

Action Memorandum for a Time Critical Removal Action, 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

FROM: NAVFAC Atlantic

TO: US Environmental Protection Agency

COPIES: P.R. Environmental Quality Board, US Fish & Wildlife Service

DATE: 9 May 2014

I. Purpose

This memorandum documents approval to initiate a time-critical removal action (TCRA) for Potential Area of Concern (PAOC) EE within Munitions Response Site UXO 17 at the former Vieques Naval Training Range (VNTR) Vieques, Puerto Rico (Figure 1) pursuant to the Navy's authority under CERCLA Section 104. The former VNTR is part of National Priorities List (NPL) site Atlantic Fleet Weapons Training Area – Vieques.

II. Site Information

A. Site Description

1. **Site Name:** PAOC EE, which is within Munitions Response Site UXO 17, Atlantic Fleet Weapons Training Area – Vieques
2. **Superfund Site ID (SSID):** FFA CERCLA 02-2007-2001
3. **NRC Case Number:** Not Applicable
4. **CERCLIS Number:** PRN000204694
5. **Site Location:** Vieques, Puerto Rico
6. **Lat /Long:** 18⁰ 6'32"N, 60⁰ 22'35"W
7. **Potentially Responsible Party (PRP):** United States Navy
8. **NPL Status:** Final NPL
9. **Removal Start Date:** May 2014

B. Site Background

1. Removal Site Evaluation

The historical information pertinent to and providing the rationale for the TCRA covered by this Action Memorandum is provided below. Table 1 identifies, by investigation, the munitions items and the depths at which they were found.

1. First Munitions Investigation of Playa La Chiva (Blue Beach)

An initial munitions investigation of Blue Beach was conducted in 2003. The inspection consisted of conducting a digital geophysical mapping

(DGM) survey across the beach (Figure 1) and excavating selected DGM anomalies to assess if munitions and explosives of concern (MEC)/material potentially presenting an explosive hazard (MPPEH) were present. The DGM survey identified approximately 330 anomalies; 244 of the anomalies (74%) were excavated. None of the anomalies excavated was MEC/MPPEH. Additionally, no surface MEC/MPPEH were identified. Three munitions debris (MD) items were identified, comprising two 5.56-mm expended cartridges and one 7.62-mm expended cartridge, all of which were found in the top 1 foot.

2. Preliminary Assessment/Site Inspection of Punta Conejo

In 2011, a Preliminary Assessment/Site Inspection (PA/SI) was conducted on Punta Conejo (Figure 1) to determine the potential presence of MEC/MPPEH. The inspection consisted of conducting a DGM survey across all 18 acres and excavating selected DGM anomalies to assess if MEC/MPPEH were present. The DGM survey identified 2,542 anomalies; 458 of the anomalies (18%) were excavated. As shown in Table 1, two of the excavated anomalies were classified as discarded military munitions (DMM), consisting of a 40-mm flare (found within the top 1 foot) and a canister containing propellant (found in the 2-foot to 4-foot interval). The remaining excavated anomalies consisted of small arms, range-related debris (RRD), and cultural debris.

3. Site Inspection of Cayo La Chiva (UXO 18)

In 2011, an SI was conducted at munitions response site UXO 18 to determine if MEC/MPPEH were present. The inspection consisted of walking transects across UXO 18 using a hand held magnetometer. Five unexploded ordnance (UXO) items (5-inch rockets), likely resulting from air to ground training, were identified on the ground surface (Figure 1).

4. Second Munitions Investigation of Playa La Chiva (Blue Beach)

In June 2013, a follow-up munitions investigation of the area at and adjacent to Blue Beach was conducted due to the findings at UXO 18 and Punta Conejo. It differed from the 2003 investigation in that in addition to the sandy portion of the beach, it included the public parking areas and pathways, transects within the terrestrial area north of Route 104, and excavation of 100 percent of the anomalies. Although no surface MEC/MPPEH were found, the investigation identified 864 subsurface anomalies. Excavation of these anomalies produced one DMM (MEC component [rocket fuze]) at the far eastern end of Blue Beach, adjacent to Punta Conejo (Figure 1), resulting in the closure of that stretch of the

beach. One MPPEH (signal, ground, illumination) commonly called a slap flare was found within the public parking area for Blue Beach, and seven MPPEH (bulk explosives, flares, cartridges, BDU 33, and a practice mine) and two DMM (rifle grenade flare and trip flare) were found in the area north of Route 104. Approximately 1,000 small arms were also found in the area north of Route 104. All of the aforementioned munitions items were found within the top 1 foot. Approximately 450 MD items were found north of Blue Beach, 93% of which were found in the top 1 foot.

