

PRE-DECISIONAL



Naval Facilities Engineering Systems Command Atlantic
Norfolk, Virginia

Draft Final

Site Management Plan Fiscal Year 2027 Amendment

Atlantic Fleet Weapons Training Area – Vieques
Vieques, Puerto Rico

July 2026

Draft Final

Site Management Plan
Fiscal Year 2027 Amendment

Atlantic Fleet Weapons Training Area – Vieques
Vieques, Puerto Rico

July 2026

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Executive Summary

This Site Management Plan (SMP) provides a summary of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions and associated activities/documentation undertaken at the Atlantic Fleet Weapons Training Area (AFWTA) – Vieques, Vieques, Puerto Rico, comprising the former Naval Ammunition Support Detachment (NASD) and the former Vieques Naval Training Range (VNTR) (Figure ES-1). In addition, the SMP provides milestones which reflect the anticipated schedule of completing CERCLA response actions and related activities that have been agreed to by the Department of the Navy (Navy) and the regulatory agencies. Milestones are provided for the Installation Restoration Program (IRP) and the Munitions Response Program (MRP), both of which are part of the Environmental Restoration Program (ERP) for the AFWTA. It also identifies where and when formal solicitation of public or Restoration Advisory Board (RAB) input and comment on the IRP and MRP is planned.

The SMP meets the requirements of the Federal Facility Agreement (FFA) under CERCLA Section 120, Docket Number FFA-CERCLA 02-2007-2001 (EPA 2007). Under CERCLA, Vieques is referred to as AFWTA – Vieques, consistent with the designation in the Superfund Enterprise Management System (SEMS). The projected schedules of CERCLA response actions and related activities provided in this SMP are in general accordance with timelines presented in the FFA. The Parties that entered into the 2007 FFA comprised the Navy (represented at that time by the Naval Facilities Engineering Command Atlantic [NAVFAC]), Environmental Protection Agency (EPA) Region 2, Commonwealth of Puerto Rico (represented at that time by the Puerto Rico Environmental Quality Board [PREQB]), and the Department of the Interior (DOI). On August 2, 2018, Law #171 was promulgated and approved by the Governor of Puerto Rico to execute the reorganization of several agencies. As a result, the faculties, functions, services, and structures of PREQB (as well as the Solid Waste Authority and National Parks Program) were transferred to the Puerto Rico Department of Natural and Environmental Resources (PRDNER). As such, the former PREQB responsibilities associated with the FFA and CERCLA cleanup at Vieques now fall under PRDNER. In addition, on November 3, 2020, NAVFAC updated its name to Naval Facilities Engineering Systems Command to better reflect its responsibilities in technology and technical service delivery and acquisition, facility construction and engineering, and management and environmental services.

In accordance with the FFA, this SMP includes the following:

- A description of actions necessary to mitigate any immediate threat to human health and the environment
- A description of identified Areas of Concern (AOCs), Site Screening Areas (SSAs), Operable Units (OUs), Remedial Investigations/Feasibility Studies (RIs/Fs), Records of Decision (RODs), Remedial Actions, Time-Critical Removal Actions (TCRAs), Non-Time-Critical Removal Actions (NTCRAs), and any other pertinent activity planned or being performed pursuant to the FFA
- Activities and schedules for investigations and response actions, including:
 - Identification of investigations, decisions, and actions
 - Deadlines
 - Near-term milestones
 - Out-year milestones
 - Target dates
 - Schedule for RIs/Fs, Remedial Designs, Remedial Actions, TCRAs, NTCRAs, and related or other planned activities covered by the FFA and their projected durations

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.

The schedule of planned CERCLA ERP activities and major project deliverables between October 1, 2026 and December 31, 2027 is provided as Figure ES-2. Based on new information or conditions that arise that may affect the anticipated schedules, they will be re-evaluated and updated as mutually agreed to by the agencies.

Facility Description

Vieques Island has a land area of approximately 33,000 acres and is located in the Caribbean Sea approximately seven miles southeast of the eastern coast of the main island of Puerto Rico (Figure ES-1). The former VNTR is located on the eastern half and the former NASD is located on the western one-third, with the communities of Isabel Segunda and Esperanza located in between. On February 11, 2005, Vieques was placed on the National Priorities List (NPL) by the EPA.

East Vieques (Former VNTR)

The former VNTR, which comprises approximately 14,600 acres, provided ground warfare and amphibious training for Marines, naval gunfire support training, and air to ground training. The former VNTR was divided into four separate operational areas, comprising from west to east: the Eastern Maneuver Area (EMA), the Surface Impact Area (SIA), the Live Impact Area (LIA), and the Eastern Conservation Area (ECA) at the easternmost tip of the island.

On April 30, 2003, the former VNTR was transferred to the DOI to be operated and managed by the United States Fish and Wildlife Service (USFWS) as a National Wildlife Refuge pursuant to Section 1049 of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107).

Approximately 900 acres of the former VNTR, consisting of the LIA, is managed as a wilderness area where public access is prohibited in accordance with Public Law 106-398 and Public Law 107-107.

DOI developed a Comprehensive Conservation Plan (CCP) in 2007 for the Vieques National Wildlife Refuge that outlines its concept for managing the refuge (DOI 2007). Environmental restoration of the former VNTR is based on potential risks to human health and the environment identified via the CERCLA process, together with applicable or relevant and appropriate requirements (ARARs), with consideration given to the future land use identified in the CCP (and associated step-down plans prepared by USFWS) and land use identified by PRDNER for UXO 18 (Cayo La Chiva).

West Vieques (Former NASD)

On April 30, 2001, the 8,114-acre former NASD on the west side of Vieques was apportioned and transferred to the DOI, the Municipality of Vieques (MOV), and the Puerto Rico Conservation Trust (PRCT) in accordance with Public Law 106-398. The sites owned by these agencies are listed in the appendixes. The property owned by DOI (approximately 3,158 acres) is managed by USFWS as part of the Vieques National Wildlife Refuge. Like the former VNTR, environmental restoration of the former NASD is based on potential risks to human health and the environment identified via the CERCLA process, together with ARARs, with consideration given to the planned future land use identified in the CCP and associated step-down plan prepared by USFWS for property owned by DOI.

Resumen Ejecutivo

Este Plan de Manejo del Sitio (SMP, por sus siglas en inglés) proporciona un resumen de las acciones de respuesta de la Ley de Respuesta, Compensación y Responsabilidad Ambiental (CERCLA, por sus siglas en inglés) y las actividades/documentación asociadas que se llevan a cabo en el Área de Entrenamiento de Armas de la Flota del Atlántico (AFWTA, por sus siglas en inglés) – Vieques, Vieques, Puerto Rico, que comprende el antiguo Destacamento de Apoyo de Municiones Navales (NASD, por sus siglas en inglés) y el antiguo Campo de Entrenamiento Naval de Vieques (VNTR, por sus siglas en inglés) (Figura ES-1). Además, el SMP proporciona metas que reflejan el cronograma anticipado de finalización de las acciones de respuesta de CERCLA y las actividades relacionadas que han sido acordadas por el Departamento de la Marina (Marina) y las agencias reguladoras. Se proporcionan metas para el Programa de Restauración de Instalaciones (IRP, por sus siglas en inglés) y el Programa de Respuesta a Municiones (MRP, por sus siglas en inglés), los cuales forman parte del Programa de Restauración Ambiental (ERP, por sus siglas en inglés) de la AFWTA. También identifica dónde y cuándo se planea la solicitud formal de aportes y comentarios públicos o de la Junta de Consejo para la Restauración (RAB, por sus siglas en inglés) sobre el IRP y el MRP.

El SMP cumple con los requerimientos del Acuerdo de Instalaciones Federales (FFA, por sus siglas en inglés) bajo la ley CERCLA Sección 120, Número de Archivo FFA-CERCLA 02-2007-2001 (EPA 2007). Bajo CERCLA, a Vieques se le refiere como AFWTA - Vieques, lo cual es consistente con la designación en el Sistema de Gestión de la Iniciativa Superfund (SEMS, por sus siglas en inglés). Le calendario proyectado de las acciones de respuesta de CERCLA y las actividades relacionadas que se proporcionan en este SMP están en general de acuerdo con los plazos establecidos en el FFA. Las partes que entraron el acuerdo FFA en el 2007 incluye la Marina (representada en aquel entonces por el Comando de Ingeniería de Instalaciones Navales del Atlántico [NAVFAC, por sus siglas en inglés]), la Agencia de Protección Ambiental de los EE.UU. (EPA por sus siglas en inglés) Región 2; El Estado Libre Asociado de Puerto Rico, (representado en aquel entonces por la Junta de Calidad Ambiental de Puerto Rico [PREQB, por sus siglas en inglés]); y el Departamento del Interior de los EE.UU. (DOI, por sus siglas en inglés). El 2 de agosto de 2018, la Ley #171 fue promulgada y aprobada por el Gobernador de Puerto Rico con miras a la reorganización de varias agencias gubernamentales. Como resultado, el personal, funciones, servicios y estructura de la PREQB (así como de la Autoridad de Desperdicios Sólidos y el Programa de Parques Nacionales) pasaron al Departamento de Recursos Naturales y Ambientales de Puerto Rico (PRDNER, por sus siglas en inglés). Por consiguiente, las responsabilidades anteriores de la PREQB vinculadas al FFA y limpieza bajo el CERCLA de Vieques ahora quedan bajo el PRDNER. Además, el 3 de noviembre de 2020, NAVFAC actualizó su nombre a Comando de Sistemas de Ingeniería de Instalaciones Navales para reflejar mejor sus responsabilidades en tecnología y prestación y adquisición de servicios técnicos, construcción e ingeniería de instalaciones, y servicios de gestión y ambientales.

De acuerdo con el FFA, este SMP incluye lo siguiente:

- Una descripción de cualquier acción necesaria para mitigar cualquier amenaza inmediata para la salud humana y el ambiente
- Una descripción de todas las Áreas de Preocupación (AOCs, por sus siglas en inglés), Evaluación del Sitio (SSAs, por sus siglas en inglés), Unidades Operativas (OUs, por sus siglas en inglés), Investigaciones de Remediación/Estudios de Viabilidad (RIs/FSs, por sus siglas en inglés), Registro de Decisión (RODs, por sus siglas en inglés), Acciones de Remediación, Acciones de Remoción de Tiempo Crítico (TCRAs, por sus siglas en inglés) y las Acciones de Remoción de Tiempo No Crítico (NTCRAs, por sus siglas en inglés) y cualquier otra actividades pertinente planificada o que se están ejecutando de acuerdo al FFA

NOTA: ESTE RESUMEN SE PRESENTA EN INGLÉS Y EN ESPAÑOL PARA LA CONVENIENCIA DEL LECTOR. SE HAN HECHO TODOS LOS ESFUERZOS 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.

- Las actividades y el calendario de las investigaciones y acciones de respuesta, incluyendo:
 - Identificación de investigaciones, decisiones, y acciones
 - Plazos de cumplimiento
 - Logros para alcanzarse a corto plazo
 - Logros del año
 - Fechas meta
 - Calendario para las RIs/FSS, Diseños de Remediación, Acciones de Remediación, TCRAs, NTCRAs, y actividades equivalentes u otras actividades planificadas cubiertas por el FFA y sus duraciones proyectadas

El calendario de las actividades planificadas de CERCLA ERP y los principales entregables del proyecto entre el 1 de octubre de 2026 y el 31 de diciembre de 2027 se proporciona en la Figura ES-2. De acuerdo con nueva información o condiciones que surjan y puedan afectar el calendario anticipado, serán reevaluado y actualizado según lo acordado mutuamente por las agencias.

Descripción de la Instalación

La Isla de Vieques tiene una superficie de aproximadamente 33,000 acres y está localizada en el Mar Caribe aproximadamente 7 millas al sureste de la costa este de la isla principal de Puerto Rico (Figura ES-1). El Antiguo VNTR está localizado en la mitad este, y el antiguo NASD está localizado en el tercio oeste, con las comunidades de Isabel Segunda y Esperanza en el medio. El 11 de febrero de 2005, Vieques fue añadida a la Lista de Prioridades Nacionales (NPL, por sus siglas en inglés) por la EPA.

Este de Vieques (Antiguo VNTR)

El antiguo VNTR se compone de aproximadamente 14,600 acres, y proporcionó entrenamiento de guerra sobre tierra y entrenamiento de técnicas anfibias para los infantes de marina, entrenamiento de apoyo de armas navales, y entrenamiento de combate de aire-tierra. El antiguo VNTR fue dividido en cuatro áreas operativas separadas, que se componen, de oeste a este: el Área de Maniobras del Este (EMA, por sus siglas en inglés), el Área de Impacto de Superficie (SIA por sus siglas en inglés), el Área de Impacto con Bala Viva (LIA, por sus siglas en inglés), y el Área de Conservación del Este (ECA, por sus siglas en inglés) que se encuentra en el punto más al este de la isla.

El 30 de abril de 2003, el antiguo VNTR fue transferido al DOI para ser operado y manejado por el Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS, por sus siglas en inglés) como un Refugio Nacional de Vida Silvestre de acuerdo con la Sección 1049 de la Ley de Autorización de Defensa Nacional para Año Fiscal 2002 (Ley Pública 107-107).

Aproximadamente 900 acres del antiguo VNTR, que consisten en el LIA, son manejados como un área silvestre donde se prohíbe el acceso al público de acuerdo con la Ley Pública 106-398 y la Ley Pública 107-107.

El DOI desarrolló un Plan Abarcador de Conservación (CCP, por sus siglas en inglés) en el 2007 para el Refugio Nacional de Vida Silvestre de Vieques que delinea su concepto para el manejo del refugio (DOI 2007). La restauración ambiental del antiguo VNTR se basa en los riesgos potenciales a la salud humana y al medio ambiente identificados a través del proceso CERCLA, junto con los requerimientos aplicables o relevantes y apropiados (ARARs, por sus siglas en inglés), considerando el uso futuro de los terrenos identificado en el CCP (y los planes relacionados a la reducción gradual preparados por el USFWS) y el plan de uso de terrenos del UXO 18 (Cayo La Chiva) del PRDNER.

Oeste de Vieques (Antiguo NASD)

El 30 de abril de 2001, los 8,114 acres del antiguo NASD ubicado en el lado oeste de Vieques fue repartido y transferido a DOI, al Municipio de Vieques (MOV, por sus siglas en inglés), y al Fideicomiso de Conservación de Puerto Rico (PRCT, por sus siglas en inglés) de acuerdo con la Ley Pública 106-398. Los sitios que son propiedad de estas agencias se describen en los anejos. La propiedad que le pertenece al DOI (aproximadamente 3,158 acres) está administrada por USFWS como parte del Refugio Nacional de Vida Silvestre de Vieques. Al igual que en el antiguo VNTR, la restauración ambiental del antiguo NASD se basa en los riesgos potenciales a la salud humana y al medio ambiente identificados a través del proceso CERCLA, en conjunto con los ARARs, y considerando el uso futuro planificado para los terrenos identificado en el CCP y los planes relacionados a la reducción gradual preparados por el USFWS para la propiedad perteneciente al DOI.

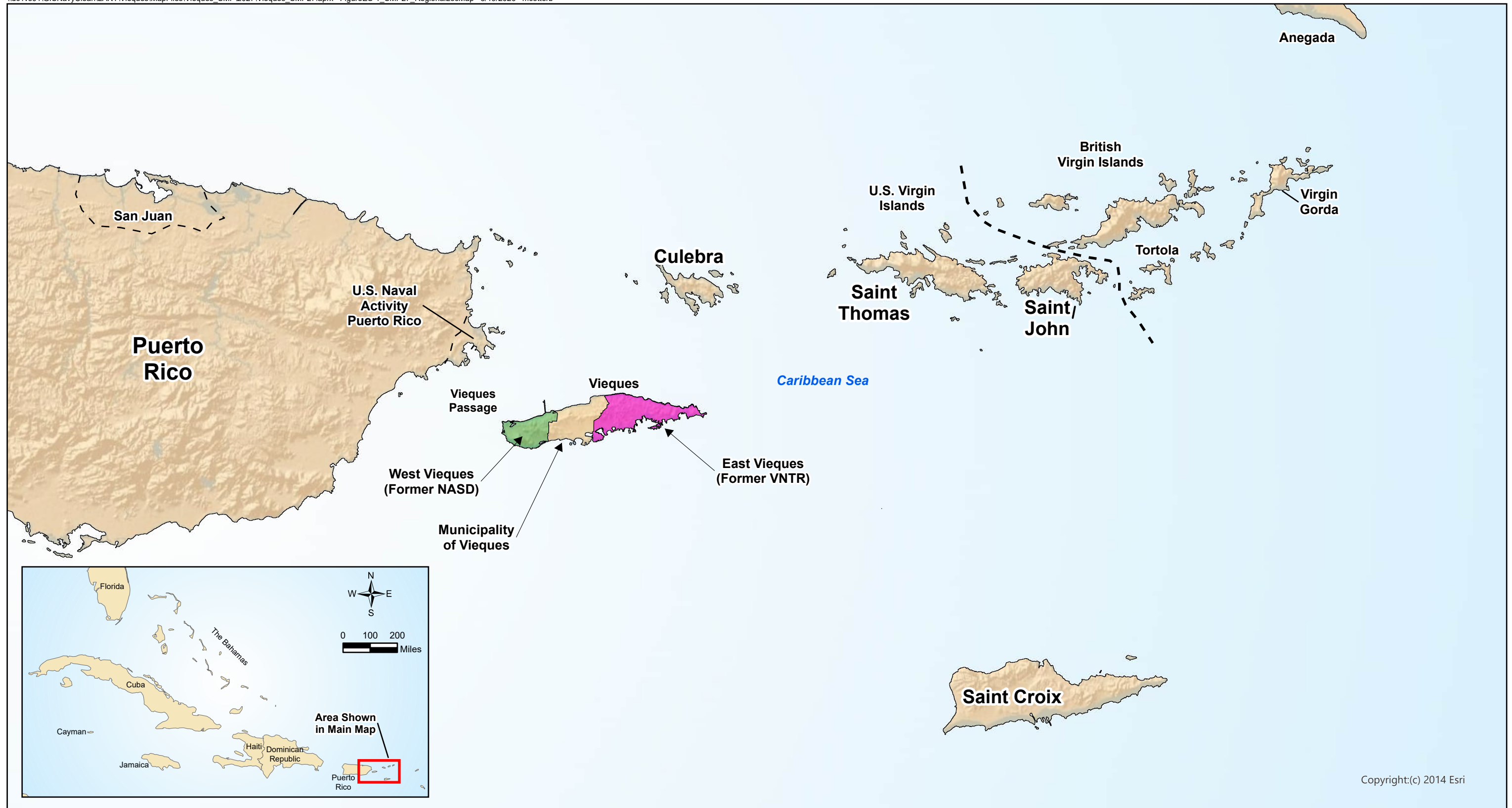


Figure ES-1
Regional Location Map
Site Management Plan, FY 2027
Vieques, Puerto Rico

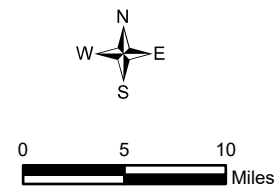


FIGURE ES-2
Vieques Munitions Response and Installation Restoration Program Schedule
Site Management Plan Fiscal Year 2027
Atlantic Fleet Weapons Training Area – Vieques
Vieques, Puerto Rico

Month-Year:	July-26					August-26				September-26				October-26					November-26				December-26					January-27					February-27					March-27				April-27					May-27					June-27					July-27					August-27					September-27					October-27					November-27					December-27				
Week Ending:	03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	01	08	15	22	29	05	12	19	26	03	10	17	24	31											
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Long-Term Monitoring/Annual Report ²																																																																																						
Long-Term Monitoring Groundwater Sampling																																																																																						
SWMU 20																																																																																						
Pilot Study ²																																																																																						
UXO 1 (ECA)																																																																																						
Long-Term Monitoring/Annual Report ²																																																																																						
UXO 2 (LIA Beaches)																																																																																						
NTCRA ^{4,2}																																																																																						
Feasibility Study Report ¹																																																																																						
Proposed Plan ¹																																																																																						
Record of Decision ¹																																																																																						
UXO 7 (EMA/SIA North Beaches), UXO 8 (SIA South Beaches)																																																																																						
Feasibility Study Report ¹																																																																																						
Proposed Plan ¹																																																																																						
Record of Decision ¹																																																																																						
UXO 3 (LIA East)																																																																																						
TCRA (Submunitions Area) ^{4,2}																																																																																						
UXO 4 (LIA West)																																																																																						
Remedial Investigation/Feasibility Study Report ¹																																																																																						
Proposed Plan ¹																																																																																						
Record of Decision ¹																																																																																						
UXO 5 (SIA Restricted Roads)																																																																																						
NTCRA ^{4,2}																																																																																						
Feasibility Study Report ¹																																																																																						
UXO 6 (EMA/SIA Public Roads), UXO 11 (EMA Public Roads)																																																																																						
Proposed Plan ¹																																																																																						
Record of Decision ¹																																																																																						
Remedial Action Work Plan																																																																																						

LEGEND

Navy Preparation of Draft Document
Regulatory Review
Regulatory Extension
Responses to Comments/Draft Final Preparation
Responses to Comments
Comment Response Evaluation/Draft Final Evaluation/RAB Review (as applicable)
Public Comment
Fieldwork/sample processing

Notes:

NTCRA = Non-Time-Critical Removal Action; SAP = Sampling and Analysis Plan; ROD = Record of Decision; EE/CA = Engineering Evaluation/Cost Analysis

HHRA = Human Health Risk Assessment; ERA = Ecological Risk Assessment

* Draft Final submittals are prepared only after resolution of regulatory agency comments

¹ Is or includes Primary Document

² Is or includes Secondary Document

³ Draft due June 15 of each year

⁴ TCRA and NTCRA activities may not be continuous throughout the schedule shown

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- 3-1 Vieques Munitions Response and Installation Restoration Program Schedule

Acronyms and Abbreviations

AFWTA	Atlantic Fleet Weapons Training Area
AGC	advanced geophysical classification
AOC	Area of Concern
ARAR	applicable or relevant and appropriate requirement
ARF	Administrative Record File
ATG	air-to-ground
CCP	Comprehensive Conservation Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHE	Chemical Warfare Material Hazard Evaluation
COC	contaminant of concern
DGM	digital geophysical mapping
DMM	discarded military munitions
DoD	Department of Defense
DOI	Department of the Interior
EADA	elevated anomaly density area
EBS	Environmental Baseline Survey
ECA	Eastern Conservation Area
EE/CA	Engineering Evaluation/Cost Analysis
EHE	Explosive Hazard Evaluation
EMA	Eastern Maneuver Area
EPA	Environmental Protection Agency
ER,N	Environmental Restoration, Navy
ERA	Expanded Range Assessment
ERP	Environmental Restoration Program
ESD	Explanation of Significant Differences
ESI	Expanded Site Investigation
FFA	Federal Facility Agreement
FS	Feasibility Study
FY	fiscal year
HE	high explosive
HHE	Health Hazard Evaluation
HHRA	Human Health Risk Assessment
IAS	Initial Assessment Study
IRP	Installation Restoration Program
LIA	Live Impact Area
LTM	long-term monitoring
LUC	land use control
MC	munitions constituent
MCL	Maximum Contaminant Limit
MD	munitions debris
MEC	munitions and explosives of concern
mm	millimeter(s)
MOV	Municipality of Vieques
MPPEH	munitions potentially presenting an explosive hazard

MRP	Munitions Response Program
MRS	Munitions Response Site
MRSP	Munitions Response Site Prioritization Protocol
NACIP	Navy Assessment and Control of Installation Pollutants
NASD	Naval Ammunition Support Detachment
NAVFAC	Naval Facilities Engineering Systems Command Atlantic
Navy	Department of the Navy
NFA	No Further Action
NOAA	National Oceanic and Atmospheric Administration
NPL	National Priorities List
NSRR	Naval Station Roosevelt Roads
NTCRA	Non-Time-Critical Removal Action
O&M	operations and maintenance
OB/OD	open burn/open detonation
OU	Operable Unit
PA	Preliminary Assessment
PAH	polycyclic aromatic hydrocarbon
PAOC	Potential Area of Concern
PCB	polychlorinated biphenyl
PFAS	per- and polyfluoroalkyl substances
PI	Photo-Identified (site)
PRAP	Proposed Remedial Action Plan
PRCT	Puerto Rico Conservation Trust
PRDNER	Puerto Rico Department of Natural and Environmental Resources
PREQB	Puerto Rico Environmental Quality Board
QAPP	Quality Assurance Project Plan
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RI	Remedial Investigation
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SEMS	Superfund Enterprise Management System
SI	Site Inspection
SIA	Surface Impact Area
SMP	Site Management Plan
SSA	Site Screening Area
SSL	Soil Screening Level
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TCE	trichloroethene
TCRA	Time-Critical Removal Action
USFWS	United States Fish and Wildlife Service
UXO	unexploded ordnance

VNTR	Vieques Naval Training Range
VOC	volatile organic compound
VSI	Visual Site Inspection
WAA	Wide Area Assessment
ZVI	zero-valent iron

Introduction

1.1 Overview of the Site Management Plan

1.1.1 Overview of this Document

This Site Management Plan (SMP) provides a summary of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions and associated activities/documentation undertaken at the Atlantic Fleet Weapons Training Area (AFWTA) – Vieques, Vieques, Puerto Rico, comprising the former Naval Ammunition Support Detachment (NASD) and the former Vieques Naval Training Range (VNTR) (Figure 1-1). In addition, the SMP provides milestones which reflect the anticipated schedule of completing CERCLA response actions and related activities that have been agreed to by the Department of the Navy (Navy) and the regulatory agencies. Milestones are provided for both the Installation Restoration Program (IRP) and the Munitions Response Program (MRP), both of which are part of the Environmental Restoration Program (ERP) for AFWTA. It also identifies where and when formal solicitation of public or Restoration Advisory Board (RAB) input and comment on the IRP and MRP is planned. Table 1-1 identifies the documents that are anticipated to be issued for public or RAB comment during fiscal year (FY) 2027.

The SMP meets the requirements of the Federal Facility Agreement (FFA) under CERCLA Section 120, Docket Number FFA-CERCLA 02-2007-2001 (EPA 2007). Under CERCLA, Vieques is referred to as AFWTA – Vieques, consistent with the designation in the Superfund Enterprise Management System (SEMS). The projected schedules of CERCLA response actions and related activities provided in this SMP are in general accordance with timelines presented in the FFA. The Parties that entered into the 2007 FFA comprised the Navy (represented at that time by the Naval Facilities Engineering Command Atlantic [NAVFAC]), Environmental Protection Agency (EPA) Region 2, Commonwealth of Puerto Rico (represented at that time by the Puerto Rico Environmental Quality Board [PREQB]), and the Department of the Interior (DOI). On August 2, 2018, Law #171 was promulgated and approved by the Governor of Puerto Rico to execute the reorganization of several agencies. As a result, the faculties, functions, services, and structures of PREQB (as well as the Solid Waste Authority and National Parks Program) were transferred to the Puerto Rico Department of Natural and Environmental Resources (PRDNER). As such, the former PREQB responsibilities associated with the FFA and CERCLA cleanup at Vieques now fall under PRDNER. In addition, on November 3, 2020, NAVFAC updated its name to Naval Facilities Engineering Systems Command to better reflect its responsibilities in technology and technical service delivery and acquisition, facility construction and engineering, and management and environmental services.

1.1.2 Objectives of the Site Management Plan

In accordance with the FFA, this SMP includes the following:

- A description of actions necessary to mitigate any immediate threat to human health and the environment
- A description of identified Areas of Concern (AOCs), Site Screening Areas (SSAs), Operable Units (OUs), Remedial Investigations/Feasibility Studies (RIs/FSSs), Records of Decision (RODs), Remedial Actions, Time-Critical Removal Actions (TCRAs), Non-Time-Critical Removal Actions (NCRAs), and any other pertinent activity planned or being performed pursuant to the FFA
- Activities and schedules for investigations and response actions, including:
 - Identification of investigations, decisions, and actions
 - Deadlines
 - Near-term milestones

- Out-year milestones
- Target dates
- Schedule for initiation of RIs/FSs, Remedial Designs, Remedial Actions, TCRAs, NTCRAs, and related or other planned activities covered by the FFA and their projected durations

1.1.3 Site Management Plan Updates

The Navy will prepare a draft fiscal year update of the SMP by June 15 of each year that will include revisions to milestones from previous SMP updates, as applicable, and any new milestones that are planned.

Regulatory comments on draft fiscal year updates will be due to the Navy 30 days after receipt by EPA, DOI, and PRDNER of a draft fiscal year update. A revised draft fiscal year SMP update (hereinafter referred to as the “draft final fiscal year SMP”) will be due from the Navy no later than 30 days after the end of the EPA/DOI/PRDNER comment period. The resolution of comments and production of the draft final will be conducted within 30 days following the receipt of comments on the draft. The draft final fiscal year SMP shall not become an approved SMP until 21 days after Navy receives official notification of Congress’ authorization and appropriation of funds if funding is sufficient to complete the work to be performed during the year covered by that authorization or appropriation. However, upon approval of the draft final or conclusion of the dispute resolution process, the Parties shall implement the SMP while awaiting official notification of Congress’ authorization and appropriation.

1.1.4 Facility Description

Vieques Island has a land area of approximately 33,000 acres and is located in the Caribbean Sea approximately seven miles southeast of the eastern coast of the main island of Puerto Rico (Figure 1-1). The former Naval facilities are located on the eastern half (i.e., former VNTR) and western one-third (i.e., former NASD) of the island, with the communities of Isabel Segunda and Esperanza located in between.

1.1.4.1 East Vieques (Former VNTR)

The former VNTR, which comprises approximately 14,600 acres, provided ground warfare and amphibious training for Marines, naval gunfire support training, and air-to-ground (ATG) training. The former VNTR was divided into four separate operational areas, comprising from west to east: the Eastern Maneuver Area (EMA), the Surface Impact Area (SIA), the Live Impact Area (LIA), and the Eastern Conservation Area (ECA) at the easternmost tip of the island.

On April 30, 2003, the former VNTR was transferred to the DOI to be operated and managed by the United States Fish and Wildlife Service (USFWS) as a National Wildlife Refuge pursuant to Section 1049 of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107–107). Approximately 900 acres of the former VNTR, consisting of the LIA, is managed as a wilderness area where public access is prohibited in accordance with Public Law 106–398 and Public Law 107-107.

DOI developed a Comprehensive Conservation Plan (CCP) for the Vieques National Wildlife Refuge that outlines its concept for managing the refuge (DOI 2007) and for which various “step-down” plans have been developed that outline site-specific land use designs. DOI plans to update the CCP in the near future. To date, step-down plans have been developed for former NASD Solid Waste Management Unit (SWMU) 4 and former VNTR UXOs 1, 2, 3, 5 through 15, and 17. In addition to the land use plans for the Vieques National Wildlife Refuge, PRDNER identified a planned land use for former VNTR UXO 18 (Cayo La Chiva). Each of these sites, as well as UXO 4 and UXO 16, are further discussed in Section 2.

Environmental restoration of the former VNTR is based on potential risks to human health and the environment identified via the CERCLA process, together with applicable or relevant and appropriate requirements (ARARs), with consideration given to the future land use identified in DOI’s CCP (and associated step-down plans prepared by USFWS) and land use identified by PRDNER for UXO 18.

1.1.4.2 West Vieques (Former NASD)

On April 30, 2001, the 8,114-acre former NASD on the west side of Vieques was apportioned and transferred to the DOI, the Municipality of Vieques (MOV), and the Puerto Rico Conservation Trust (PRCT) in accordance with Public Law 106–398. The sites within land owned by these agencies are listed in the appendixes. The property owned by the DOI (approximately 3,158 acres) is managed by USFWS as part of the Vieques National Wildlife Refuge. Like the former VNTR, environmental restoration of the former NASD is based on potential risks to human health and the environment identified via the CERCLA process, together with ARARs, with consideration given to the planned future land use identified in DOI's CCP and associated step-down plan prepared by USFWS for property owned by DOI.

1.1.5 National Priorities List Listing

In 2003, the Governor of Puerto Rico requested EPA to list the VNTR and NASD on the National Priorities List (NPL). On May 26, 2004, the President of PREQB sent a letter to the Regional Administrator of EPA acknowledging that EPA, PREQB, and DOI concurred with the designation of the former naval facilities of eastern and western Vieques as an NPL site. In addition, a clarification of the AFWTA was provided and stated that initial areas of Preliminary Assessment (PA)/Site Inspection (SI) under CERCLA will focus on “Agreed Areas” in and around Vieques and Culebra where the Navy conducted operations, including “those waters in and around Vieques where contamination has come to be located.” On February 11, 2005, Vieques was placed on the NPL. The areas being addressed as part of the NPL or otherwise under CERCLA are shown on Figure 1-2.

As a result of the NPL listing, an FFA was signed by the Navy, EPA, PREQB, and DOI on September 7, 2007. The FFA establishes the procedural framework and schedule for implementing the CERCLA Response Actions and related activities on Vieques.

1.2 Information Repositories

The Navy maintains an information repository, including the official Administrative Record File (ARF) for each site, at the Vieques public website at <https://www.navfac.navy.mil/vieques>. The public website is accessible from any device with access to the Internet, including mobile devices. Additionally, the public website can be accessed at the Biblioteca La Esperanza (public library) located in Esperanza (across the street from the Esteban Rosa Bo. Esperanza Park).

The information repository on the website contains two types of documents:

- The ARF, which is the site-specific collection of documents pertinent to selecting response actions at CERCLA sites. Documents in the ARF are part of the permanent site record.
- Documents that the Navy makes available for public review and comments. These documents are placed in a location readily accessible to the public during the public comment period and are removed at the end of the public comment period. In general, documents provided for public comment, or successors thereof, are ultimately placed in the ARF.

The ARF serves two purposes:

- It contains documents which form the basis for selection of response actions and focuses judicial review of any issue concerning the adequacy of a response action to ARF documents.
- It serves as a vehicle for public participation in the selection of site-specific response actions.

TABLE 1-1
Anticipated Documents for RAB/Public Comment in Fiscal Year 2027
Site Management Plan, FY 2027
Vieques, Puerto Rico

Site	Document	Comments Solicited From
UXO 4 Live Impact Area West/ UXO 2 Live Impact Area Beaches	Proposed Remedial Action Plan	Public
UXO 7 Eastern Maneuver Area/Surface Impact Area North Beaches and UXO 8 Surface Impact Area South Beaches	Proposed Remedial Action Plan	Public
UXO 9 Surface Impact Area Exterior and UXO 10 Surface Impact Area Interior	Remedial Investigation and Feasibility Study Report	RAB
	Proposed Remedial Action Plan	Public
UXO 16.1 Offshore of SWMU 4	Remedial Action Completion Report	RAB
UXO 16.2 Nearshore Underwater Area	Remedial Investigation and Feasibility Study Report	RAB
	Proposed Remedial Action Plan	Public
UXO 17 Other Sites - PAOC EE	Remedial Action Work Plan	RAB
UXO 17 Other Sites - Playa Caracas	Remedial Investigation and Feasibility Study Report	RAB
Sitewide	SIA Focus Area After Action Report	RAB
	Community Involvement Plan	Public
	Site Management Plan, Fiscal Year 2027	RAB
	Site Management Plan, Fiscal Year 2028	RAB

Note:

As of the issuance date of the Fiscal Year 2027 SMP, the documents included in this table are those anticipated to be issued for Restoration Advisory Board (RAB) or public comment during Fiscal Year 2027. However, the actual documents issued and the schedule of their issue are subject to change.

