



Vieques Restoration Advisory Board Meeting #47

November 17, 2015

Reminders



- **Simultaneous translation is provided for this meeting. Headphones are available for your use.**
- **Additional information about the Vieques cleanup can be found at:**
 - **Vieques public website:
www.navfac.navy.mil/vieques**
 - **Vieques Cleanup News flyers and newsletters**
 - **Vieques Restoration Program Facebook page
(www.facebook.com/ViequesRestoration)**

- **To enhance the effectiveness of meeting discussions, please remember:**

1. Speakers present information.
2. Audience hold questions/comments to end of each presentation.
3. Ensure everyone who has a question has opportunity to ask question or make comment
4. Agency representatives will also be available for additional questions or comments during the break or after the meeting.

Agenda for Tonight's Meeting

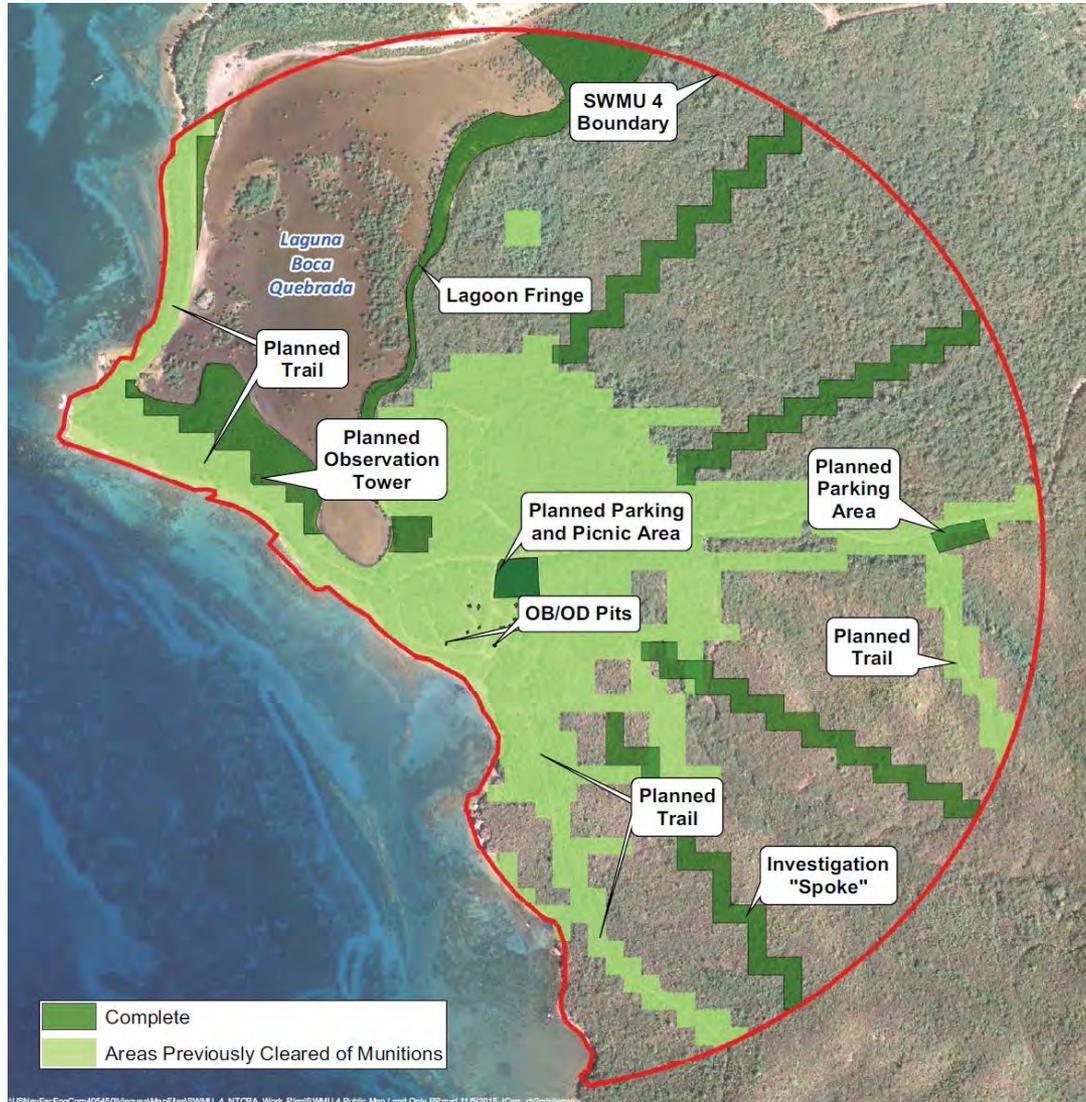


6:00- 6:15	Welcome and Introductions	Dan Waddill/Navy
6:15 – 7:15	Navy Project Status Update and Path Forward <ul style="list-style-type: none">• SWMU 4 Non-Time Critical Removal Action Status• Underwater Work Update<ul style="list-style-type: none">○ Wide Area Assessment• Beach Dynamics Study Status• Status of Sites and Upcoming Activities• National Wildlife Refuge Week• Environmental Fair Participation	Dan Waddill/Navy Kevin Cloe/Navy Daniel Hood/Navy Madeline Rivera/Navy
7:15 – 7:25	Break	
7:25 – 8:00	Regulatory Agencies Update <ul style="list-style-type: none">• Marine Terrestrial Zone- PRDNER	USFWS PREQB EPA PRDNER