2. Physical Location and Site Location

UXO 17 is part of the former VNTR that was transferred to the Department of Interior (DOI) and is now managed by the United States Fish and Wildlife Service (USFWS) as the Vieques National Wildlife Refuge. PAOC EE is approximately 106 acres and is located approximately 3 miles east of the boundary between the former VNTR and the Municipality of Vieques, which has a population of approximately 9,000 people. It is located immediately adjacent to a public beach (Playa La Chiva [a.k.a. Blue Beach]).

3. Release or threatened release into the environment of a hazardous substance pollutant or contaminant.

UXO 17 is located within the former EMA, which 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. Previous investigations identified over 1,400 munitions-related items at and adjacent to PAOC EE (Table 1), including 5-inch rockets on Cayo La Chiva, DMM on Blue Beach (which is a public beach), and other DMM, MPPEH, and small arms.

C. State and Local Authorities' Roles

The Navy is the lead agency for this NTCRA and as such will be responsible for funding and conducting the response; there have been no past State or Local actions at this site and neither the State nor Local agency will be responsible for the response.

III. Threats to Public Health Welfare or the Environment

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants.

Munitions have been identified at the portions of PAOC EE, including Blue Beach and its parking and pathway areas that are used frequently by the public. Munitions-related items have also been identified on Punta Conejo and the

forested area north of Blue Beach, which may be accessed by hikers, horseback riders, fishermen, and land crabbers. Erosion and intrusive wildlife management activities (sea turtle nest monitoring and road maintenance) could expose subsurface munitions. Based on this information, there is a potential for surface and subsurface munitions to be present within PAOC EE that pose a significant explosive hazard to the public and USFWS workers.

B. Check applicable factors (from 40 CFR 300.415) which were considered in determining the appropriateness of a removal action:

- × Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b) (2) (i)]

Actual or potential contamination of drinking water supplies or sensitive ecosystems [300.415(b) (2) (ii)]

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b) (2) (iii)]

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate [300.415(b) (2) (iv)]

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415(b) (2) (v)]

- × Threat of fire or explosion [300.415(b) (2) (vi)]
- × The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vi i)]

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b) (2) (viii)]

IV. Selected Removal Action and Estimated Costs

A. Situation and Removal Activities to Date

1. Endangerment Determination

Previous investigations have identified munitions on the surface and subsurface within PAOC EE and adjacent areas (Figure 1). However, only the sandy portion of Blue Beach has been 100% investigated (i.e., 100 percent surface and subsurface clearance). Within the surrounding area (i.e., the planned TCRA area shown in Figure 2), only a percentage of the

land surface and subsurface have been investigated. Therefore, a potential explosive hazard remains at and immediately adjacent to areas frequently visited by the public and USFWS workers.

2. Removal activities to date:

See the summary of information provided under **Site Background** above.

3. Enforcement

The approach for the planned TCRA is consistent with previous and ongoing NTCRAs and TCRA performed by the Navy, as the lead agency, within the former VNTR that have been approved by USEPA, PREQB, and USFWS. These interim actions have been, and are being, performed by the Navy where munitions pose a high explosive hazard to the public and/or USFWS workers.

B. Planned Removal Actions

1. Removal Action description

As part of the TCRA, a visual and instrument-aided (magnetometer) survey will be conducted in accordance with the *Final 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* (CH2M HILL, April 2014) to determine if there are munitions items posing an explosive hazard remaining within the 106-acre PAOC EE area (Figure 2). Any munitions items identified will be appropriately managed, including potentially destroyed by detonation, in accordance with the Explosive Safety Submission that has been approved by DDESB and NOSSA.

2. Contribution to remedial performance

The TCRA will utilize cost-effective “mag and dig” procedures to significantly reduce the explosive hazard potentially present on the ground surface and the shallow subsurface (i.e., within about the top foot) in areas readily accessible to the general public and USFWS workers. It is consistent with and will contribute to the Munitions Response Program goal of reducing explosive hazard on former Navy land in Vieques.