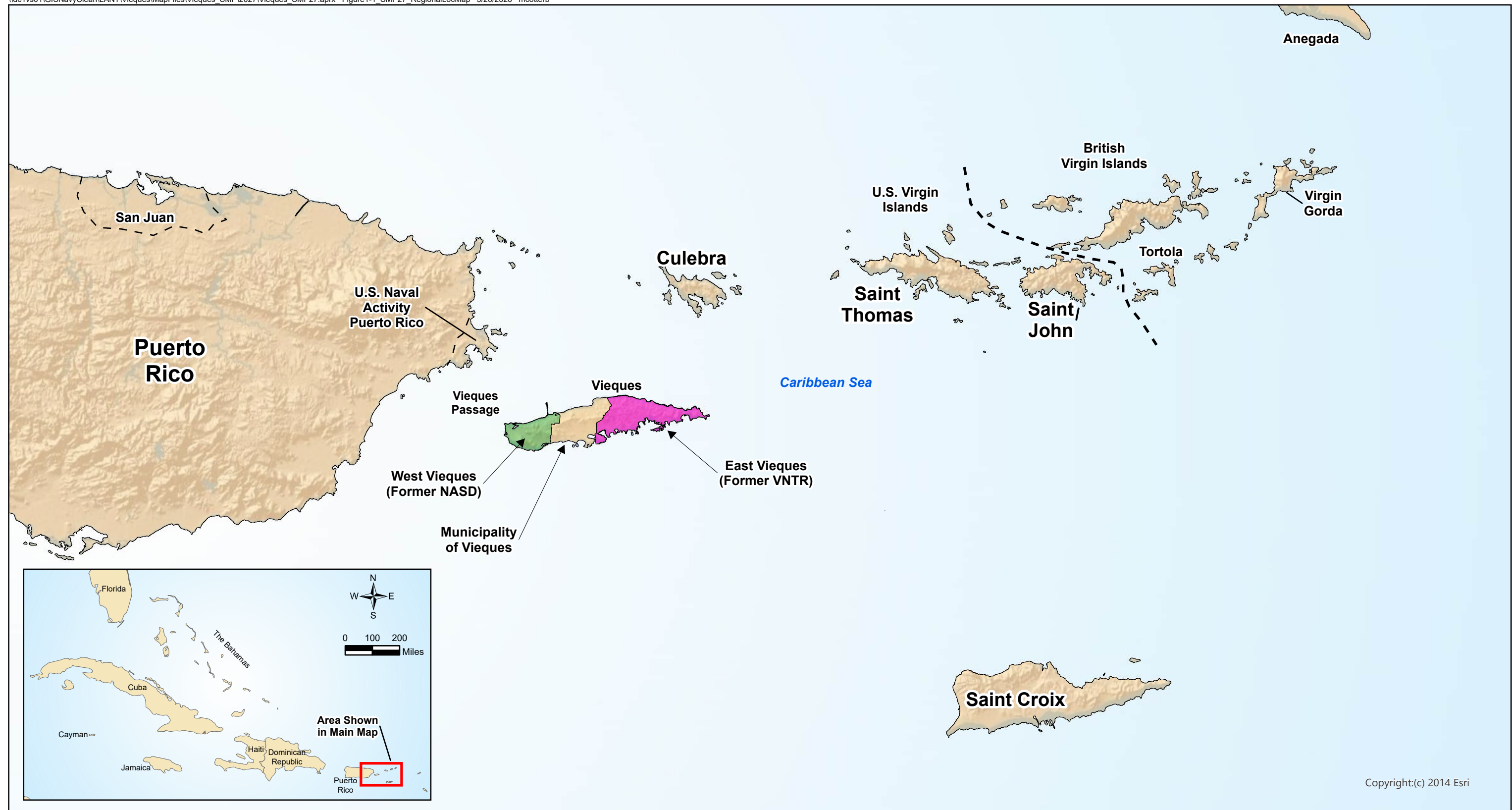
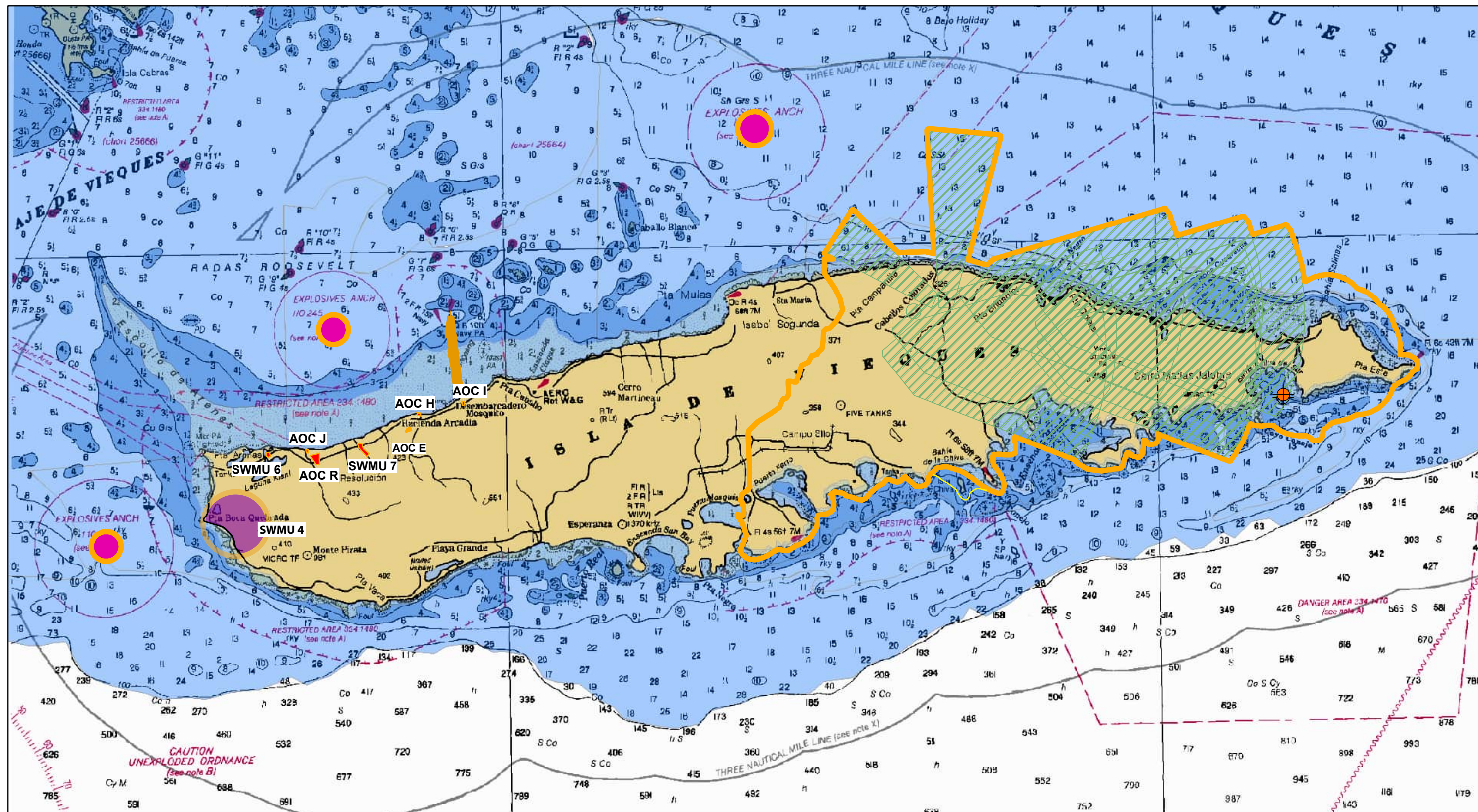


Figure 1-1
Regional Location Map
Site Management Plan, FY 2027
Vieques, Puerto Rico



Legend

- Agreed Areas of NPL Site
- Anchorage Location Boundary
- Western Vieques Installation Restoration Sites
- SWMU 4 (Former OB/OD Site)
- Artillery Safety Fan
- Additional Area to be Addressed under CERCLA

Water Depth

- 0-10 Feet
- 10-150 Feet
- Greater Than 150 Feet
- USS Killen

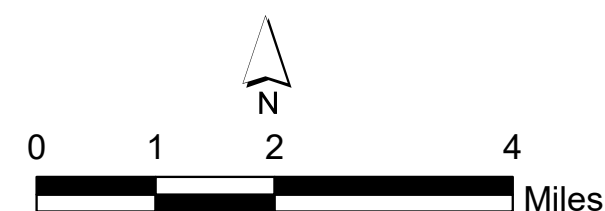


FIGURE 1-2
Vieques Sites Addressed Under CERCLA
Site Management Plan, FY2027
Vieques, Puerto Rico

Site Descriptions

This section presents a description of the sites and the current status for the CERCLA response actions and related activities that are underway or have been completed. The individual sites are categorized in the appendixes to this SMP and the FFA as follows:

- Appendix A, RI/FS Sites (i.e., sites that have entered the CERCLA process culminating in a ROD)
 - Appendix A1, IRP Sites
 - Appendix A2, MRP Sites
- Appendix B, SSAs (i.e., sites for which preliminary evaluation determined they could be closed out of the CERCLA process prior to entering the RI/FS stage)
 - Appendix B1, IRP Sites
 - Appendix B2, MRP Sites
- Appendix C, DoD Site Prioritization Protocol Scoring

Figures showing the locations of the sites on East Vieques and West Vieques are provided as Figures 2-1 (East Vieques IRP sites), 2-2 (East Vieques MRP sites), and 2-3 (West Vieques IRP and MRP sites). A figure that shows the status of each site as it relates to the CERCLA process is included as Figure 2-4.

2.1 Eastern Vieques Sites (Former VNTR)

2.1.1 Consent Order Sites

This subsection summarizes the status of the 12 installation restoration sites (i.e., SWMUs 1, 2, 4, 5, 6, 7, 8, 10, and 12, and AOCs A, F, and G) that were identified in a Resource Conservation and Recovery Act (RCRA) Consent Order and have undergone investigations through the CERCLA process. Additional detail for the one Consent Order site, SWMU 1, for which remedial action long-term monitoring is ongoing is provided herein. Site-specific detail for the remainder of the former VNTR IRP sites, all except one of which (SWMU 20) were determined to require No Action or No Further Action (NFA) under CERCLA, is provided in Appendix A1 and past SMP updates. Additional detail for SWMU 20, which is undergoing a pilot study to support an FS for chlorinated hydrocarbon remedial action as well as a per- and polyfluoroalkyl substances (PFAS) characterization, is also provided herein.

A cross reference table, Table 2-1, has been included to facilitate comparison of Department of Defense (DoD) “Sites” with EPA “Operable Units.” The locations of the eastern Vieques IRP sites are shown on Figure 2-1. Section 3 discusses the anticipated schedule for deliverable submittals for SWMU 1, as well as all other ERP sites on the former VNTR and former NASD under investigation and/or under removal or remedial action.

Prior to Vieques’ listing on the NPL, environmental investigations on the former VNTR were conducted under RCRA. Therefore, a Phase I RCRA Facility Investigation (RFI) (similar to a PA/SI conducted under CERCLA) was conducted for the 12 Consent Order SWMUs and AOCs and the draft Phase I RCRA Facility Investigation Report was prepared (CH2M 2004a). Because several of the potential inorganic constituents (also referred to as metals) detected in site-specific soil samples are also commonly occurring in nature or otherwise ubiquitous, a background investigation of soil inorganics was conducted, and the East Vieques Background Soil Inorganics Investigation Report was issued in October 2007 (CH2M 2007h). These background soil results are used, together with other lines of evidence, to assess whether the inorganic constituent levels detected in site-specific soils are consistent with background conditions or indicative of releases from historical waste management activities. Once the Background Soil Inorganics Report was finalized, the draft Phase I RFI Report (CH2M 2004a) was revised with this information and resubmitted as the draft PA/SI Report (to be consistent

with the CERCLA terminology since Vieques had by then been listed on the NPL) for regulatory review, and subsequently the final PA/SI Report (CH2M 2008d) was issued.

Based on the findings of investigations documented in the PA/SI Report, four of the 12 Consent Order sites (i.e., SWMUs 5, 8, 12, and AOC F) were identified as requiring no action to be protective of unrestricted human use and ecological exposure. These sites were subsequently included in a No Action Decision Document (CH2M 2009a). The remaining eight sites were included in an additional investigation, the results of which are presented in the SI/Expanded Site Inspection (ESI) Report (CH2M 2010c). Based on the findings presented in the SI/ESI Report, seven of the eight remaining Consent Order sites were identified as requiring no action or NFA to be protective of unrestricted human use and ecological exposure. These sites are included in a No Action/NFA Decision Document (CH2M 2010e). The one remaining site (SWMU 1) was recommended for presumptive remedy following preparation of a Streamlined RI/FS Report (CH2M 2011g). Subsequently, a presumptive remedy ROD was signed in 2011 (NAVFAC 2011d), the remedial action for which is discussed in the next subsection.

2.1.1.1 SWMU 1 – Camp Garcia Landfill

According to the Navy Assessment and Control of Installation Pollutants (NACIP) Initial Assessment Study (IAS) Report, this SWMU was in operation from approximately 1954 to 1978 (Greenleaf et al. 1984). While this SWMU was operational, it was an unlined landfill that was used to dispose of paper, corrugated containers, cans and food packaging material, rags, scrap metal, and yard waste. Municipal waste from both Camp Garcia and other areas of the VNTR was handled here. Approximately 1,800 to 3,120 tons of wastes were reportedly disposed of in the SWMU 1 landfill, as noted in the IAS (Greenleaf et al. 1984). The SWMU 1 landfill, the Camp Garcia area, and other IRP sites in the former VNTR are shown on Figure 2-1.

During operation of the landfill, the trench method of disposal was employed, and land clearing was kept to a minimum to avoid erosion at the site. A bulldozer was used to dig a trench into which materials were disposed. The trench was then covered with about 6 inches of soil to control blowing of litter. The landfill was closed in 1978, and a 2-foot-thick soil cover was placed over the landfill.

The landfill managed waste from a maximum of approximately 150 individuals, depending on military exercises. An aerial photograph analysis of the landfill indicated that the fill area extended over an area of approximately 50 acres (Lockheed Martin 1999). Although geophysical evaluation and test pitting performed during the Phase I RFI and the ESI suggested the landfill covered an area of approximately 41 acres, additional geophysical evaluation conducted during implementation of the remedial action confirmed the landfill area to be approximately 51 acres. Prior to implementation of the remedial action, the landfill was vegetated with dense grasses and trees. A gravel road was constructed down the center of the landfill in the mid-1980s, but the road became vegetated. During the Visual Site Inspection (VSI), no signs of erosion or stresses on vegetation were observed (PREQB 1995). No documentation was found regarding releases of hazardous constituents from the landfill. Several areas of debris (fill material) were observed in 2004 during the clearing of transects for the Phase I RFI. Debris observed included galley (kitchen) waste (cans, bottles, forks, and knives), metal pipes, and a small metal tank. Observations made while test pitting during the ESI suggest some munitions debris (MD) was also disposed of in the landfill.

Evaluation of historical data collected at SWMU 1 is presented in the PA/SI Report (CH2M 2008d) and the SI/ESI Report (CH2M 2010c). Although the data collected during the Phase I RFI suggest there had not been a release from the landfill that posed a potentially unacceptable risk, only surface soil and groundwater data were collected at that time (i.e., no soil samples within and beneath debris nor ephemeral stream samples were collected). Based on this information, SWMU 1 was part of an ESI for which the fieldwork, described in a Sampling and Analysis Plan (SAP) (CH2M 2009c) was completed in May 2009. During the ESI, geophysical surveying, test pitting, waste characterization, soil sampling, ephemeral stream sampling, monitoring well installation, and groundwater sampling were performed. The SI/ESI Report, which included SWMU 1, was issued in August 2010 (CH2M 2010c). Based on the findings documented in the SI/ESI Report and consistent with EPA guidance, a streamlined RI/FS for presumptive remedy was produced for SWMU 1. The Streamlined RI/FS was completed in April 2011 (CH2M 2011g). Based on the remedial alternatives evaluation in the RI/FS, a Proposed

Plan was issued for public comment in July 2011 (NAVFAC 2011b) and the associated ROD was issued in September 2011 (NAVFAC 2011d). The work plan to guide implementation of the remedial action, operation and maintenance (O&M), land use controls (LUC), and long-term monitoring (LTM) was issued in July 2012 (CH2M 2012g).

During an initial attempt to implement the remedy in September 2012, more surface debris was encountered than had been previously assumed present on the landfill surface (i.e., 0.5 acre). Based on this finding, the Navy and regulatory agencies concurred on removing the vegetation across the landfill in order to ensure all debris at the landfill surface could be removed, noting this would also facilitate a sitewide geophysical surveying to refine the boundary of the landfill and increase the level of confidence that all areas within the landfill boundary would be appropriately addressed by the remedial action. To accomplish this, a technical memorandum work plan for these pre-design activities was issued in September 2013 (CH2M 2013j), with fieldwork commencing shortly thereafter. During the surface clearance, approximately 11,631 pounds of debris were removed from the landfill surface. A geophysical investigation was completed in April 2014, which identified the boundaries of buried debris contained within the landfill, and the human health risk assessment (HHRA) for soil within the landfill area included in the RI/FS Report was revised to include subsurface soil, which demonstrated human health risks from exposure to landfill soil were acceptable under current and anticipated future land use based on the data available at that time. A technical memorandum (CH2M 2015g) was prepared to document the remedial action activities to date and the proposed path forward for the site, which included completing the surface debris removal and landfill boundary delineation in areas adjacent to ephemeral streams at the site. This additional work was completed in November 2015.

A ROD Explanation of Significant Differences (ESD) was issued in October 2016 (NAVFAC 2016c). As jointly determined by the Navy and regulatory agencies, removal of surface debris across the landfill was preferable to covering the debris. This action, and a revised risk assessment considering both surface and subsurface soil, demonstrated that no unacceptable risks remained, thereby obviating the need for additional soil cover in order to meet the objectives set forth in the remedy selected for the 2011 ROD (NAVFAC 2011d). None of the other aspects of the 2011 ROD were changed by this ESD; the long-term groundwater monitoring, the institutional controls, and O&M requirements remained unchanged. Because of the remedy modification outlined in the ROD ESD, a Revised O&M, LUC, and LTM Work Plan was finalized in November 2016 (CH2M 2016l).

The remaining remedial action elements (i.e., those identified in the 2016 Revised O&M, LUC, and LTM Work Plan [CH2M, 2016l]) were addressed in early 2016, including a survey of the LUC boundary by a professional surveyor, installing markers at LUC boundary corners, and installing a fence with warning signs along the main east-west road through the southern portion of the landfill. The results of the remedial action implementation are documented in the Remedial Action Completion Report (RACR) finalized in January 2017 (CH2M 2017b).

In accordance with the Revised O&M, LUC, and LTM Work Plan, post-ROD inspections and LTM sampling were completed in 2016 through 2023 that included sampling of six monitoring wells with analysis for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals (total and dissolved). Based on the data collected during the 2016 through 2023 annual groundwater LTM events, the groundwater conditions beneath the landfill have remained relatively consistent over the last two decades. As a result, the groundwater monitoring frequency was reduced to every 5 years to coincide with the year each five-year report is produced, with the next groundwater sampling event to occur in 2027. LUC inspections will continue annually. Additionally, because trespassing has not been observed at the landfill and because the dense vegetation provides a sufficient deterrent to unauthorized access, the 3-wire fence installed along the section of the road that traverses the southern portion of the landfill was removed in 2024. The first ten annual LTM Status Reports were finalized in January 2017 (CH2M 2017a), December 2017 (CH2M 2017k), August 2018 (CH2M 2018l), September 2019 (CH2M 2019g), November 2020 (CH2M 2020e), November 2021 (CH2M 2021b), November 2022 (CH2M 2022i), September 2023 (CH2M 2023g), September 2024 (CH2M 2024k), and September 2025 (CH2M 2025k). The eleventh annual LTM Status Report documents the 2026 LUC inspection and is anticipated to be finalized in mid-2026.

SWMU 1 was included in the First Five-Year Review, the report for which was finalized in September 2018 (CH2M 2018m), and the Second Five-Year Review Report finalized in December 2023 (CH2M 2023n). The reports identified that the following Remedial Action Objectives (RAOs) have been or continue to be met:

- Prevent direct contact with surface and subsurface landfill debris and associated contamination that would potentially pose an unacceptable risk to exposed receptors.
- Minimize the potential for erosion of landfill debris.
- Ensure land use within the landfill boundaries (including the use of groundwater) is controlled, unless or until additional action is implemented that mitigates potentially unacceptable risks associated with unrestricted land use.

The remedy at SWMU 1 is protective of human health and the environment and has reached Response Complete status because it has met the RAOs. Surface debris has been removed, direct contact with and erosion of subsurface landfill debris is controlled by the vegetative cover, and LUCs are effective at controlling land (including groundwater) use, which is verified through the LUC inspection and maintenance program. LTM data indicate that the remedy is functioning as required.

Based on historical activities at SWMU 1, the site was included in the PFAS SI, as described in Section 2.3. However, based on the SI results, SWMU 1 was not recommended for an RI.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for SWMU 1.

2.1.2 Photo-Identified and Potential Area of Concern Sites

During development of the Description of Current Conditions Report (CH2M, 2001b) and the Environmental Baseline Survey (EBS) (NAVFA 2003c), several potential IRP sites were identified based on the review of historical aerial photographs and facility records. This subsection summarizes the status of the 23 photo-identified (PI) and 24 Potential Area of Concern (PAOC) sites that were identified, and in most cases, investigated and determined to require No Action or NFA under CERCLA. Additional detail for the one site (SWMU 20 [formerly PI 4]) that is currently under investigation is provided herein. Site-specific detail for the remainder of the sites, which were determined to require No Action or NFA under CERCLA, is provided in Appendix B1 and past SMPs. The locations of the IRP PI and PAOC sites are shown on Figure 2-1.

A draft Phase I RFI Report (CH2M 2004a) was developed that described the 47 PI/PAOC sites; however, none of the sites was investigated during the Phase I RFI. The draft Phase I RFI Report proposed eight of the PI/PAOC sites (PIs 4 and 7, and PAOCs J, K, L, N, S, and U) for a Phase I RFI, which was implemented as a PA/SI under CERCLA due to the subsequent listing of Vieques on the NPL. The PA/SI fieldwork for the eight PI/PAOC sites was completed in April 2006 in accordance with the PA/SI Work Plan (CH2M 2006a). The PA/SI Report discusses the findings and recommendations for each of the eight PI/PAOC sites (CH2M 2008d). One site (PAOC U) was recommended for NFA, which was documented in a No Action Decision Document (CH2M 2009a). Five of the remaining seven PI/PAOC sites were recommended for further investigation as part of an ESI (PIs 4 and 7, and PAOCs L, N, and S) (CH2M 2010c). Determinations for the two remaining sites (PAOC J and K) were postponed pending completion of a regional groundwater evaluation for the Camp Garcia area.

The five aforementioned sites and regional groundwater were included in an ESI, for which the fieldwork, described in a SAP (CH2M 2009c), was completed in May 2009. The SI/ESI Report, which includes these five sites, was issued in August 2010 (CH2M 2010c). Based on the findings presented in the SI/ESI Report, five of the seven aforementioned PI/PAOC sites (PAOCs J, K, L, N, and S) were identified as requiring no action or NFA to be protective of unrestricted human use and ecological exposure. These sites are included in a No Action/NFA Decision Document (CH2M 2010e). The remaining two sites (PI 4 and PI 7) were recommended for additional sampling in accordance with the existing SAP (CH2M 2009c). The recommendation at the PI 7 site was to collect a co-located surface and subsurface soil sample from the same location sampled seven years prior to determine

current concentrations of polycyclic aromatic hydrocarbons (PAHs). The additional samples were collected and the associated data, together with the data from other historical samples collected at the site, were used to determine existing conditions do not pose an unacceptable risk to human health or ecological receptors or leaching concern for groundwater. This was documented in the SI/ESI Report Addendum (CH2M 2011j). Based on this, a No Action/NFA Decision Document that included PI 7 was issued in September 2011 (CH2M 2011l). PI 4 (subsequently renamed SWMU 20) is still under investigation; therefore, more detail regarding this site is provided in Section 2.1.2.1.

The path forward for the remaining 39 PI/PAOC sites was discussed by the Environmental Technical Subcommittee, which at that time comprised representatives from the Navy, EPA, PRDNER, PREQB, and USFWS, and their contractors. Any of the PI/PAOC sites located in munitions sites have been, are being, or will be investigated as part of the broader munitions sites (see Section 2.1.3). Based on this protocol, there are 22 PI/PAOC sites located in munitions sites. The remaining 17 PI/PAOC sites (in addition to the eight discussed in the preceding paragraph) are in the IRP (PIs 5, 6, 8, 10, 11, 20, and 21, PAOCs I, M, O, P, Q, R, T, V, W, and X). A site visit by the Environmental Technical Subcommittee to 16 of the sites (all except PI 21) on October 17, 2007, determined that five of the 16 sites required no action to be protective of unrestricted human use and ecological exposure (PI 11 and 20, and PAOCs T, V, and W). A No Action Decision Document (CH2M 2009a) was issued in January 2009 to document the no action determination for a number of sites, including these five sites. The remaining 11 PI/PAOC sites (not including PI 21) were included in the SI/ESI, for which the fieldwork, as described in the SAP (CH2M 2009c), was completed in May 2009. The SI/ESI Report, which includes these 11 sites, was issued in August 2010 (CH2M 2010c). Based on the findings presented in the SI/ESI Report, nine of the 11 aforementioned PI/PAOC sites (PIs 5, 6, 8, and 10, and PAOCs I, M, O, P, and X) were identified as requiring no action or NFA to be protective of unrestricted human use and ecological exposure. These sites are included in a final No Action/NFA Decision Document (CH2M 2010e). The remaining two sites (PAOCs Q and R) were recommended for additional sampling in accordance with the aforementioned SAP (CH2M 2009c). That sampling occurred in August 2010 and was documented in the SI/ESI Addendum Report (CH2M 2011j); the sites were subsequently included in a No Action/NFA Decision Document (CH2M 2011l).

Representatives of the Environmental Technical Subcommittee conducted a site visit at PI 21 in March 2012. Based on historical information and the site visit, an SI SAP was issued in February 2013 (CH2M 2013d). Sampling was accomplished in April 2013 and a No Action Decision Document was issued in June 2014 (CH2M 2014i).

Additionally, a new SSA (referred to as Laguna La Chiva) was added based on the results of sediment samples collected there by the National Oceanic and Atmospheric Administration (NOAA). An SI/RI SAP was issued in April 2013 (CH2M 2013h) and sampling took place in May 2013. Based on the findings, a No Action Decision Document was issued in September 2014 (CH2M 2014n).

Based on historical use, several of the sites listed in this subsection were included in the PFAS SI, as described in Section 2.3.

2.1.2.1 SWMU 20, Formerly Known as PI 4 – Former Helicopter Maintenance Area, Trenched Area, Disturbed Area, and Bermed Areas used for Fuel Bladder Storage

Historical information suggests the site comprised a former helicopter maintenance area, trenched area, disturbed areas, and bermed area for storage of fuel bladders. There are no structures remaining at the site other than concrete pads (potential relics of building foundations) and concrete vaults believed to have been associated with a sanitary septic system for barracks and mess potentially located at the site (CH2M 2008d).

During the 2001 SI of PI sites and the 2002 EBS SI, no physical evidence of a release was noted. However, as a conservative measure, five potential sources of a release were identified for PA/SI sampling:

- Former trenches
- Area of disturbed ground south of the helicopter maintenance area

- Bermed fuel bladder storage area
- Former helicopter maintenance area
- Disturbed area in the southeast part of the trenched area

Evaluation of historical data collected about SWMU 20 (designated PI 4 during past investigations) is presented in the PA/SI Report (CH2M 2008d) and SI/ESI Report (CH2M 2010c). Although the data collected during the PA/SI suggested there had been a release of VOCs to groundwater, the spatial coverage of monitoring wells was not adequate to sufficiently characterize the potential source area. Therefore, PI 4 was part of an ESI, for which the fieldwork, as described in the SAP (CH2M 2009c), was completed in May 2009. During the ESI, additional monitoring well installation and groundwater sampling were performed. The SI/ESI Report, which includes PI 4, was issued in August 2010 (CH2M 2010c). The SI/ESI Report identified low levels of VOCs in groundwater at PI 4; specifically, low-level exceedances of the trichloroethene (TCE) Maximum Contaminant Limit (MCL) were observed in one well over two rounds of sampling. Collection of another round of groundwater samples from all site wells for VOC analysis was recommended in the SI/ESI Report to confirm low levels or evaluate presence of any trends.

A Supplemental ESI and Pilot Study SAP was issued in September 2011 which described additional soil and groundwater sampling and a potential pilot study (CH2M 2011k). During the Supplemental ESI, five new wells were installed around the well that had the low-level TCE concentrations in an attempt to confirm the localized presence of TCE. However, the area of TCE contamination was determined to be larger than previously thought, so two additional wells were installed in the downgradient direction. These two wells also contained relatively low levels of TCE but demonstrated the area of contamination had not yet been delineated. Therefore, the Supplemental ESI was halted, and an RI SAP was developed for the site to determine the extent of the TCE-related contamination in groundwater. Because the site was the subject of an RI, its designation was changed from PI 4 to SWMU 20. An RI SAP was issued in April 2013 (CH2M 2013g) and fieldwork was conducted from May through October 2013, during which 16 shallow bedrock monitoring wells (MW-15 through MW-30) and two deep bedrock wells (MW-13D and MW-17D) were installed. Groundwater samples were collected from 14 existing and the 18 new monitoring wells to help delineate the nature and extent of groundwater contamination. Four soil samples were collected from borings for monitoring wells MW-13D and MW-17D to supplement the 35 previously collected soil samples on site. The results of this field effort identified no soil contamination but did identify TCE-related groundwater contamination extending approximately 1,500 feet in a south-southeastern direction from the assumed source location. Additional monitoring wells (MW-31, -32, -33, -24D, -25D, and -28D) were installed in 2014, which sufficiently delineated the nature and extent of contamination in both the shallow and deep bedrock groundwater to complete the RI and proceed to the FS. Ultimately, the TCE-related contamination in groundwater was found to be approximately 1,500 feet in the southeastern direction. Following completion of the groundwater investigation, soil samples from five locations were collected in the anticipated source area to determine if soil contamination at that location was present. No contamination was found. This information, coupled with the historical soil data, suggests there is no source area remaining in soil. The final RI Report (CH2M 2016h) was issued in August 2016. The draft FS Report, which evaluates remedial action alternatives for the site, was submitted for regulatory review in January 2017. During subsequent inter-agency discussions, it was concurred upon that additional information would be gathered to support the FS, including sampling six monitoring wells for microbial and geochemical parameters, and performing simulations (modeling) of the various FS alternatives to estimate plume stability/cleanup timeframe. These activities took place in August 2018.

Based on the historical data gathered during the aforementioned studies, and to support the FS, a pilot study was implemented from October 2023 through January 2024 to measure the effectiveness of zero-valent iron (ZVI) in treating chlorinated VOCs, primarily TCE, in groundwater and reducing the potential for chlorinated VOC migration toward Bahía Tapón. As part of the pilot study, a groundwater monitoring event was completed in February 2025. Based on this information, the FS will be completed once the ZVI pilot study is completed and the PFAS evaluation is performed.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for SWMU 20. Based on historical activities at SWMU 20, the site was included in the PFAS SI, as described in Section 2.3.

2.1.3 Munitions Response Program Sites

This section updates the former VNTR munitions response sites' status. For the purpose of this SMP, the number of munitions and explosives of concern (MEC) listed in the discussion includes unexploded ordnance (UXO) and discarded military munitions (DMM) and material potentially presenting an explosive hazard (MPPEH) and does not include MD. The locations of the eastern Vieques munitions response sites are shown on Figure 2-2.

To more efficiently address the sites within the LIA under the CERCLA process, a boundary change in UXO sites within the LIA was completed in 2026. These boundary changes allow for areas within the LIA that have undergone RI activities associated with the Master SAP (CH2M, 2013b) to proceed through the CERCLA process while the other areas continue to be addressed via removal actions. Details of the boundary changes are summarized here, shown on Figure 2-5, and further detailed in the applicable UXO sections that follow:

- Based on planned land use of the LIA (i.e., wilderness area), the LIA Roads, historically designated as UXO 3 LIA Roads, have been incorporated into the surrounding terrestrial areas, as further described in subsequent bullets that follow:
 - The segments of historical UXO 3 roads in the SIA just west of the LIA boundary have been incorporated into UXO 5 (SIA Restricted Roads) to more appropriately reflect their location and association.
 - UXO 3 (233 acres) is now defined as “LIA East” and comprises:
 - The Submunitions Area and immediately adjacent area eastward to the north-south road along the western border of the ECA
 - The previous road through the Submunitions Area, which has been eliminated to reduce the potential for unintended access to the Submunitions Area
 - Beaches Playas Punta Salinas and Playa Barco because of the potential for submunitions to be present at those beaches based on information gathered during the Submunitions Area TCRA
 - UXO 4 (651 acres) is now defined as “LIA West” and comprises:
 - The remainder of the LIA interior
 - All roads within the LIA interior, modified in areas to facilitate intended access
 - UXO 2 (65 acres) remains defined as “LIA Beaches,” but now comprises:
 - The beaches originally associated with the LIA with the exception of the two incorporated into UXO 3 and the “apparent” beach located on the western tip of Bahia Salinas del Sur (Playa Bahia Salinas del Sur). This is not a sandy beach but is more closely associated with the adjacent terrestrial areas, so it has been incorporated into UXO 9.

2.1.3.1 UXO 1 – Eastern Conservation Area

The ECA, designated as Munitions Response Site (MRS) UXO 1 in the Expanded Range Assessment (ERA)/SI Report (CH2M 2010d), was not an operational area for munitions use. However, its close proximity to the LIA, where extensive naval gunfire and ATG bombing took place, resulted in the ECA being a potential area for MEC. In addition, the open burn/open detonation (OB/OD) area within the LIA generated an explosive safety arc that extended into the ECA. The ECA was part of the TCRA during which MEC was removed from the ground surface within 125 acres of UXO 1 including the lagoon, leaving only several acres (approximately six percent of the site) of steep slopes and cliff edges not cleared, primarily because of inaccessibility and instability. Surface removal activities were completed in February 2009.

In February 2008, an Engineering Evaluation/Cost Analysis (EE/CA) for the Subsurface Removal of MEC from the Roads and Beaches was finalized (CH2M 2008a). An NTCRA Work Plan for actions identified in the EE/CA was issued in January 2009 (CH2M 2009b). Within the ECA, the NTCRA removed subsurface munitions from the main road and Playa Blanco.

During the TCRA and NTCRA, 1,404 MEC items were removed from UXO 1. Based on the results of the TCRA and NTCRA, an RI was conducted at the ECA to assess the nature and extent of contamination and potential environmental and human health risks associated with exposure to any contamination identified. The RI field investigation was completed in February 2011, and the RI Report was issued in July 2012 (CH2M 2012h). An FS, which evaluated remedial alternatives for the site, was issued in October 2012 (CH2M 2012k). Following USFWS' issuance of the ECA restoration plan in March 2014, the Proposed Remedial Action Plan (PRAP) was finalized in June 2014 (NAVFAC 2014b); the preferred alternative in the PRAP was Focused Additional MEC Removal and LUCs. Following the public comment period on the PRAP, a ROD for UXO 1 was signed on November 4, 2015 (NAVFAC 2015c). The final Remedial Action, LUC, and LTM Work Plan (CH2M 2016m) was issued in November 2016. Remedial action field activities took place in August and September 2018 and a final RACR was submitted in August 2019 (CH2M 2019e).

In accordance with the Remedial Action, LUC, and LTM Work Plan (CH2M 2016m), post-ROD inspections were completed. Inspections entailed an instrumented-aided visual survey to inspect for surface MEC becoming exposed via site erosion and indications of any potential trespassing and any required maintenance for the site's LUCs (gates, locks, physical demarcation barrier). No MEC was encountered during any of the annual inspections and all LUCs were observed to be operating as intended. The six Annual Status Reports were finalized in November 2020 (CH2M 2020f), February 2022 (CH2M 2022b), May 2023 (CH2M 2023a), March 2024 (CH2M 2024c), January 2025 (CH2M 2025a) and (CH2M 2026a). The next annual report is planned in 2027 following the 2026 inspection.

UXO 1 was included in the Second Five-Year Review Report which was issued for regulatory review in May 2023 (CH2M 2023n). The report identified that the following RAOs have been or continue to be met:

- Lessen the explosive hazards associated with MEC by reducing the potential for uncontrolled human contact with MEC potentially present in site soil and the lagoon.
- Maintain land use that is consistent with reasonably anticipated future use of the site as set forth in the Memorandum of Agreement between the Navy and DOI concerning the transfer of DoD properties on the Eastern End of Vieques (DON/DOI 2003). The Memorandum of Agreement sets forth the terms of Public Law 106-398, as amended by Public Law 107-107, which requires the land containing the ECA to be managed by USFWS as a National Wildlife Refuge.

The remedy at UXO 1 is protective of human health and the environment and has reached Response Complete status because it has met the RAOs. MEC clearance was performed, LUCs were implemented, are monitored/maintained, and have been shown to effectively ensure land use remains as planned by DOI and to reduce the potential for uncontrolled human contact with explosive hazards at the site.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 1.

2.1.3.2 UXO 2 – Live Impact Area Beaches

UXO 2 encompasses approximately 65 acres of beaches along the perimeter of the LIA (Figure 2-2). UXO 2 is further defined as the sandy beach areas extending from the waterline to the inland extent of turtle nesting habitats, as described in the Biological Assessment of the Former Live Impact Area (GMI 2006). UXO 2 comprises 14 beaches including Playa Bahia Salinas del Sur (Beaches 2 and 3), the small island off of Bahia Salinas del Sur, Playa Carrucho/Turtle Beach (Beach 4), Playa Bahia Icacos (Beach 5), Playa Bahia Salinas/Fossil Beach (Beach 6), Playa Tamarindo (Beaches 7 through 10), Playa Punta Salinas (Beaches 11 and 34), Playa Brava

(Beach 14) and Playa Cano Hondo (Beach 33). This area is managed as a wilderness area where public access is prohibited in accordance with Public Law 106-398 and Public Law 107-107.

The TCRA (CH2M 2005b) at UXO 2 for the surface removal of munitions was initiated in 2005. In June 2009, the field activities for an NTCRA for subsurface removal of munitions were initiated for UXO 2 (CH2M 2009b). Over 1,100 surface and subsurface MEC have been removed within UXO 2. No MEC removal has been conducted at Playa Punta Salinas (Beach 34) as the beach is inaccessible due to steep cliffs on land and nearshore shallow reefs in the water. An RI was conducted to characterize the nature and extent of environmental contamination and MEC at UXO 2 and other UXO beaches (i.e., UXOs 7 and 8) and to assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b) and the RI SAP Addendum 6 (CH2M 2018e). RI fieldwork took place in October/November 2018. In addition, a Beach Dynamics Investigation Quality Assurance Project Plan (QAPP) was issued in February 2014 (CH2M 2014b) and fieldwork took place between the spring of 2015 and the end of 2017. The beach dynamics investigation was conducted at ten beaches within the former VNTR (including six within UXO 2 and two each in UXOs 7 and 8 based on their boundaries at that time) and one beach within the former NASD to understand the dynamic nature of the beach environment and its impact on the mobility of MEC. Pre- and post-Hurricane Maria data were collected and included in the Beach Dynamics Report. The final Beach Dynamics Report was issued in November 2018 (CH2M 2018p) and information from this report was utilized as part of the MEC nature and extent evaluation in the RI Report and will be utilized as part of remedial alternatives evaluation in the FS Report. The final RI Report was issued in December 2020 (CH2M 2020i) and the final FS Report was issued in July 2026 (CH2M 2026f). The PRAP is currently being drafted. NTCRA fieldwork continues and is anticipated to be completed in the next few years.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 2.

2.1.3.3 UXO 3 – Live Impact Area East

The updated UXO 3 LIA East boundary encompasses approximately 233 acres in the eastern portion of the LIA and comprises the Submunitions Area and immediately adjacent areas, where cluster munitions released submunitions; which are small, highly sensitive bombs that are easily hidden by vegetation and contain a high explosive hazard (Figure 2-2). This area is managed as a wilderness area where public access is prohibited in accordance with Public Law 106–398 and Public Law 107-107.

In 2016, a TCRA (CH2M, 2016g) was initiated within the approximate 75 acre Submunitions Area within UXO 3 to address the explosive hazard associated with submunitions. To date, 70 of the 75 acres have been completed with the remaining areas being inaccessible due to steep terrain. The approach for UXO 3 is currently being developed.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 3.

2.1.3.4 UXO 4 – Live Impact Area West

UXO 4 encompasses approximately 651 acres of the former LIA, not including UXO 2 LIA Beaches and UXO 3 LIA East because they are being addressed as separate UXO sites (Figure 2-2). This area is managed as a wilderness area where public access is prohibited in accordance with Public Law 106–398 and Public Law 107-107.

In 1965, training activity began in the LIA where several mock-ups, such as old tanks and vehicles, were used as targets for aerial bombing. From the mid-1970s, naval gunfire was practiced, where several point and area targets for ships were constructed (Tippetts et al. 1980). Marine artillery fired from the west likely impacted this area also.