8:00 – 8:30	Other Questions and Comments from the Public	Members of the Public

Navy Project Update

SWMU 4 NON-TIME CRITICAL INTERIM REMOVAL ACTION

Status of NTCRA



SWMU 4 NTCRA Status Update



- “Mag & Dig” procedure was used to initially reduce the anomaly density at the OB/OD Pits
- DGM performed following “Mag and Dig” to identify remaining anomalies, which were then excavated



SWMU 4 NTCRA Status Update



- EM-61 geophysical instrument being used to verify the location of subsurface anomalies for teams to excavate



SWMU 4 NTCRA Status Update



- Highest quantity of munitions and debris found at OB/OD pits
- Soils sifted through a screen to remove small munitions and debris



SWMU 4 NTCRA Status Update



- Weather conditions can affect the pace of removal



Summary of NTCRA and Path Forward



- All areas planned included in the interim removal action have been completed**
- Key observations:**
 - Over 6,000 MEC were removed during the current NTCRA
 - 94% were 20 mm projectiles
 - Nearly 30,000 pounds of MEC and munitions debris were removed from the site
 - No MEC identified at the eastern parking area
 - One MEC (20 mm projectile) identified at the observation tower
 - Highest densities of MEC at OB/OD pits
- Prepare an After Action Report**
- Prepare Feasibility Study Addendum**
- Perform Remedial Investigation of UXO 16 adjacent to SWMU 4**

- Prepare an After Action Report**
- Prepare Feasibility Study Addendum**
- USFWS to finalize plan for public use of cleared areas**
- Installation of signs and educational kiosks (pending USFWS plan to open area)**