3. ARARs

The TCRA will be conducted in accordance with the Explosive Safety Submission. This document lists the Federal and Commonwealth ARARs identified for the site and indicate that the interim action complies with the ARARs.

4. Project Schedule

Pending completion of the associated Biological Opinion by USFWS, the TCRA is anticipated to begin in May 2014 and be completed within approximately 3 months.

C. Estimated Costs

Contractor Costs	\$1,997,800
Contractor Oversight Costs	\$250,000
Contingency costs (20% of subtotal)	\$449,560
Total Removal Costs	\$2,697,360

V. Expected Change in the Situation Should Action Be Delayed or Not Taken

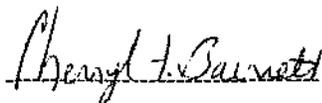
A delay in action or no action at this site would represent a potentially significant explosive hazard by leaving potential munitions on the surface and in the subsurface in an area immediately adjacent to a public beach (Blue Beach) that is readily accessible to the public and USFWS workers.

VI. Outstanding Policy Issues

None

VII. Approvals

This decision document represents the selected removal action for this site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based, in part, on the administrative record for the site. Conditions at the site meet CERCLA § 104(c)(1)(A) and the NCP section 300.415 (b) criteria for a removal action and through this document, I am approving the proposed removal action. The total project cost of approximately \$2,697,360 will be funded by the Environmental Restoration, Navy account from funds designated for the Military Munitions Response Program. The removals outlined in this AM are necessary in order to effect a continued response action to prevent an emergency and alleviate an immediate risk to public health. Such actions cannot be otherwise provided at the locations described herein in a timely manner.



CHERRYL F. BARNETT
Environmental Business Line Manager
Naval Facilities Engineering Command
Atlantic

6/10/14

Date:

Tables

Table 1

Munitions Items Found and Associated Depths

PAOC EE TCRA Action Memorandum

Atlantic Fleet Weapons Training Area - Vieques

Former Vieques Naval Training Range

Vieques, Puerto Rico

Investigation	Munitions Group	Munitions Classification	Number of Items		
			0-12"	12-24"	24-48"
First Munitions Investigation of Playa La Chiva (Blue Beach)	MD	Small Arms	3		
Preliminary Assessment/Site Inspection of Punta Canejo (PAOC EE)	DMM	40 mm flare	1		
	DMM	propellant canister			1
Site Inspection of Cayo La Chiva (UXO 18)	UXO	5" rockets	5		
Second Munitions Investigation of Playa La Chiva (Blue Beach)	DMM	MEC Component	1		
	DMM	Flares	2		
	MPPEH	BDU 33	1		
	MPPEH	Signal, Illumination, Ground (commonly called a slap flare)	4		
	MPPEH	Practice Landmine	1		
	MPPEH	Bulk Explosive	1		
	MPPEH	Cartridge	1		
	Small Arms	Small Arms	1000		
	MD	MD Scrap	418	34	
Totals			1438	34	1

Figures



- Legend**
- Surface Munitions Related Items**
- ◆ MEC
- Subsurface Munitions Related Items**
- MPPEH
 - DMM
 - RRD
 - MD from Second Munitions Investigation
 - MD from First Munitions Investigation
- First Munitions Investigation Area at Playa La Chiva
- Punta Conejo
- Cayo de la Chiva
- Blue Beach Investigation Area