A TCRA (CH2M 2005b) at UXO 4 was initiated in 2005. The MEC removed from the ground surface consisted of multiple types of munitions items (e.g., bombs, projectiles, rockets, flares, submunitions). Due to the high density of submunitions encountered within the eastern portion of the LIA, a separate TCRA work plan specific to this area was issued in August 2016 (CH2M 2016g).

To date, over 79,100 MEC have been removed from the ground surface within UXO 4. Based on the results of the PA/ERA/SI and TCRAs, an RI was conducted to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b). The RI fieldwork described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b), including UXO 4, started in January 2013 with the collection of soil, surface water, sediment, and groundwater samples. The RI field activities at the North Convoy Target Area were conducted in January and February 2018, with oversight and split-sample collection performed by EPA. A final Technical Memorandum entitled Summary of Findings-2018 Radiological Investigation at the North Convoy Target Area of UXO 4 was submitted in October 2019 (CH2M 2019i), the information from which are included in the RI/FS Report. The final RI/FS Report was issued in July 2026 (CH2M 2026f). The UXO 4 PRAP is currently being drafted.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 4.

2.1.3.5 UXO 5 – Surface Impact Area Restricted Roads

The updated UXO 5 boundary encompasses approximately 24 acres of road surface and 25-foot buffers on each side of the roads throughout the SIA (Figure 2-2).

In June 2009, the field activities for an NTCRA were initiated (CH2M, 2009b) along a number of VNTR roads. Over 370 MEC have been removed within UXO 5 during the NTCRA. Based on findings from the NTCRA and geophysical surveys, an RI was conducted to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M, 2013b) and the RI SAP Addendum 4 for UXOs 3, 5, 6, and 11 that was finalized in January 2016 (CH2M, 2016a).

The RI for UXOs 3, 5, 6, and 11 began in May 2017 but completion was delayed due to Hurricane Maria; field activities resumed in October and completed in December 2018. A draft RI/FS Report for UXOs 3, 5, 6, and 11 was submitted for regulatory review in September 2019. Based on discussions between NAVFAC and the regulatory agencies on the draft report, a decision was made to split the RI/FS Report into RI and FS reports to facilitate completion of the RI while inter-agency discussions regarding potential remedial alternatives continued. The final RI Report was submitted in December 2020 (CH2M, 2020j). NTCRA fieldwork continues and is anticipated to be completed in the next few years, after which the FS will be completed, incorporating the additional information gathered during the NTCRA.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 5.

2.1.3.6 UXO 6 – Eastern Maneuver Area/Surface Impact Area Planned Public Roads

UXO 6 encompasses approximately 62 acres of roads including the road surface and 25-foot buffers on each side of the roads (Figure 2-2). The western portion of UXO 6 lies in the former EMA and the eastern portion lies in the former SIA.

Over 280 MEC have been removed within UXO 6 during the NTCRA. Based on the recommendations of the UXOs 3, 5, 6, and 11 RI Report (CH2M, 2020j), the UXOs 6 and 11 FS Report was drafted and finalized in July 2025 (CH2M 2025g); which documented the remedial alternatives to address explosive hazards. The UXOs 6 and 11 PRAP was finalized in June 2026 (NAVFAC 2026).

In September 2025, the Punta Carrenero After Action Report (CH2M 2025j) was finalized and documented that munitions removal activities have resulted in explosive hazard reduction supportive of public use within the Punta Carrenero Focus Area, in accordance with USFWS plans. The Punta Carrenero Focus Area comprises portions of four UXO sites (UXOs 6, 8, 9, and 16).

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 6.

2.1.3.7 UXO 7 – Eastern Maneuver Area/Surface Impact Area North Beaches

UXO 7 encompasses approximately 53 acres and comprises the sandy beach areas located along the north shore of the former VNTR (Figure 2-2). UXO 7 comprises 14 beaches and an island along the northern shoreline of the EMA or SIA that include Playa Puerto Diablo (Beach 22), Playa Puerto Negro (Beach 23), Playa Campana/Purple Beach (Beach 24), Playa Campanita (Beach 25), Playa Voltios (Beach 26), Playa Diablito 1 and 2 (Beach 27), Playa Punta Campanilla (Beach 28), Playa Puntas Cabellos Colorados (Beaches 29E, 29C, and 29W), Playa Punta Brigadier (Beach 30), Playa Punta Goleta (Beach 31), Playa Las Cruces/Tres Puntas (Beaches 32E, 32C, and 32W), Playa Diablito 3 (Beach 33W), and Isla Yallis (Beach 55).

Over 550 MEC have been removed within UXO 7 during the NTCRA. See UXO 2 for a discussion of the RI, Beach Dynamics Investigation, and ongoing NTCRA fieldwork for UXOs 2 and 7. Based on the recommendations of the UXOs 2, 7, and 8 RI Report (CH2M, 2020i), the UXOs 7 and 8 FS Report was drafted and currently under stakeholder review with finalization anticipated by August 2026. Upon finalization, the UXOs 7 and 8 PRAP will be drafted.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 7.

2.1.3.8 UXO 8 – Surface Impact Area South Beaches

UXO 8 encompasses approximately 44 acres and comprises the sandy beaches located along the southern shore of the area formerly referred to as the SIA (Figure 2-2). UXO 8 comprises 8 beaches along the southern shoreline of the SIA that include Playa Matias/Yellow Beach (Beach 1), Playa Jalova (Beach 17), Playa Jalovita (Beach 18), Playa Yoyé (Beach 19), Playa Fanduca (Beach 20), Playa Conejo (Beaches 36W, 36C, and 36E), Playa Carrenero (Beach 38), and Playa Punta Carrenero (Beach 39) and those of a small island offshore of the southeastern end of the SIA (Cayo Conejo, Beach 37).

Over 80 MEC have been removed within UXO 8 under the NTCRA. See UXO 6 for a discussion of the Punta Carrenero After Action Report (CH2M 2025j) and UXO 2 and UXO 7 for a discussion of the RI Report and FS report, respectively.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 8.

2.1.3.9 UXO 9 – Surface Impact Area Exterior

UXO 9 encompasses approximately 1,714 acres and comprises gentle slope areas adjacent to the roads of the former SIA (Figure 2-2). The area of UXO 9 was increased from its original area as the result of adding a portion of areas formerly in UXOs 12 and 14 that have munitions densities and distribution similar to those in UXO 9. Since the initial boundaries of the UXO sites were established based on the information known at that time, it is reasonable to adjust those boundaries, if warranted, as additional information is gathered over time. In the case of UXO 9, information regarding MEC densities and distribution identified during the NTCRA activities associated with target areas near the western boundary of UXO 9 indicated its boundary should be extended further west to ensure MEC associated with those target areas were appropriately addressed as part of the ongoing NTCRA.

In February 2009, the field activities for the NTCRA (CH2M 2009b) were initiated to remove surface munitions from the site. The NTCRA and investigations conducted in UXO 9 confirmed that the SIA was used as a target area for marine artillery and air-ground bombing of practice munitions. Over 23,800 MEC have been removed within UXO 9 as part of the ongoing NTCRA.

Based on findings from the ERA/SI (CH2M 2010d) and the NTCRA, RI fieldwork was performed to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b). The RI fieldwork described in the

Master SAP started in January 2013 and finished in March 2014. An additional round of seasonal groundwater sampling (October 2022 and April 2023) was performed, the data from which will be included in the draft RI/FS Report. See UXO 6 for a discussion of the Punta Carrenero After Action Report (CH2M 2025j). The draft UXOs 9 and 10 RI/FS is anticipated to be submitted for stakeholder review in late 2026.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 9.

2.1.3.10 UXO 10 – Surface Impact Area Interior

UXO 10 encompasses approximately 886 acres and comprises the interior section of the area formerly known as the SIA (Figure 2-2). In February 2009, the field activities for an NTCRA were initiated at the SIA (CH2M 2009b) to remove surface munitions from the site. Over 16,300 surface MEC have been removed within UXO 10 as part of the NTCRA.

Based on findings from the ERA/SI (CH2M, 2010d) and the NTCRA, RI fieldwork was performed to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b). The RI fieldwork described in the Master SAP started in January 2013 and finished in March 2014. An additional round of seasonal groundwater sampling (October 2022 and April 2023) was performed, the data from which will be included in the draft RI/FS Report. The draft UXOs 9 and 10 RI/FS is anticipated to be submitted for stakeholder review in late 2026.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 10.

2.1.3.11 UXO 11 – Eastern Maneuver Area Planned Public Roads

UXO 11 encompasses approximately 120 acres of roads including the road surface and 25-foot buffers on each side of the roads (Figure 2-2). The western portion of UXO 11 traverses the former EMA and the eastern portions traverses the former SIA. Additionally, UXO 11 includes the three north/south crossover roads.

Over 3,900 MEC have been removed within UXO 11 during the NTCRA. See UXO 6 for a discussion of the UXOs 6 and 11 FS and UXOs 6 and 11 PRAP.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 11.

2.1.3.12 UXO 12 – Eastern Maneuver Area Interior

UXO 12 encompasses approximately 4,024 acres and comprises interior portions of the former EMA (Figure 2-2). Please see the discussion under UXO 9 regarding the change in the eastern boundary (and therefore size) of UXO 12. The former EMA was established in 1947 to provide areas and ranges for the training of 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.

In February 2009, the field activities for an NTCRA were initiated to remove surface munitions from the eastern portion of UXO 12. During February 2011, a brush fire occurred across 215 acres of UXO 12, which facilitated access to inspect and surface clear any munitions within the area. The inspection identified 17 MEC, including naval gunfire projectiles, five-inch rockets and a 500-pound bomb. This information indicates that the site may have been used as a target area for naval gunfire and ATG bombing, in addition to the previously documented marine artillery exercises. During March 2013, another brush fire occurred across approximately 300 acres of UXO 12. As a result, an emergency action was initiated to surface clear MEC (NAVFAC 2013a). Over 100 MEC, the majority of which were projectiles/mortars, were demolished and removed during this surface clearance.

To date, over 500 MEC had been removed within UXO 11. An RI was conducted to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b). RI fieldwork described in the Master SAP started in

January 2013 and finished in March 2014. A draft Technical Memorandum entitled *Site Acceleration Strategy, Establishment of Operable Units at UXOs 12 and 14* was issued in January 2015 to facilitate the acceleration of the intended land use at UXO 12. Based on the findings and recommendations in the RI Status Report for UXOs 4, 9, 10, 12, and 14 (CH2M 2016d), a draft RI/FS Report for UXOs 12 and 14 was submitted for regulatory review in November 2016. At the regulator's request, an additional round of groundwater data was subsequently collected and included in the final RI/FS Report that was completed in August 2018 (CH2M 2018k). The PRAP was finalized in March 2019 (NAVFAC 2019a) with the preferred alternative of Focused MEC Removal, LUCs, and MEC Inspections. Following the public comment period on the PRAP, a ROD for UXO 12 was finalized in January 2021 (NAVFAC 2021a). The Final Remedial Action Work Plan was issued in May 2023. The remedial action began in 2023 and was completed in 2024. An RACR was finalized in 2024 (CH2M 2024j) with LTM starting in 2025. The first UXOs 12 and 14 Annual Status Report was finalized in June 2026 (CH2M 2026e).

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 12.

2.1.3.13 UXO 13 – Eastern Maneuver Area West

UXO 13 encompasses approximately 1,794 acres and is located in the northwest of the former EMA (Figure 2-2). During 1966, six ranges were established in the area along the north coast in the area identified as UXO 13. These ranges remained operational through February 1999 when they were deactivated.

Over 80 MEC were identified at UXO 13 in the ERA/SI. Based on the explosive safety hazards of the munitions used at the site, as well as the high frequency of trespassing that occurs at UXO 13, an NTCRA was conducted at the easternmost area of UXO 13 where MEC were identified. Nearly 600 MEC were removed during the NTCRA (over 326 acres) and the After Action Report was finalized in March 2019 (CH2M 2019a). Based on the information gathered during the NTCRA and historical activities, an RI was conducted to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b) and the RI SAP Addendum for UXO 13 that was issued in October 2015 (CH2M 2015h). RI fieldwork began in March 2016 and was completed in May 2018. Based on regulatory comments for the draft RI/FS Report submitted for regulatory review in May 2020, a TCRA was initiated in April 2024 (CH2M, 2024e) to address MEC-impacted areas and activities began in late 2024. Once the TCRA is completed and the information gathered compiled with historical data, the RI/FS Report will be prepared.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 13.

2.1.3.14 UXO 14 – Eastern Maneuver Area South

UXO 14 encompasses approximately 784 acres and is located in the southern portion of the former EMA; the site is south of UXO 12 and adjacent to Ensenada Honda (Figure 2-2). Please see the discussion under UXO 9 regarding the change in the eastern boundary (and therefore size) of UXO 14. Over the years, Range 10 was established as a range with all firing from a single point. This range was located adjacent to Ensenada Honda and a mangrove area and is now part of UXO 9. Only 12 MEC items were identified during the removal action at UXO 14 (over 36 acres). Based on this information, an RI was conducted to characterize the nature and extent of environmental contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b). RI fieldwork as described in the Master SAP started in January 2013 and finished in March 2014. See UXO 12 for a discussion of the RI/FS, PRAP, ROD, Remedial Action Work Plan, remedial action implementation, and long-term monitoring for UXOs 12 and 14.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 14.

2.1.3.15 UXO 15 – Puerto Ferro

UXO 15 encompasses approximately 536 acres and is located to the southeast of the area formerly referred to as the EMA. UXO 15 includes PI 9 and PI 13, which were included as areas evaluated during the RI. PI 9 was used for ammunition storage and PI 13 may have been the firing point from which rocket-related ordnance was launched to the LIA/SIA (NAVFAC 2003c). Interviews conducted during the EBS (NAVFAC 2003c) also suggest that PI 9 was used for ammunition disposal and small OB/OD; however, the information on the OB/OD was likely interpreted incorrectly from Spanish translation; OB/OD operations did not likely take place at PI 9, but it is possible they did occur in the southwest portion of UXO 15.

The ERA/SI (CH2M 2010d) identified isolated occurrences of MD and MPPEH within the UXO 15 site. Additionally, two elevated anomaly density areas (EADAs) were identified. Small caliber casings and surface debris were located during the visual evaluation of the debris piles. The ERA/SI recommended further investigation of the debris piles and nearshore MD and evaluation of the potential ecological and human health risks. The ESI SAP was finalized in May 2011 (CH2M 2011h). However, based on additional information gathered since that time, modifications to the original approach were developed and documented in a SAP Addendum to guide an RI at the site (CH2M 2012f). Fieldwork conducted through May 2013 was documented in an initial RI findings technical memorandum (CH2M 2014g). Based on the initial findings, additional RI field activities were described in the SAP Addendum 2 for the RI at UXO 15, which was finalized in July 2015 (CH2M 2015e). RI fieldwork was started in October 2015 and consisted of soil sampling in debris pile areas and former detonation pits, and digital geophysical mapping (DGM) and/or transects by a remotely operated excavator were performed to determine if debris is buried in the berms. Additional evaluation of the berms was conducted in February 2018, and further debris pile characterization was done in April 2018 to complete the RI fieldwork. Between the ERA/SI and the RI, only two MEC were found and removed from the site. The RI/FS Report was finalized in July 2020 (CH2M 2020b).

A munitions clearance NTCRA for the beach adjacent to the lighthouse, the trail between the two, and the southern beach at UXO 15 was completed in the summer of 2014. No MEC were found and the After Action Report was finalized in February 2015 (CH2M 2015c). A munitions clearance NTCRA for the southwestern beach was completed in January 2015 and the After Action Report was finalized in November 2015 (CH2M 2015I). Public access to the area around the historic lighthouse and adjacent beach was opened in March 2015.

An NTCRA, in accordance with the EE/CA (CH2M 2015f) and Work Plan (USAE 2017), was completed in 2018 to reduce the explosive hazard associated with encrusted potential MEC. No MEC were found and the After Action Report was issued in June 2019 (USAE 2019).

Due to the Coronavirus (COVID-19) pandemic, the finalization of the PRAP and the public meeting were delayed. The PRAP was issued for public comment in July 2021 (NAVFAC 2021b) and the UXO 15 ROD, which requires land use controls and MEC removal in planned public use areas not already addressed during previous NTCRAs, was issued in April 2023 (NAVFAC 2023a). The Remedial Action Work Plan was finalized in 2024 (CH2M 2024d) and the remedial action was implemented in 2024. An RACR was finalized in 2024 (CH2M 2024h) and the first UXO 15 Annual Status Report finalized in May 2026 (CH2M 2026d) which documented the findings from the 2025 LTM inspection.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 15.

2.1.3.16 UXO 16 – Underwater Areas

The underwater areas adjacent to the range and operational areas on East and West Vieques have a size of approximately 11,500 acres and consist of portions that are known or suspected to have been impacted by MEC. UXO 16 includes former ship anchoring points where munitions may have been loaded, offloaded, or transferred (including three anchorage areas and Mosquito Pier), areas where munitions may have been inadvertently fired into the water from naval gunfire training or ATG bombing (former VNTR), and areas where the explosive safety

arc from artillery ranges and adjacent onshore OB/OD activities may have extended into the water (former NASD and former VNTR). UXO 16 is shown on Figures 2-2 and 2-3.

In 2013, available bathymetry data within UXO 16 were compiled in order to develop a plan for conducting a side-scan sonar survey. The side-scan sonar survey helped plan the Wide Area Assessment (WAA) of underwater munitions, including avoiding underwater obstacles during the assessment. The side-scan sonar survey began in November 2013 and was completed in January 2014. The WAA began in March 2026 and was completed in May 2017, with the WAA Report (which summarized the findings) finalized in September 2018 (CH2M 2018n). Details on the specific underwater areas that are being investigated are included in the subsections that follow.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 16.

Explosives Safety Arcs and Artillery Safety Fans adjacent to the Former VNTR

A series of explosives safety arcs and artillery safety fans associated with the historical ranges, gun emplacements, and OB/OD area were developed for the former VNTR as part of the Vieques Land Use Plan (DOI 2007) and the Preliminary Range Assessment (NAVFAC 2003b). The safety fans provide an estimate of the lateral extent of the potential munitions impact area extending from the ranges and artillery gun positions. The areas where the explosives safety arcs and artillery safety fans extend offshore of the former VNTR are shown on Figures 1-2 and 2-2.

Offshore of SWMU 4 (UXO 16.1)

The explosives safety arc of the OB/OD operations at SWMU 4 extends approximately 2,000 feet offshore to the west of the former OB/OD area; the offshore area is part of UXO 16 and is referred to as UXO 16.1 (Figure 2-4). An SI was conducted in 2012 within 14 acres of the 200-acre area, focusing on the nearshore area closest to the OB/OD pits at the confluence of the large ephemeral stream and UXO 16.1. One MEC was found and removed. Based on the SI findings, an ESI QAPP for UXO 16.1 was finalized in April 2014 (CH2M 2014e). ESI field activities began in March 2015 and were completed in May 2015, which indicated relatively few MEC are present in the offshore area adjacent to SWMU 4 (only three MEC were found and removed). Based on the findings of the ESI, an RI SAP (CH2M 2016f) was prepared to characterize the nature and extent of potential contamination in marine sediment and assess the associated human health and ecological risks. The RI fieldwork was completed in 2016, and a final RI Report was completed in July 2018 (CH2M 2018h). The final UXO 16.1 FS Report was issued in February 2022 (CH2M 2022d). The PRAP was issued for public comment in October 2022 (NAVFAC 2022b) and the UXO 16.1 ROD, which requires nearshore MEC removal and land use controls, was finalized in September 2023 (NAVFAC 2023b). The Remedial Action Work Plan was finalized in January 2025 (CH2M 2025b). Upon completion, the UXO 16.1 RACR will be drafted for regulatory review.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 16.1.

Nearshore Areas at Public Beaches (UXO 16.2)

The UXO 16.2 focus area (approximately 845 non-contiguous acres) consists of the underwater area to be addressed to support public use of beaches that are currently open or potentially will be open to the public in the future (Figure 2-6). UXO 16.2 is defined as extending from the shoreline of these beaches to a water depth of between 10 to 15 feet, the latter depth applying to beaches where site features of interest exist that may cause a snorkeler or swimmer to dive deeper to investigate underwater features. The final UXO 16.2 RI QAPP that defines the approach to conduct the RI was issued in November 2021 (CH2M 2021d). UXO 16.2 RI fieldwork was completed in early 2024 and the RI/FS Report is anticipated for regulatory review in 2026. See UXO 6 for a discussion on the Punta Carrenero After Action Report (CH2M 2025j).

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 16.2.

Offshore of Cayo La Chiva (UXO 16.2)

Cayo La Chiva (UXO 18) is a 12-acre island located south of the EMA (Figure 2-2). A simulated machine gun nest was located on Cayo La Chiva during Operation Portrex conducted in 1950 (Sibert, 1993). No additional training activities are documented to have occurred in the UXO 18 area; however, fired 5-inch rockets were identified both on and offshore of Cayo La Chiva, which indicates the area may have been used for additional training, albeit potentially in a single event. In 2010, the Navy conducted a visual underwater survey within approximately 100 feet offshore of Cayo La Chiva and covered the remainder of Bahía de la Chiva using 200-foot spacing transects. Nine potential munitions were identified just west and south of the island (CH2M 2014n). An EE/CA for an NTCRA of underwater munitions adjacent to Cayo La Chiva (UXO 18) was finalized in November 2014 (CH2M 2014o). Based on the EE/CA, an NTCRA work plan was completed in October 2016 (CH2M 2016j). The NTCRA fieldwork was conducted in June 2017, during which all of the items removed were determined not to be MEC; an After Action Report was completed in July 2018 (CH2M 2018g). The offshore area around UXO 18 is included as part of UXO 16.2.

Mosquito Pier (UXO 16.3)

Mosquito Pier was used for loading and unloading ordnance from Navy ships. The boundary of this area is defined as a 100-foot radius around the perimeter of the pier and associated causeway to account for any munitions that may have been dropped during loading and unloading (Figure 1-2). A Site Screening Process QAPP and the underwater inspection activities were completed in 2025. The UXO 16.3 Site Screening Process Report, which documented the findings and assessment of underwater transects within UXO 16.3, was finalized in August 2025 (CH2M 2025h) with a No Further Action Decision Document also finalized in August 2025 (CH2M 2025i).

Anchorage Areas (UXO 16.4)

Navy ships containing munitions used during the training activities at the former AFWTA would temporarily anchor at three anchoring locations in the Vieques Passage and Vieques Sound while waiting to be unloaded (Figure 1-2). When the anchorage areas were operational, explosives in quantities no greater than 1,625 tons were handled in any area at one time.

The boundary of each anchorage area was defined by the area in which the ammunition supply ship would rotate around a single anchorage point. Each anchorage area radius was established using the depth of water, the ship horizontal offset from its anchor line, the length of the largest ammunition supply ship, and a distance buffer from the designated anchorage point (CFR 2003). The two westernmost anchorage areas were defined with a maximum radius of 440 yards and the other anchorage area with a maximum radius of 500 yards.

The approach for UXO 16.4 is currently being developed.

Other Offshore Areas

An NTCRA in accordance with an EE/CA was conducted for the offshore area adjacent to UXO 15 PI 9 East (CH2M 2015f). The underwater area contained several encrusted MD, whose removal is described in the final NTCRA Work Plan, which was issued in January 2017 (USAE 2017). The NTCRA fieldwork was conducted in 2018 and a final After Action Report was issued in June 2019 (USAE 2019).

In addition to this area, an EE/CA was prepared for removal of nearshore (i.e., within approximately 100 meters of the shoreline) munitions around the perimeter of the former VNTR and Mosquito Pier (CH2M 2017f). The EE/CA was issued for public comment on May 15, 2017. Following evaluation of public comments submitted during the EE/CA public comment period, an NTCRA Work Plan was finalized in August 2018 (CH2M 2018j). Fieldwork started in April 2019 and is ongoing. To date over 500 MEC have been removed during the nearshore NTCRA.

The approach for the remainder of UXO 16 is currently being developed.

2.1.3.17 UXO 17 – Other Sites

UXO 17 is located to the south of the area formerly referred to as the EMA (Figure 2-2). Two sites within UXO 17 (PI 14 and PAOC FF) were investigated during the EBS (NAVFAC 2003c) and the ERA/SI (CH2M 2010d). These sites were determined to require no action and were included in a No Action Decision Document (CH2M 2010g). An additional site, PI 21, was investigated during an SI in 2013, determined to require no action, and included in a No Action Decision Document (CH2M 2014i). There are two beach areas (PAOC EE and Playa Caracas/Red Beach) within UXO 17, as described in following paragraphs.

PAOC EE

PAOC EE encompasses approximately 129 acres and includes the area in and around Playa La Chiva (also known historically by the Navy as "Blue Beach") and Punta Conejo where military training activities occurred and where earthen berms on Punta Conejo may have been used for temporary storage of munitions (CH2M 2004a). A DGM survey of the interior portion of Punta Conejo during 2011 (CH2M 2012d) and subsequent data analysis identified approximately 2,190 discrete anomalies and 352 polygons (areas of concentrated anomalies) in the subsurface at PAOC EE. A total of 458 anomalies were excavated. During the excavations, two MEC were recovered: a 40-millimeter (mm) flare and a canister containing propellant.

In June 2013, a follow-up evaluation of the Playa La Chiva/Blue Beach area identified 864 subsurface anomalies. Excavation of these anomalies produced one DMM (rocket fuze) at the far eastern end of Playa La Chiva/Blue Beach, adjacent to Punta Conejo, resulting in the temporary closure of that stretch of the beach. In addition, seven MPPEH and two MEC were found in the area immediately to the north of Playa La Chiva/Blue Beach. The investigations at and around Playa La Chiva/Blue Beach indicated there may be explosive hazards present in areas associated with Playa La Chiva/Blue Beach that are potentially accessible to USFWS and the public. As a result, a TCRA was initiated in May 2014 (CH2M 2014f) within the vegetated area north of Playa La Chiva/Blue Beach, extending to and including Punta Conejo. The TCRA fieldwork identified 311 anomalies. Excavation of these anomalies found four locations with UXO (grenades, flares/pyrotechnics), three locations with other MEC (grenades), and four locations with DMM (60-mm mortar, blasting caps, flares/pyrotechnics). The TCRA fieldwork was completed in October 2014, and the boundary of PAOC EE was adjusted to include the area where surface/subsurface munitions and other debris related to military training activities were identified. An After Action Report was finalized in October 2015 (CH2M 2015j).

Based on the aforementioned findings, an RI was conducted at the site, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b) and the SAP for PAOC EE (CH2M 2017d). RI field activities were conducted in December 2017, and the final RI/FS Report was issued in June 2019 (CH2M 2019c). Based on historical information gathered during investigations and removal actions conducted at PAOC EE and nearby Playa Caracas/Red Beach and Playuela/Garcia Beach, the PAOC EE PRAP (NAVFAC 2022a) was issued for public comment from May 25, 2022 through June 24, 2022 and a public meeting held on June 1, 2022. The UXO 17 PAOC EE ROD was finalized in 2024 (CH2M 2024b). The draft UXO 17 PAOC EE RAWP is currently under regulatory review and anticipated to be finalized before the end of calendar year 2026.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 17 PAOC EE.

Playa Caracas

Playa Caracas (also known historically by the Navy as "Red Beach") is located to the west of Playa La Chiva, south of Camp Garcia, and east of UXO 15 Puerto Ferro. An archival records search indicated Playa La Chiva (Blue Beach), Playa Caracas (Red Beach [formerly Red Beach East]), and Playuela (also known historically by the Navy as Garcia Beach [formally Red Beach West]) had been used for military training activities, but that only blank ammunition was used on the beaches during training exercises (Tippetts et al. 1980). To help verify this information and in support of land transfer, an MEC investigation was conducted (CH2M 2002e) at these three beaches that same year and a Preliminary MEC Investigation Report for Playa Caracas and Playa La Chiva was finalized in July 2003 (NAVFAC 2003d). The investigation comprised a visual and geophysical survey of

approximately 100 percent of the sandy portions of the beaches and the trails leading to the beaches. A total of 767 anomalies were excavated. At Playa Caracas, 16 fired small arms blank cartridges and three expended smoke grenades were discovered. At Playa La Chiva, three fired blank cartridges were discovered. No MEC was found during the investigation and, as a result, the public use beaches were recommended for NFA and opened to the public for recreational use as part of the Vieques National Wildlife Refuge under USFWS management.

An MEC verification evaluation was conducted at Playa Caracas and Playuela from April to June 2019 in accordance with the MEC Verification Evaluation Work Plan (CH2M 2017g). The MEC verification evaluation included the sandy portions of both beaches and the public parking area at Playa Caracas. The QAPP described the use of advanced geophysical classification (AGC) to discriminate among subsurface geophysical anomalies identified during the detection phase between targets of interest (that is, potential munitions) and munitions-related and non-munitions-related metallic items. However, not all anomalies were intrusively investigated at Playa Caracas prior to encountering an 81-mm mortar (MEC), which resulted in cessation of the MEC verification evaluation and initiation of the TCRA QAPP. The final TCRA QAPP was issued in November 2020 (CH2M 2020g) followed by an Action Memorandum issued in December 2020 (NAVFAC 2020). The TCRA fieldwork at Playa Caracas and Playuela began in January 2021 and was completed in July 2021. The final TCRA Completion Report was issued in May 2023 (CH2M 2023c). Based on the results of the TCRA performed at Playa Caracas and Playuela, the UXO 17 RI QAPP was finalized in 2024 (CH2M 2024l). RI field activities were completed in 2025 and the draft RI/FS Report is anticipated to be submitted for regulatory review in early 2027.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 17 Playa Caracas and Playuela.

2.1.3.18 UXO 18 – Cayo La Chiva

A 2011 inspection of Cayo La Chiva identified five 5-inch rockets. Based on this information, an RI was conducted to characterize the nature and extent of contamination and MEC and assess the potential risks, as described in the Master SAP for the East Vieques Terrestrial UXO Sites (CH2M 2013b). RI fieldwork started in June 2013 and was completed in November 2013. The final RI/FS Report was issued in May 2015 (CH2M 2015d). This was followed by an FS Addendum (CH2M 2016c) that was finalized in April 2016 to provide additional detail on the cost assumptions included in the RI/FS Report. A PRAP (NAVFAC 2016a) was issued for public comment and a public meeting was held in 2016. A ROD was issued in August 2018 (NAVFAC 2018c) and the Remedial Action, LUC, and LTM Work Plan was issued in April 2019 (CH2M 2019b). Remedial action fieldwork was completed in August 2019 and the RACR was issued in September 2019 (CH2M 2019h). Including historical inspections, 11 MEC were found and removed over two acres at UXO 18.

In accordance with the Remedial Action, LUC, and LTM Work Plan, post-ROD inspections were completed. Based on comments received on the second Annual Status Report (CH2M 2022c), MEC/LUC monitoring frequency was temporarily increased to every other month for 2022 to help determine an optimal frequency based on any public access/use observed during the monitoring events. Additionally, due to PRDNER's decision to not open portions of public use areas on UXO 18 (i.e., the trail through the island and the southern overlook/picnic area), all trail markers along the trail were removed, the educational kiosk was updated to remove the trail and southern overlook picnic area from the map, and vegetation along the former planned trail was allowed to regrow. Following the analysis of data collected during the monitoring events, the Navy and regulatory agencies concurred that a return to annual inspections would be appropriate beginning in 2023. The annual inspection was conducted and the resulting annual status report for 2024 was finalized in December (CH2M 2024m). The 2025 inspection report was issued in May 2026 (CH2M 2026b). The next annual report is planned in 2027 following the 2026 inspection.

Inspections entailed an instrumented-aided visual survey to inspect for surface MEC becoming exposed via site erosion and indications of any potential trespassing and any required maintenance for the site's LUCs. No MEC was encountered during any of the inspections and the LUCs were observed to be operating as intended.

UXO 18 was included in the Second Five-Year Review, the report for which was issued for regulatory review in May 2023 (CH2M 2023n). The report identified that the following RAOs have been or continue to be met:

- Prevent or reduce explosive hazard that may be present associated with MEC to be compatible with current and anticipated future land use.
- Prevent or reduce the potential for unauthorized access to portions of UXO 18.

The remedy at UXO 18 is protective of human health and the environment and has reached Response Complete status because it has met the RAOs. MEC clearance was performed, LUCs were implemented, are monitored/maintained, and have been shown to effectively ensure land use remains as planned by PRDNER and to reduce the potential for uncontrolled human contact with explosive hazards at the site.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for UXO 18.

2.2 Western Vieques Sites (Former NASD)

2.2.1 Installation Restoration Program Sites

This subsection summarizes the status of the 16 installation restoration sites (SWMUs and AOCs) on western Vieques. Site-specific details for sites which No Action, NFA, and/or remedy complete under CERCLA were determined are provided in Appendix A1 and past SMP updates. The locations of the western Vieques sites are shown on Figure 2-3.

Based on historical use, several of the former NASD sites listed in Appendix A1 and Appendix B1 are included in the PFAS SI, as described in Section 2.3.

2.2.2 Munitions Response Program Site (SWMU 4 – Inactive Open Burn/Waste Explosive Detonation Range)

SWMU 4 is an inactive OB/OD site identified at the western end of NASD during the EBS (NAVFAC 2003c). The site was reportedly used for thermal destruction and burning of retrograde munitions from 1969 to 1979. Other explosive materials disposed at SWMU 4 included material from the rework of munitions (e.g., loose powder, primers), ordnance items from the torpedo shop at Naval Station Roosevelt Roads (NSRR), and flares and cartridge-activated devices (Greenleaf et al. 1984).

Based on the results of the EBS, a phased MEC RI, following the CERCLA process, was conducted to meet the following objectives:

- Identify the specific location of the former OB/OD pits that were not previously documented.
- Characterize the nature and extent of the MEC items in the vicinity of the OB/OD pits to evaluate the extent of the “kick out” area.
- Evaluate the explosives safety risk of the MEC items identified onsite.
- Develop an MEC RI Report for the site.

A digital geophysical survey was conducted over an 87-acre area that identified approximately 23,700 buried metallic anomalies. The survey identified 16 potential OB/OD pits that were later confirmed by the MEC RI. Based on the findings of the MEC investigation, the potential aerial extent of the MEC at SWMU 4 is approximately 180 acres. A total of 11,211 metallic items were removed from the surface or subsurface and inspected during the MEC RI. Approximately 16 percent, or 1,792, of the items removed were found to contain high explosives.

During December 2011, an NTCRA at SWMU 4 was completed during which approximately 24 acres of roads and beaches were cleared of vegetation and surface/subsurface cleared of munitions. A total of 910 MEC, MD items, and MPPEH were removed. These items required demolition to eliminate the potential explosive hazard associated with the items.

An RI/FS was completed in May 2012 (CH2M 2012e) to characterize the nature and extent of MEC/ environmental contamination, assess potential risks to human health and the environment, and evaluate remedial alternatives at SWMU 4. MEC was identified up to a maximum extent of approximately 2,600 feet from the OB/OD area during the NTCRA. MEC recovered from the vicinity of the OB/OD pits were predominately 20-mm high explosive (HE) projectiles; moreover, 20-mm projectiles were the predominant MEC type recovered throughout the entire study area (over 90 percent of the MEC recovered). Perchlorate was the most frequently observed and most widespread contaminant within surface and subsurface soil and groundwater in SWMU 4.

Perchlorate was detected above only the leaching-to-groundwater screening criterion (Soil Screening Level [SSL]) in soil and was identified as a contaminant of concern (COC) in groundwater based on hypothetical future potable use scenarios for residents and industrial workers. However, these scenarios are unlikely for SWMU 4 since legislation mandated the establishment of a wildlife refuge for the site. No unacceptable ecological risks were identified, and no further evaluation or action is warranted for ecological receptors.

An FS was conducted to evaluate remedial alternatives for SWMU 4 to address potential risks identified in the RI. RAOs include minimizing explosive safety risk associated with MEC to be compatible with current and future land use, minimizing the potential for unauthorized access to the site, preventing exposure to perchlorate in groundwater at concentrations that pose a potentially unacceptable human health risk, and ensuring potential human health risk and/or exposure to edible fish and aquatic crab containing contaminant concentrations attributable to past Navy activities are acceptable.

The PRAP was issued for public comment in July 2012. Based on public comment on the PRAP, additional alternatives to address the potential presence of MEC were considered, which were documented in the FS Addendum (CH2M 2017e). However, to potentially expedite public access to portions of the site based on land use planned by USFWS, an EE/CA and Work Plan for an NTCRA were developed and finalized in March and June 2014, respectively (CH2M 2014c, 2014i). The NTCRA field activities were completed in 2015 with over 6,570 MEC removed. The NTCRA field activities are documented in the After Action Report that was issued in November 2016 (CH2M 2016o).

In addition to an NTCRA, a SAP to assess perchlorate in groundwater and biota in Laguna Boca Quebrada was finalized in June 2014 (CH2M 2014j) and fieldwork was completed in September 2014. Information gathered during this evaluation was used to modify the remedial alternatives in the FS in an FS Addendum, which included a modified HHRA; the FS Addendum was finalized in April 2017 (CH2M 2017e).

The PRAP for SWMU 4 was completed in July 2018 (NAVFAC 2018b) and a public meeting held on August 8, 2018. The ROD for SWMU 4 was finalized in September 2019 (NAVFAC 2019b) requiring land use controls and long-term monitoring. The Remedial Action Work Plan was issued in March 2022 (CH2M 2022g) and remedy implementation was conducted in April 2023; the RACR was completed in 2023 (CH2M 2025h). To date, 165 acres of munitions have been cleared from SWMU 4.

Periodic groundwater performance monitoring for perchlorate and LUC/MEC inspections were initiated. Groundwater sampling took place in July 2024 and LUC and MEC inspections took place in September (due to Tropical Storm Ernesto) and November (scheduled annual inspection), with the final 2024 Long-Term Monitoring Report finalized in 2025 (CH2M 2025e). The 2025 report was finalized in 2026 (CH2M 2026c). The next annual report is planned in 2027 following the inspection in late 2026.

Section 3, including Figure 3-1 (fiscal year 2027 schedule projection), provides information regarding the anticipated schedule of activities and document preparation for SWMU 4.

2.2.2.1 Underwater Areas

Please see the discussion under Section 2.1.3. The portion of UXO 16 located adjacent to the former NASD is shown on Figure 2-3.