Navy Project Update

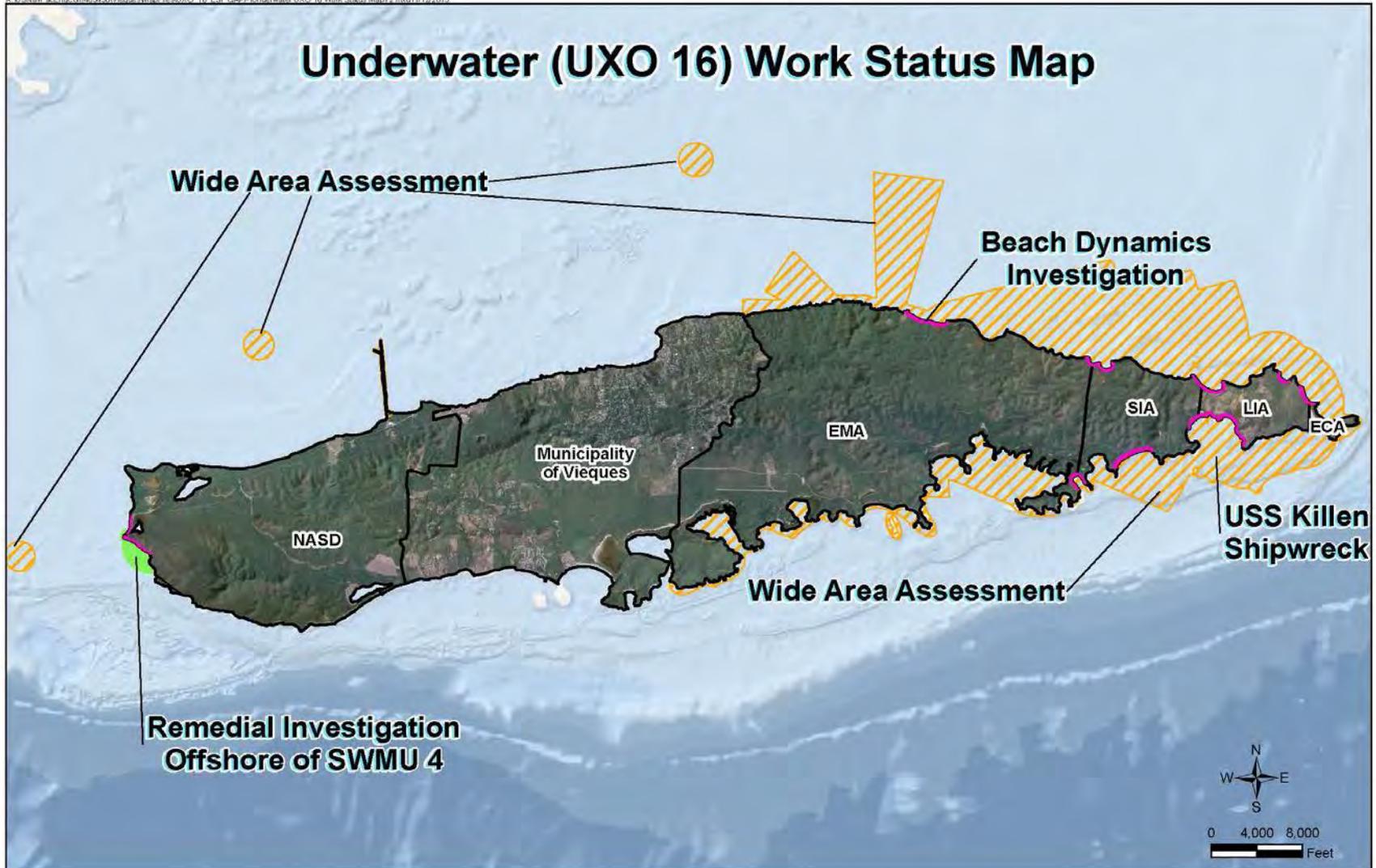
UNDERWATER (UXO 16) WORK STATUS UPDATE

Underwater (UXO 16) Work Status



R:\USNA\FacEng\cm-415450\logos\MapFiles\UXO_16_ESI_GAPP\Underwater UXO 16 Work Status Map/2.mxd/11/2/2015

