking area, beach trail, and beach via the main access road, at the discretion of USFWS



2/24/15
Date

Mr. Daniel Hood
Remedial Project Manager
Naval Facilities Engineering Command, Mid-Atlantic

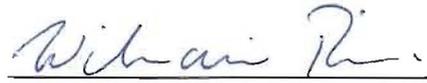
Based on the information included in this After Action Report, EPA concurs that the RAOs have been completed, allowing for public access to the aforementioned areas.



2/25/15
Date

Mr. Julio Vazquez
Remedial Project Manager
U.S. Environmental Protection Agency

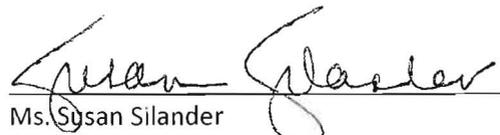
Based on the information included in this After Action Report, PREQB concurs that the RAOs have been completed allowing for public access to the aforementioned areas.



2/24/15
Date

Ms. Wilmarie Rivera
Remedial Project Manager
Puerto Rico Environmental Quality Board

Based on the information included in this After Action Report, USFWS concurs that the RAOs have been completed allowing for public access to the aforementioned areas.



2/24/15
Date

Ms. Susan Silander
Remedial Project Manager
U.S. Fish and Wildlife Service

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Appendix A
Representative Photographs



Photo 1 – Drilling boreholes for hazard warning signs along main access road



Photo 2 – Drilling boreholes for hazard warning signs along main access road



Photo 3 – Educational kiosk under construction near the historic lighthouse.



Photo 4 – Completed kiosk structure near the historic lighthouse.



Photo 5 – Example warning sign along the main access road advising users to stay on the road and not to park.



Photo 6 – Example warning “boulder” main access road near the entrance to one of the trails leading south. The sign was located in this position during the site visit to deter access to the trail.



Photo 7 – Subsurface geophysical anomaly removal being performed on the beach adjacent to the historic lighthouse.



Photo 8 – “Mag-and-dig” MEC clearance at the parking area.



Photo 9 – “Mag-and-dig” MEC clearance around the historic lighthouse.

Appendix B

Warning Signs

**¡Peligro de Explosión!
Por su Seguridad
Permanezca
en la Vereda**



**Explosive Hazard!
For Your Safety
Stay on Marked Trail**

**¡Peligro de Explosión!
Prohibido el Paso
a Partir de Este Punto**



**Explosive Hazard!
No Access
Beyond This Point**

**¡Peligro de Explosión!
Permanezca en el Camino
No Estacione**



**Explosive Hazard!
Stay on Road
No Parking**