2.3 Per- and Polyfluoroalkyl Substances Investigation

The potential release(s) of PFAS was evaluated on Vieques as part of a Navy-wide facilities assessment of potential historical sources of PFAS. The results of the historical records evaluation are included in a PA Report for potential sources of PFAS at the former NASD and the former VNTR in Vieques, Puerto Rico (CH2M 2020a). Based on the results of the PA, an SI was performed at 13 areas of interest in accordance with the PFAS SI SAP issued in December 2021 (CH2M 2021e) to determine if a release(s) of PFAS occurred. Results of the SI were documented in the SI Report issued in December 2023 (CH2M 2023l). Eight areas of interest were recommended for an RI:

Former NASD

- AOC B: Former Wastewater Treatment Plant at the Public Works Area
- Former Fire Station Building 2046 at the Public Works Area
- Potential Former Motor Pool Area

Former VNTR

- SWMU 10
- AOC G: Former Sewage Treatment Lagoons and Chlorination Building
- Former Camp Garcia Runway
- SWMU 20: Former Helicopter Maintenance Area
- Potential Former Motor Pool Area (including Building 340) and Former Fire Department Building 330

A Remedial Investigation is planned for these areas of interest in accordance with the DoD protocol that prioritizes sites based on the potential for PFAS releases to impact drinking water. Historically, groundwater on Vieques was used for public potable use via 14 public water supply wells located in the alluvial coastal plain near Esperanza and up to six additional wells in the northwestern portion of Vieques. The use of groundwater was discontinued in 1978. Since that time, potable water for the island population has been supplied via a pipeline from the Rio Blanco filtration plant in eastern Puerto Rico. Groundwater is not currently used as a potable water source at the former NASD or former VNTR and there are no known private wells used for drinking water purposes on Vieques.

2.4 Munitions Response Program Site Prioritization

The MRS Prioritization Protocol (MRSP) is a tool used by DoD for assigning a relative priority for initiating munitions response actions at munitions response sites. The scope of the site prioritization for the MRSs at Vieques was based on the DoD MRSP published in the October 5, 2005 Federal Register. DoD generally considers those MRSs posing the greatest hazard as having the highest priority for munitions response actions. The protocol provides a uniform procedure for assessing explosives safety and environmental risk at MRSs; and is comprised of three hazard evaluation modules: Explosive Hazard Evaluation (EHE) module, the Chemical Warfare Material Hazard Evaluation (CHE) module, and the Health Hazard Evaluation (HHE) module. An MRS priority is established based on the ratings from the EHE, CHE, and HHE modules. Since there are no known or suspected chemical warfare materials at Vieques, the CHE module does not apply to the Vieques MRSs.

The EHE module was used at MRSs where there is a known or suspected presence of explosive hazard and is comprised of three factors: explosive hazard (based on munitions type and source of hazard), accessibility

(based on location of munitions, ease of access and status of property), and receptors (based on population density, population near hazard, types of activities/structures, and ecological or cultural resources).

The HHE module is used for evaluating the potential hazards posed by munitions constituents (MC) and other chemical constituents at MRSs that considers the contaminants present, environmental migration pathways, and receptors for four media (soil, surface water, groundwater, and sediment). MC data are included in the MRSP calculation when the RI is complete, and the associated RI report is finalized. The HHE module will be updated as additional MC data become memorialized in final RI reports from ongoing and future environmental investigations at the MRSs.

For Vieques, the MRS priority was established based on the ratings from the EHE module. Each MRS was assigned to one of eight MRS priorities based on the ratings of the module, where Priority 1 indicates the highest potential hazard and Priority 8 the lowest potential hazard. A summary of the MRSP scores for the VNTR MRSs is summarized in Table 2-2. The detailed scoring for each MRS is provided in Appendix C. A total of 15 of the 18 MRSs on Vieques have been ranked a Priority 2 hazard. A Priority 2 hazard is the highest priority rating that can be scored for sites not containing chemical warfare materials. The prioritization ranking does not necessarily correlate with the cleanup prioritization, which can be influenced by factors such as public and regulatory input, resource availability, and logistical considerations.

TABLE 2-1
Operable Units Cross Reference Table
Site Management Plan, Fiscal Year 2027
Vieques, Puerto Rico

EPA SEMS OU Number and Description	Common Site Name
00 - SITEWIDE	
01 - EAST & WEST BEACHES & ROADS	
02 - WEST AOC E - UST AREA	AOC E - UST Site 2016
03 - WEST AOC H - POWER PLANT	AOC H - Power Plant
04 - WEST AOC I - ASPHALT PLANT	AOC I - Asphalt Plant
05 - WEST AOC J - SWD AREA	AOC J - Former Staging Area Disp.
06 - WEST AOC R - MAINT BLDG & SWD	AOC R - Former Staging/Ops Area
07 - WEST SWMU 4 - OB/OD AREA	SWMU 4 - OB/OD Site
08 - WEST SWMU 6 - SWD AREA	SWMU 6 - Mangrove Disposal Site
09 - WEST SWMU 7 - SWD AREA	SWMU 7 - Quebrada Disposal Site
10 - UX07 EMA/SIA NORTH BEACHES	UXO 7 EMA/SIA North Beaches
11 - EAST SWMU 1 - CAMP GARCIA LF	SWMU 1 - Former Camp Garcia Landfill
12 - UX02 LIVE IMPACT AREA -BEACHES	UXO 2, LIA Beaches
13 - UX03 LIVE IMPACT AREA -ROADS	UXO 3, LIA East
14 - UX04 LIVE IMPACT AREA-INTERIOR	UXO 4, LIA West
15 - UX05 SIA - RESTRICTED ROAD	UXO 5, SIA Restricted Roads
16 - UX08 SIA SOUTH BEACHES	UXO 8, SIA South Beaches
17 - UX016 -UNDERWATER SITES	UXO 16, Underwater Areas
18 - UX01 EASTERN CONSERVATION AREA	UXO 1, Eastern Conservation Area
19 - UX06 EMA/SIA PUBLIC ROADS	UXO 6, EMA/SIA Planned Public Roads
20 - UX09 SIA EXTERIOR	UXO 9, SIA Exterior; SWMU 5, Spent Battery Accumulation Area; SWMU 8, Waste Oil Accumulation Area; SWMU 12, Solid Waste Collection Unit Area; AOC A, Diesel Fuel Fill Pipe Area; PI 1, Water Production Well; PI 17, Amphibious assault exercises, possible small arms bunkers and/or air targets; PI 22, Civilian residences and target area
21 - UX010 SIA INTERIOR	UXO 10, SIA Interior
22 - UX011 EMA PUBLIC ROADS	UXO 11, EMA Planned Public Roads
23 - UX012 EMA INTERIOR	UXO 12, EMA Interior; PI 2 Water Production Well, small arms range; PI 3, Water Production Well, small arms range; PI 12, Wind Driven and Private Water Production Well; PI 15 Former Location of Civilian Home, possible observation point or small arms range; PI 16, Former Location of Civilian Home, limited OB/OD may have occurred; PI 18, Small Arms Range; PI 19, Small Arms Range, Artillery Firing Point; PAOC Y, Observed large metal object on east side of roadway; PAOC Z, Observed on overturned tractor-trailer on north side of roadway
24 - UX013 EMA WEST	UXO 13, EMA West; PI 23, Large pit near road intersection; PAOC AA, Combat Rifle Range No. 2; PAOC BB, M-60 Caliber Machine Gun Range No. 7; PAOC CC, M-79 Grenade Launcher/Rifle Grenade Range No 4; PAOC DD, 3.5-inch Rocket Launcher Range No. 4B
25 - UX014 EMA SOUTH	UXO 14, EMA South
26 - UX015 PUERTO FERRO	UXO 15, Puerto Ferro; PI 9 (west) Ammunition Storage in Earthen Berms and Disposal of Ammunition (OB/OD possibly); PI 9 (east) Encrusted Munitions; PI 13, Lighthouse and ordnance possible launched from site
27 - UX017 CAMP GARCIA	UXO 17, Other Sites (PAOC EE, Former Storage of Munitions in Earthen Berms; PAOC FF, Former Artillery Firing Point; PI 14, Scrap Metal, Ammunition Boxes, Shell Casing Disposal; PI 21, Quarry, Potential Former Artillery Firing Position); Playa Caracas/Red Beach, and Playa La Chiva/Blue Beach
28 - UX018 CAYO LA CHIVA	UXO 18, Cayo La Chiva
29 - SWMU 20 FORMER HELICOPTER MAINTENANCE AREA	SWMU 20, Former Helicopter Maintenance Area, Trenched Area, Disturbed Area, and Bermed Areas used for Fuel Bladder Storage (formerly PI 4)
30 - LAGUNA LA CHIVA	La Chiva Lagoon

TABLE 2-1
Operable Units Cross Reference Table
Site Management Plan, Fiscal Year 2027
Vieques, Puerto Rico

EPA SEMS OU Number and Description	Common Site Name
No EPA OU	SWMU 2, Former Fuels Offloading Site
No EPA OU	SWMU 4 Waste Area Building 303 (east Vieques)
No EPA OU	SWMU 5, Former IRFNA/MAF-4 Disposal Site (west Vieques)
No EPA OU	SWMU 6, Waste Oil and Paint Accumulation Area (east Vieques)
No EPA OU	SWMU 7, Waste Oil Accumulation Area (east Vieques)
No EPA OU	SWMU 10, Former Waste Paint and Solvents Disposal Ground (west Vieques)
No EPA OU	SWMU 10, Sewage Treatment Lagoons (east Vieques)
No EPA OU	SWMU 14, Former Wash Rack (west Vieques)
No EPA OU	SWMU 15, Former Waste Transportation Vehicle Parking Area (west Vieques)
No EPA OU	AOC B, Former Wastewater Treatment Plant (west Vieques)
No EPA OU	AOC C, Drainage Ditch at Former Transportation Shop (west Vieques)
No EPA OU	AOC F, Former UIC Septic Tank (west Vieques)
No EPA OU	AOC F, Rock Quarry (east Vieques)
No EPA OU	AOC G, Pump Station and Chlorination Building at Sewage Lagoons (east Vieques)
No EPA OU	AOC K, Former Water Well (west Vieques)
No EPA OU	AOC L, Abandoned Septic Tank (west Vieques)
No EPA OU	PI 5, Former Airfield and Associated Ditches
No EPA OU	PI 6, Former PCB Storage Pad and Vehicle Wash Pad
No EPA OU	PI 7, Former Quarry, Tar Drum Disposal Area, and Radar Communication Area
No EPA OU	PI 8, Former Motor Pool Maintenance Area
No EPA OU	PI 10, Former Wastewater Leach Field
No EPA OU	PI 11, Pump Station, Sanitary Wastewater Outfall
No EPA OU	PI 20, Observation Point, Quarry
No EPA OU	PAOC I, Former Power Plant and Mechanics Shop
No EPA OU	PAOC J, Former Vehicle Maintenance Area
No EPA OU	PAOC K, Former Wash Rack
No EPA OU	PAOC L, Former Paint and Transformer Storage Area
No EPA OU	PAOC M, Former Fuel Facility
No EPA OU	PAOC N, Former Fuel Farm and Filling Station
No EPA OU	PAOC O, Former Boiler Room in Heat Plant Building 238
No EPA OU	PAOC P, Former Water Treatment Pumphouse
No EPA OU	PAOC Q, Former Boiler Room in Heat Plant Building 607
No EPA OU	PAOC R, Former Boiler Room in Heat Plant Building 617
No EPA OU	PAOC S, Former Pipeline and Former Power Plant
No EPA OU	PAOC T, Former public works grounds contractor storage shed, Building 305
No EPA OU	PAOC U, Vehicle Maintenance Areas just north of Building 303 at Camp Garcia, Stored petroleum products
No EPA OU	PAOC V, Storage of leaking transformer
No EPA OU	PAOC W, Observed Area of Pooled, discolored water adjacent to main road from Camp Garcia to PI 21
No EPA OU	PAOC X, Debris Area in Ephemeral Stream

TABLE 2-2

Summary of Munitions Response Site Prioritization Protocol Results for Vieques Munitions Response Sites

*Site Management Plan, Fiscal Year 2027**Vieques, Puerto Rico*

Site ID	Common Site Name	MRS Prioritization Protocol Score
UXO 1	Eastern Conservation Area	3
UXO 2	LIA Beaches	2
UXO 3	LIA East	2
UXO 4	LIA West	2
UXO 5	SIA Restricted Roads	2
UXO 6	EMA/SIA Planned Public Roads	2
UXO 7	EMA/SIA North Beaches	2
UXO 8	SIA South Beaches	2
UXO 9	SIA Exterior	2
UXO 10	SIA Interior	2
UXO 11	EMA Planned Public Roads	2
UXO 12	EMA Interior	2
UXO 13	EMA West	2
UXO 14	EMA South	2
UXO 15	Puerto Ferro	3
UXO 16	Underwater Areas	2
UXO 17	Other Sites	3
UXO 18	Cayo la Chiva	2
SWMU 4 (NASD UXO 4)	West Vieques OB/OD Site	2

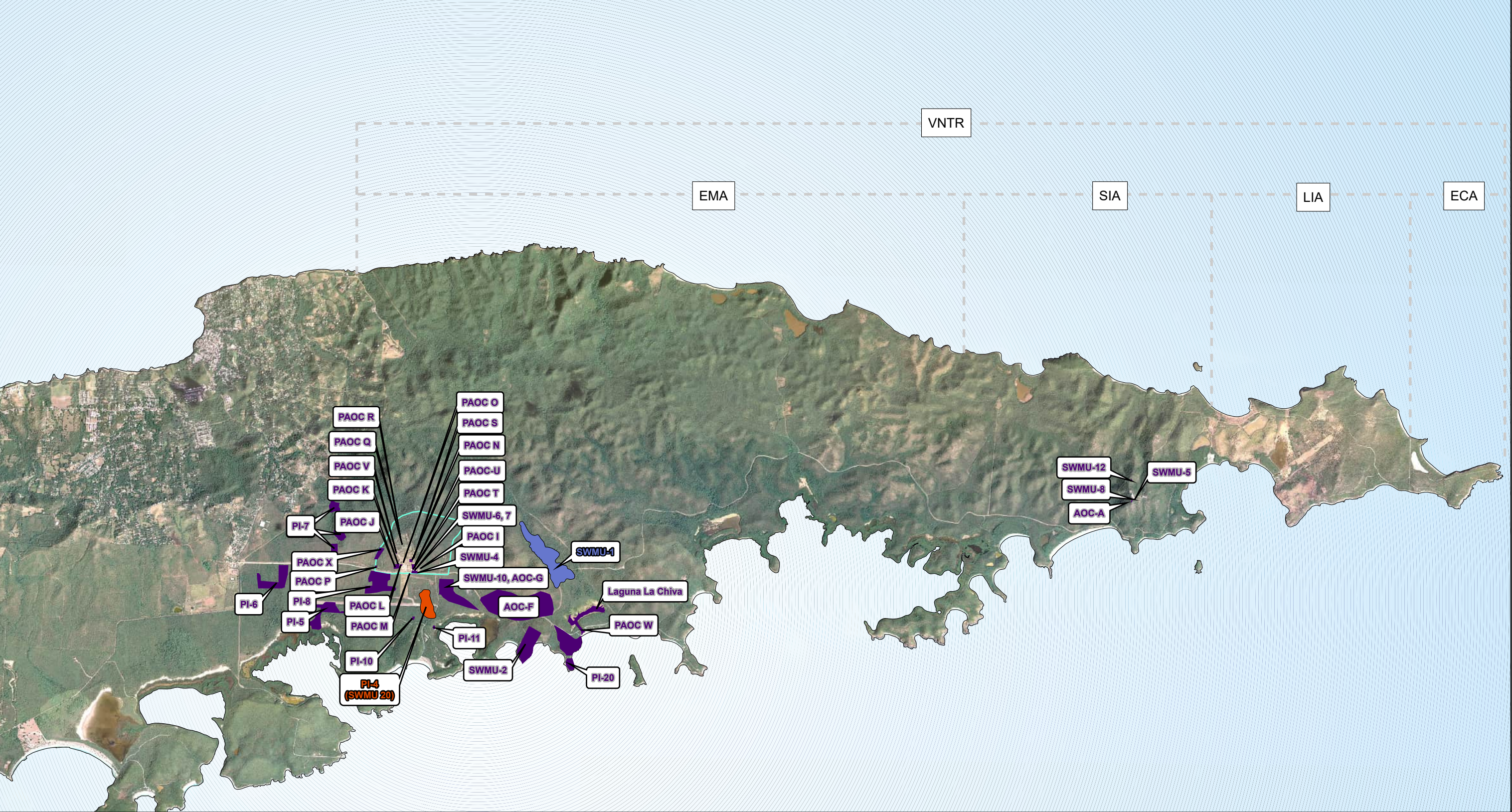
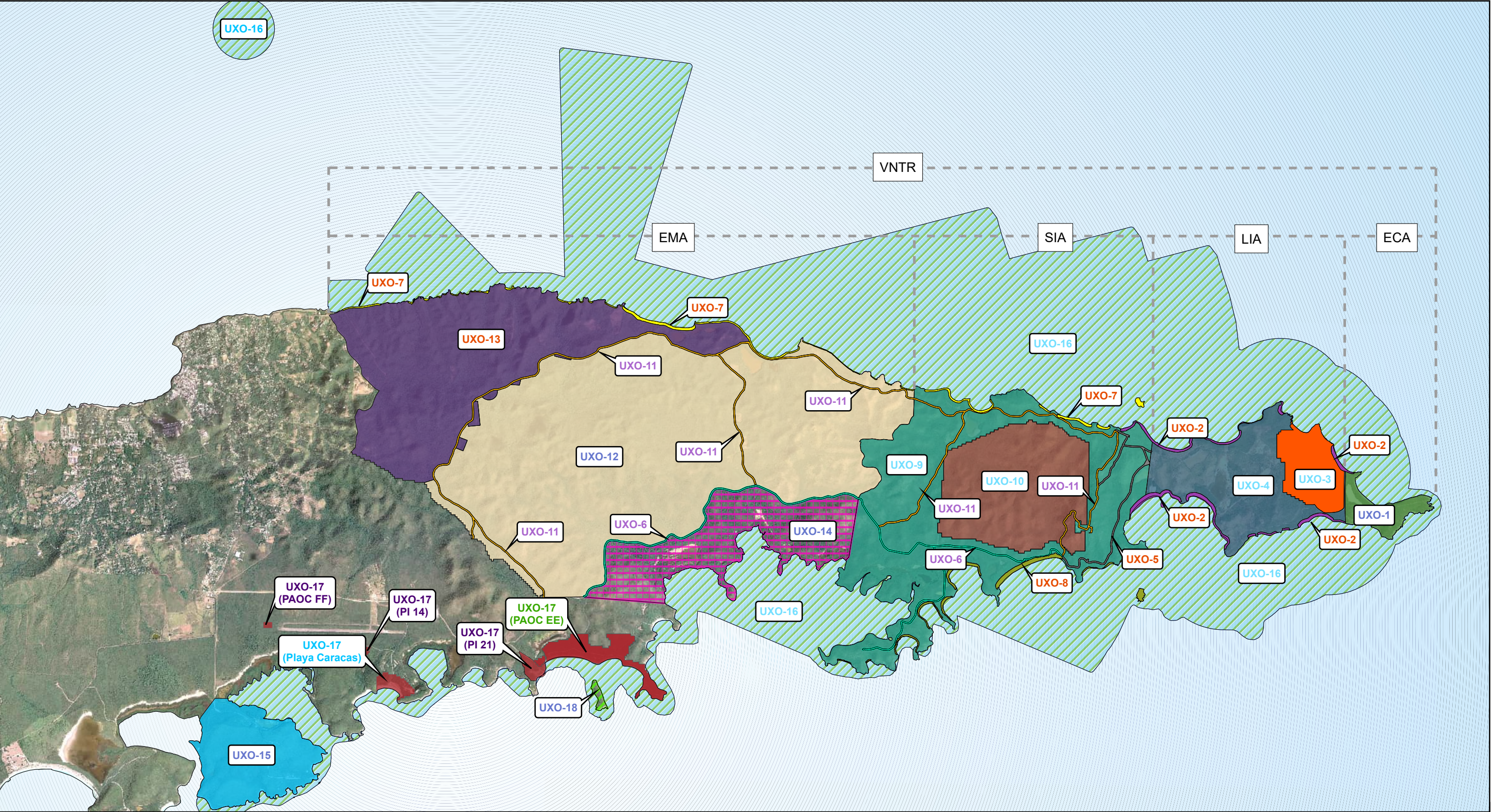


Figure 2-1
East Vieques Installation Restoration Program Sites
Site Management Plan, FY 2027
Vieques, Puerto Rico

Notes:
AOC - Area of Concern
PAOC - Potential Area of Concern
PI - Photo-identified (site)
SWMU - Solid Waste Management Unit



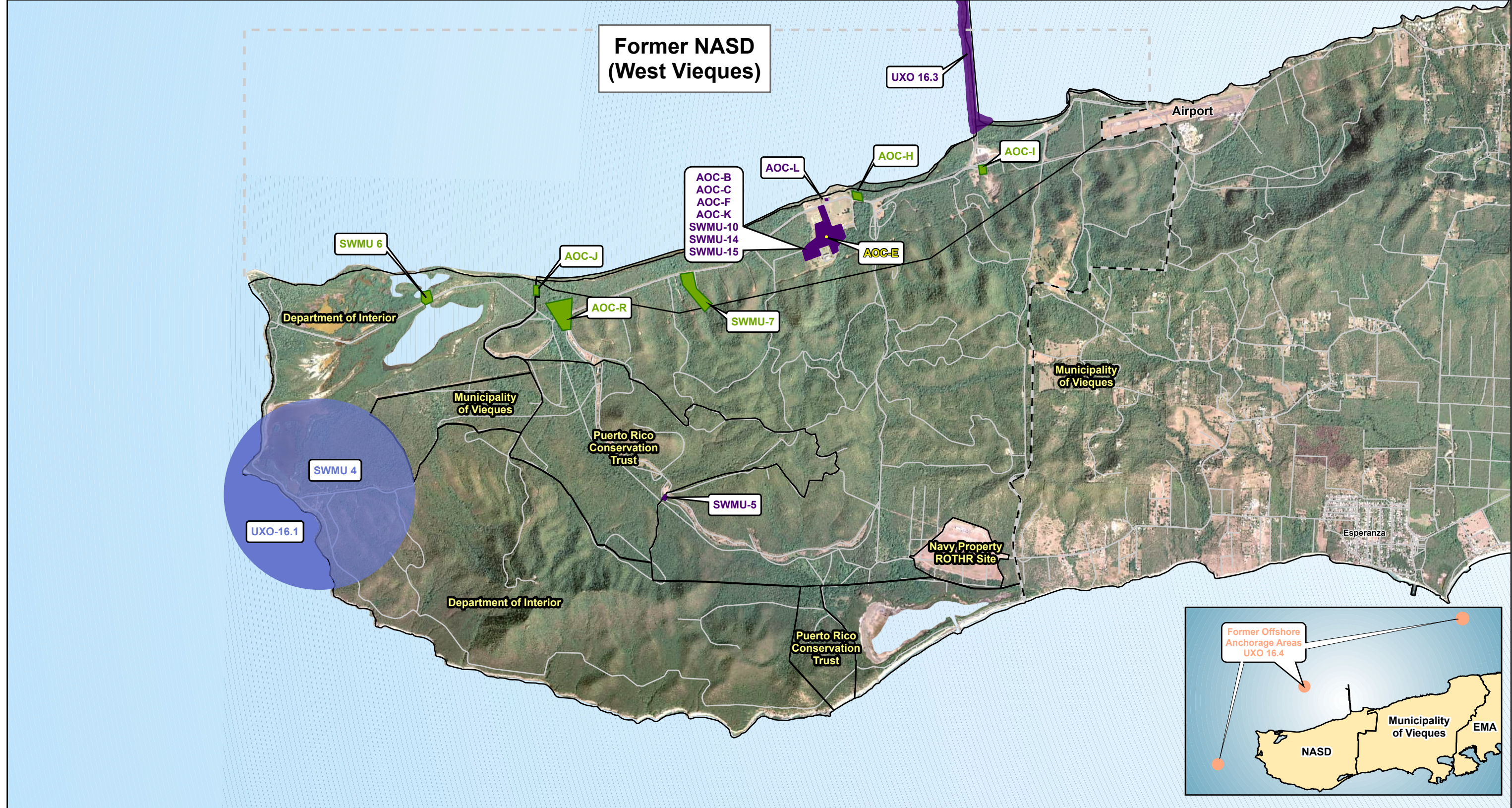
- Legend**
- Munitions Response Sites**
- UXO 1 - ECA
 - UXO 2 - LIA Beaches
 - UXO 3 - LIA East
 - UXO 4 - LIA West
 - UXO 5 - SIA Restricted Roads
 - UXO 6 - EMA/SIA Planned Public Roads
 - UXO 7 - EMA/SIA North Beaches
 - UXO 8 - SIA South Beaches
 - UXO 9 - SIA Exterior
 - UXO 10 - SIA Interior
 - UXO 11 - EMA Planned Public Roads
 - UXO 12 - EMA Interior
 - UXO 13 - EMA West
 - UXO 14 - EMA South
 - UXO 15 - Puerto Ferro
 - UXO 16 - Underwater Areas
 - UXO 17 - Other Sites
 - UXO 18 - Cayo de la Chiva

Sites - No Action/No Further Action Decision Document
Sites - Remedial Investigation
Sites - Feasibility Study
Sites - Proposed Plan
Sites - Record of Decision
Sites - Remedial Action/Long-term Monitoring



0 2,300 4,600 9,200 Feet

Figure 2-2
East Vieques Munitions Response Program Sites
Site Management Plan, FY 2027
Vieques, Puerto Rico



Legend

No Further Action Decision Document

Site Screening Assessment (UXO 16.3 & 16.4 - Underwater Areas)

Record of Decision

Remedial Action/Long-term Monitoring

Remedial Action/Response Complete

Road

Sites - No Action/No Further Action Decision Document

Sites - Site Screening Assessment

Sites - Remedial Investigation

Sites - Proposed Plan

Sites - Record of Decision

Sites - Remedial Action/Long-term Monitoring

Sites - Remedial Action/Response Complete

0 1,500 3,000 6,000 Feet

Figure 2-4
West Vieques Installation Restoration and Munitions Response Program Sites
Site Management Plan, FY 2027
Vieques, Puerto Rico

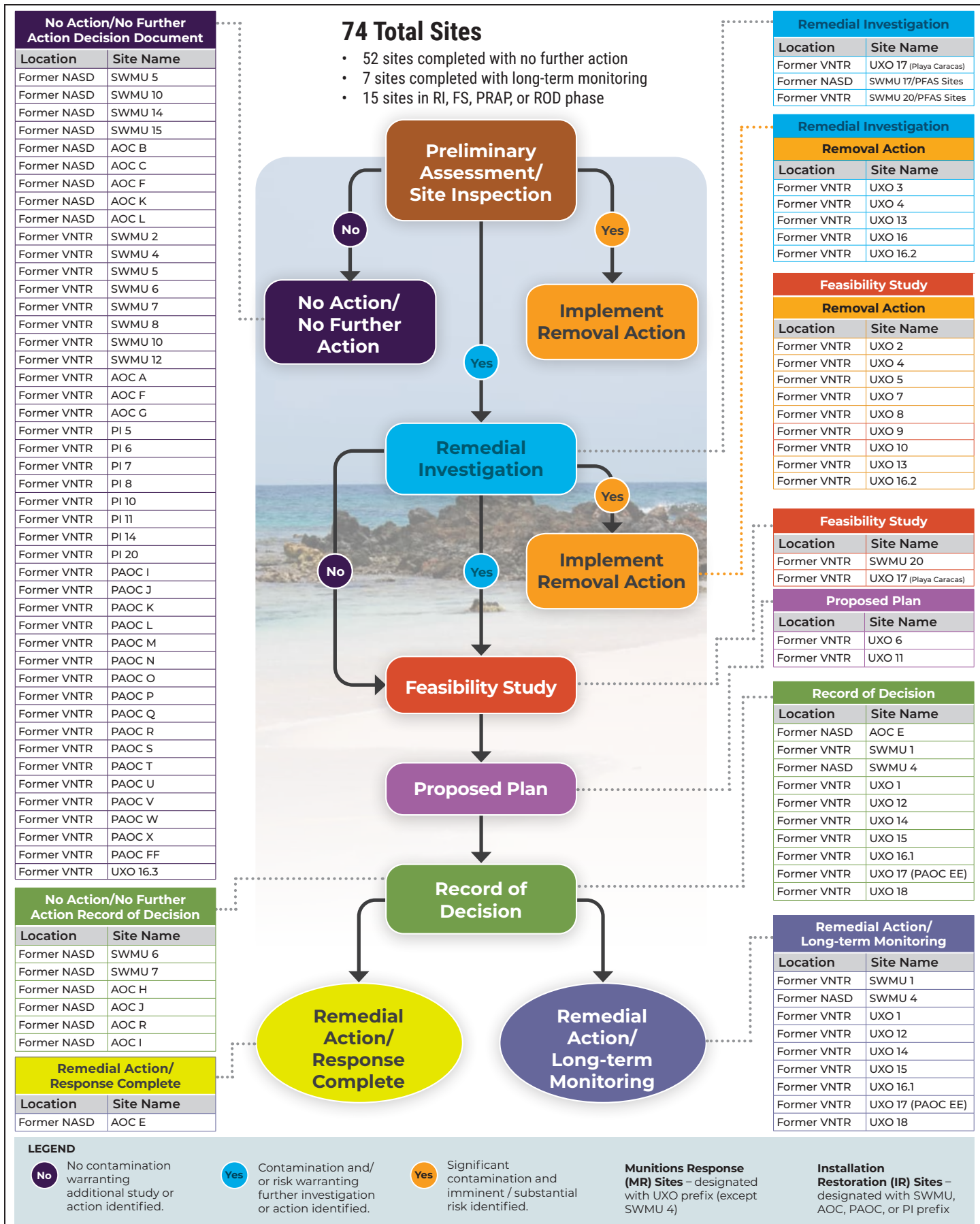
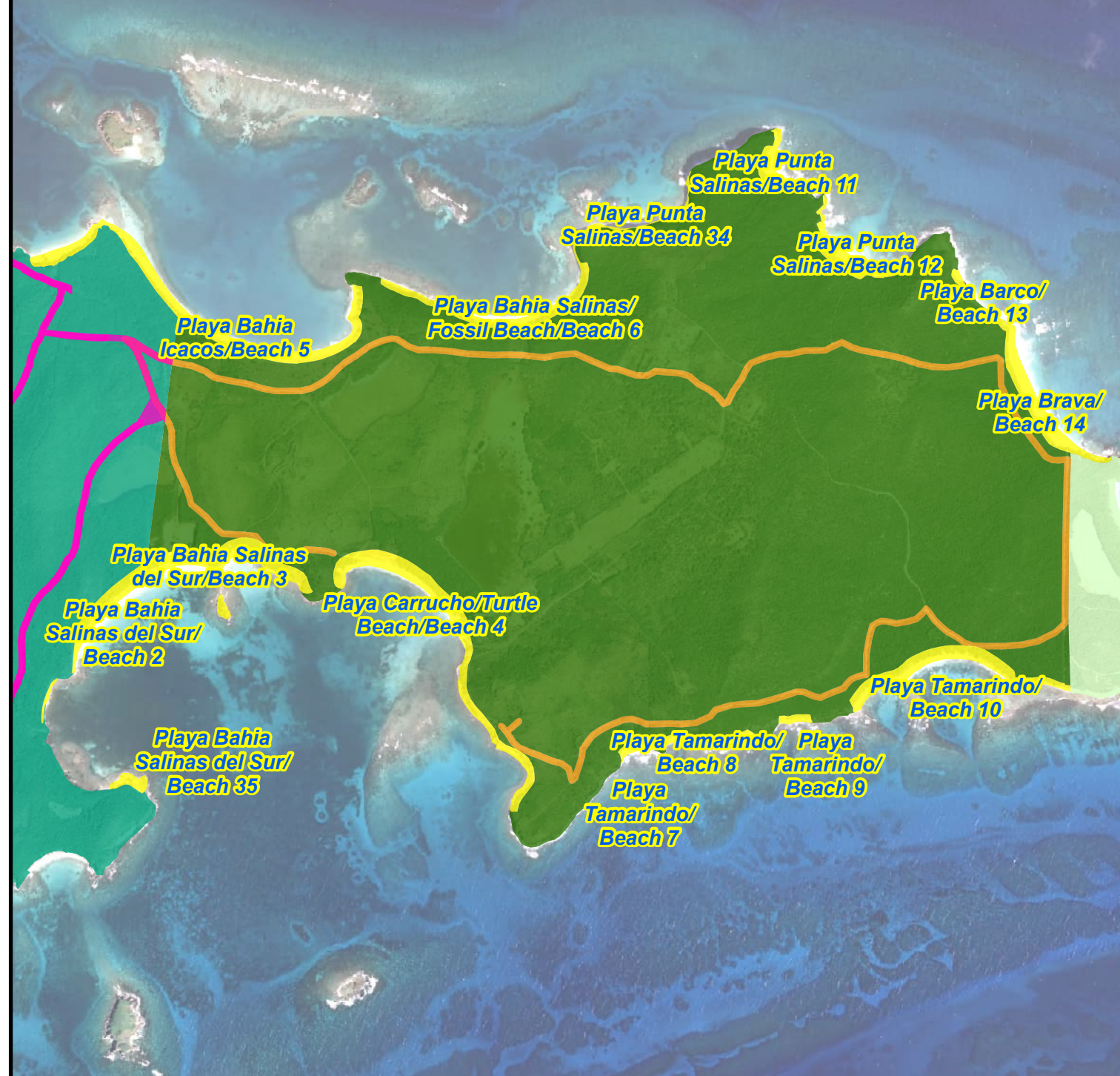
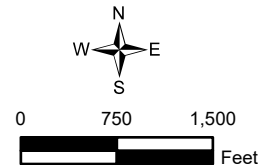


Figure 2-4
Status of Vieques Cleanup Program Sites Under CERCLA
 Site Management Plan, FY2027
 Vieques, Puerto Rico

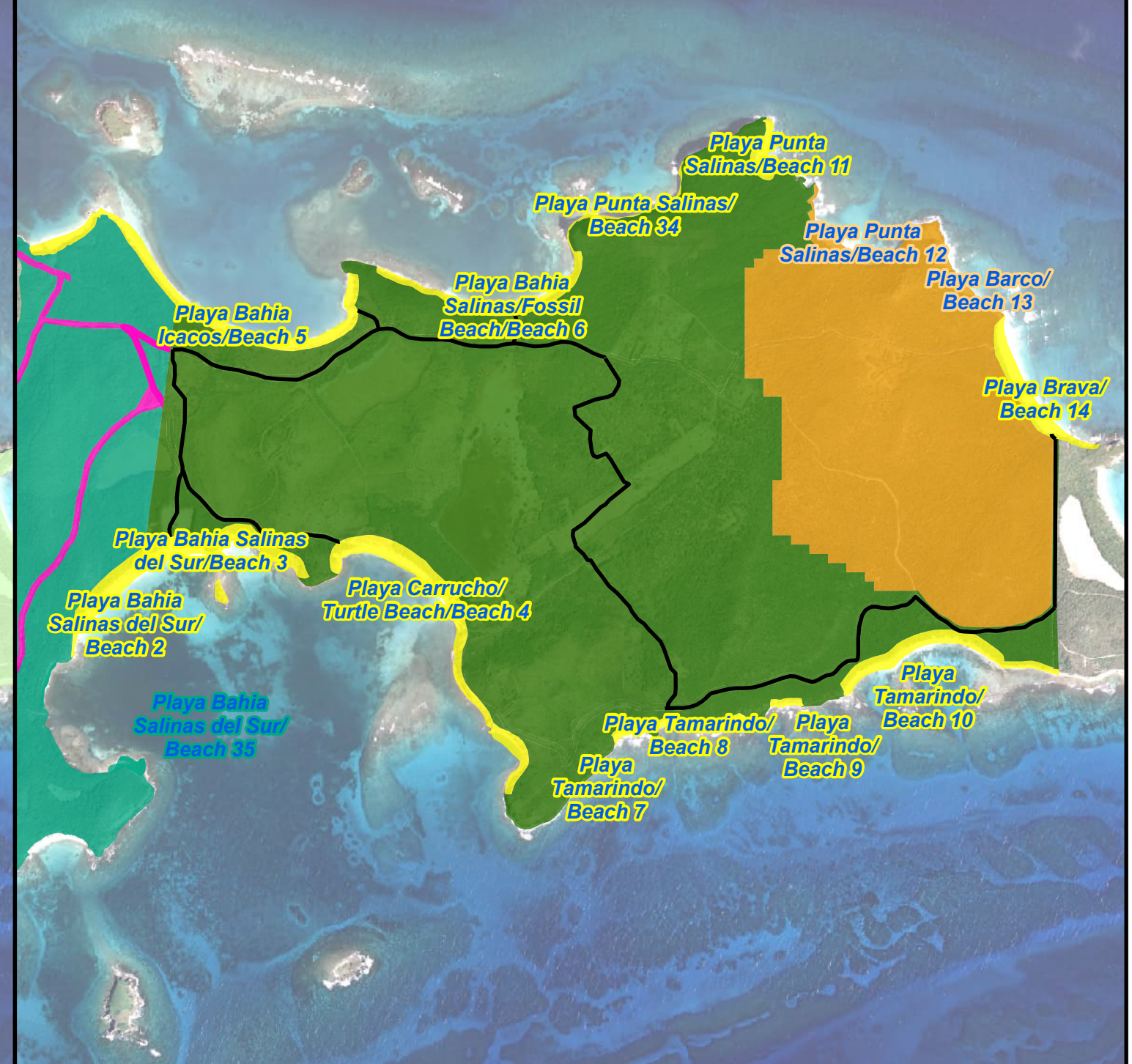
Original UXO Sites



- Legend**
- UXO 1 - ECA
 - UXO 2 - LIA Beaches
 - UXO 3 - LIA Roads
 - UXO 4 - LIA Interior
 - UXO 5 - SIA Restricted Roads
 - UXO 9 - SIA Exterior
 - Submunitions Area



Revised UXO Sites



- Legend**
- UXO 1 - ECA
 - UXO-2 - LIA Beaches
 - UXO-3 - LIA East
 - UXO-4 - LIA West
 - UXO-5 - SIA Restricted Roads
 - UXO-9 - SIA Exterior

Figure 2-5
LIA Site Boundary Revisions
Site Management Plan, FY 2027
Vieques, Puerto Rico



Schedules and Funding

This section presents the SMP schedule based on timelines outlined in the FFA. In addition, the projected funding for the CERCLA response actions at the Vieques Site is provided. Milestones established in this SMP are subject to the requirements of the FFA, unless otherwise agreed to by the Parties, or unless directed to be changed pursuant to the Dispute Resolution or Extensions process set out in the FFA. The updated FY 2027 schedules for field activities and major project deliverables, including both primary and secondary documents, are presented on Figure 3-1. The tentative schedules for FY 2027 and beyond are summarized in Table 3-1. Based on new information or conditions that arise that may affect the anticipated schedules, they will be re-evaluated and updated as mutually agreed to by the agencies.