Underwater (UXO 16) Work Status Map



UXO 16 Wide Area Assessment



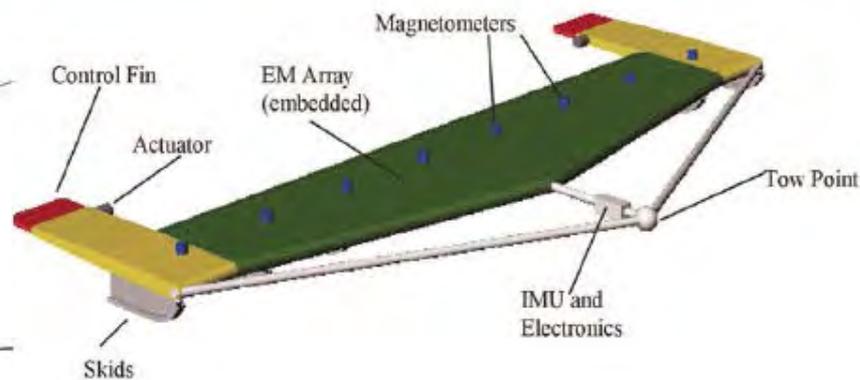
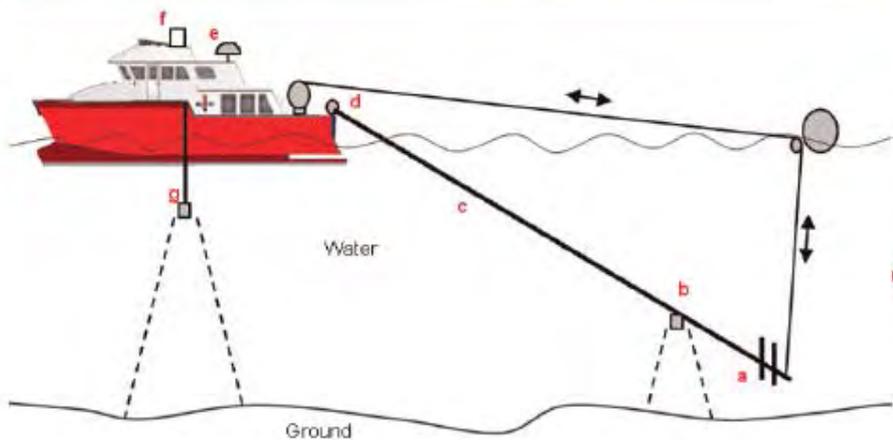
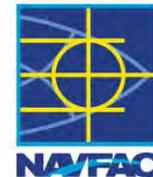
- **Wide Area Assessment (WAA) is the first step in the Remedial Investigation process**
 - Identify where the largest densities of munitions may be located
 - Provide information to help prioritize areas for more focused, follow-up investigations
 - Provide information for biological assessments and/or procedures to ensure protection of key marine species and habitats

UXO 16 WAA Overview



- **WAA field work anticipated to begin in early 2016**
- **WAA approach:**
 - Throughout UXO 16 (approximately 11,500 acres)
 - Uses digital geophysical mapping (magnetometer)
 - ~100 meter spacing of transects, resulting in approximately 6% coverage, which is similar to the process followed on land
 - Does not include several areas:
 - Offshore of SWMU 4 – Remedial Investigation planned for 2016
 - Mosquito Pier – Will require alternate approach due to the presence of the pier and significant underwater obstructions
 - Area around Cayo La Chiva – Has already been surveyed and removal action is planned for 2016

UXO 16 WAA Overview (cont.)