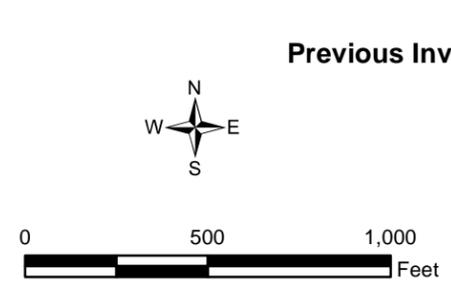
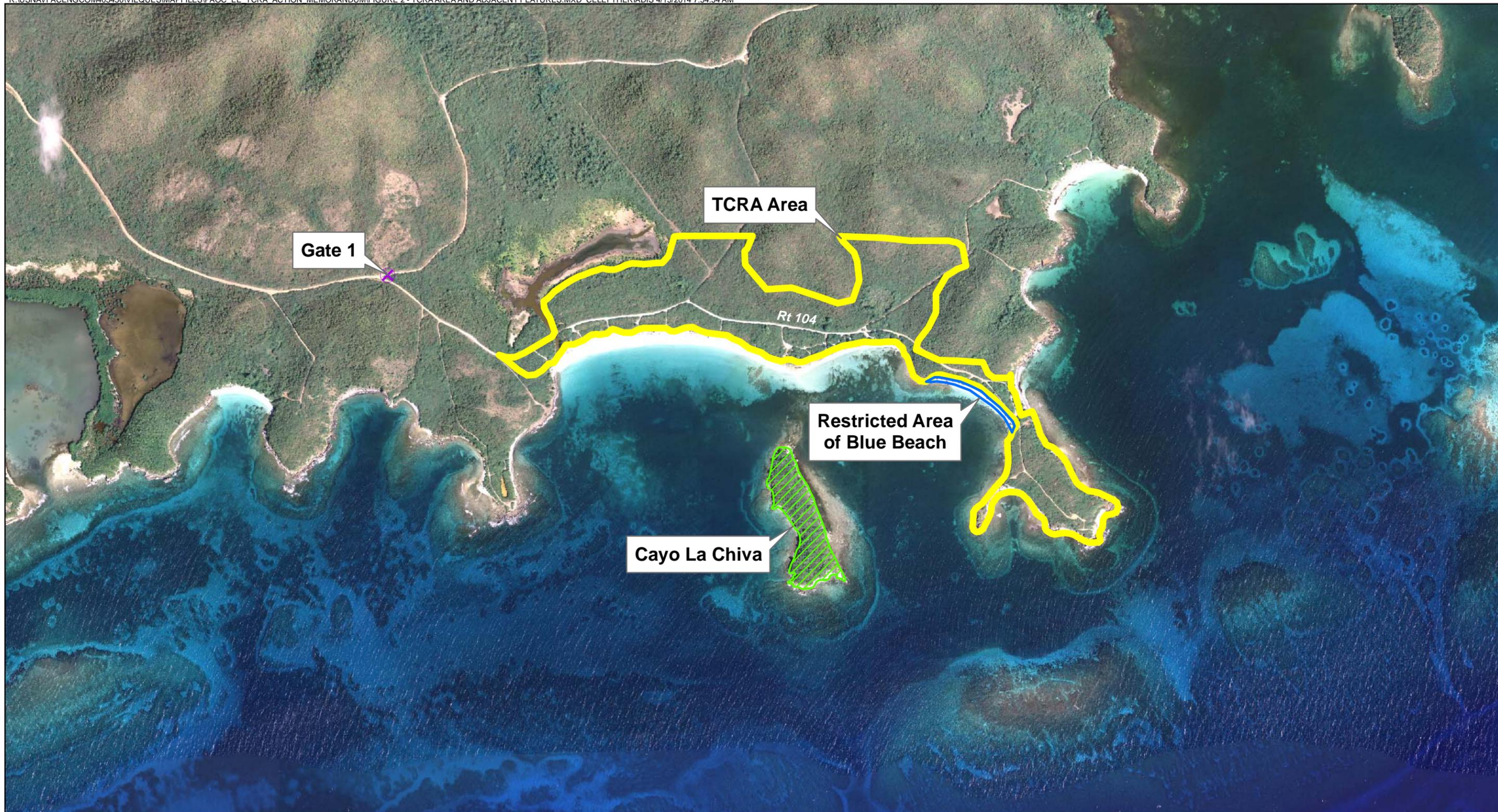


Figure 1
Previous Investigation Results in the Vicinity of Blue Beach
 PAOC EE TCRA Action Memorandum
 Atlantic Fleet Weapons Training Area - Vieques
 Former Vieques Naval Training Range
 Vieques, Puerto Rico



- Legend**
- Gate
 - Cayo de la Chiva
 - Restricted Area of Blue Beach
 - PAOC EE TCRA Area

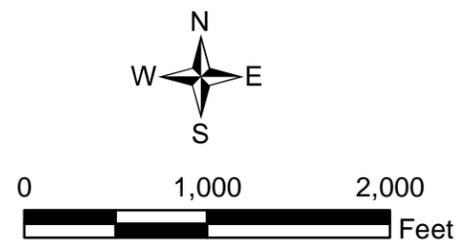


Figure 2
TCRA Area and Adjacent Features
PAOC EE TCRA Action Memorandum
Atlantic Fleet Weapons Training Area - Vieques
Former Vieques Naval Training Range
Vieques, Puerto Rico