3.1 Document Review Schedule

In accordance with the FFA, this SMP presents the proposed schedules for the CERCLA response actions and associated documentation to be undertaken at the Site. Site-specific work plans incorporate existing milestones contained in the SMP. Milestones approved in annual SMP updates will become enforceable to the extent allowed under the FFA and shall be included in future work plans.

The SMP is to be updated annually and a draft of the SMP update submitted to all parties by June 15. A public notice will be published in the local newspaper to provide a 30-day period for the general public to review the draft final SMP.

Milestones in the SMP reflect the priorities agreed to by the Parties through a process of “risk plus other factors” priority setting. Site activities have been prioritized by weighing and balancing a variety of factors including, but not limited to:

- The DoD relative risk rankings for the Site
- Current, planned, or potential uses of the Site
- Ecological impacts
- Impacts on human health and safety
- Intrinsic and future value of affected resources
- Cost effectiveness of the proposed activities
- Environmental justice considerations
- Regulatory requirements
- Actual and anticipated funding levels

3.2 Primary Documents

Primary documents include those documents that are major, discrete portions of RI/FS or Remedial Design/ Remedial Action activities. Examples of primary documents include the following:

- RI/FS Work Plans, including SAP and QAPP
- Risk Assessment Work Plans and Reports
- Remedial Investigation Reports
- Initial Screening of Alternatives

- Feasibility Study Reports
- Focused Feasibility Study Reports
- PRAPs
- RODs
- Final Remedial Designs (including an LUC component where such controls are employed as part of the remedy)
- Remedial Action Work Plans (including an LUC component where such controls are employed as part of the remedy)
- SMP
- Remedial Action Completion Reports

3.3 Secondary Documents

All secondary documents shall be prepared in accordance with target dates established for the completion and transmission of draft secondary documents. Although EPA, DOI, and the Commonwealth may comment on the draft secondary documents, such documents shall not be subject to dispute resolution and milestone requirements of the FFA. Examples of secondary documents include the following:

- Health and Safety Plans
- Emergency Removal Action Work Plans, to the extent time permits
- TCRA Work Plans
- Site Screening Process Work Plans and Reports
- NTCRA Work Plans
- Pilot/Treatability Study Work Plans
- Pilot/Treatability Study Reports
- EE/CA Report
- Well Closure Methods and Procedures
- Sampling and Data Results and Long-term Monitoring Status Reports
- Preliminary/Conceptual Designs, or equivalents
- Pre-Final Remedial Designs
- Removal Action (NTCRA and TCRA) After Action Reports
- Periodic Five-Year Review Assessment Report

For documents pertaining to NTCRAs, the Navy will coordinate and consult with DOI pursuant to the Memorandum of Agreement, EPA, and PRDNER, as applicable.

3.4 Projected IRP/MRP Funding

While milestones are not dictated solely by budget targets, such targets must be considered when setting milestones. Furthermore, in setting and modifying milestones, the Parties agree to make good faith efforts to accommodate federal fiscal constraints, which include budget targets established by the Navy.

After authorization and appropriation of funds by Congress and within 21 days after Navy has received official notification of Navy's allocation based on the current year's Environmental Restoration, Navy (ER,N) account, Navy shall determine if the schedules in the SMP can be accomplished with the allocated funds. If the Navy determines within the 21-day period specified previously that the allocated funds are not sufficient to accomplish the planned Work for the Site (an appropriations shortfall), Navy shall immediately notify the Parties and a re-scoping or rescheduling of activities may be required.

The programmed ER,N funding for Vieques, including FY 2026 and FY 2027 and beyond, is summarized in Table 3-2.

3.5 Site Cleanup Acceleration

Table 3-3 lists the sites where opportunities for accelerated cleanup activities (investigations, removal actions, final actions) have been identified, the strategies (approaches) for acceleration, and an estimate of the acceleration that has or may be achieved. It is noted that the potential accelerations are estimated as they may be influenced by factors such as planning logistics, resource availability, and weather.

3.6 Five-Year Review

A Five-Year Review Report was issued on September 21, 2018 (CH2M 2018m). This report documents completion of the first five-year review for remedial actions implemented at the AFWTA – Vieques in accordance with CERCLA requirements. As the five-year milestone was reached for the first sites where remedial actions were implemented under a ROD, the First Five-Year Review Report specifically focused on AOC E within the former NASD and SWMU 1 within the former VNTR. The First Five-Year Review Report summarizes performance evaluation of the remedial actions to determine whether they are functioning as intended and are protective of human health and the environment, in accordance with the requirements set forth in each of their respective RODs.

The community was notified of the initiation of the first five-year review process through public notice placed in the April 2018 information flier distributed throughout Vieques. Upon review of documents related to the remedy implementation and long-term monitoring and maintenance, as well as a site visit conducted by representatives of the stakeholder agencies, it was determined that the remedies at both sites are functioning as intended and are protective of human health and the environment. The community was notified of the five-year review findings in the December 2018 information flier distributed throughout Vieques.

The second five-year review site visit of AOC E, SWMU 1, UXO 1, UXO 18, and SWMU 4 occurred in August 2022 to support the Second Five-Year Review Report. As noted previously, AOC E and SWMU 1 were included in the first Five-Year Review Report; the remedial actions were implemented at UXO 1, UXO 18, and SWMU 4 during the period covered by the second five-year review.

The community was notified of the initiation of the second five-year review process through a public notice in the community newsletter. Upon review of documents related to the remedy implementation and long-term monitoring and maintenance, as well as a site visit conducted by representatives of the stakeholder agencies, it was determined that the remedies at the sites are functioning as intended and are protective of human health and the environment. The Second Five-Year Review Report was finalized in December 2023 (CH2M 2023n). The Third Five-Year Review is anticipated to begin in 2027.

TABLE 3-1
FY27 and Beyond Tentative Schedule
Site Management Plan, Fiscal Year 2027
Vieques, Puerto Rico

Site	Site Name	FY27 (Oct 2026 through Sept 2027)	FY28 (Oct 2027 through Sept 2028)	FY29 (Oct 2028 through Sept 2029)
Installation Restoration Program Sites				
West Vieques				
PFAS Sites	NASD AOC B - Former Wastewater Treatment Plant at the Public Works Area NASD Former Fire Station Building 2046 at the Public Works Area Potential Former NASD Motor Pool Area	RI SAP (pending)	RI SAP (pending)	RI SAP (pending)
East Vieques				
PFAS Sites	VNTR SWMU 10 including AOC G - Former Sewage Treatment Lagoons and Chlorination Building VNTR Former Camp Garcia Runway VNTR SWMU 20 - Former Helicopter Maintenance Area Potential Former VNTR Motor Pool Area and Former Fire Department Building 330	RI SAP (pending)	RI SAP (pending)	RI SAP (pending)
SWMU 1	Former Camp Garcia Landfill	LTM, Annual Status Report	LTM, Annual Status Report	LTM, Annual Status Report
SWMU 20	Former Helicopter Maintenance Area, Trenched Area, Disturbed Area, and Bermed Areas used for Fuel Bladder Storage	Pilot Study Performance Monitoring	Pilot Study Performance Monitoring	Pilot Study Completion Report
Munitions Response Program Sites				
West Vieques				
SWMU 4	Inactive OB/Waste Explosive Detonation Range	RA Operations Monitoring, Annual Status Report	RA Operations Monitoring, Annual Status Report	RA Operations Monitoring, Annual Status Report
East Vieques				
UXO 1	Eastern Conservation Area	LTM, Annual Status Report	LTM, Annual Status Report	LTM, Annual Status Report
UXO 2	LIA Beaches	NTCRA Fieldwork, PRAP	NTCRA, ROD	RA Work Plan
UXO 3	LIA East	TCRA Fieldwork	TCRA Fieldwork	TCRA Fieldwork
UXO 4	LIA West	TCRA Fieldwork, PRAP	TCRA Completion Report, ROD	RA Work Plan
UXO 5	SIA Restricted Roads	NTCRA Fieldwork	NTCRA Completion Report, FS Report	NTCRA Fieldwork
UXOs 6 and 11	EMA/SIA Planned Public Roads and EMA Planned Public Roads	ROD	RA Work Plan, RA Fieldwork	RACR
UXOs 7 and 8	EMA/SIA North Beaches and SIA South Beaches	PRAP	ROD	RA Work Plan
UXOs 9 and 10	SIA Exterior, SIA Interior	NTCRA Fieldwork, RI/FS Report	NTCRA Completion Report, PRAP	ROD
UXOs 12 and 14	EMA Interior, EMA South	LTM, Annual Status Report	LTM, Annual Status Report	LTM, Annual Status Report
UXO 13	EMA West	TCRA Fieldwork	RI/FS Report, PRAP	ROD
UXO 15	Puerto Ferro	LTM, Annual Status Report	LTM, Annual Status Report	LTM, Annual Status Report
UXO 16	Underwater Areas	NTCRA Fieldwork (nearshore MEC)	NTCRA Fieldwork (nearshore MEC)	NTCRA Fieldwork (nearshore MEC)
UXO 16.1	Underwater Areas (Adj to SWMU 4)	RA Fieldwork, RACR	LTM, Annual Status Report	LTM, Annual Status Report
UXO 16.2	Underwater Areas (Adj to Public Beaches)	RI/FS Report	PRAP	ROD
UXO 17	Other Sites - Playa Caracas	RI/FS Report	PRAP	ROD
	Other Sites - PAOC EE	RA Work Plan, RA Fieldwork	RACR	LTM, Annual Status Report
UXO 18	Cayo La Chiva	LTM, Annual Status Report	LTM, Annual Status Report	LTM, Annual Status Report

FS - Feasibility Study
LTM - Long-term Monitoring
MEC - munitions and explosives of concern
NFA - No Further Action
NTCRA - Non-Time Critical Removal Action
PRAP - Proposed Remedial Action Plan
QAPP - Quality Assurance Project Plan
RA - Remedial Action
RACR - Remedial Action Completion Report
RI - Remedial Investigation
ROD - Record of Decision
SSP - Site Screening Process
TCRA - Time Critical Removal Action

TABLE 3-2

Vieques Programmed Funding, In Millions (\$)

*Site Management Plan, Fiscal Year 2027**Vieques, Puerto Rico*

Fiscal Year	Installation Restoration (54 Sites)	Munitions Response (19 Sites)	Totals
Through FY25	\$36.5	\$387.6	\$424.1
FY26	\$0.0	\$20.7	\$20.7
FY27	\$0.1	\$20.2	\$20.3
FY28 and Beyond	\$10.4	\$205.6	\$216.0
Total Expenditure	\$47.0	\$634.1	\$681.1

TABLE 3-3
Site Acceleration
Site Management Plan, Fiscal Year 2027
Vieques, Puerto Rico

Site	Milestone (Requestor)	Acceleration Strategy	Estimated ¹ Acceleration
Former VNTR - UXO 13 (EMA West)	Prioritize removal of munitions in areas with close proximity to the public (including trails and beaches with documented trespassing , and areas with sensitive munitions (Navy)	TCRA implemented in 2024 - prioritize removal of munitions in public access areas and planned future land use area. Removing munitions in higher trespassing areas with close proximity to MOV and proximity to beaches and sensitive munitions (40-mm grenades).	5 years
Former NASD - UXO 16.1 (adjacent to SWMU 4)	Public access to SWMU 4 for recreational purposes (Public/Navy/PRDNER/EPA/USFWS)	Implemented Remedial Investigation adjacent to SWMU 4 beach prior to investigation of UXO 16 as a whole	10 years ²
Former VNTR - UXO 16 (Underwater Areas)	Prioritize removal of nearshore munitions (Navy)	Implementing NTCRA for nearshore munitions	5 - 10 years ³
Former VNTR - UXO 6 (EMA/SIA Public Roads) Former VNTR - UXO 8 (SIA South Beaches) Former VNTR - UXO 9 (SIA Exterior) Former VNTR - UXO 16.2 (Underwater sites near planned Public Beaches)	Accelerated access to beaches is a high priority for the mayor's office, local legislators, the Restoration Advisory Board, and public (Public/Navy/PRDNER/EPA/USFWS)	Developed the Punta Carrenero Focus Area that comprises portions of four UXO sites (UXOs 6, 8, 9, and 16) to accelerate public use of the peninsula and beaches. To allow for the areas to be open, an After Action Report was developed that documents pertinent historical information and removal action details for each UXO site and its portion that is included in the Punta Carrenero Focus Area to support the demonstration of completion and planned public use at the discretion of USFWS.	5 - 10 years
Former VNTR - UXO 6 (EMA/SIA Public Roads) Former VNTR - UXO 9 (SIA Exterior) Former VNTR - UXO 10 (SIA Interior) Former VNTR - UXO 11 (EMA Planned Public Roads)	Accelerated access to planned public use areas	Developed the SIA Focus Area that comprises portions of our UXO sites (UXOs, 6, 9, 10, and 11) to accelerate public use of the planned land use areas within these sites. To allow for the areas to be open, an After Action Report was developed that documents pertinent historical information and removal action details for each UXO site and its portion that is included in the SIA Focus Area to support the demonstration of completion and planned public use at the discretion of USFWS.	5 - 10 years

Notes:

¹ Estimated acceleration based on information currently available and is subject to change based on factors that may influence timing and duration of acceleration strategy

² ROD finalized in 2023 and Remedial Action Work Plan finalized in 2025. Remedial action implementation anticipated in late 2025

³ NTCRA began in 2019

FIGURE 3-1
Vieques Munitions Response and Installation Restoration Program Schedule
Site Management Plan Fiscal Year 2027
Atlantic Fleet Weapons Training Area – Vieques
Vieques, Puerto Rico

[illegible]

LEGEND

Navy Preparation of Draft Document
Regulatory Review
Regulatory Extension
Responses to Comments/Draft Final Preparation
Responses to Comments
Comment Response Evaluation/Draft Final Evaluation/RAB Review (as applicable)
Public Comment
Fieldwork/sample processing

Notes:

NTCRA = Non-Time-Critical Removal Action; SAP = Sampling and Analysis Plan; ROD = Record of Decision; EE/CA = Engineering Evaluation/Cost Analysis

HHRA = Human Health Risk Assessment; ERA = Ecological Risk Assessment

* Draft Final submittals are prepared only after resolution of regulatory agency comments

¹ Is or includes Primary Document² Is or includes Secondary Document

³ Draft due June 15 of each year

⁴ TCRA and NTCRA activities may not be continuous throughout the schedule shown

References

Bold type indicates a primary document.

- Indicates the document is referenced in the text of the Site Management Plan.

A. T. Kearney, Inc. & K. W. Brown & Associates, Inc. 1988. *Phase II RCRA Facility Assessment of the Atlantic Fleet Weapons Training Facility (LANT) Including the Eastern Maneuver Area, Camp Garcia and Inner Range, Vieques Island, Puerto Rico*. October.

Advent Environmental. 2005. *Time Critical Removal Action/ Interim Measures Work Plan, Surface Munitions of Explosives Concern at Munition Response Area-Live Impact Area, Munition Response Sites 1 through 4, 6, 16, 17, and 30, Former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico*. April.

Agency for Toxic Substances and Disease Registry (ATSDR). 2006. *Health Consultation, Land Crab Evaluation, (National Oceanographic Atmospheric Administration Data), Isla De Vieques, Vieques, Puerto Rico, EPA Facility ID: PRN000204694*. February 22.

Baker Environmental, Inc. (Baker) 1992a. *Preliminary Assessment Narrative Report Site Inspection Forms and Pascore, Sites 1, 2, and 3 Naval Ammunition Facility Vieques Island, U.S. Naval Station Roosevelt Roads, Puerto Rico*. October.

Baker. 1992b. *Sampling and Analysis Plan Part I: Field Sampling Plan, Phase I Remedial Investigation, Installation Restoration Program Activities, Naval Station Roosevelt Roads, Puerto Rico*. December.

Baker. 1992c. *Sampling and Analysis Plan Part II: Quality Assurance Project Plan, Phase I Remedial Investigation, Installation Restoration Program Activities, Naval Station Roosevelt Roads, Puerto Rico*. December.

Baker. 1992d. *Work Plan, Phase I Remedial Investigation, Installation Restoration Program Activities, Naval Station Roosevelt Roads, Puerto Rico*. December.

Baker. 1993. *Community Relations Plan, Naval Station Roosevelt Roads, Ceiba, Puerto Rico*. August.

Baker. 1994. *Appendix A, Volume I, II, and III, Supplemental Investigation, Installation Restoration Program Activities, Naval Station Roosevelt Roads*. April.

Baker. 1999. *Results of the Hydrogeologic Investigation, Vieques Island, Puerto Rico*. November.

Baker. 2000a. *Water Quality Sampling Study, Vieques Island, Puerto Rico*. June.

Baker. 2000b. *Work Plan for Soil Sampling at the Live Impact Area, Vieques Island, Puerto Rico*. July.

CH2M HILL, Inc. (CH2M). 1999. *Site Characterization Report for Site No. 2016, United States Navy, Roosevelt Roads Naval Station, Ceiba, Puerto Rico*. April.

CH2M. 2000a. *Site Specific Work Plan Expanded Preliminary Assessment/Site Investigation, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. April.

CH2M. 2000b. *Expanded Preliminary Assessment/Site Investigation [Phase I]. U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. October.

CH2M. 2000c. *Live Impact Area Soil Sampling Report, U.S. Navy Facility, Vieques Island, Puerto Rico*. October.

CH2M. 2000d. *Finding of Suitability for Early Transfer for U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* November.

CH2M. 2000e. *Site Specific Work Plan, Phase II, Seven Sites, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* December.

CH2M. 2000f. *Work Plan and Sampling and Analysis Plan for Soil, Groundwater, Surface Water, and Sediment Background Investigation. Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* December.

CH2M. 2001a. *Master Work Plan, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* January.

- CH2M. 2001b. *Description of Current Conditions Report, Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico.* February.

CH2M. 2001c. *Closure of Fuel Underground Storage Tanks No. 1 and No. 2 Building 2015, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* March.

CH2M. 2001d. *Initial Ordnance and Explosives Site Assessment Work Plan for the Green Beach Area, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* March.

CH2M. 2001e. *Community Relations Plan, Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* Draft Final. May.

CH2M. 2001f. *Preliminary Ordnance and Explosives (OE) Site Assessment Report for the Green Beach Area of Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* July.

CH2M. 2001g. *Master Work Plan, Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico.* September.

CH2M. 2001h. *Site Specific Work Plan, Phase I RCRA Facility Investigation, Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico.* September 6.

CH2M. 2001i. *Work Plan and Sampling and Analysis Plan, Soil and Groundwater Background Investigation, Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico.* September 6.

CH2M. 2001j. *Work Plan for Groundwater Baseline Investigation at U.S. Navy's Eastern Maneuver Area, Vieques Island, Puerto Rico.* September 6.

CH2M. 2001k. *Ordnance and Explosives Master Work Plan for the Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* October.

CH2M. 2001l. *Ordnance and Explosives Site-Specific Work Plan for Solid Waste Management Unit 4.* November 9.

CH2M. 2001m. *Magazine Siting Plan for Solid Waste Management Unit 4 (SWMU 4), SWMU 6, and Area of Concern J (AOC J), Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* November 26.

CH2M. 2002a. *Work Plan for Community Relations Plan, Atlantic Fleet Weapons Training Facility and Eastern Maneuver Area, Vieques Island, Puerto Rico.* January.

CH2M. 2002b. *Remedial Investigation/Feasibility Study Work Plan for Area of Concern (AOC) E, Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* May.

CH2M. 2002c. *Site Management Plan FY 2001-2002, Former NASD Facility, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* May.

CH2M. 2002d. *Soil, Groundwater, Surface Water, and Sediment Background Investigation Report, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* October 16.

- CH2M. 2002e. *Preliminary OE/MEC Site Investigation Work Plan for Blue Beach and Red Beach, Eastern Maneuver Area, Vieques Island, Puerto Rico*. November.
- CH2M. 2002f. *Expanded Preliminary Assessment/Site Investigation, Phase II Seven Sites, Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. November 18.
- CH2M. 2003a. *Ordnance and Explosives (OE) Site-Specific Work Plan, Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. Revision 2. June.
- CH2M. 2003b. *Master Work Plan, Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico*. June.
- CH2M. 2003c. *Site Specific Work Plan Phase I RCRA Facility Investigation, Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico*. June 12.
- CH2M. 2003d. *Remedial Investigation/Feasibility Study Work Plan for Solid Waste Management Unit (SWMU) 6, SWMU 7, Area of Concern (AOC) H, and AOC J, Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. July.
- CH2M. 2003e. *Site Management Plan FY 2002-2003, Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. August.
- CH2M. 2004a. *Phase I RCRA Facility Investigation Report, Former Atlantic Weapons Training Facility, Vieques Island, Puerto Rico*. Draft. June.
- CH2M. 2004b. *Closure Plan, Open Burn/Open Detonation Site, Former Atlantic Fleet Weapons Training Facility, Vieques, Puerto Rico*. Draft Final. July.
- CH2M. 2004c. *Remedial Investigation/Feasibility Study Work Plan for AOC I and AOC R at the Former U.S. Naval Ammunition Support Detachment (NASD), Vieques Island, Puerto Rico*. August.
- CH2M. 2004d. *Expanded Range Assessment and Phase I Site Inspection Work Plan for Former Vieques Naval Training Range (VNTR), Vieques Island, Puerto Rico*. November.
- CH2M. 2005a. *Remedial Investigation/Feasibility Study Work Plan for AOC R at the Former U.S. Naval Ammunition Support Detachment (NASD), Vieques Island, Puerto Rico*. January.
- CH2M. 2005b. *Time Critical Removal Action/Interim Measures Work Plan, Surface Munitions of Explosives Concern at Munitions Response Area-Live Impact Area, Munitions Response Sites 1 through 8, 13, 15 through 20, and 29 through 31, Former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico*. March.
- CH2M. 2005c. *Work Plan and Sampling and Analysis Plan, Soil Inorganics Background Investigation, Former Atlantic Fleet Weapons Training Facility, Vieques, Puerto Rico*. March 31.
- CH2M. 2005d. *Groundwater Baseline Investigation at the U.S. Navy's Eastern Maneuver Area, Former Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico*. Draft Final. May.
- CH2M. 2005e. *Phase I RFI Data Summary Report for the 9 SWMUs and 3 AOCs Identified in the RCRA Consent Order, Former Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico*. May.
- CH2M. 2005f. *Remedial Investigation Work Plan for Area of Concern (AOC) R at the Former U.S. Naval Ammunition Support Detachment (NASD), Vieques Island, Puerto Rico*. November.
- CH2M. 2005g. *Supplemental Remedial Investigation Work Plan for Area of Concern (AOC) E, the Former U.S. Naval Ammunition Support Detachment (NASD), Vieques Island, Puerto Rico*. November.
- CH2M. 2005h. *Supplemental Remedial Investigation Work Plan for Area of Concern (AOC) I, the Former U.S. Naval Ammunition Support Detachment (NASD), Vieques Island, Puerto Rico*. November.

CH2M. 2005i. *Engineering Evaluation/Cost Analysis for Area of Concern J and R, and Solid Waste Management Units 6 and 7, Former Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* Draft Final. December.

- CH2M. 2006a. *Preliminary Assessment/Site Inspection Work Plan for Eight PI/PAOC Sites, Former Vieques Naval Training Range (VNTR), Vieques Island, Puerto Rico.* January.
- CH2M. 2006b. *Work Plan and Sampling and Analysis Plan, Soil Inorganics Background Investigation, Former Vieques Naval Training Range, Vieques, Puerto Rico.* May.
- CH2M. 2006c. *Time Critical Removal Action/Interim Measures Work Plan Amendment, Surface Munitions and Explosives of Concern at Munitions Response Area – Eastern Conservation Area and Munitions Response Area – Live Impact Area: Munitions Response Sites 9 through 12, 14, and 21 through 28, Former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico.* July.
- CH2M. 2006d. *No Further Action Report for Nine Sites, Former U.S. Naval Ammunition Support Detachment, Vieques, Puerto Rico.* October.
- CH2M. 2006e. *Time Critical Removal Action, Former Vieques Naval Training Range Report, Air Monitoring Data Report, January 1, 2006 through March 31, 2006.* October.
- CH2M. 2006f. *Expanded Range Assessment and Phase II Site Inspection Work Plan, Former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico.* November.
- CH2M. 2006g. *Munitions and Explosives of Concern (MEC) Master Work Plan, Former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico.* December.
- CH2M. 2007a. *Environmental Remedial Investigation Work Plan Solid Waste Management Unit (SWMU) 4, Former Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* January.
- CH2M. 2007b. *Remedial Investigation Report Solid Waste Management Unit (SWMU) 6, Former Naval Ammunition Support Detachment, Vieques Island, Puerto Rico.* February.
- CH2M. 2007c. *Master Quality Assurance Project Plan, Environmental Restoration Program, Vieques, Puerto Rico.* May.
- CH2M. 2007d. *Remedial Investigation Report Area of Concern (AOC) J, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* May.
- CH2M. 2007e. *Site Management Plan, Fiscal Years 2007 – 2008, Former Naval Facilities, Vieques, Puerto Rico.* June.
- CH2M. 2007f. *Community Involvement Plan, Former Naval Facilities, Vieques, Puerto Rico.* June.
- CH2M. 2007g. *Remedial Investigation Report Area of Concern (AOC) H, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* July.
- CH2M. 2007h. *East Vieques Background Soil Inorganics Investigation Report, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.
- CH2M. 2008a. *Engineering Evaluation/Cost Analysis for MEC Removal from the Beaches and Roadways of SWMU 4, Former NASD and Munitions Response Areas: Eastern Maneuver Area, Surface Impact Area, Live Impact Area, and Eastern Conservation Area, Former VNTR, Vieques, Puerto Rico.* February.
- CH2M. 2008b. *Remedial Investigation Report Solid Waste Management Area (SWMU) 7, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* March.
- CH2M. 2008c. *Addendum 1 to the Environmental Remedial Investigation Work Plan Solid Waste Management Unit (SWMU) 4, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* April.

- CH2M. 2008d. *Preliminary Assessment/Site Inspection Report 12 Consent Order Sites and 8 PI/PAOC Sites, Former Vieques Naval Training Range, Vieques, Puerto Rico*. June.
- CH2M. 2008e. *Remedial Investigation Report Area of Concern (AOC) I, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. June.
- CH2M. 2008f. *Remedial Investigation Report Area of Concern (AOC) E, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. July.
- CH2M. 2008g. *Amendment 1, Expanded Range Assessment and Phase II Site Inspection Work Plan, Former Vieques Naval Training Range, Vieques Puerto Rico*. September.
- CH2M. 2008h. *Pre-Removal Waste Characterization Ecological Risk Assessment for AOCs J and R, SWMUs 6 and 7, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. Draft. October.
- CH2M. 2008i. *Pre-Removal Waste Characterization Human Health Risk Assessment for SWMU 6, U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. Draft. October.
- CH2M. 2008j. *Work Plan for Munitions and Explosives of Concern Subsurface Interim Removal Action, Beaches and Select Roadways, Former Vieques Naval Training Range and Former Naval Ammunition Support Detachment, Solid Waste Management Unit 4, Vieques, Puerto Rico*. October.
- CH2M. 2008k. *Engineering Evaluation/Cost Analysis for Surface MEC Removal from the Munitions Response Area-Surface Impact Area, Former VNTR, Vieques, Puerto Rico*. October.
- CH2M. 2008l. *Site Management Plan Fiscal Year 2008-2009, Former Naval Facilities, Vieques, Puerto Rico*. November.
- CH2M. 2008m. *Technical Memorandum: Determination of the Disposition of Excavated Soils at SWMU 6, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. Draft. December.
- CH2M. 2009a. *No Action Decision Document for 4 Consent Order Sites and 6 PI/PAOC Sites, Former Vieques Naval Training Range, Vieques, Puerto Rico*. January.
- CH2M. 2009b. *Non-Time Critical Removal Action Work Plan, Surface Munitions and Explosives of Concern at Munitions Response Area-Surface Impact Area, Munitions Response Sites 1 through 7, Former VNTR, Vieques, Puerto Rico*. January.
- CH2M. 2009c. *Site Inspection/Expanded Site Inspection Sampling and Analysis Plan, 7 Consent Order Sites and 16 PI/PAOC Sites, Former Vieques Naval Training Range, Vieques, Puerto Rico*. February.
- CH2M. 2009d. *Action Memorandum, Non-Time Critical Removal Action in the Surface Impact Area, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.
- CH2M. 2009. *Site Management Plan Fiscal year 2010, Former Naval Facilities, Vieques, Puerto Rico*. October.
- CH2M. 2010a. *In-Situ Remediation Pilot Studies (AOC E and AOC I Sites) Sampling and Analysis Plan, Naval Ammunition Support Detachment, Vieques, Puerto Rico*. February.
- CH2M. 2010b. *Master Standard Operating Procedures, Protocols, and Plans, Environmental Restoration Program, Vieques, Puerto Rico*. April.
- CH2M. 2010c. *Site Inspection/Expanded Site Inspection Report, 7 Consent Order Sites and 16 PI/PAOC Sites, Former Vieques Naval Training Range, Vieques, Puerto Rico*. August.
- CH2M. 2010d. *Expanded Range Assessment/Site Inspection Report Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.
- CH2M. 2010e. *No Action/No Further Action Decision Document, 7 Consent Order Sites and 14 PI/PAOC Sites, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.

CH2M. 2010f. *Status Report, Time Critical Removal Action, Interim Action for the Removal of Surface Munitions and Explosives of Concern at Munitions Response Areas-Live Impact Area and Eastern Conservation Area, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.

- CH2M. 2010g. *No Action Decision Document, PI-14 and PAOC FF, Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

CH2M. 2010h. *Post-Removal Supplemental Confirmatory Sampling and Analysis Plan Solid Waste Management Unit (SWMU) 6, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* December.

CH2M. 2010i. *Preliminary Assessment/Site Inspection Work Plan for PAOC EE, Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

CH2M. 2011a. *Remedial Investigation Sampling and Analysis Plan, Eastern Conservation Area, Former Vieques Naval Training Range, Vieques, Puerto Rico.* January.

CH2M. 2011b. *Site Management Plan, Fiscal Year 2011, Former Naval Facilities, Vieques, Puerto Rico.* January.

CH2M. 2011c. *Technical Memorandum: Preliminary Inspection of Cayo La Chiva, Former Vieques Naval Training Range, Vieques, Puerto Rico.* January.

CH2M. 2011d. *Post-Removal-Action Risk Assessment Report Area of Concern (AOC) J and Solid Waste Management Unit (SWMU) 7, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* February.

CH2M. 2011e. *Remedial Investigation Report Area of Concern (AOC) R, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* February.

CH2M. 2011f. *Status Report Area of Concern I (AOC I) In-Situ Remediation Pilot Study, Former Naval Ammunition Support Detachment (NASD), Vieques, Puerto Rico.* March.

- CH2M. 2011g. *Streamlined Remedial Investigation/Feasibility Study Report, Solid Waste Management Unit 1 (SWMU 1), Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.

- CH2M. 2011h. *Expanded Site Inspection Sampling and Analysis Plan UXO 15, Former Vieques Naval Training Range, Vieques, Puerto Rico.* May.

CH2M. 2011i. *Methods and Approach for Surveys of Endangered and Threatened Wildlife Plant Species and Important Habitats at PI-9, PI-13, and Debris Piles within UXO 15.* May.

- CH2M. 2011j. *Site Inspection/Expanded Site Inspection Report Addendum PI 7, PAOC Q, and PAOC R, Puerto Rico. Former Vieques Naval Training Range, Vieques, Puerto Rico.* June.
- CH2M. 2011k. *Supplemental Expanded Site Inspection and Pilot Study Sampling and Analysis Plan, Photo-Identified Site 4 (PI 4), Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.
- CH2M. 2011l. *No Action/No Further Action Decision Document PI 7, PAOC Q, and PAOC R, Puerto Rico. Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.

CH2M. 2011m. *Work Plan for Munitions and Explosives of Concern Subsurface Interim Removal Action, Beaches and Select Roadways, (Sections 5, 6, and Appendix E amended September 2011), Former Vieques Naval Training Range and Former Naval Ammunition Support Detachment, Solid Waste Management Unit 4, Vieques, Puerto Rico.* October.

CH2M. 2011n. *Engineering Evaluation/Cost Analysis for Surface MEC Removal from the Munitions Response Site-UXO-13 Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.

CH2M. 2011o. *Site Management Plan, Fiscal Year 2012, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico*. November.

CH2M. 2012a. *Post-Removal Supplemental Confirmatory Sampling and Analysis Plan Addendum Solid Waste Management Unit (SWMU) 6, Former Naval Ammunition Support Detachment (NASD), Vieques, Puerto Rico*. January.

CH2M. 2012b. *Non-time-critical Removal Action Work Plan Munitions Response Site UXO-13, Former Vieques Naval Training Range Vieques, Puerto Rico*, February.

CH2M. 2012c. *Biological Assessment for PI 9, PI 13, and Debris Piles within UXO 15, Former Vieques Naval Training Range, Vieques, Puerto Rico*. March.

- CH2M. 2012d. *Technical Memorandum: PAOC EE PA/SI Results, Former Vieques Naval Training Range, Vieques, Puerto Rico*. March 27.
- CH2M. 2012e. *Remedial Investigation/Feasibility Study Report, Solid Waste Management Unit 4 (SWMU 4), Former Naval Ammunition Support Detachment (NASD), Vieques, Puerto Rico*. May.
- CH2M. 2012f. *Expanded Site Inspection Sampling and Analysis Plan Addendum for the Remedial Investigation at UXO 15, Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.
- CH2M. 2012g. *Remedial Action Implementation, Operations and Maintenance, Land Use Control, and Long-Term Monitoring Work Plan Solid Waste Management Unit 1 (SWMU 1). Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.
- CH2M. 2012h. *Remedial Investigation Report, UXO 1, Eastern Conservation Area (ECA), Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.

CH2M. 2012i. *Status Report, Non-Time Critical Removal Action, Interim Action for the Removal of Sub-Surface Munitions and Explosives of Concern at Solid Waste Management Unit 4 (SWMU 4), Former Naval Ammunition Support Detachment (NASD), Vieques, Puerto Rico*. July.

CH2M. 2012j. *Site Management Plan, Fiscal Year 2013, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico*. September.

- CH2M. 2012k. *Feasibility Study Report, UXO 1, Eastern Conservation Area (ECA), Former Vieques Naval Training Range, Vieques, Puerto Rico*. October.

CH2M. 2012l. *Focused Feasibility Study Report, Area of Concern (AOC) E, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. November.

CH2M. 2013a. *Feasibility Study Report, Solid Waste Management Unit (SWMU) 6, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. January.

- CH2M. 2013b. *Master Sampling and Analysis Plan, East Vieques Terrestrial UXO Sites, Former Vieques Naval Training Range, Vieques, Puerto Rico*. January.

CH2M. 2013c. *Addendum 1 – Laboratory Specific Worksheets for Regional Monitoring Well Soil and Groundwater Sampling, Master Sampling and Analysis Plan, East Vieques Terrestrial UXO Sites, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Training Range, Vieques, Puerto Rico*. February.

- CH2M. 2013d. *Site Inspection/Expanded Site Inspection Sampling and Analysis Plan Addendum, Site Inspection for Photo-Identified (PI) Site 21, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Training Range, Vieques, Puerto Rico*. February.

CH2M. 2013e. *Status Report, Non-Time-Critical Removal Action, Subsurface Munitions and Explosives of Concern, UXO 1, Eastern Conservation Area, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Training Range, Vieques, Puerto Rico*. February.

CH2M. 2013f. *Addendum 2 – Laboratory Specific Worksheets for UXOs 4, 9, 10, 12, 14, and 18, Master Sampling and Analysis Plan, East Vieques Terrestrial UXO Sites, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.

- CH2M. 2013g. *Remedial Investigation Sampling and Analysis Plan Solid Waste Management Unit (SWMU) 20, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.
- CH2M. 2013h. *Sampling and Analysis Plan Laguna La Chiva, Site Inspection/Remedial Investigation, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.

CH2M. 2013i. *Biological Avoidance Plan for Terrestrial MEC and MC Investigations and Interim Removal Actions, Atlantic Fleet Weapons Training Center-Atlantic, Vieques, Puerto Rico.* May.

- CH2M. 2013j. *Technical Memorandum: Work Plan for Pre-Design Surface Debris Removal and Landfill Boundary Refinement of Solid Waste Management Unit 1, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Training Range, Vieques, Puerto Rico.* September.

CH2M. 2013k. *In-Situ Remediation Pilot Study Report, Area of Concern I (AOC I), Former Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* October.

CH2M. 2013l. *Site Management Plan, Fiscal Year 2014, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* November.

CH2M. 2014a. *Biological Assessment for PAOC EE within UXO 17, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* January.

- CH2M. 2014b. *Quality Assurance Project Plan, Beach Dynamics Investigation, Eleven Beaches at the Former Vieques Naval Training Range (VNTR) and the Former Naval Ammunition Support Detachment (NASD), Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* February.
- CH2M. 2014c. *Engineering Evaluation/Cost Analysis for a Non-Time Critical Removal Action at SWMU 4, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment. Vieques, Puerto Rico.* March.

CH2M. 2014d. *Engineering Evaluation/Cost Analysis for a Non-Time Critical Removal Action at the Main Access Road and Lighthouse Area UXO 15, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* March.

- CH2M. 2014e. *Quality Assurance Project Plan Expanded Site Inspection of UXO 16 Adjacent to Solid Waste Management Unit 4, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* April.
- CH2M. 2014f. *Time Critical Removal Action Work Plan for Munitions Response Site UXO 17 Potential Area of Concern (PAOC) EE, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.
- CH2M. 2014g. *Technical Memorandum: Remedial Investigation Status Report and Path Forward, UXO 15, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* May.