Navy Project Update

BEACH DYNAMICS STUDY STATUS

Beach Dynamics Investigation Overview



•Objectives

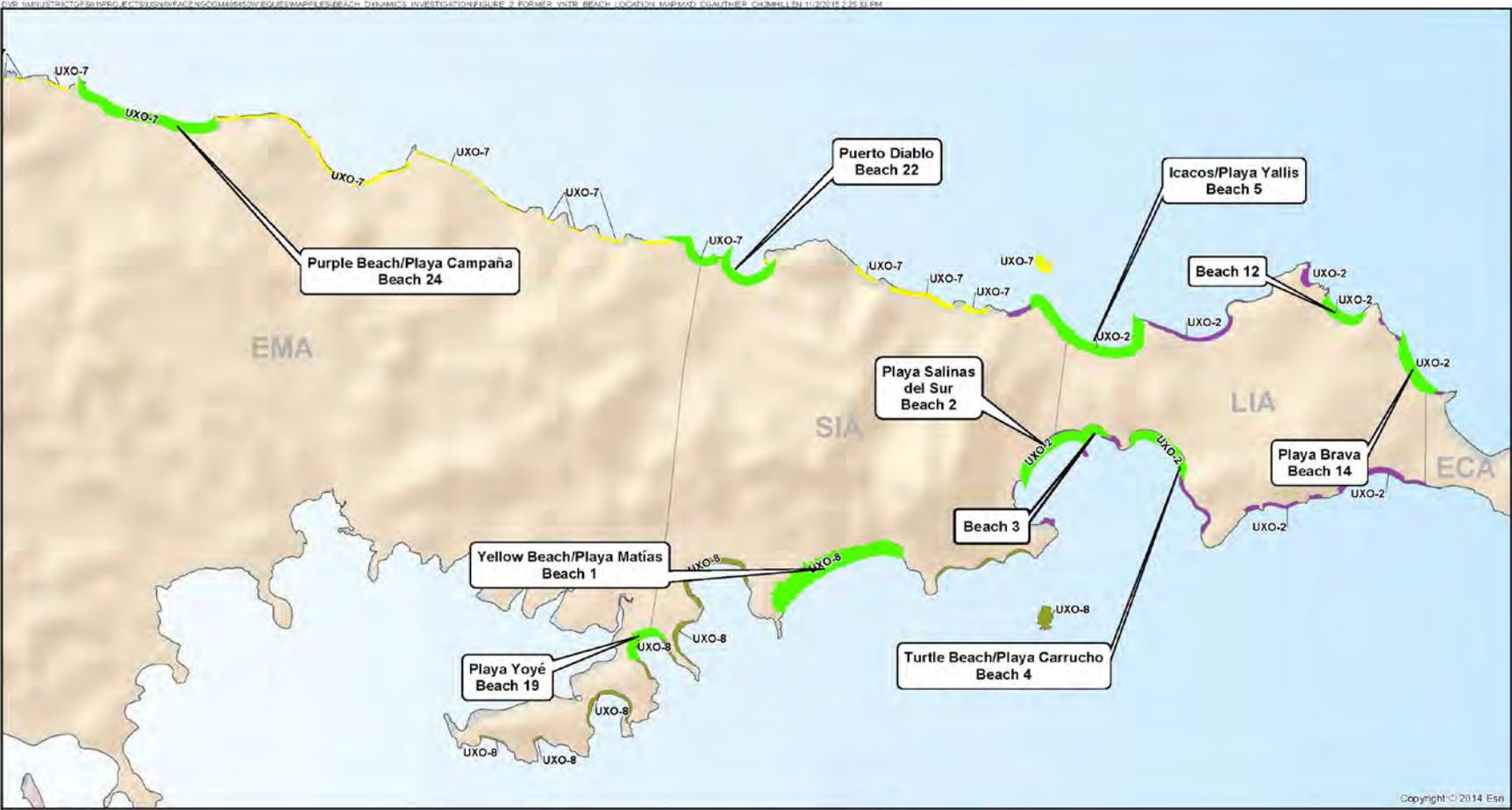
- Augment current understanding of the dynamic nature of the beach environment and its impact on the mobility of munition items.

•Achieved by:

- Monthly topographic surveys (elevation profiles) of 11 beaches and their nearshore environment
- Munitions surrogate tracking
- Acoustic Wave, Current and Water Level (AWAC) measurements
- Quarterly sand/sediment sampling for grain size (used for numeric modeling for long term predictions and munition item transport)



Beach Locations in the Former VNTR



- Legend**
- Munitions Response Sites**
 - █ Beach to be Investigated
 - █ UXO 2 - LIA Beaches
 - █ UXO 7 - EMA/SIA North Beaches
 - █ UXO 8 - SIA South Beaches