CH2M. 2014h. *Contaminated Sediment Delineation to Support Feasibility Study Alternative Evaluation Sampling and Analysis Plan, Solid Waste Management Unit (SWMU) 6, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* June.

- CH2M. 2014i. *No Action Decision Document, Photo-Identified (PI) Site 21, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* June.
- CH2M. 2014j. *Solid Waste Management Unit 4 (SWMU 4) Monitoring Wells and Laguna Boca Quebrada Biota Sampling to Support Feasibility Study Alternative Evaluation Sampling and Analysis Plan, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* June.
- CH2M. 2014k. *Non-Time Critical Interim Removal Action Work Plan, Main Access Road and Lighthouse Area, UXO 15, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* June.
- CH2M. 2014l. *Non-Time Critical Interim Removal Action Work Plan, Former Open Burn/Open Detonation Site Solid Waste Management Unit 4 (SWMU 4), Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* June.
- CH2M. 2014m. *Technical Memorandum: Additional Monitoring Wells at SWMU 20.* July.
- CH2M. 2014n. *No Action Decision Document Laguna La Chiva, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.
- CH2M. 2014o. *Engineering Evaluation/Cost Analysis for a Non-Time Critical Removal Action UXO 16 Adjacent to Cayo La Chiva, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.
- CH2M. 2014p. *Site Management Plan, Fiscal Year 2015, Atlantic Fleet Weapons Training Area Vieques Island, Puerto Rico.* December.
- CH2M. 2015a. *Remedial Action Work Plan, Groundwater Monitoring and Institutional Controls with Contingency Plans, Area of Concern E, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* January.
- CH2M. 2015b. *Technical Memorandum: SWMU 6 Contaminated Sediment Delineation and Ecological Risk Screening, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* Draft. January.
- CH2M. 2015c. *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.* February.
- CH2M. 2015d. *UXO 18 Remedial Investigation/Feasibility Study Report, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* May.
- CH2M. 2015e. *Sampling and Analysis Plan, Addendum 2 for Remedial Investigation at UXO 15, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.
- CH2M. 2015f. *Engineering Evaluation/Cost Analysis for a Non-Time Critical Interim Removal Action, UXO 15 PI 9 East and Adjacent UXO 16 Encrusted Munitions, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.
- CH2M. 2015g. *Technical Memorandum: Summary of Findings: Surface Debris Clearance, Landfill Boundary Refinement, and Supplemental Human Health Risk Assessment to Support the Remedial Action at Solid Waste Management Unit 1, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* August.
- CH2M. 2015h. *Addendum 3, Master Sampling and Analysis Plan, UXO 13 Remedial Investigation, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.

CH2M. 2015i. *Community Involvement Plan Update, Atlantic Fleet Weapons Training Area-Vieques, Vieques, Puerto Rico.* October.

- CH2M. 2015j. *After Action Report, Time-Critical Removal Action, Potential Area of Concern EE, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.

CH2M. 2015k. *Site Management Plan, Fiscal Year 2016, Atlantic Fleet Weapons Training Area - Vieques, Vieques, Puerto Rico.* November.

- CH2M. 2015l. *After Action Report, Non-Time Critical Interim Removal Action, Southwest Beach, UXO 15, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.

CH2M. 2015m. *UXO 16 Wide Area Assessment Work Plan, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

CH2M. 2016a. *Addendum 4, Master Sampling and Analysis Plan, UXOs 3, 5, 6, and 11 Remedial Investigation, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* January.

CH2M. 2016b. *Remedial Investigation Report Addendum, Solid Waste Management Unit (SWMU) 6, Atlantic Fleet Weapons Training Area - Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* January.

- CH2M. 2016c. *UXO 18 Feasibility Study Addendum, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.

- CH2M. 2016d. *Remedial Investigation Status Report, UXOs 4, 9, 10, 12, and 14, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico. Volumes 1 and 2.* May.

CH2M. 2016e. *UXO 16 Adjacent to Solid Waste Management Unit 4 Expanded Site Inspection Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* July.

- CH2M. 2016f. *UXO 16 Adjacent to Solid Waste Management Unit 4, Remedial Investigation Sampling and Analysis Plan, Atlantic Fleet Weapons Training Area - Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* July.

- CH2M. 2016g. *Submunitions Area Removal Action Work Plan for the Time Critical Removal of Munitions within the Live Impact Area at the former Vieques Naval Training Range, Vieques, Puerto Rico.* August.

- CH2M. 2016h. *Solid Waste Management Unit 20 Remedial Investigation Report, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* August.

CH2M. 2016i. *Air Monitoring Status Report, August 16, 2005 through June 21, 2013, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.

- CH2M. 2016j. *UXO 16 Adjacent to Cayo La Chiva, Non-Time Critical Removal Action Work Plan, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.

CH2M. 2016k. *Site Management Plan, Fiscal Year 2017, Atlantic Fleet Weapons Training Area - Vieques, Vieques, Puerto Rico.* October.

- CH2M. 2016l. *Revised Operations and Maintenance, Land Use Control, and Long-Term Monitoring Work Plan, Solid Waste Management Unit 1 (SWMU 1), Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.

- CH2M. 2016m. *UXO 1, Eastern Conservation Area, Remedial Action, Land Use Control, and Long-Term Monitoring Work Plan, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. November.
- CH2M. 2016n. *Quality Assurance Project Plan, Advanced Geophysical Classification for Munitions Response Remedial Investigations, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range and Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. November.
- CH2M. 2016o. *Solid Waste Management Unit 4 (SWMU 4), Non-Time Critical Removal Action, After Action Report, Atlantic Fleet Weapons Training Area - Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. November.
- CH2M. 2017a. *Solid Waste Management Unit 1, 2016 Annual Status Report, Groundwater Long-Term Monitoring, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. January.
- CH2M. 2017b. *Solid Waste Management Unit 1, Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. January.
- CH2M. 2017c. *Area of Concern E, Remedial Action Annual Status Report 2016, Atlantic Fleet Weapons Training Area - Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. February.
- CH2M. 2017d. *Master Sampling and Analysis Plan – Addendum 5, UXO 17, Potential Area of Concern EE, Remedial Investigation, Atlantic Fleet Weapons Training Area - Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. April.
- CH2M. 2017e. *Solid Waste Management Unit 4 Feasibility Study Addendum, Atlantic Fleet Weapons Training Area - Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. April.
- CH2M. 2017f. *UXO 16 Nearshore Munitions Engineering Evaluation/Cost Analysis for a Non-Time-Critical Removal Action, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico*. April.
- CH2M. 2017g. *Work Plan for MEC Verification Evaluation of Playa Caracas/Red Beach and Playuela/Garcia Beach, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. June.
- CH2M. 2017h. *UXO 4, North Convoy Target Area, Radiological Investigation Work Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. August.
- CH2M. 2017i. *Air Monitoring associated with Submunitions Area Removal Action Work Plan for the Time-Critical Removal of Munitions within the Live Impact Area Quality Assurance Project Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. October.
- CH2M. 2017j. *Submunitions Area Removal Action, Semiannual Air Monitoring Report, October 1, 2016 through March 31, 2017, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. October.
- CH2M. 2017k. *Solid Waste Management Unit 1 2017 Annual Status Report Groundwater Long-Term Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. December.
- CH2M. 2018a. *Submunitions Area Removal Action, Semiannual Air Monitoring Report, April 1, 2017 through September 30, 2017, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. January.
- CH2M. 2018b. *Technical Memorandum: UXO 13 Remedial Investigation Berm Characterization Path Forward, Former Vieques Naval Training Range, Vieques, Puerto Rico*. February.

CH2M. 2018c. *Area of Concern E Remedial Action Annual Status Report 2017, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* March.

CH2M. 2018d. *Master Standard Operating Procedures, Protocols, and Plans, Revision – 2018, Environmental Restoration Program, Vieques, Puerto Rico.* April.

- CH2M. 2018e. *UXOs 2, 7, and 8 Remedial Investigation Master Sampling and Analysis Plan Addendum 6, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.

CH2M. 2018f. *Site Management Plan, Fiscal Year 2018, Atlantic Fleet Weapons Training Area - Vieques, Vieques, Puerto Rico.* May.

- CH2M. 2018g. *UXO 16 Adjacent to Cayo La Chiva, Non-Time Critical Removal Action, After Action Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.

- CH2M. 2018h. *UXO 16.1 Remedial Investigation Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* July.

CH2M. 2018i. *Remedial Action Work Plan Addendum, Area of Concern E, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* July.

- CH2M. 2018j. *UXO 16 Nearshore Munitions Non-Time-Critical Removal Action Work Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico.* August.
- CH2M. 2018k. *UXOs 12 and 14 Remedial Investigation/Feasibility Study Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* August.
- CH2M. 2018l. *Solid Waste Management Unit 1, 2018 Annual Status Report, Groundwater Long-Term Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* August.
- CH2M. 2018m. *First Five-Year Review Report, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* September.
- CH2M. 2018n. *UXO 16 Underwater Wide Area Assessment Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.

CH2M. 2018o. *Site Management Plan, Fiscal Year 2019 Amendment, Atlantic Fleet Weapons Training Area - Vieques, Vieques, Puerto Rico.* October.

- CH2M. 2018p. *Beach Dynamics Investigation Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.
- CH2M. 2019a. *UXO 13 Non-Time-Critical Removal Action, After Action Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* March.
- CH2M. 2019b. *UXO 18, Cayo La Chiva, Remedial Action, Land Use Control, and Long-Term Monitoring Work Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.
- CH2M. 2019c. *UXO 17, Potential Area of Concern EE, Remedial Investigation/Feasibility Study Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* June.

CH2M. 2019d. *Submunitions Area Removal Action, Semiannual Air Monitoring Report, June 1, 2018 through December 31, 2018, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.

- CH2M. 2019e. *UXO 1 Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* August.

CH2M. 2019f. *Area of Concern E, Interim Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* September.

- CH2M. 2019g. *Solid Waste Management Unit 1, 2019 Annual Status Report, Groundwater Long-Term Monitoring and Operations and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.
- CH2M. 2019h. *UXO 18 Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.
- CH2M. 2019i. *Technical Memorandum: Summary of Findings – 2018 Radiological Investigation at the North Convoy Target Area of UXO 4, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October 11.

CH2M. 2019j. *Site Management Plan, Fiscal Year 2020 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* October.

CH2M. 2019k. *Submunitions Area Removal Action, Semiannual Air Monitoring Report, January 1, 2019 through June 30, 2019, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

- CH2M. 2020a. *Preliminary Assessment Report for Per- and Polyfluoroalkyl Substances, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunitions Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.
- CH2M. 2020b. *UXO 15 Remedial Investigation/Feasibility Study Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.

CH2M. 2020c. *Site Management Plan, Fiscal Year 2021 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* October.

CH2M. 2020d. *Area of Concern E Remedial Action Annual Status Report 2020, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* November.

- CH2M. 2020e. *Solid Waste Management Unit 1, 2020 Annual Status Report, Groundwater Long Term Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.
- CH2M. 2020f. *UXO 1, Eastern Conservation Area, 2020 Annual Status Report, Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.
- CH2M. 2020g. *UXO 17 Public Use Beaches Uniform Federal Policy Quality Assurance Project Plan Munitions Response Time-Critical Removal Action, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.

CH2M. 2020h. *Submunitions Area Removal Action Semiannual Air Monitoring Report, January 1 through June 30, 2020, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.

- CH2M. 2020i. *UXOs 2, 7, and 8 Beaches Remedial Investigation Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

CH2M. 2020j. *UXOs 3, 5, 6, and 11 Remedial Investigation Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

CH2M. 2021a. *Submunitions Area Removal Action Semiannual Air Monitoring Report January 1 through June 30, 2021, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.

- CH2M. 2021b. *Solid Waste Management Unit 1 Annual Status Report 2021 Groundwater Long-Term Monitoring and Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.

CH2M. 2021c. *Site Management Plan Fiscal Year 2022 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* November.

- CH2M. 2021d. *UXO 16.2 Remedial Investigation Quality Assurance Project Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.
- CH2M. 2021e. *Site Inspection Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.

CH2M. 2022a. *Solid Waste Management Unit 1 After Action Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* February.

- CH2M. 2022b. *UXO 1 Eastern Conservation Area 2021 Annual Status Report, Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* February.
- CH2M. 2022c. *UXO 18 Cayo La Chiva 2021 Annual Status Report Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* February.
- CH2M. 2022d. *UXO 16.1 Feasibility Study Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* February.

CH2M. 2022e. *Area of Concern E Remedial Action Annual Status Report 2021 Groundwater Monitoring, Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* February.

CH2M. 2022f. *Community Involvement Plan Update, Vieques Environmental Restoration Program, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* March.

- CH2M. 2022g. *Solid Waste Management Unit 4 Remedial Action Work Plan for Land Use Control Implementation and Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* March.

CH2M. 2022h. *UXO 18 Cayo La Chiva 2020 Annual Status Report Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* July.

- CH2M. 2022i. *Solid Waste Management Unit 1 Annual Status Report, 2022 Groundwater Long-Term Monitoring and Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* November.

CH2M. 2022j. *Area of Concern E Remedial Action Annual Status Report 2022 Groundwater Monitoring, Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* November.

CH2M. 2022k. *Site Management Plan Fiscal Year 2023 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico*. December.

- CH2M. 2023a. *UXO 1 Eastern Conservation Area 2022 Annual Status Report, Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.

CH2M. 2023b. *UXO 18 Cayo La Chiva 2022 Annual Status Report Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.

- CH2M. 2023c. *UXO 17 Public Use Beaches Playa Caracas/Red Beach and Playuela/Garcia Beach Time-Critical Removal Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.

CH2M. 2023d. *UXOs 12 and 14 Remedial Action Work Plan for Focused Munitions and Explosives of Concern Removal, Land Use Control Implementation and Monitoring, and Munitions and Explosives of Concern and Groundwater Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.

CH2M. 2023e. *Solid Waste Management Unit 4 Annual Status Report, 2022 Groundwater Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. September.

CH2M. 2023f. *Area of Concern E Remedial Action Annual Status Report, 2023 Groundwater Monitoring, Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. September

- CH2M. 2023g. *Solid Waste Management Unit 1 Annual Status Report, 2023 Groundwater Long-Term Monitoring and Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.
- CH2M. 2023h. *Solid Waste Management Unit 4 Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. September.

CH2M. 2023i. *Site Management Plan Fiscal Year 2024 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico*. October.

CH2M. 2023j. *Solid Waste Management Unit 20 Pilot Study Work Plan for Groundwater Treatment using Zero-Valent Iron, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. October.

CH2M. 2023k. *Solid Waste Management Unit 20 Pilot Study for Groundwater Treatment using Zero-Valent Iron Quality Assurance Project Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. November.

- CH2M. 2023l. *Site Inspection for Per-and Polyfluoroalkyl Substances, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment and Former Vieques Naval Training Range, Vieques, Puerto Rico*. December.

CH2M. 2023m. *Technical Memorandum: 2022 and 2023 Regional Groundwater Monitoring Well Results and Path Forward, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. December 6.

- CH2M. 2023n. *Second Five-Year Review Report, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico*. December.

CH2M. 2024a. *UXO 18 Cayo La Chiva 2023 Annual Status Report Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* February.

- CH2M. 2024b. *Submunitions Area Removal Action Semiannual Air Monitoring Report, July 1 through December 31, 2023, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* February.
- CH2M. 2024c. *UXO 1 Eastern Conservation Area 2023 Annual Status Report Land Use Control Monitoring and Maintenance, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* March.
- CH2M. 2024d. *UXO 15 Remedial Action Work Plan for Surface Munitions and Explosives of Concern Removal, Land Use Control Implementation and Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* March.
- CH2M. 2024e. *UXO 13 Munitions Response Time-Critical Removal Action Quality Assurance Project Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* April.

CH2M. 2024f. *Area of Concern E Groundwater Monitoring, Land Use Control Monitoring and Maintenance 2024 Remedial Action Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* September.

CH2M. 2024g. *UXO 16.3 Site Screening Process at Mosquito Pier and Mosquito Pier Causeway Quality Assurance Project Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* September.

- CH2M. 2024h. *UXO 15 Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.

CH2M. 2024i. *Site Management Plan Fiscal Year 2025 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico.* September.

- CH2M. 2024j. *UXOs 12 and 14 Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.
- CH2M. 2024k. *Solid Waste Management Unit 1 Land Use Control Monitoring and Maintenance 2024 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* September.
- CH2M. 2024l. *UXO 17 Playa Caracas/Red Beach Remedial Investigation Quality Assurance Project Plan, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* October.
- CH2M. 2024m. *UXO 18 Cayo La Chiva Land Use Control Monitoring and Maintenance 2024 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* December.
- CH2M. 2025a. *UXO 1 Eastern Conservation Area Land Use Control Monitoring and Maintenance 2024 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico.* January.
- CH2M. 2025b. *UXO 16.1 Remedial Action Work Plan, Nearshore Munitions and Explosives of Concern Clearance and Land Use Control Implementation and Monitoring, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico.* January.

CH2M. 2025c. *Submunitions Area Removal Action Semiannual Air Monitoring Report July 1 through December 31, 2024, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. March.

CH2M. 2025d. *Area of Concern E Remedial Action Groundwater Monitoring, Land Use Control Monitoring and Maintenance 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. May.

- CH2M. 2025e. *Solid Waste Management Unit 4 Long-Term Monitoring 2024 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. May.

CH2M. 2025f. *Area of Concern E Remedial Action Completion Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. July.

- CH2M. 2025g. *UXOs 6 and 11 Feasibility Study Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.
- CH2M. 2025h. *UXO 16.3 Site Screening Process Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. August.
- CH2M. 2025i. *UXO 16.3 Underwater Area associated with Mosquito Pier and Mosquito Pier Causeway No Further Action Decision Document, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. August.
- CH2M. 2025j. *Punta Carrenero Focus Area After Action Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.
- CH2M. 2025k. *Solid Waste Management Unit 1 Land Use Control Monitoring and Maintenance 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.

CH2M. 2025l. *Site Management Plan Fiscal Year 2026 Amendment, Atlantic Fleet Weapons Training Area – Vieques, Vieques, Puerto Rico*. September.

CH2M. 2025m. *Air Monitoring Report UXO 13 Time-Critical Removal Action November 2024 through July 2025, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. October.

- CH2M. 2026a. *UXO 1 Eastern Conservation Area Land Use Control Monitoring and Maintenance 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.
- CH2M. 2026b. *UXO 18 Cayo La Chiva Land Use Control Monitoring and Maintenance 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.
- CH2M. 2026c. *Solid Waste Management Unit 4 Land Use Control Monitoring and Maintenance 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. May.
- CH2M. 2026d. *UXO 15 Puerto Ferro Land Use Control Monitoring and Maintenance 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.
- CH2M. 2026e. *UXOs 12 and 14 Land Use Control Monitoring and Maintenance and Groundwater Monitoring 2025 Annual Status Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. June.

- CH2M. 2026f. *UXO 4 Remedial Investigation and UXOs 2 and 4 Feasibility Study Report, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.
- Code of Federal Regulations (CFR). 2003. Title 33 – Navigation and Navigable Waters, Chapter I – COAST GUARD DEPARTMENT OF HOMELAND SECURITY, Subchapter I – ANCHORAGES, Part 110 – ANCHORAGE REGULATIONS, Subpart B – Anchorage Grounds, Section 110.245 – Vieques Passage and Vieques Sound, near Vieques Island, P.R. July 1.

Department of Defense (DOD). 2004. *Sampling and testing of perchlorate at DoD installations. Interim guidance*. February.

Department of Defense and Environmental Protection Agency (DOD/EPA). 2006. *DOD/EPA Joint Guidance on Streamlined Site Closeout and NPL Deletion Process For DoD Facilities*. January 19.

- Department of the Interior (DOI). 2007. *Comprehensive Conservation Plan/Environmental Impact Statement for Vieques National Wildlife Refuge, Vieques, Puerto Rico*. August.
- Department of the Navy and Department of the Interior (DON/DOI). 2003. *Memorandum of Agreement between the United States Department of the Navy and the United States Department of the Interior Concerning the Transfer of Department of Defense Properties on the Eastern End of Vieques Island to the Department of the Interior*. April 30.

Ensafe Inc., 2002. *Groundwater Monitoring Work Plan, Open Burning/Open Detonations Units for Atlantic Fleet Weapons Training Facility, Vieques Island, Puerto Rico*. Draft Final. February 11.

Environmental Protection Agency (EPA). 1989. *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual*.

EPA. 2000. *Resource Conservation and Recovery Act (RCRA), Section 3008(h) Order on Consent – Atlantic Fleet Weapons Training Facility (AFWTF), Vieques PR, EPA ID #PRD980536221, Administrative Order on Consent Docket No. RCRA-02-2000-7301. Region II*. January 10.

- EPA Region 2, Department of the Navy, Department of the Interior, and the Commonwealth of Puerto Rico (EPA). 2007. *Federal Facility Agreement, Under CERCLA Section 120, Administrative Docket Number: FFA-CERCLA-02-2007-2001*. August.

Environmental Research, Inc. (ERI). 2000. *Aerial Photographic Analysis Atlantic Fleet Weapons Training Facility and Eastern Maneuver Area, Vieques Island, Puerto Rico*. August.

ERI. 2003. *Addendum Report, Aerial Photographic Analysis Eastern Maneuver Area and Surface Impact Area, Vieques Island, Puerto Rico*. 2nd Draft. February.

Environmental Science and Engineering, Inc. (ESE). 1986a. *Confirmation Study to Determine Possible Dispersion and Migration of Specific Chemicals – U.S. Naval Station, Roosevelt Roads, Puerto Rico, and U.S. Naval Ammunition Facility, Vieques: Evaluation of Data from First and Second Rounds of Verification Sample Collection and Analysis*. May.

ESE. 1986b. *Supplemental Appendix of Laboratory Data–Evaluation of Data from First Round of Verification Sample Collection and Analysis, Confirmation Study to Determine Possible Dispersion and Migration of Specific Chemicals, U.S. Naval Station Roosevelt Roads, Puerto Rico, and U.S. Naval Ammunition Facility, Vieques*. May.

ESE. 1988a. *Evaluation of Data from First and Second Rounds of Verification Sample Collection and Analysis, Confirmation Study to Determine Possible Dispersion and Migration of Specific Chemicals, U.S. Naval Station Roosevelt Roads, Puerto Rico, and U.S. Naval Ammunition Facility, Vieques*. April.

ESE. 1988b. *Supplemental Appendix of Laboratory Data—Evaluation of Data from First and Second Rounds of Verification Sample Collection and Analysis, Confirmation Study to Determine Possible Dispersion and Migration of Specific Chemicals, U.S. Naval Station Roosevelt Roads, Puerto Rico, and U.S. Naval Ammunition Facility, Vieques*. April.

Federal Register. 2004. National Priorities List for Uncontrolled Hazardous Waste Site, Proposed Rule. Volume 69, No. 156, 50118. August 13.

Field Support Services, Inc. (FSS), Division of Shaw Environmental & Infrastructure, Inc. 2008. *Work Plan Removal Actions SWMU 6, SWMU 7, AOC J, and AOC R, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. February.

FSS. 2010. *Construction Completion Report, Removal Actions SWMU 6, SWMU 7, AOC J, and AOC R, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. March.

Geo-Marine, Inc. (GMI). 2002. *Mangrove Forest Health and Status: Vieques Island, Naval Station Roosevelt Roads, Puerto Rico*. March.

GMI. 2003. *Integrated Natural Resources Management Plan, Plan Years 2003-2012, Navy Lands on Vieques, Vieques Island, Puerto Rico*. Draft Final.

- GMI. 2006. *Biological Assessment of the Former Live Impact Area within the Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.
- Greenleaf/Telesca Planners Engineers Architects, Inc. and Ecology and Environment, Inc. 1984. *Initial Assessment Study, Naval Station Roosevelt Roads, Puerto Rico*. September.
- Lockheed Martin Technology Services. 1999. *Aerial Photographic Analysis, U.S. Navy Atlantic Fleet Weapons Training Facility, Solid Waste Management Units 1 and 10, Areas of Concern F and G, Vieques Island, Puerto Rico*. August.

Mujica-Cotto, Esteban. 2004. "Clarification Regarding the AFWTA NPL Designation." Letter to Ms. Jane Kenny, EPA. May 26.

National Oceanic and Atmospheric Administration (NOAA). 2010. *An Ecological Characterization of the Marine Resources of Vieques, Puerto Rico Part II: Field Studies of Habitats, Nutrients, Contaminants, Fish, and Benthic Communities*. May.

Naval Facilities Engineering Command (NAVFAC), Atlantic Division, San Juan Branch Director. 1972. *U.S. Marine Corps, Environmental Impact Statement, Vieques Military Training Complex, Vieques, Puerto Rico*. Draft. February.

NAVFAC Atlantic. 2000. *Identification of Uncontaminated Property at the Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. June 23.

NAVFAC Pacific. 2003a. *Quality Assessment Project Plan (QAPP), Munitions and Explosives of Concern (MEC) Site Characterization, Vieques Island, Puerto Rico*. March 9.

- NAVFAC Atlantic. 2003b. *Preliminary Range Assessment Report, Vieques Naval Training Range, Vieques Island, Puerto Rico*. Final Draft. April.
- NAVFAC Atlantic. 2003c. *Environmental Baseline Survey, Vieques Naval Training Range, Vieques Island, Puerto Rico*. Draft Final. April 1.
- NAVFAC Atlantic. 2003d. *Preliminary Munitions and Explosives of Concern (MEC) Investigation Report for Red and Blue Beaches, Vieques Naval Training Range, Vieques Island, Puerto Rico*. July.
- NAVFAC Atlantic. 2003e. *Summary of the No Further Action Report for Nine Sites, Former U.S. Naval Ammunition Support Detachment, Vieques Island, Puerto Rico*. September.

NAVFAC Atlantic. 2008a. *Proposed Plan Area of Concern H, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. January.

NAVFAC Atlantic. 2008b. *Record of Decision, Area of Concern H, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. EPA ID: PRN000204694. September.

NAVFAC Atlantic. 2009. *Action Memorandum Non-Time-Critical Removal Action from the Beaches and Roads at the Former VNTR and Former NASD SWMU 4, Vieques, Puerto Rico*. 16 September.

NAVFAC Atlantic. 2011a. *Proposed Plan Areas of Concern J and R and Solid Waste Management Unit 7, Former Naval Ammunition Support Detachment (NASD), Vieques, Puerto Rico*. June.

- NAVFAC Atlantic. 2011b. *Proposed Remedial Action Plan for Solid Waste Management Unit 1, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques Island, Puerto Rico*. July.

NAVFAC Atlantic. 2011c. *Record of Decision Areas of Concern J and R and Solid Waste Management Unit 7, Former Naval Ammunition Support Detachment (NASD), Vieques, Puerto Rico*. September.

- NAVFAC Atlantic. 2011d. *Record of Decision Solid Waste Management Unit (SWMU) 1, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.

NAVFAC Atlantic. 2012. *Proposed Remedial Action Plan, Solid Waste Management Unit 4, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. July.

- NAVFAC Atlantic. 2013a. *Action Memorandum for an Emergency Response Munitions Removal Action at the Atlantic Fleet Weapons Training Area, Munitions Response Site UXO 12, Vieques Puerto Rico*. 17 April.

NAVFAC Atlantic. 2013b. *Proposed Remedial Action Plan, Area of Concern I, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. November.

NAVFAC Atlantic. 2013c. *Proposed Remedial Action Plan, Area of Concern E, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. November.

NAVFAC Atlantic. 2014a. *Action Memorandum for a Time-Critical Removal Action, Munitions Response Site UXO 17, Potential Area of Concern EE, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. 9 May.

- NAVFAC Atlantic. 2014b. *Proposed Remedial Action Plan, UXO 1, Eastern Conservation Area, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. August.

NAVFAC Atlantic. 2014c. *Record of Decision Area of Concern (AOC) I, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. September.

NAVFAC Atlantic. 2015a. *Record of Decision Area of Concern (AOC) E, Atlantic Fleet Weapons Training Area-Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. January.

NAVFAC Atlantic. 2015b. *Action Memorandum for a Non-Time-Critical Removal Action, Solid Waste Management Unit 4, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. 16 January.

- NAVFAC Atlantic. 2015c. *Record of Decision, UXO 1, Eastern Conservation Area, Atlantic Fleet Weapons Training Area-Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. November.
- NAVFAC Atlantic. 2016a. *Proposed Remedial Action Plan, UXO 18, Cayo La Chiva, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.

NAVFAC Atlantic. 2016b. *Proposed Remedial Action Plan, Solid Waste Management Unit 6, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Ammunition Support Detachment, Vieques, Puerto Rico*. October.

- NAVFAC Atlantic. 2016c. *Record of Decision Explanation of Significant Differences, Solid Waste Management Unit 1, Vieques, Puerto Rico*. October.

NAVFAC Atlantic. 2017a. *Action Memorandum for a Non-Time-Critical Removal Action, Munitions Response Sites UXO 15 and 16, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.

NAVFAC Atlantic. 2017b. *Action Memorandum for a Non-Time-Critical Removal Action, Munitions Response Site UXO 16 Adjacent to Cayo La Chiva, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.

NAVFAC Atlantic. 2017e. *Action Memorandum for a Non-Time-Critical Removal Action, Munitions Response Site UXO 16 Nearshore Munitions, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range and Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. December.

NAVFAC Atlantic. 2018a. *Record of Decision, Solid Waste Management Unit 6, Former Mangrove Disposal Site, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. July.

- NAVFAC Atlantic. 2018b. *Proposed Remedial Action Plan, Solid Waste Management Unit 4, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. July.
- NAVFAC Atlantic. 2018c. *Record of Decision, UXO 18, Cayo La Chiva, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. August.
- NAVFAC Atlantic. 2019a. *Proposed Remedial Action Plan, UXOs 12 and UXO 14, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. March.
- NAVFAC Atlantic. 2019b. *Record of Decision, Solid Waste Management Unit 4, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. September.
- NAVFAC Atlantic. 2020. *Action Memorandum for a Time-Critical Removal Action, Munitions Response Site UXO 17 Public Use Beaches, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. December.
- NAVFAC Atlantic. 2021a. *Record of Decision, UXOs 12 and 14, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. January.
- NAVFAC Atlantic. 2021b. *Proposed Remedial Action Plan UXO 15 Puerto Ferro, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. July.
- NAVFAC Atlantic. 2022a. *Proposed Remedial Action Plan, UXO 17 Potential Area of Concern EE, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. May.
- NAVFAC Atlantic. 2022b. *Proposed Remedial Action Plan, UXO 16.1, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. November.
- NAVFAC Atlantic. 2023a. *Record of Decision UXO 15 Puerto Ferro, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. April.
- NAVFAC Atlantic. 2023b. *Record of Decision, UXO 16.1, Atlantic Fleet Weapons Training Area – Vieques, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico*. September.

NAVFAC Atlantic. 2024a. *Action Memorandum for a Time-Critical Removal Action Munitions Response Site UXO 13, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. June 25.

- NAVFAC Atlantic. 2024b. *Record of Decision, UXO 17 Potential Area of Concern EE, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. September.
- NAVFAC Atlantic. 2026. *Proposed Remedial Action Plan UXOs 6 and 11 Planned Public Roads, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques, Puerto Rico*. June.

PIKA International, Inc. 2008. *Work Plan for CPC Operations and MEC Support Activities at Former Vieques Naval Training Range (VNTR)*. January.

PRI and USA Environmental, Inc., 2006. *Munitions Removal Action Work Plan, Live Impact Area (LIA) and Eastern Conservation Area (ECA), Former Vieques Naval Training Range, Vieques Island, Puerto Rico*. September 18.

Program Management Company (PMC). 2000. *Environmental Baseline Survey, Naval Ammunition Support Detachment Vieques, Vieques Island, Puerto Rico*. October 17.

- Puerto Rico Environmental Quality Board (PREQB) (Herminio Concepción Vargas). 1995. *Revised RCRA Facility Assessment Report, Atlantic Fleet Weapons Training Facility, Vieques, Puerto Rico*. September.

PREQB. 2007. *Public Hearing on No further Action Report for Nine Sites at Former U.S. Naval Ammunition Support Detachment, May 2003*. Resolution certified and filed on January 25.

Shaw Environmental & Infrastructure, Inc. (Shaw). 2006. *Work Plan Munitions Removal Actions and MEC Support Activities, Munitions Response Sites Located Within the Munitions Removal Area, Former Vieques Naval Training Range, Puerto Rico*. October.

- Sibert, Edwin L. 1993. *Operation Portrex*. September 22.
- Tippetts, Abbett, McCarthy, Stratton and Ecology and Environment, Inc. 1980. *Environmental Impact Statement, Continued Use of the Atlantic Fleet Weapons Training Facility Inner Range (Vieques)*. October.
- United States Geological Survey (USGS). 1989. *Reconnaissance of the Ground-Water Resources of Vieques Island, Puerto Rico*. By Sigfredo Torres-Gonzalez. Report 86-4100.
- USA Environmental, Inc. (USAE). 2017. *Work Plan for a Non-Time Critical Interim Removal Action, UXO 15 PI-9 East and Adjacent UXO 16 Encrusted Munitions, Former Vieques Naval Training Range, Vieques Island, Puerto Rico*. January.
- USAE. 2019. *After Action Report, Interim Non-Time-Critical Removal Action, UXO 15 PI-9 East, Adjacent UXO 16 Encrusted Munitions, Atlantic Fleet Weapons Training Area – Vieques, Former Vieques Naval Training Range, Vieques Island, Puerto Rico*. June.

Glossary

Administrative Record: A compilation of documents and information for CERCLA sites that is made available to the public for review.

Advanced Geophysical Classification (AGC): The process of making principled decisions, using data collected by geophysical sensors, to differentiate between buried items that are potentially hazardous and those that can be safely left in the ground during munitions response actions.

Applicable or Relevant and Appropriate Requirements (ARARs): A statutory requirement for remedy selection that an alternative will meet all applicable ARARs unless one of the statutory waivers under CERCLA 121(d)(4) is justified. Requirements, including cleanup standards, standards of control, and other substantive environmental protection requirements and criteria, for hazardous substances as specified under federal and state laws and regulations that must be met when complying with CERCLA and Superfund Amendments and Reauthorization Act.

Area of Concern (AOC): Used by regulatory bodies to refer to environmentally sensitive or damaged areas. An Area of Concern is any existing or former location at a site where contaminants are known or suspected to have been discharged, which is considered a source area.

Background Concentration: Concentrations of naturally occurring and anthropogenic (due to mankind) constituents, such as inorganic constituents, found in groundwater, soil, sediment, and surface water at levels not influenced by site-specific releases. Background concentrations of some inorganics and other constituents are often at levels that may pose a risk to human health or the environment. However, background concentrations of site chemicals are factored into risk management determinations to ensure remedial actions are not implemented for constituents whose concentrations are attributable to background conditions and not indicative of a site-related release.

Comprehensive Conservation Plan (CCP): DOI developed a Comprehensive Conservation Plan for the Vieques National Wildlife Refuge that outlines its concept for managing the refuge and for which various “step-down” plans have been developed that outline site-specific land use designs.

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA): A Federal law passed in 1980 (United States Code Title 42, Chapter 103), commonly referred to as the “Superfund” Program, that provides for cleanup and emergency response in connection with numerous existing, inactive hazardous substance disposal sites that endanger public health and safety or the environment. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986.

Contaminant of Concern or Chemical of Concern (COC): Refers to a chemical that is known or suspected to pose potential negative impacts on human health or the environment.

Digital Geophysical Mapping (DGM): Uses magnetometers to locate and create a digital map of geophysical anomalies – areas of higher magnetic response that may include subsurface metal objects that may be munitions. The instruments can be towed by hand or behind a vehicle or mounted onto aircraft. The resulting data are used to select areas for further investigation.

Ecological Risk Assessment (ERA): An evaluation of the risk posed to ecological receptors (i.e., plants and animals) if remedial activities are not performed at the site.

Elevated Anomaly Density Area (EADA): A location where the geophysical survey detects a high number of subsurface anomalies.

Engineering Evaluation and Cost Analysis (EE/CA): Study to identify the objectives of a removal action and to analyze the cost effectiveness and implement ability of the various alternatives that may be used to satisfy these objectives.

Environmental Baseline Survey (EBS): This report documents the environmental conditions as part of the land transfer to the Department of Interior. The report provides a comprehensive review of existing environmental information to determine if there are any known or likely releases of hazardous substances or petroleum products.

Environmental Protection Agency (EPA): The federal agency responsible for administration and enforcement of CERCLA (and other environmental statutes and regulations), and with final approval authority for the selected remedy.

Environmental Restoration Program (ERP): A Department of the Navy (Navy) initiative to identify, investigate and clean up former waste disposal sites on military property. The Program's objectives are to reduce the risk to human health and the environment from past waste disposal operations and hazardous material spills in a cost-effective manner.

Feasibility Study (FS): A study in which the final remedy for a site is developed and evaluated against a variety of criteria, including technical feasibility, cost-effectiveness, and community acceptance. The FS is divided in two phases: initial screening of alternatives and detailed analysis of alternatives.

Human Health Risk Assessment (HHRA): A qualitative and quantitative evaluation of the risk posed to human health by the presence of specific pollutants. Elements include: identification of the hazardous substances present in the environmental media; assessment of exposure and exposure pathways; assessment of the toxicity of the site's hazardous substances; and characterization of human health risks.

In Situ Chemical Oxidation: A remediation technology that uses chemical oxidants (i.e., hydrogen peroxide, potassium permanganate, or persulfate) to react with and degrade contaminants, converting them into less harmful or stable products.

Information Repository: A file containing information, technical reports, and reference documents regarding an NPL site. This file is usually maintained at a location with easy public access, such as a public library.

Land Use Control (LUC): Physical, legal, or administrative methods that restrict the use of or limit access to property to reduce risks to human health and the environment.

Long-term Monitoring (LTM): A program implemented that consist of data collection or monitoring that spans a prolonged period of time to assess the long-term effects of remedial actions; used to help evaluate the effectiveness of the remedial action and, in this case, address any explosive hazards (i.e., MEC) that may become exposed via erosion or identified by any entity and repair/replace any damaged LUCs.

Material Potentially Presenting an Explosive Hazard (MPPEH): Material that cannot be immediately assessed and inspected to determine whether the item could pose an explosive hazard. MPPEH includes material potentially containing explosives or material potentially containing high enough concentration of explosives to present an explosive hazard. MPPEH is inspected by unexploded ordnance (UXO) qualified personnel to determine a potential explosive hazard or certify as material documented as safe.

Maximum Contaminant Level (MCL): The standard that is set by the United States Environmental Protection Agency for drinking water quality.

Munitions and Explosives of Concern (MEC): Specific categories of military munitions that may pose unique explosive safety risks, such as unexploded ordnance, discarded military munitions (DMM), or munitions constituents (MC).

Munitions Constituents (MC): Any materials originating from unexploded ordnance, discarded military munitions (DMM), or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

National Priorities List (NPL): A list developed by the EPA of uncontrolled hazardous substance release sites in the United States that are considered priorities for long-term remedial evaluation and response.

Naval Facilities Engineering Systems Command (NAVFAC): The Naval Facilities Engineering Systems Command is the United States Navy's engineering systems command, providing the Navy and United States Marine Corps with facilities and expeditionary expertise. NAVFAC delivers and maintains quality, sustainable facilities, acquires and manages capabilities for the Navy's expeditionary combat forces, provides contingency engineering response, and enables energy security and environmental stewardship.

No Further Investigation or Action: If a site does not pose an unacceptable risk to human health or the environment, it will be designated as requiring no further action.

Operable Unit (OU): During cleanup, a site can be divided into a number of distinct areas depending on the complexity of the problems associated with the site. These areas called OUs may address geographic areas of a site, specific site problems, or areas where a specific action is required. An example of a typical operable unit could include removal of drums and tanks from the surface of a site.

Operation and Maintenance (O&M): Activities required to maintain the effectiveness and integrity of a remedy.

Per- and Polyfluoroalkyl Substances (PFAS): a class of over 9,000 highly persistent and toxic chemicals used in many industrial processes and consumer products.

Preliminary Assessment (PA): An assessment of information about a site and its surrounding area. A PA is designed to determine whether a site poses little or no threat to human health and the environment or if it does pose a threat, whether the threat requires further investigation.

Proposed Remedial Action Plan (PRAP) or Proposed Plan (PA): A document that presents background information on site history and contamination and requests public input regarding a proposed cleanup alternative.

Public Comment Period: The time allowed for the members of an affected community to express views and concerns regarding an action proposed to be taken by the Navy and EPA, such as a rulemaking, permitting, or Superfund remedy selection.

Puerto Rico Department of Natural and Environmental Resources (PRDNER): The agency responsible for protecting natural resources, Commonwealth-owned conservation areas, submerged lands, and the coastal zone in the Commonwealth of Puerto Rico.

Record of Decision (ROD): A legal document that describes the cleanup action or alternative selected for a site, the basis for choosing that alternative, and public comments on the selected alternative.

Remedial Action Completion Report (RACR): A document that formally documents the successful completion of a remedial action plan and that all remediation objectives, site-specific response actions, and program data quality objectives have been attained.

Remedial Action Objectives (RAOs): Objectives of remedial actions that are based on contaminated media, contaminants of concern, potential receptors and exposure scenarios, human health and ecological risk assessments, that define the extent to which sites require cleanup to protect human health and the environment.

Remedial Action Work Plan (RAWP): Detailed document that outlines the methodologies to address the remedial alternative and ensuring compliance with the relevant regulations of achieving the RAO.

Remedial Action: A cleanup method or specified action to address contaminants at a site.

Remedial Investigation (RI): A study in support of the selection of a remedy at a site where hazardous substances have been released. The RI identifies the nature and extent of contamination and assesses human health and ecological risk associated with the contamination.

Remedy Selection [Record of Decision (ROD)/Decision Document (DD) Milestone]: Following the RI/FS, the preferred alternative is documented in a Proposed Plan (PP) for public comments and all required remedial actions are documented in the ROD/DD. The ROD/DD includes a summary of the nature and extent of contamination and associated risks and/or hazards, selected remedy, remedial action objectives (RAOs), the rationale for selecting the remedy, and an exit strategy.

Remedial Action (RA): A remedial action is a response implemented in an expedited manner to address contamination that poses a threat to human health and the environment. Remedial actions can occur during any phase of the cleanup process.

Resource Conservation and Recovery Act (RCRA): A federal law that creates the framework for the proper management of hazardous and non-hazardous solid waste.

Resource Conservation and Recovery Act Facility Investigation (RFI): The process to evaluate thoroughly the nature and extent of the releases of hazardous waste and hazardous constituents and to gather necessary data to support the Corrective Measures Study and/or interim/stabilization measures.

Restoration Advisory Board (RAB): A stakeholder group that meets on a regular basis to discuss environmental restoration at a specific property that is either currently or was formerly owned by Department of Defense (DoD), but where DoD oversee the environmental restoration process. RABs enable people interested in the environmental cleanup to exchange information with representatives of regulatory agencies, the installation, and the community.

Sampling and Analysis Plan (SAP): A guide to data collection, sample analysis, and data evaluation.

Semivolatile Organic Compound (SVOC): Organic compounds that possess Henry's law constants in a specific range and have higher boiling points and low vapor pressure.

Site Closeout: The conditions of the site comply with the Record of Decision (ROD) findings and design specifications, cleanup standards have been met, and activities performed at the site are sufficient to achieve protection of public health and the environment.

Site Inspection (SI): The process of collecting site data and samples to characterize the severity of the hazard ranking score (HRS). SI investigators typically collect environmental and waste samples to determine what hazardous substances are present at a site. They determine if these substances are being released to the environment and assess if they have reached nearby targets.

Site Management Plan (SMP): Annual document generated in accordance with the FFA that provides a 1-year plan for CERCLA ERP activities.

Site: The area of a facility where a hazardous substance, hazardous waste, hazardous constituent, pollutant, or contaminant from the facility has been deposited, stored, disposed of, placed, has migrated, or otherwise come to be located.

Solid Waste Management Unit (SWMU): Any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous wastes. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

Unexploded Ordnance (UXO): Military munitions that have been primed, fused, armed, or otherwise prepared for action; been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material; and remain unexploded either by malfunction, design, or any other cause.

United States Fish and Wildlife Service (USFWS): The Interior Department Agency charged with protecting the nation's fish and wildlife resources.

Volatile Organic Compound (VOC): Organic compounds that have high vapor pressure at room temperature. They are often human-made chemicals used in the manufacture of paints, pharmaceuticals, and refrigerants.

Appendix A
Status of Remedial Investigation/
Feasibility Study Sites

Appendix A1
Status of Remedial Investigation/
Feasibility Study Sites
Installation Restoration Program Sites

Appendix A1

Status of Remedial Investigation/Feasibility Study Sites, Vieques, Puerto Rico

Installation Restoration Program Sites

East Vieques Sites				
Site Designation	Description of Site	IRP Phase	Key Information	References
Solid Waste Management Unit (SWMU) 1 Camp Garcia Landfill	Camp Garcia Landfill Eastern Maneuver Area (EMA)	Preliminary Assessment (PA)/ Site Inspection (SI)/ Expanded Site Inspection (ESI)	The PA detailed the findings and evaluation of historical data associated with SWMU 1, which warranted additional investigation. SI/ESI field activities consisted of geophysical surveys, test pitting, and soil and groundwater sampling. Based on the key findings of the PA/SI/ESI, which delineated and confirmed buried debris via test pitting along with additional sampling of environmental media, the site was recommended for a Remedial Investigation/Feasibility Study.	CH2M 2008d, 2010c
		RI/FS	An RI was conducted to assess the nature and extent of environmental media contamination as well as assess potential risks to human health and the environment. The RI risk assessments determined no unacceptable risk to human health or the environment for potential site receptors based on site conditions and anticipated future land use. As part of the FS, remedial alternatives were presented to achieve the Remedial Action Objectives (RAOs); which included preventing contact with subsurface debris, minimizing the potential for erosion of landfill debris, and land use controls.	CH2M 2011g
		Proposed Remedial Action Plan (PRAP)	The PRAP presented the stakeholders preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For SWMU 1, the preferred alternative included additional soil cover, land use controls (LUCs), and monitoring to ensure the RAOs were achieved.	NAVFAC 2011b
		Record of Decision (ROD)	The ROD documented the selected remedial alternative to be implemented to achieve the RAOs. See Remedial Action - A ROD Explanation of Significant Difference (ESD) was issued and documented the additional removal and risk assessment, which obviated the need for the additional soil cover. All the other elements of the remedial action remain unchanged.	NAVFAC 2011d, 2016c
		Remedial Action	Initial remedial actions encountered more surface debris than previously assumed, resulting in stakeholder concurrence for a surface clearance of all debris. Additionally, geophysical surveys were implemented for additional confidence in definition of the land boundary. Re-evaluation of site media included subsurface soil samples and demonstrated human health risks from exposure to landfill soil were acceptable based on current and anticipated future use. See ESD in ROD section above.	CH2M 2012g, 2013j, 2015g, 2017b
		Long-Term Monitoring (LTM)	The LTM program was initiated in 2016 and included groundwater sampling and LUC inspections. The Second Five-Year Review documented the reduction of groundwater sampling based on the evaluation and trends of previous results; with the next groundwater sampling event anticipated in 2027. LUC inspections and groundwater analytical results as part of the LTM program are documented in annual reports.	CH2M 2016l, 2023n, 2017a, 2017k, 2018l, 2019g, 2020e, 2021b, 2022i, 2023g, 2024k, 2025k

East Vieques Sites				
Site Designation	Description of Site	IRP Phase	Key Information	References
SWMU 20 (formerly Photo Identified [PI] 4)	Interviews and records indicate location of former helicopter maintenance area, barracks, and a mess hall. Observed several large segments of concrete culverts/pipes and concrete foundation slabs with a septic vault box to the south of the concrete slabs. Observed two large, rectangular, bermed areas formerly used for fuel bladder storage (from interviews). No evidence of munitions, hazardous waste, hazardous material, or petroleum disposal was observed.	PA/SI/ESI	The PA detailed the findings and evaluation of historical data associated with SWMU 20, which warranted additional investigation. As part of the ESI, additional monitoring well installation and groundwater sampling was conducted with findings indicating the area of contamination had not been fully delineated and, therefore, an RI was conducted.	CH2M 2008d, 2009c, 2010c, 2011k
		RI/FS	An RI Sampling and Analysis Plan (SAP) was developed to determine the extent of the TCE-related contamination in groundwater and included additional monitoring well installation and sampling. The RI findings delineated the extent and suggested no source area remained in the soil and, therefore, an FS was recommended. Inter-agency discussions resulted in additional information and a Pilot Study to support the remedial alternatives associated with the FS Report. The Pilot Study was implemented to measure the effectiveness of zero-valent iron in treating TCE in situ. The Pilot Study is currently ongoing. The FS will be completed once the pilot study is completed.	CH2M 2013g, 2014m, 2016h, 2023j, 2023k

APPENDIX A1 –INSTALLATION RESTORATION PROGRAM SITES				
West Vieques Sites				
Site Designation	Description of Site	IRP Phase	Key Information	References
SWMU 6 Mangrove Disposal Site (West Vieques-Department of the Interior [DOI])	Disposal of trash (lubricants, oils, solvents, and paint) ~1965-1980	PA/SI	The PA/SI was conducted to determine whether a release of hazardous materials may have occurred and included a geophysical survey and collection on environmental media, with the findings warranting an RI.	CH2M 2008d
		RI/FS	An RI was conducted to assess the nature and extent of environmental media contamination as well as assess potential risks to human health and the environment. RI findings indicated an uncertainty associated site media and a Non-Time-Critical Removal Action (NTCRA) was warranted to address site media removal. An NTCRA was conducted to remove waste debris and contaminated soil within SWMU 6. Upon completion of the site media removal, environmental media confirmation sampling was conducted and determined polychlorinated biphenyls, lead, and zinc in sediment. Based on this determination, an FS Report was conducted to evaluate remedial alternatives to address the sediment. Based on the remedial alternatives presented in the FS Report, a supplemental RI was implemented to collection additional data to further refine the lateral and vertical extent of sediment contamination. The additional data collection and evaluation determined that a remedial action was not necessary to be protective of human health and the environment.	CH2M 2007b, 2008h, 2008i, 2010h, 2012a, 2013a, 2014h, 2016b
		PRAP	The PRAP presented the stakeholders preferred remedial alternative, which was No Further Action.	NAVFAC 2016b
		ROD/Site Closeout	A No Further Action ROD was completed in July 2018.	NAVFAC 2018a
SWMU 7 Quebrada Disposal Site (West Vieques-Municipality of Vieques [MOV])	Disposal of trash (lubricants, oils, solvents, and paint) Used between 1960s to late 1970s	PA/SI	The PA detailed the findings and evaluation of historical data associated with SWMU 7, which warranted additional investigation. SI field activities consisted of environmental media sampling and recommended additional investigation to characterize nature and extent of contamination to assess potential risks to human health and the environment based on detected constituents.	CH2M 2008d, 2010c
		RI/FS	RI field activities consisted of additional environmental media sampling and geophysical surveys to delineate site features. Although the RI concluded no unacceptable risks to human health or the environment, RI findings recommended a removal action for site debris based on potential future source of contaminant release. The removal action was completed (removing approximately 5, 366 tons of soil and debris) and included waste characterization risk assessments. Based on post removal confirmation human health and ecological risk assessments, the site was proposed for No Further Action.	CH2M 2008b, 2009b, 2010
		PRAP	Based on post-removal confirmatory human health and ecological risk assessments, the site was proposed for No Further Action in a PRAP issued to the public in June 2011.	NAVFAC 2011a
		ROD/Site Closeout	A No Further Action ROD for this site was signed in September 2011.	CH2M 2011c
Area of Concern (AOC) E Former Waste Oil Underground Storage Tank (UST) at Building 2016 (West Vieques-MOV)	Waste oil UST - contaminated soil found during removal of UST	Environmental Baseline Survey (EBS)/ PA/SI	For Naval Ammunition Support Detachment (NASD) Vieques, the EBS was used as the basis for the PA in determining which sites needed to be investigated as part of the SI. In addition, the Navy conducted an Initial Assessment Study (IAS) in 1984, which was the first study completed to fulfill the informational requirements of the PA. Within the Navy ‘s Installation Restoration Program, the IAS is the equivalent of the PA in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. In April through June 2000, an SI field investigation was completed as part of the Expanded PA/SI. The Expanded PA/SI report was submitted to the Environmental Protection Agency (EPA) and the Puerto Rico Environmental Quality Board (EQB) in August 2000.	PMC 2000 Greenleaf et al. 1984 CH2M 2000b

West Vieques Sites				
Site Designation	Description of Site	IRP Phase	Key Information	References
		RI/FS	The RI Report was submitted in July 2008. A Pilot Study SAP for treating soil and groundwater was submitted in February 2010. Based on the pilot study results, a Focused FS was submitted in November 2012.	CH2M 2008f, 2010a, 2012l
		PRAP	A PRAP was submitted for public comment and a public meeting was held in November 2013.	NAVFAC 2013c
		ROD	A ROD was finalized in January 2015. The first, second, and third rounds of annual groundwater sampling were documented in Annual Status Reports that were finalized in May 2016, February 2017, and March 2018, respectively. When groundwater monitoring data from three consecutive monitoring events show concentrations of the last remaining contaminant of concern (COC) is less than or equal to its Remediation Goal (RG), Response Complete will have been met and a no further action ROD will be prepared.	NAVFAC 2015a CH2M 2017c, 2018c
		Remedial Action	A Remedial Action Work Plan (RAWP) which includes groundwater monitoring and institutional controls with contingency plans was finalized in January 2015. In accordance with the ROD, additional remedial action was deemed warranted and therefore a RAWP Addendum was completed in July 2018. An Interim Remedial Action Completion Report (IRACR) was submitted in September 2019.	CH2M 2015a, 2018i, 2019f
		LTM/Site Closeout	AOC E was included in the First Five-Year Review, the report which was finalized in September 2018, and the Second Five-Year Review Report, finalized in December 2023. Groundwater sampling for COC analysis was performed in 2019, 2020, 2021, 2022, 2023, 2024, and 2025 the results of which are documented in 2020, 2021, 2022, 2023, 2024, and 2025 Annual Status Reports. LUCs were implemented and are monitored/maintained. The AOC E Remedial Action Completion Report (RACR) was finalized in 2025 and documents that the conditions for Site Closeout for AOC E have been met and denotes no further action or restrictions on land use are necessary.	CH2M 2018m, 2023n, 2020d, 2022e, 2022j, 2023f, 2024f, 2025d, 2025f
AOC H Abandoned Power Plant (West Vieques-MOV)	Operated 1941-1943; aboveground storage tank (AST); used for fire fighter training ~1960s-1980s	EBS/PA/SI	The EBS identified AOC H based on record reviews, personnel interviews, and visual inspections. Based on the recommendations of the EBS, a PA/SI was conducted to determine if there had been a release at the site. Soil and groundwater samples were collected and the PA/SI Report recommended additional investigations to further characterize the nature and extent of contamination and assess potential risks.	PMC 2000 CH2M 2000b
		RI	An RI was performed to characterize the nature and extent of contamination and assess potential risks to human health and the environment. The RI concluded no unacceptable risk to human health or the environment, and no further action was recommended.	CH2M 2003d, 2007g
		PRAP	A PRAP for No Further Action was issued for public comment in January 2008.	NAVFAC 2008a
		ROD/Site Closeout	A No Further Action ROD was issued in September 2008.	NAVFAC 2008b
AOC I Asphalt Plant (West Vieques-MOV)	Former AST storage area stained with asphalt emulsion	EBS/Expanded PA/SI	The EBS identified AOC I based on record reviews, personnel interviews, and visual inspections. Based on the recommendations of the EBS, an Expanded PA/SI was conducted to determine if there had been a release at the site. Based on the results of soil samples collected, the Expanded PA/SI Report recommended additional investigations to further characterize the nature and extent of contamination and assess potential risks.	PMC 2000 CH2M 2000b

West Vieques Sites				
Site Designation	Description of Site	IRP Phase	Key Information	References
		RI	An RI was conducted to assess the nature and extent of environmental media contamination as well as assess potential risks to human health and the environment. Risk screening identified several contaminant of potential concern (COPCs) (albeit low) in soil and groundwater in a small area and an In-Situ Groundwater Remediation Pilot study was implemented. Groundwater data collected after implementation of the in-situ remedial technologies were determined to be below risk based screening criteria, risk assessments determined no unacceptable risks, and No Further Action was recommended.	CH2M 2008e, 2010a, 2013k
		PRAP	A PRAP for No Further Action was issued for public comment in November 2013.	NAVFAC 2013b
		ROD/Site Closeout	A No Further Action ROD was signed in September 2014.	NAVFAC 2014c
AOC J Former Operations/Staging Area Disposal Site (West Vieques-DOI)	Solid and potentially hazardous waste disposal site ~1965-1973	EBS/Expanded PA/SI	The EBS identified AOC J based on record reviews, personnel interviews, and visual inspections. Based on the recommendations of the EBS, an Expanded PA/SI was conducted to determine if there had been a release at the site. Based on the results of environmental media samples collected, the Expanded PA/SI Report recommended additional investigations to further characterize the nature and extent of contamination and assess potential risks.	PMC 2000 CH2M 2002f
		RI/FS	An RI was conducted to assess the nature and extent of environmental media contamination as well as assess potential risks to human health and the environment. Although the RI concluded no unacceptable risks to human health or the environment, RI findings recommended a removal action for site debris based on potential future source of contaminant release. The removal action was completed and included waste characterization risk assessments. Based on post removal confirmation human health and ecological risk assessments, the site was proposed for No Further Action.	CH2M 2003d, 2007d FSS 2010
		PRAP	Based on post-removal confirmatory human health and ecological risk assessments, the site was proposed for No Further Action in a PRAP issued to the public in July 2011.	CH2M 2011d NAVFAC 2011a
		ROD/Site Closeout	A No Further Action ROD for this site was signed in September 2011.	NAVFAC 2011c
AOC R Former Staging and Operations Area (West Vieques-MOV)	Construction staging and public works operations; AST; vehicle maintenance ~1965-1971	EBS/Expanded PA/SI	The EBS identified AOC R based on record reviews, personnel interviews, and visual inspections. Based on the recommendations of the EBS, an Expanded PA/SI was conducted to determine if there had been a release at the site. Based on the results of environmental media samples collected, the Expanded PA/SI Report recommended additional investigations to further characterize the nature and extent of contamination and assess potential risks.	PMC 2000 CH2M 2002f
		RI/FS	RI field activities identified four debris piles and a removal action was recommended. Upon completion of the removal action, RI activities continued with environmental media samples collected for risk assessment. The RI determined no unacceptable risks to human health or the environment and No Further Action was recommended.	CH2M 2005f FSS 2010 CH2M 2011e
		PRAP	A PRAP for No Further Action was issued for public comment in July 2011.	NAVFAC 2011a
		ROD/Site Closeout	A No Further Action ROD for this site was signed in September 2011.	NAVFAC 2011c

Appendix A2
Status of Remedial Investigation/
Feasibility Study Sites
Munitions Response Program Sites

Appendix A2

Status of Remedial Investigation/Feasibility Study Sites, Vieques, Puerto Rico

Munitions Response Program Sites

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 1 Eastern Conservation Area (ECA)	ECA		UXO 1 (131 acres) was established in 1983 as a conservation area. UXO 1 is adjacent to the Live Impact Area (LIA) where naval gunfire and air-to-ground training activities were conducted. UXO 1 is currently in the LTM phase and addressed as part of the five-year reviews to ensure remedial actions continue to be met.	PRA/Expanded Range Assessment (ERA)/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 1, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, a Time-Critical Removal Action (TCRA) was implemented with the objective of reducing the explosive hazard associated with surface munitions and explosives of concern (MEC) within UXO 1. Additionally, an NTCRA for subsurface MEC clearance was implemented within roadways and beaches within UXO 1. The ERA/SI findings recommended an RI/FS following the completion of TCRA and NTCRA activities within UXO 1.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. The RI risk assessments determined no unacceptable risks to human health and the environment based on site conditions and anticipated future land use; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAOs of addressing the remaining explosive hazards.	CH2M 2011a, 2012h, 2012k
				PRAP	The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 1, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were achieved.	NAVFAC 2014b
				ROD	The ROD documented the selected remedial alternative to be implemented to achieve the RAOs, which warranted the drafting of the RAWP.	NAVFAC 2015c
				Remedial Action	Remedial actions included MEC removal within identified refuge management areas, installation of LUCs, and establishment of an LTM program. The RACR documents the implementations of the remedial activities as well as the completion of the Remedial Action Construction phase. With the completion of the Remedial Action Construction phase, the LTM program was initiated.	CH2M 2016m, 2019e
				LTM	The LTM program was initiated in 2020 and included annual LUC and MEC inspections. LTM findings are documented in the annual status report(s) with the next inspection to be completed in late 2026. Annual reports will be used as part of the next five-year review in 2028.	CH2M 2020f, 2022b, 2023a, 2024c, 2025a, 2026a

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 2 LIA Beaches	LIA		UXO 2 (71 acres) comprise the sandy beaches and potential turtle nesting areas located along the northern and southern shores of the LIA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 2, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, a TCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 2. Additionally, an NTCRA for subsurface MEC clearance was implemented within UXO 2. The ERA/SI findings recommended an RI/FS and continuation of NTCRA activities within UXO 2.	NAVFAC 2003b CH2M 2010d
				RI/FS	In order to achieve a better understanding of the coastal dynamics associated with beaches across the former Vieques Naval Training Range (VNTR) and NASD, a Beach Dynamics Investigation (BDI) was implemented which consisted of sand elevation profiling and monitoring, munitions mobility assessments, and additional oceanic data collection. An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. The RI risk assessments determined no unacceptable risks to human health and the environment based on site conditions and anticipated future land use; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAOs of addressing the remaining explosive hazards.	CH2M 2018p, 2013b, 2014b, 2018e, 2020I, 2026f
UXO 3 LIA East	LIA	Submunition's Area	UXO 3 comprises 221 acres of a site feature within the LIA referred to as the "Submunition's Area" where cluster munitions were historically utilized. To address the explosive hazard, a TCRA was initiated in 2016 and is currently ongoing.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 3, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, a TCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 3. Additionally, an NTCRA for subsurface MEC clearance was implemented within UXO 3. The ERA/SI findings recommended an RI/FS and continuation of NTCRA activities within UXO 3. See <u>UXO 4 LIA West</u> – Originally associated with UXO 4, a TCRA was implemented within a unique area within the UXO 4 generally described as the Submunitions Area. TCRA activities are currently ongoing. In 2025, UXO boundaries within the LIA were updated to more efficiently address areas within the LIA under the CERCLA process based on completion of removal actions and investigations. Therefore, the historic UXO 3 LIA Roads were incorporated into UXO 4 LIA West and UXO 3 LIA East was updated to represent the Submunitions Area.	NAVFAC 2003b CH2M 2010d, 2013b
				RI/FS	An RI Quality Assurance Project Plan (QAPP) is anticipated to be drafted upon completion of the Submunitions Area TCRA to address the nature and extent of MEC and environmental media contamination to assess potential risks to human health and the environment.	
UXO 4 LIA West	LIA	Open Burn/Open Detonation (OB/OD) Site (SWMU 3) Two Surface-to-Air Missile (SAM) Sites Mock Convoy	UXO 4 comprises 651 acres of the LIA (excluding UXOs 2 and 3). The LIA was used primarily as a target area for air-to-ground bombing, naval gunfire, and OB/OD activities.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 4, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, a TCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 4.	NAVFAC 2003b CH2M 2010d, 2013b

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
		Mock Railroad Tunnel Mock Ammunition Dump Mock Fuel Farm Mock Airstrip Bullseye Target		RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. The RI risk assessments determined no unacceptable risks to human health and the environment based on site conditions and anticipated future land use; however, an explosive hazard to potential site receptors was identified (including the incorporated historic UXO 3 LIA Roads). As part of the FS, remedial alternatives were presented to achieve the RAOs of addressing the remaining explosive hazards.	CH2M 2016d, 2023m, 2026f
UXO 5 Surface Impact Area (SIA) Restricted Roads	SIA		UXO 5 comprises 38 acres of restricted roadways within the eastern SIA. The SIA was established in the 1950s when Marine artillery targets were constructed for Marine artillery fire from the SIA and EMA during 1969, additional targets were established for inert bombing and strafing runs.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 4, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface and subsurface MEC within UXO 5. The ERA/SI findings recommended an RI/FS and continuation of the NTCRA activities within UXO 5.	NAVFAC 2003B CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives will be presented to achieve the RAO of addressing the remaining explosive hazards.	CH2M 2020j
UXO 6 EMA/SIA Public Roads	EMA		The SIA was established in the 1950s when Marine artillery targets were constructed for Marine artillery fire from the SIA and EMA. Marine artillery gun positions were constructed in the EMA in the 1950s and 1960s to direct artillery fire towards the targets in the SIA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 6, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface and subsurface MEC within UXO 6. The ERA/SI findings recommended an RI/FS and continuation of the NTCRA activities within UXO 6.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards. The Punta Carrenero After Action Report (AAR) documented the explosive hazard reduction supportive of planned public use in accordance with the United States Fish and Wildlife Service (USFWS) plans, which included portions of UXO 6.	CH2M 2020j, 2025g, 2025j
				PRAP	The PRAP presented the stakeholder’s preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 6, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were.	NAVFAC 2026

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 7 EMA/SIA North Beaches	EMA/SIA		The SIA was established in the 1950s when Marine artillery targets were constructed for Marine artillery fire from the SIA and EMA. Marine artillery gun positions were constructed in the EMA in the 1950s and 1960s to direct artillery fire towards the targets in the SIA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 7, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface and subsurface MEC within UXO 7. The ERA/SI findings recommended an RI/FS and continuation of TCRA and NTCRA activities within UXO 7. The ERA/SI findings recommended an RI/FS and continuation of the NTCRA activities within UXO 7.	NAVFAC 2003b CH2M 2010d
				RI/FS	In order to achieve a better understanding of the coastal dynamics associated with beaches across the former VNTR and NASD, a BDI was implemented which consisted of sand elevation profiling and monitoring, munitions mobility assessments, and additional oceanic data collection. An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards (currently under regulatory review).	CH2M 2018p, 2020i
UXO 8 SIA South Beaches	SIA		The SIA was established in the 1950s when Marine artillery targets were constructed for Marine artillery fire from the SIA and EMA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 8, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface and subsurface MEC within UXO 8. The ERA/SI findings recommended an RI/FS and continuation of TCRA and NTCRA activities within UXO 8. The ERA/SI findings recommended an RI/FS and continuation of the NTCRA activities within UXO 8.	NAVFAC 2003b CH2M 2010d
				RI/FS	In order to achieve a better understanding of the coastal dynamics associated with beaches across the former VNTR and NASD, a BDI was implemented which consisted of sand elevation profiling and monitoring, munitions mobility assessments, and additional oceanic data collection. An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards (currently under regulatory review). The Punta Carrenero AAR documented the explosive hazard reduction supportive of planned public use in accordance with the USFWS plans, which included portions of UXO 8.	CH2M 2018p, 2020i, 2025j

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 9 SIA Exterior	SIA	Observation Post (OP) -1, OP-5, OP-9, OP-10, OP-11, OP-12, OP-13, PI 1, PI 15, PI 16, PI 17, PI 22, G-21, G-22, G-25, G-34, G-35, G-36, Gun Position (GP) -1, GP-5, GP-7, GP-9, Range 10, Range 11, Potential Area of Concern (PAOC) Z, and Bullseye #2	The SIA was established in the 1950s when Marine artillery targets were constructed for Marine artillery fire from the SIA and EMA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 9, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, a TCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 9. The ERA/SI findings recommended an RI/FS and continuation of TCRA activities within UXO 9.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. As part of the FS, remedial alternatives will be presented to achieve the identified RAO of addressing the remaining explosive hazards or any unacceptable risks identified. The RI/FS is currently being drafted. The Punta Carrenero AAR documented the explosive hazard reduction supportive of planned public use in accordance with the USFWS plans, which included portions of UXO 9.	CH2M 2013b, 2013c, 2013f
UXO 10 SIA Interior	SIA	PAOC Y	The SIA was established in the 1950s when Marine artillery targets were constructed for Marine artillery fire from the SIA and EMA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 10, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, a TCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 10. The ERA/SI findings recommended an RI/FS and continuation of TCRA activities within UXO 10.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. As part of the FS, remedial alternatives will be presented to achieve the identified RAO of addressing the remaining explosive hazards or any unacceptable risks identified. The RI/FS is currently being drafted.	CH2M 2013b, 2013c, 2013f
UXO 11 EMA Public Roads	EMA		Marine artillery gun positions were constructed in the EMA since the 1950s to direct artillery fire towards the targets in the SIA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 11, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface and subsurface MEC within UXO 11. The ERA/SI findings recommended an RI/FS and continuation of TCRA and NTCRA activities within UXO 11.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards.	CH2M 2013b, 2016a, 2016n, 2020j, 2025g
				PRAP	The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 11, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were.	NAVFAC 2026

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 12 EMA Interior	EMA	G-1 through G-6, G-10 through G-20, G-24, G-26, G-28 through G-32, PI 2, PI 3, PI 12, PI 18, PI 19	Marine artillery gun positions were constructed in the EMA since the 1950s to direct artillery fire towards the targets in the SIA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 12, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 12. The ERA/SI findings recommended an RI/FS and continuation of NTCRA activities within UXO 12.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards.	CH2M 2013b, 2013c, 2013f, 2018k
				PRAP	The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 12, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were achieved.	NAVFAC 2019a
				ROD	The ROD documented the selected remedial alternative to be implemented to achieve the RAOs, which warranted the drafting of the RAWP.	NAVFAC 2021a
				Remedial Action	Remedial actions included MEC removal within identified planned public use areas/refuge management areas, installation of LUCs, and establishment of an LTM program. The RACR documents the implementations of the remedial activities as well as the completion of the Remedial Action Construction phase. With the completion of the Remedial Action Construction phase, the LTM program was initiated.	CH2M 2023d, 2024j
				LTM	The LTM program was initiated in 2025 and included annual LUC and MEC inspections as well as a round of groundwater sampling. LTM findings are documented in the annual status report(s) with the next inspection to be completed in late 2026. Annual reports will be used as part of the next five year review in 2028.	
UXO 13 EMA West	EMA	Ranges 1 through 6, Range 9, G-7 through G-9, G-23, G-27, PI 23	During 1966, six ranges were established in the Munitions Response Site (MRS) and used for the firing of small arms, grenades, and rockets. These ranges were deactivated in 1999.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 13, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within select areas of UXO 13. The ERA/SI findings recommended an RI/FS and continuation of NTCRA activities within UXO 13.	NAVFAC 2003b CH2M 2010d
				RI/FS	The Master SAP describing the planned RI activities was submitted January 2013. An RI SAP for UXO 13 was issued in October 2015. Based on regulatory comments for the draft RI/FS Report submitted for regulatory review in May 2020, additional TCRA activities are planned to address MEC-impacted areas, along with additional rounds of seasonal groundwater sampling. The UXO 13 TCRA QAPP was finalized in April 2024. An NTCRA was conducted to remove surface munitions from UXO 13 and an AAR was finalized in March 2019.	CH2M 2013b, 2015h, 2019a, 2024e

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 14 EMA South	EMA	G-33	Range 10 was located within UXO 14 and was used for frontal assaults using M-1, M-14 rifles; M-2 carbines, Browning Automatic 13 rifles, service pistols, and 45 caliber machine guns. Demolition charges up to ¼ pound were detonated to simulate combat.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 14, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. Based on the findings but prior to the completion of ERA/SI, an NTCRA was implemented with the objective of reducing the explosive hazard associated with surface MEC within UXO 14. The ERA/SI findings recommended an RI/FS and continuation of NTCRA activities within UXO 14.	NAVFAC 2003b CH2M 2010d
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards.	CH2M 2013b, 2013c, 2013f, 2018k
				PRAP	The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 14, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were achieved.	NAVFAC 2019a
				ROD	The ROD documented the selected remedial alternative to be implemented to achieve the RAOs, which warranted the drafting of the RAWP.	NAVFAC 2021a
				Remedial Action	Remedial actions included MEC removal within identified planned public use areas/refuge management areas, installation of LUCs, and establishment of an LTM program. The RACR documents the implementations of the remedial activities as well as the completion of the Remedial Action Construction phase. With the completion of the Remedial Action Construction phase, the LTM program was initiated.	CH2M 2023d, 2024j
				LTM	The LTM program was initiated in 2025 and included annual LUC and MEC inspections as well as a round of groundwater sampling. LTM findings are documented in the annual status report(s) with the next inspection to be completed in late 2026. Annual reports will be used as part of the next five year review in 2028.	
UXO 15 Puerto Ferro	EMA	PI 9, PI 13	UXO 15 contains an area that was alleged to have been used as an area of ammunitions storage with earthen berms and small OB/OD. Also, the MRS is described to have ordnance possibly fired from the site toward the LIA/SIA.	PRA/ERA/SI	The PRA detailed the findings and evaluation of historical data associated with UXO 13, which warranted additional investigation. The ERA/SI was conducted to determine both presence and initial quantities of munitions via instrument-aided visual transects, orthophotography, and LIDAR surveys. The ERA/SI findings recommended additional investigation of identified debris piles, nearshore munitions items, and subsurface anomalies.	NAVFAC 2003b CH2M 2010d, 2011h, 2012f
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. Initial RI findings warranted an expanded RI which were described in an SAP Addendum. Additionally, two NTCRA's were completed to address potential explosive hazards associated with planned public use areas and further support the nature and extent of MEC to be drafted in the RI. The UXO 15 RI/FS Report was finalized and no unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards.	CH2M 2014g, 2015e, 2020b

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
				PRAP	The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 15, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were achieved.	NAVFAC 2021b
				ROD	The ROD documented the selected remedial alternative to be implemented to achieve the RAOs, which warranted the drafting of the RAWP.	NAVFAC 2023a
				Remedial Action	Remedial actions included MEC removal within identified planned public use areas/refuge management areas, installation of LUCs, and establishment of an LTM program. The RACR documents the implementations of the remedial activities as well as the completion of the Remedial Action Construction phase. With the completion of the Remedial Action Construction phase, the LTM program was initiated.	CH2M 2014d, 2014g, 2015c, 2015l USAE 2017, 2019 CH2M 2024d, 2024h
				LTM	The LTM program was initiated in 2025 and included annual LUC and MEC inspections. LTM findings are documented in the annual status report(s) with the next inspection to be completed in late 2026. Annual reports will be used as part of the next five year review in 2028.	
UXO 16 Underwater Areas		- 16.1 Underwater Area Adjacent to SWMU 4 - 16.2 Current and Future Public Use Beaches (Nearshore) - 16.3 Underwater Site Associated with Mosquito Pier and Mosquito Pier Causeway - Area Immediately Offshore of Cayo La Chiva (UXO 18)	UXO 16 comprises approximately 11,500 underwater acres adjacent to the range and munitions-related operational areas of the former NASD and former VNTR. It also includes three former ship anchorage areas and Mosquito Pier, where munitions offloading and transferring took place.	SI/ESI	<u>UXO 16.1</u> : A QAPP for an ESI of the underwater area adjacent to SWMU 4 (designated UXO 16.1) was finalized in April 2014. The ESI Report was submitted in July 2016. <u>UXO 16.3</u> : The Site Screening Investigation was conducted to determine both presence and initial quantities of munitions via underwater instrument-aided visual surveys. Findings determined no explosive hazards were present and a No Further Action Decision Document was finalized in 2025.	CH2M 2014e, 2016e, 2024g, 2025h, 2025i
				RI/FS	<u>UXO 16.1</u> : An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. <u>UXO 16.2</u> : An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. The RI/FS is currently being drafted.	CH2M 2016f, 2018h, 2022d, 2021d
				PRAP	UXO 16.1: The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 16.1, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were achieved.	NAVFAC 2022b
				ROD	UXO 16.1: The ROD documented the selected remedial alternative to be implemented to achieve the RAOs, which warranted the drafting of the RAWP.	NAVFAC 2023b
				Remedial Action	UXO 16.1: Remedial actions include MEC removal within the underwater nearshore environment, installation of LUCs, and establishment of an LTM program. UXO 16.2: The Punta Carrenero AAR documented the explosive hazard reduction supportive of planned public use in accordance with the USFWS plans, which included portions of UXO 16.2. A Wide Area Assessment Work Plan was submitted in December 2015 to provide a plan for preliminary evaluation of the nature and extent of the underwater MEC. The UXO 16.1 RAWP was finalized in January 2025.	CH2M 2015m, 2025b, 2014o, 2016j, 2018g USAE 2019 CH2M 2017f, 2018j, 2015m

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
UXO 17	EMA	Playa Caracas (Red Beach), Playuela (Garcia Beach), and PAOC EE, including Playa La Chiva (Blue Beach) and Punta Conejo	Public beaches on southern shore of EMA where former training operations took place. PAOC EE also includes areas adjacent to Playa La Chiva (Blue Beach) and Punta Conejo where temporary munitions storage may have taken place as well as other bivouac activities. There are two beach areas (PAOC EE and Playa Caracas/Red Beach) within UXO 17.		An Engineering Evaluation/Cost Analysis (EE/CA) for an NTCRA of underwater munitions adjacent to Cayo La Chiva (UXO 18) was finalized in November 2014. Based on the EE/CA, an NTCRA work plan was completed in October 2016. The NTCRA fieldwork was conducted in June 2017 and an AAR was completed in July 2018. The underwater area adjacent to PI 9 East at UXO 15 contained several encrusted munitions debris, whose removal is described in the AAR issued in June 2019. For UXO 16.2 an EE/CA was prepared for removal of nearshore munitions around the perimeter of the former VNTR and Mosquito Pier. The EE/CA was issued for public comment in May 2017. Following evaluation of public comments submitted during the EE/CA public comment period, an NTCRA Work Plan was finalized in August 2018.	
				PA/SI	Two sites within UXO 17 (PI 14 and PAOC FF) were investigated during the EBS and the ERA/SI. These sites were determined to require no action and were included in a No Action Decision Document. An additional site, PI 21, was investigated during a site inspection in 2013, determined to require no action, and included in a No Action Decision Document. A technical memorandum with PAOC EE PA/SI results was submitted in March of 2012 that identified two MEC along Punta Conejo.	NAVFAC 2003c CH2M 2010d, 2010g, 2013d, 2014i, 2012d
				RI/FS	The Master SAP for the East Vieques Terrestrial UXO Sites finalized in January 2013 and the Master SAP Addendum 5 was finalized in April 2017 which describes the details for the UXO 17 PAOC EE RI. The RI/FS Report was issued in June 2019. Based on the results of the TCRA performed at Playa Caracas and Playuela, an RI QAPP for Playa Caracas and Playuela was finalized in October 2024. The UXO 17 Playa Caracas RI/FS is currently being drafted.	CH2M 2013b, 2017d, 2019c, 2024l
				PRAP	The PAOC EE PRAP was issued for public comment from May 25 through June 24, 2022 and a public meeting held on June 1, 2022.	NAVFAC 2022a
				ROD	The UXO 17 PAOC EE ROD was finalized in 2024.	NAVFAC 2024b
				Removal Action	An AAR of the TCRA fieldwork completed in October 2014 was finalized in October 2015. A TCRA QAPP was issued in November 2020 followed by an Action Memorandum issued in December 2020. The TCRA Completion Report was issued in May 2023. The RAWP (including a QAPP) is currently in regulatory review.	CH2M 2015j, 2020g NAVFAC 2020 CH2M 2023c
UXO 18 Cayo La Chiva	EMA		A site inspection of the island adjacent to Playa La Chiva/ Blue Beach, a public beach, identified five 5-inch rocket munitions items. Historical records did not identify this site as a munitions operations site.	Preliminary Inspection	A preliminary inspection of UXO 18 identified munitions; which warranted an RI.	CH2M 2010d, 2011c
				RI/FS	An RI was conducted to assess the nature and extent of MEC and environmental media contamination as well as assess potential risks to human health and the environment. No unacceptable risks to human health and the environment were identified; however, an explosive hazard to potential site receptors was identified. As part of the FS, remedial alternatives were presented to achieve the RAO of addressing the remaining explosive hazards.	CH2M 2013b, 2013c, 2013f, 2015d, 2016c

East Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
				PRAP	The PRAP presented the stakeholder's preferred remedial alternative based on evaluation of the remedial alternatives presented in the FS. For UXO 18, the preferred alternative included additional MEC clearance, LUCs, and an LTM program to ensure the RAOs were achieved.	NAVFAC 2016a
				ROD	The ROD documented the selected remedial alternative to be implemented to achieve the RAOs, which warranted the drafting of the RAWP.	NAVFAC 2018c
				Remedial Action	Remedial actions included MEC removal within identified planned public use areas, installation of LUCs, and establishment of an LTM program. The RACR documented the implementations of the remedial activities as well as the completion of the Remedial Action Construction phase. With the completion of the Remedial Action Construction phase, the LTM program was initiated.	CH2M 2019b, 2019h
				LTM	The LTM program was initiated in 2020 and included annual LUC and MEC inspections. In 2022, LTM inspection frequency was increased based on public access observed during an LTM event. Additionally, Puerto Rico Department of Natural and Environmental Resources (PRDNER) planned land use was updated, resulting in updated LUCs and modification of the areas monitored under the LTM. LTM findings are documented in the annual status report(s) with the next inspection to be completed in late 2026. Annual reports will be used as part of the next five year review in 2028.	CH2M 2022h, 2022c, 2023b, 2024a, 2024m, 2026b

West Vieques Sites						
MRS/Site Designation	Operational Area	Sites Within MRS	Description of Site	MRP Phase	Key Information	References
West Vieques SWMU 4 Inactive OB/Waste Explosive Detonation Range (West Vieques- DOI Property)	West Vieques	An OB/OD area where there was thermal destruction of unserviceable munitions from approximately 1965-1980.		PA/SI	SWMU 4 was included in the PA/SI report for 12 Consent Order Sites and 8 PI/PAOC Sites submitted in June 2008. An SI/ESI was submitted in August 2010 which determined remedial and removal action was required upon further investigation.	CH2M 2008d, 2010c
				RI/FS	An RI/FS was completed in May 2012. Based on public comment on the PRAP, additional alternatives to address the potential presence of MEC were considered and were documented in an FS Addendum. Information gathered during perchlorate groundwater sampling was used to modify the remedial alternatives in the FS Addendum and was finalized in April 2017.	CH2M 2012e, 2017e
				PRAP	A PRAP was issued for public comment in July 2012. Based on the FS Addendum, a PRAP for remedial action was completed in July 2018 and public meeting held in August 2018.	NAVFAC 2012, 2018b
				ROD	A ROD for SWMU 4 was signed and finalized in September 2019.	NAVFAC 2019b
				RA	To expedite public access to portions of the site, an EE/CA and Work Plan for an NTCRA at proposed public areas was finalized in March and June 2014, respectively. In addition, a SAP to assess perchlorate in groundwater and biota in Laguna Boca Quebrada was finalized in June 2014. The RAWP, including a QAPP, was issued in March 2022, implemented and completed, and the SWMU 4 RACR finalized in 2023.	CH2M 2014c, 2014l, 2104j, 2022g, 2023b
				LTM	Periodic groundwater performance monitoring for perchlorate and LUC/MEC inspections were completed in 2022, 2024, 2025, and 2026. The next round of groundwater sampling is anticipated in 2028. Annual inspections and annual status reports have been finalized for 2022, 2024, and 2025.	CH2M 2023e, 2025e, 2026c

Appendix B

Site Screening Areas

Appendix B1
Site Screening Areas
Installation Restoration Program Sites

Appendix B1
Site Screening Areas, Vieques, Puerto Rico
Installation Restoration Program Sites

East Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
Solid Waste Management Unit (SWMU) 2	Former fuels off-loading site. Was the location of four aboveground storage tanks (ASTs) including two 20,000-gallon tanks and two 30,000-gallon tanks, which were used to store diesel fuel, unleaded gasoline, aviation gas, and JP-5 jet fuel. These tanks became operational in 1953 and were removed in 1978 and 1979.	Preliminary Assessment (PA)/ Site Inspection (SI)	Based on historical data and data collected during the Phase I RCRA Facility Investigation (RFI), SWMU 2 was recommended for an Expanded Site Inspection (ESI) in the PA/SI Report for 12 Consent Order Sites and 8 Photo Identified (PI)/Potential Area of Concern (PAOC) Sites issued in June 2008.	CH2M 2001h, 2008d
		ESI	The ESI field investigation was completed in May 2009, which included additional soil sampling. The SI/ESI Report was issued in August 2010. Based on the findings of the Phase I RFI/ESI, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
SWMU 4	Former waste areas of Building 303 (Camp Garcia), including: - Spent battery accumulation area - Catch basin for hydraulic oil - Cleaning/degreasing basin Rags, absorbent, and grease storage area	PA/SI	Based on historical data and data collected during the Phase I RFI, SWMU 4 was recommended for no further action in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2001h, 2008d
		ESI	The ESI field investigation was completed in May 2009, which included groundwater sampling. The SI/ESI Report was issued in August 2010. Based on the findings of Phase I RFI and groundwater sampling findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
SWMU 5	Former spent battery accumulation area located at Observation Post 1 (OP-1). The batteries and battery acid were stored outside on a gravel driveway.	PA/SI	Based on the sample data collected during the Phase I RFI, SWMU 5 was recommended for no further action in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008. Therefore, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2001h, 2008d, 2009a
SWMU 6	Former waste oil and paint accumulation area (Seabees Area at Camp Garcia). According to the 1988 Phase II RCRA Facility Assessment (RFA), this area was used by the Seabees as a storage area for waste oil and paint which was containerized in 55-gallon drums, and the paint was housed in small containers.	PA/SI	Based on historical data, SWMU 6 was recommended for an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	A.T.Kearney 1988 CH2M 2008d
		ESI	The ESI field investigation was completed in May 2009, which included additional soil sampling. The SI/ESI Report was issued in August 2010. Based on the findings of the ESI, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
SWMU 7	Former waste oil accumulation area (outside Building 303 at Camp Garcia). Marines used the waste oil accumulation area to store waste oil from the maintenance of their vehicles.	PA/SI	Based on historical data, SWMU 7 was recommended an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The ESI field investigation was completed in May 2009, which included additional soil sampling. The SI/ESI Report was issued in August 2010. Based on the findings of the ESI, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
SWMU 8	Former waste oil accumulation area (Inner Range at OP-1). According to the 1988 RFA, the waste oil accumulation area contained drums of both waste lubricants and oils prior to them being shipped offsite to Naval Station Roosevelt Roads.	PA/SI	Based on the sample data collected during the Phase I RFI, SWMU 8 was recommended for no further action in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008. Therefore, the site was included in the No Action Decision Document issued in January 2009.	A.T.Kearney 1988 CH2M 2001h, 2008d, 2009a

East Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
SWMU 10	Former sewage treatment lagoons (Camp Garcia). According to the 1988 RFA, the sewage treatment lagoons for Camp Garcia went into service in the early 1950s. There were four unlined lagoons: two of them to serve as equalization/ treatment lagoons, and the other two to provide polishing treatment.	PA/SI	Based on historical and sample data collected during the Phase I RFI, SWMU 10 was recommended for an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	A.T.Kearney 1988 CH2M 2001h, 2008d
		ESI	The ESI field investigation was completed in May 2009, which included additional soil and groundwater sampling. The SI/ESI Report was issued in August 2010. Based on the findings of the Phase I RFI/ESI, the site was included in the No Action/No Further Action Decision Document issued in September 2010. Based on historical activities at SWMU 10, the site is part of a per- and polyfluoroalkyl substances (PFAS) SI, as described at the end of this section.	CH2M 2010c, 2010e
SWMU 12	Former solid waste collection unit area (OP-1). The solid waste collection area served as a solid waste storage and transfer area, prior to pickup of the solid waste for disposal at the off-site Vieques Municipal Landfill.	PA/SI	Based on the sample data collected during the Phase I RFI, SWMU 12 was recommended for no further action in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008. Therefore, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2001h, 2008d, 2009a
Area of Concern (AOC) A	Former diesel fuel fill pipe area (OP-1). According to the 1988 RFA, this area contained the fill pipe for a diesel underground storage tank (UST) formerly located at OP-1.	PA/SI	Based on removal of the former tank and fuel fill pipe and historical confirmatory soil data, AOC A was recommended for an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	A.T.Kearney 1988 CH2M 2008d
		ESI	The ESI fieldwork was completed in May 2009, which involved additional soil excavation and confirmatory soil sampling. The SI/ESI Report was issued in August 2010. Based on the findings of the ESI, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
AOC F	Former rock quarry (Camp Garcia). This site was used to obtain gravel used by the Navy for construction of roads and other construction projects. During the 1995 RFA, used tires and some paper waste were visible at this location.	PA/SI	Based on historical sample data, AOC F was recommended for no further action in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008. Therefore, the site was included in the No Action Decision Document issued in January 2009.	PREQB 1995 CH2M 2008d, 2009a
AOC G	Former pump station and chlorination building at sewage lagoons (Camp Garcia). This site is located adjacent to the old sewage treatment lagoons (SWMU 10) at Camp Garcia. The site consists of a building that housed a pump station and chlorination equipment used in the past for the chlorination of the lagoon system effluent. These facilities were placed into operation in the 1950s and are no longer in service.	PA/SI	Based on data collected during the Phase I RFI, AOC G was recommended for an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The ESI field investigation was completed in May 2009, which involved additional soil sampling. The SI/ESI Report was issued in August 2010. Based on the findings of the Phase I RFI/ESI, the site was included in the No Action/No Further Action Decision Document issued in September 2010. Based on historical activities at AOC G, the site is part of a PFAS SI, as described at the end of this section. However, based on the SI results, AOC G was not recommended for an RI.	CH2M 2001h, 2010c, 2010e
PAOC I	Former power plant and mechanics shop (Building 401) northeast of Building 303 at Camp Garcia. No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site.	PA/SI	The SI field investigation was completed in May 2009, during which soil sampling was conducted at PAOC I.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC J	Former vehicle maintenance area at Camp Garcia immediately north of the main road (all structures were demolished prior to 1980). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage, disposal, or releases was identified at the site.	PA/SI	Based on data collected during the SI, PAOC J was recommended for no further action, pending a groundwater evaluation at Camp Garcia, in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The regional monitoring wells were installed and groundwater samples collected during the ESI field investigation completed in May 2009 and the SI/ESI Report was issued in August 2010. Based on the SI and groundwater sampling findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e

East Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
PAOC K	Former wash rack area north of main road (structure demolished prior to 1980). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site.	PA/SI	Based on data collected during the SI, PAOC K was recommended for no further action, pending a groundwater evaluation at Camp Garcia, in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The regional monitoring wells were installed and groundwater samples collected during the ESI field investigation completed in May 2009 and the SI/ESI Report was issued in August 2010. Based on the SI and groundwater sampling findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC L	Former paint and transformer storage building.	PA/SI	Based on data collected during the SI, PAOC L was recommended for an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The ESI field investigation was completed in May 2009, during which contaminated soil surrounding the building was removed and confirmatory soil and groundwater samples were collected. The SI/ESI Report was issued in August 2010. Based on the soil removal and confirmatory sample findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC M	Former dispatch office, fuel facility, and sleeping quarters (Building 4503, demolished 1991). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site.	PA/SI	The SI field investigation was completed in May 2009, during which soil samples were collected and screened for potential contamination; no release was suspected based on the screening.	CH2M 2009c
		ESI	The SI/ESI Report was issued August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC N	Former fuel farm and filling station (demolished 1992). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage, disposal, or releases was identified at the site.	PA/SI	Based on data collected during the SI, PAOC N was recommended for no further action, pending a geophysical survey to confirm no underground fuel pipeline, in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The geophysical survey was conducted during ESI field investigation completed in May 2009, which indicated no underground fuel pipeline was present. The SI/ESI Report was issued August 2010. Based on the SI and geophysical survey findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC O	Former boiler room in the heat plant building (Building 238, demolished 1989). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site.	PA/SI	The SI field investigation was completed in May 2009, during which soil sampling was conducted at PAOC O.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC P	Former water treatment facility pump house (Building 500, demolished 1989). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site.	PA/SI	The SI field investigation was completed in May 2009, during which soil sampling was conducted at PAOC P.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC Q/R	PAOC Q is a former boiler house in heat plant Building 607 (demolished 1984). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site PAOC R is a former boiler house in heat plant Building 617 (demolished 1984). The former location of this building is suspected to be near PAOC Q based on historical aerial photographs.	PA/SI	The SI field investigation was completed in May 2009, during which soil sampling was conducted at PAOC Q/R.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010 and recommended additional soil sampling. The SI/ESI Addendum Report was issued in June 2011. Based on the SI and Supplemental SI findings, the site was included in the No Action/No Further Action document issued in September 2011.	CH2M 2010c, 2011j, 2011l

East Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
PAOC S	Former aboveground petroleum pipeline (demolished 1984). An additional area was added to this site, referred to as the power plant. No evidence of hazardous waste, hazardous material, petroleum, or munitions storage, disposal, or releases was identified at the site.	PA/SI	Based on data collected during the SI, PAOC S was recommended for No Further Action, pending a geophysical survey to confirm no underground fuel pipeline, in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The geophysical survey was conducted during the ESI field investigation completed in May 2009, which indicated no underground fuel pipeline was present. The SI/ESI Report was issued in August 2010. Based on the SI and geophysical survey findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PAOC T	Former public works grounds contractor storage shed (Building 305, demolished 1991). No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified at the site.	PA/SI	The SI field investigation was completed in 2006, during which soil sampling was conducted at PAOC T. The PA/SI Report was submitted in June 2008. Based on the SI findings, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2008d, 2009a
PAOC U	Former vehicle maintenance area just north of former Building 303 at Camp Garcia. Historic storage of hazardous waste, hazardous material, and petroleum products. Some staining of soil outside of building near container storage pallets.	PA/SI	The SI field investigation was completed in 2006, during which soil and groundwater sampling was conducted at PAOC U. The PA/SI Report was submitted in June 2008. Based on the SI findings, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2008d, 2009a
PAOC V	Former storage area for a leaking transformer.	PA/SI	In 2002, soil samples were collected at the location of a former leaking transformer; one polychlorinated biphenyl (PCB) was detected below risk-based screening criteria. Based on these findings, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2009a
PAOC W	Former area of pooled, discolored water adjacent to the main road from Camp Garcia. The area is part of Laguna La Chiva. No evidence of hazardous waste, hazardous material, petroleum, or munitions storage or disposal was identified. Site Interviewees had no knowledge of past activity.	PA/SI	The Mangrove Forest Health and Status Report (2002) determined that the discolored water was likely due to increased organic matter caused by the road crossing the lagoon cutting off normal water circulation with the sea. Based on this information, the site was included in the No Action Decision Document issued in January 2009.	GMI 2002 CH2M 2009a
PAOC X	Quebrada (intermittent stream channel) located north from the main road and west from Camp Garcia, adjacent to the former vehicle maintenance area. Formerly contained an automobile body, tires, scrap metal, and construction-related solid waste and debris.	PA/SI	The SI field investigation was completed in May 2009, during which the debris in the quebrada and along its banks was removed and confirmatory soil samples collected.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010. Based on the debris removal and confirmatory soil sample findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PI 5	Surface water drainage from the runway area; interviews and records indicate historically the location of the fire department and temporary tents; beach matting was installed in the area in the past. No evidence of munitions, hazardous waste, hazardous material, or petroleum storage or disposal was identified at the site.	PA/SI	The SI field investigation was completed in May 2009, during which soil samples were collected.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010. Based on historical activities at PI 5, the site is part of a PFAS SI, as described at the end of this section. However, based on the SI results, PI 5 was not recommended for an RI.	CH2M 2010c, 2010e
PI 6	Former ASTs and facilities associated with the former location of the site drinking water system. The following facilities were observed: - several intact ASTs and one storage tank without ends - a concrete building containing electric pumps - a small vehicle wash pad and water well pump house - a ground transformer near the wash pad - a concrete pad potentially used to store PCB-containing transformers	PA/SI	The SI field investigation was completed in May 2009, during which soil samples were collected.	
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e

East Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
PI 7	Southern portion was formerly a quarry and tar disposal area; northern portion was a communications facility. At the south end of the southern portion of the site, drums containing asphalt were observed. Two drums were also observed in the former quarry. No items of concern identified in northern portion of site.	PA/SI	Based on data collected and observations made during the SI, PI 7 was recommended for an ESI in the PA/SI Report for 12 Consent Order Sites and 8 PI/PAOC Sites issued in June 2008.	CH2M 2008d
		ESI	The ESI field investigation was completed in 2009, and the Supplemental ESI field investigation was completed in 2010 during which additional soil samples were collected. The SI/ESI Report was issued in August 2010, and the SI/ESI Addendum Report was issued in June 2011. Based on the drum/contaminated soil removal and soil and groundwater sample findings, site was included in the No Action/No Further Action document issued in September 2011.	CH2M 2010c, 2011j, 2011l
PI 8	Former motor pool maintenance area located south of the main road. Past storage and potential storage of hazardous materials and petroleum products. Observed a large area with dark colored/stained soils.	PA/SI	The SI field investigation was completed in May 2009, during which soil sampling was conducted at PI 8.	
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PI 10	Possible former sewage-drying lagoon. Observed two rectangular openings in the forest partially surrounded by the remains of low earthen berms. Dark colored soils were observed on portions of the enclosed areas. Evidence of limited solid waste disposal in immediate vicinity.	PA/SI	The SI field investigation was completed in May 2009, during which soil sampling was conducted at PI 10.	CH2M 2009c
		ESI	The SI/ESI Report was issued in August 2010. Based on the SI findings, the site was included in the No Action/No Further Action Decision Document issued in September 2010.	CH2M 2010c, 2010e
PI 11	Pump house used for the former wastewater treatment system and/or saltwater supply system. Observed a diesel engine in a vegetated area adjacent to the station and a stained area immediately under the outfall of an open pipe projecting from the side of the pump house.	PA/SI	Based on a site visit and evaluation of historical soil sample data collected at PI 11, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2009a
PI 20	Former observation point during landing exercises and potentially used as a quarry in the past. No evidence of prior disposal activities or other contamination identified.	PA/SI	Based on historical information and a site visit, the site was included in the No Action Decision Document issued in January 2009.	CH2M 2009a
PI 21	Possible location of a former artillery firing position, but no corroborating evidence was identified or observed. The area was used as quarry. ERI 2000 aerial photography identified a vertical tank, pits, disturbed ground, pits containing discolored liquid. Pits containing discolored liquid were subsequently determined to be just low-lying areas where surface water collected and algae formed.	PA/SI	Based on evaluation of historical information, including aerial photographs, and a site visit, an SI field investigation was completed in April 2013, which included soil sampling at the location of the former vertical tank. Based on evaluation of the data, a No Action Decision Document was issued in June 2014.	ERI 2000 CH2M 2013d, 2014i
Laguna La Chiva	In October 2007, the National Oceanic and Atmospheric Administration (NOAA) collected three sediment samples from Laguna La Chiva as part of an island-wide sediment evaluation. Pesticide concentrations (primarily dichlorodiphenyltrichloroethane [DDT], dichlorodiphenyldichloroethylene [DDE], and dichlorodiphenyldichloroethane [DDD]) were detected at concentrations higher than at other lagoons on Vieques sampled by NOAA and the Navy and above various ecological screening levels commonly used on Vieques. None exceeded Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for residential soil, but fish and crab concentrations were not modeled from the sediment concentrations to determine if they may pose an unacceptable risk based on human consumption.	PA/SI	Based on evaluation of historical information an SI/RI SAP was submitted in April 2013. The results of soil sampling showed that the sediment and soil constituent concentrations do not pose a potentially unacceptable risk to human or ecological receptors. A No Action Decision Document was issued in September 2014.	CH2M 2013h, 2014n

East Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
Potential PFAS Sites	In 2019, a PA for potential PFAS source areas was performed for former Navy facilities at Vieques. Based on the results of the PA, the following former Vieques Naval Training Range (VNTR) sites were identified as potential PFAS source areas:	PA/SI	The PA recommended these sites undergo an SI to confirm the presence or absence of a PFAS release(s). Based on the results of the PA, an SI was performed in accordance with the PFAS SI SAP issued in December 2021 to determine if a release(s) of PFAS occurred. Results of the SI were documented in the SI Report issued in December 2023.	CH2M 2020a, 2021e, 2023I
	- Potential Former Motor Pool Area (including Building 340) and Former Fire Department Building 330 - PAOC K - SWMU 20 - Former Camp Garcia Runway - PI 5 - SWMU 10 and AOC G - SWMU 1 A description of each of these sites with respect to their potential to be PFAS source areas is provided in the <i>Preliminary Assessment Report for Per- and Polyfluoroalkyl Substances</i>.	RI	Five areas of interest at the former VNTR were recommended for an RI, including the Potential Former Motor Pool Area (including Building 340) and Former Fire Department Building 330, SWMU 20, Former Camp Garcia Runway, SWMU 10, and AOC G, therefore, an RI is planned for these areas in accordance with Department of Defense protocol that prioritized sites based on the potential for PFAS releases to impact drinking water.	

West Vieques

Site Designation	Description of Site	IRP Phase	Key Information	References
SWMU 5	Interviews and records indicate that this site was an IRFNA/MAF-4 Disposal Site (drone fuel). One-time (1975) disposal of 7,000 pounds of drone fuel (inhibited red fuming nitric acid/mixed amine fuel #4 [IRFNA/MAF-4]) reportedly emptied into low spot on ground.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, the Puerto Rico Environmental Quality Board (PREQB) concurred with the No Further Action findings.	CH2M 2000b, 2006d PREQB 2007
SWMU 10	Interviews and records indicate that this site was a former waste paint and solvent disposal ground at Building 4001 within the Public Works Area. It was suspected that small quantities of paint, solvents, and thinners were disposed of on the ground outside Building 4001.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007
SWMU 14	Interviews and records indicate that this site was a former wash rack near Building 2016 within the Public Works Area. It was used for cleaning Navy vehicles. Degreasing solvents possibly used in this area.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007
SWMU 15	Interviews and records indicate that this site was a former waste transportation vehicle parking area within the Public Works Area. The parking area was reported to have trucks parked there with drums that may have leaked.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007
AOC B	Interviews and records indicate that this site was a former wastewater treatment plant (WWTP) and disposal ground located on southwest end of the Public Works Area. The WWTP effluent was discharged to disposal lagoons.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings. Based on historical activities at AOC B, the site is part of a PFAS SI, as described at the end of this section.	CH2M 2000b, 2006d PREQB 2007
AOC C	Interviews and records indicate these drainage ditches were near a former transportation shop within the Public Works Area. These ditches collect surface runoff from surrounding area. One of the ditches was observed as having an oily sheen.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007
AOC F	Interviews and records indicate area used as a former underground injection control (UIC) septic tank that is near the former Enlisted Men's Club at the former Public Works Area.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007
AOC K	Interviews and records indicate the site was a former water well just northeast of the Public Works Area. The well was used as a potable water well from 1941 to 1979. It was plugged and abandoned in 1979 but was rehabilitated in 1997 by the United States Geological Survey (USGS).	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007
AOC L	Interviews and records indicate the site was an abandoned septic tank and drainage field located north of the Public Works Area about 200 feet from the beach. The actual historical use of the site is unknown.	PA/SI	The site was investigated during a PA/SI. Based on the findings of the PA/SI, this site was included in the No Further Action Report for Nine Sites issued in October 2006. In February 2007, PREQB concurred with the NFA findings.	CH2M 2000b, 2006d PREQB 2007

West Vieques				
Site Designation	Description of Site	IRP Phase	Key Information	References
Potential PFAS Sites	In 2019, a PA for potential PFAS source areas was performed for former Navy facilities at Vieques. Based on the results of the PA, the following former Naval Ammunition Support Detachment (NASD) sites were identified as potential PFAS source areas: - AOC H - Former Fire Station Building 2046 at the Public Works Area - Potential Former Motor Pool Area - AOC B - SWMU 6 - SWMU 7 A description of each of these sites with respect to their potential to be PFAS source areas is provided in the <i>Preliminary Assessment Report for Per- and Polyfluoroalkyl Substances</i>.	PA/SI	The PA recommended these sites undergo an SI to confirm the presence or absence of a PFAS release(s). Should PFAS release(s) be confirmed, the Navy and regulatory agencies will discuss the need for further investigation of those sites as well as whether any additional sites/areas evaluated during the PA should be considered as a potential PFAS sources and characterized accordingly. Based on the results of the PA, an SI was performed in accordance with the PFAS SI SAP issued in December 2021 to determine if a release(s) of PFAS occurred. Results of the SI were documented in the SI Report issued in December 2023.	CH2M 2020a, 2021e, 2023I
		RI	Three areas of interest from the former NASD were recommended for an RI, including the Former Fire Station Building 2046 at the Public Works Area, Potential Former Motor Pool Area, and AOC B, therefore, an RI is planned for these areas in accordance with Department of Defense protocol that prioritized sites based on the potential for PFAS releases to impact drinking water.	

Appendix B2
Site Screening Areas
Munitions Response Program Sites

Appendix B2
Site Screening Areas, Vieques, Puerto Rico
Munitions Response Program Sites

East Vieques

MRS/ Site Designation	Operational Area	Sites Within MRS	Description of Site	IRP Phase	Key Information	References
East Vieques UXO 17	Eastern Maneuver Area (EMA)	PAOC FF and PI 14	PI 14 was described as two pits with light toned material and possible debris. PAOC FF was identified as a potential former artillery firing point. However, the ERA/SI did not identify any munitions and explosives of concern (MEC) at any of the locations.	PA/SI	The ERA/SI recommended removing the metal debris, and two unused flares that were identified at the PI 14 site. No munitions-related items were found at the PAOC FF site. Based on this, PI 14 and PAOC FF were included in the No Action Decision Document issued in December 2010.	CH2M 2010d, 2010g

Appendix C

DoD Site Prioritization Protocol Scoring

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 1		Eastern Conservation Area
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Submunitions identified during TCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	Area surface cleared, but erosion likely
Table 4 - EHE, Ease of Access Data Element	10	No barrier exists; however, this is the most remote portion of east Vieques
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	0	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	Sea turtle nesting area
Total Score	89	
Table 10 - EHE Rating	B	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
HHE Module	Rating	Comment
Table 28 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	3	
CHE Module Rating	N/A	No known or suspected chemical warfare material hazard
HHE Module Rating	N/A	No known or suspected MC hazard

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 2		LIA Beaches
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Submunitions identified during TCRA and NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	Area surface cleared, but erosion likely
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	Sea turtle nesting area
Total Score	94	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 3		LIA Roads
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Submunitions identified during TCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	Area surface cleared, but erosion likely
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	94	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 4		LIA Interior
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Submunitions identified during TCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	Area surface cleared, but erosion likely
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	5	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	F	
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	7	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 5		SIA Restricted Roads
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Submunitions identified during Non-TCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	94	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C

DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 6		EMA/SIA Public Roads
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC projectiles/submunitions identified during NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 7		EMA/SIA North Beaches
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC projectiles identified during NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	Area surface cleared, but erosion likely
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	Sea turtle nesting area
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C

DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 8		SIA South Beaches
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC projectiles were identified during the NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	Area surface cleared, but erosion likely
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	Sea turtle nesting area
Total Score	94	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 9		SIA Exterior
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Submunitions were identified in the NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	5	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	F	
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	7	

APPENDIX C

DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 10		SIA Interior
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Projectiles identified during NTCRA and a submunition was identified in adjacent UXO 9
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	94	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	F	
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	7	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 11		EMA Public Roads
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC projectiles were identified along east end during NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	

APPENDIX C

DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 12		EMA Interior
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC items identified after brush fire and during NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
HHE Module	Score	Comment
Table 28 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	No known or suspected MC hazard

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 13		EMA West
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC identified during NTCRA
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	F	
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	7	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 14		EMA South
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	Grenades identified during SI
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
HHE Module	Score	Comment
Table 28 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	No known or suspected MC hazard

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 15		Puerto Ferro
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	25	No sensitive
Table 2 - EHE, Source of Hazard Data Element	8	OB OD and munitions transferred
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	5	Lighthouse
Total Score	91	
Table 10 - EHE Rating	B	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	3	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	N/A	No known or suspected MC hazard

APPENDIX C

DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 16		Underwater Areas
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC projectiles identified during SI
Table 2 - EHE, Source of Hazard Data Element	10	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	D	Risks are considered "potential" for all sites at this point due to lack of environmental data. A rating of "medium" has been used.
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	5	

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 17		Camp Garcia; Common Site Name (Other Sites)
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	25	81mm mortar identified in subsurface during SI
Table 2 - EHE, Source of Hazard Data Element	5	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	5	
Total Score	88	
Table 10 - EHE Rating	B	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
Table 21 - HHE, Hazard Rating	F	Pending MC evaluation
Table 29 - MRS Priority	Priority	
EHE Module Rating	3	
CHE Module Rating	N/A	No known or suspected chemical warfare material
HHE Module Rating	7	

APPENDIX C

DoD Site Prioritization Protocol Scoring

Site		Alias
UXO 18 Cayo la Chiva		EMA Interior
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	MEC on ground surface identified during SI
Table 2 - EHE, Source of Hazard Data Element	10	No known use as a range however findings during SI indicate possible use for training
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	3	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	3	
Total Score	96	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
HHE Module	Score	Comment
Table 28 - HHE, Hazard Rating	N/A	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material hazard
HHE Module Rating	N/A	No known or suspected MC hazard

APPENDIX C DoD Site Prioritization Protocol Scoring

Site		Alias
SWMU 4		West Vieques OB/OD Site
EHE Module	Score	Comment
Table 1 - EHE, Munitions Type Data Element	30	
Table 2 - EHE, Source of Hazard Data Element	8	
Table 3 - EHE, Location of Munitions Data Element	25	
Table 4 - EHE, Ease of Access Data Element	10	
Table 5 - EHE, Status of Property Data Element	5	
Table 6 - EHE, Population Density Data Element	1	
Table 7 - EHE, Population Near Hazard Data Element	5	
Table 8 - EHE, Types of Activities/Structures Data Element	5	
Table 9 - EHE, Ecological and/or Cultural Resources Data Element	5	
Total Score	94	
Table 10 - EHE Rating	A	
CHE Module	Score	Comment
Total Score	N/A	No known or suspected chemical warfare material
Table 20 - CHE Rating	N/A	
HHE Module	Score	Comment
Table 28 - HHE, Hazard Rating	F	No known or suspected HHE hazard
Table 29 - MRS Priority	Priority	
EHE Module Rating	2	
CHE Module Rating	N/A	No known or suspected chemical warfare material hazard
HHE Module Rating	7	Remedy addressing perchlorate in groundwater

Appendix D

Responses to Regulator Comments

From: Treinen, Karyn <Treinen.Karyn@epa.gov>

Sent: Thursday, July 16, 2026 3:06 PM

To: Hannah, Bill <Bill.Hannah@jacobs.com>; Mollin, Jessica <mollin.jessica@epa.gov>; Baba Peebles, Juan J <juanbaba@drna.pr.gov>; Padron, Silmarie <silmarie_padron@fws.gov>

Cc: Luna, Zolymer <Luna.Zolymer@epa.gov>; Griffiths, Rachel <griffiths.rachel@epa.gov>; States, Abbey <States.Abbey@epa.gov>; DeBofsky, Abigail <Debofsky.Abigail@epa.gov>; Tom Bourque <tbourque@uxopro.com>; Stallings, Diane <DStallings@trccompanies.com>; O'Connell, Bethany <BOConnell@trccompanies.com>; Daniel Takaki - NOAA Federal <daniel.takaki@noaa.gov>; Barandiaran, Mike <mike_barandiaran@fws.gov>; Lopez, Felix <felix_lopez@fws.gov>; Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Cloe, Kevin R CIV USN NAVFAC LANT NOR VA (USA) <kevin.r.cloe.civ@us.navy.mil>; Hood, Daniel R CIV USN NAVFAC LANT NOR VA (USA) <daniel.r.hood.civ@us.navy.mil>; Waddill, Dan W CIV USN NAVFAC LANT NOR VA (USA) <dan.w.waddill.civ@us.navy.mil>; Danois, Maria M CIV USN NAVFAC LANT NOR VA (USA) <maria.m.danois.civ@us.navy.mil>; Doerr, Brett <Brett.Doerr@jacobs.com>
Subject: [EXTERNAL] RE: Draft FY27 Site Management Plan

This Message Is From an External Sender

This message came from outside your organization.

Good afternoon,

EPA has reviewed the Draft Site Management Plan Fiscal Year 2027 Amendment for Atlantic Fleet Weapons Training Area – Vieques dated June 2026. EPA has no comments on the document.

Thank you,

Karyn Treinen
Remedial Project Manager
USEPA
SEMD-SPB-FFS
290 Broadway
New York, NY 10007-1866
Tel: 212-637-4436

From: Juan J Baba Peebles <juanbaba@drna.pr.gov>

Sent: Friday, July 17, 2026 8:57 AM

To: Hannah, Bill <Bill.Hannah@jacobs.com>; Mollin, Jessica <mollin.jessica@epa.gov>; Treinen, Karyn <Treinen.Karyn@epa.gov>; Padron, Silmarie <silmarie_padron@fws.gov>

Cc: Luna, Zolymar <Luna.zolymar@epa.gov>; Griffiths, Rachel <griffiths.rachel@epa.gov>; States, Abbey <states.abbey@epa.gov>; Debofsky, Abigail <debofsky.abigail@epa.gov>; Tom Bourque <tbourque@uxopro.com>; Stallings, Diane <DStallings@trccompanies.com>; O'Connell, Bethany <BOConnell@trccompanies.com>; Daniel Takaki - NOAA Federal <daniel.takaki@noaa.gov>; Barandiaran, Mike <mike_barandiaran@fws.gov>; Lopez, Felix <felix_lopez@fws.gov>; Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Cloe, Kevin R CIV USN NAVFAC LANT NOR VA (USA) <kevin.r.cloe.civ@us.navy.mil>; Hood, Daniel R CIV USN NAVFAC LANT NOR VA (USA) <daniel.r.hood.civ@us.navy.mil>; Waddill, Dan W CIV USN NAVFAC LANT NOR VA (USA) <dan.w.waddill.civ@us.navy.mil>; Danois, Maria M CIV USN NAVFAC LANT NOR VA (USA) <maria.m.danois.civ@us.navy.mil>; Doerr, Brett <Brett.Doerr@jacobs.com>

Subject: [EXTERNAL] Re: Draft FY27 Site Management Plan

This Message Is From an External Sender

This message came from outside your organization.

Hi Bill:

After further review of the Draft FY27 Site Management Plan, DNER agrees with the information provided and no additional comments will be issue at this time. If you have any concern, please contact me.

Thanks,

Juan J. Babá-Peebles

Federal Facilities Coordinator
Department of Natural and Environmental Resources
Auxiliary Secretary of Environmental Compliance
Environmental Emergency Response Area
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