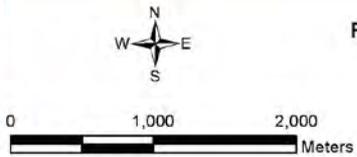


Figure 2
Former VNTR Beach Location Map
Beach Dynamics Investigation
Vieques, Puerto Rico

Beach Location in the Former NASD



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Legend

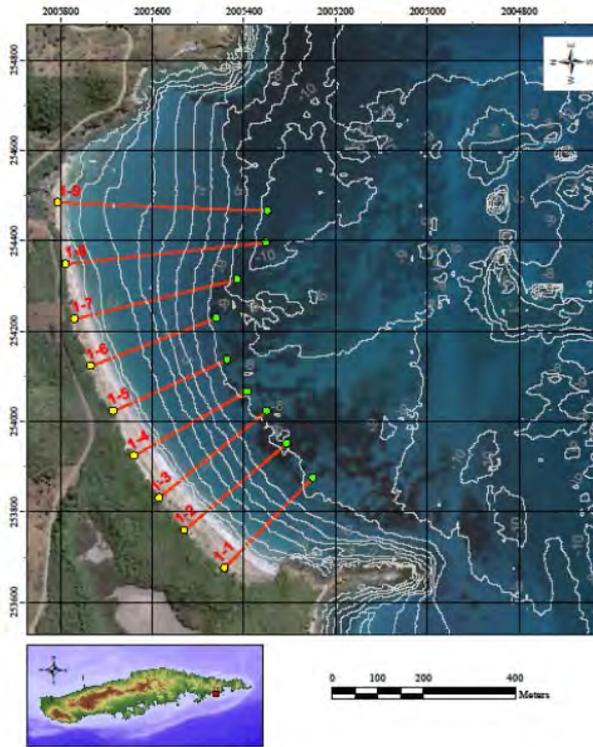
- SWMU 4 Site Boundary
- Beach to be Investigated



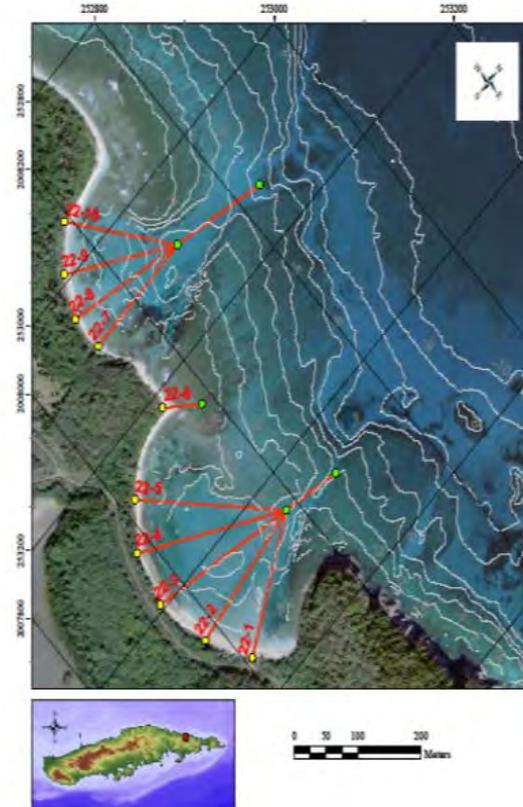
Figure 3
SWMU 4 Beach Location Map
Beach Dynamics Investigation
Veques, Puerto Rico

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Addressing Various Types of Beaches in the Study



Beach 1/Yellow Beach
(South facing beach)



Beach 22/Puerto Diablo
(North facing beach)

Transect lines displayed on two different types of beaches.

Land and Boat Survey Photos



Dynamic Nature of Beaches



**Beach 14/Playa Brava
– September**



**Beach 14/Playa Brava -
October**



**Beach 24/Purple Beach/
Playa Campaña - September**



**Beach 24/Purple Beach/Playa Campaña
- October**



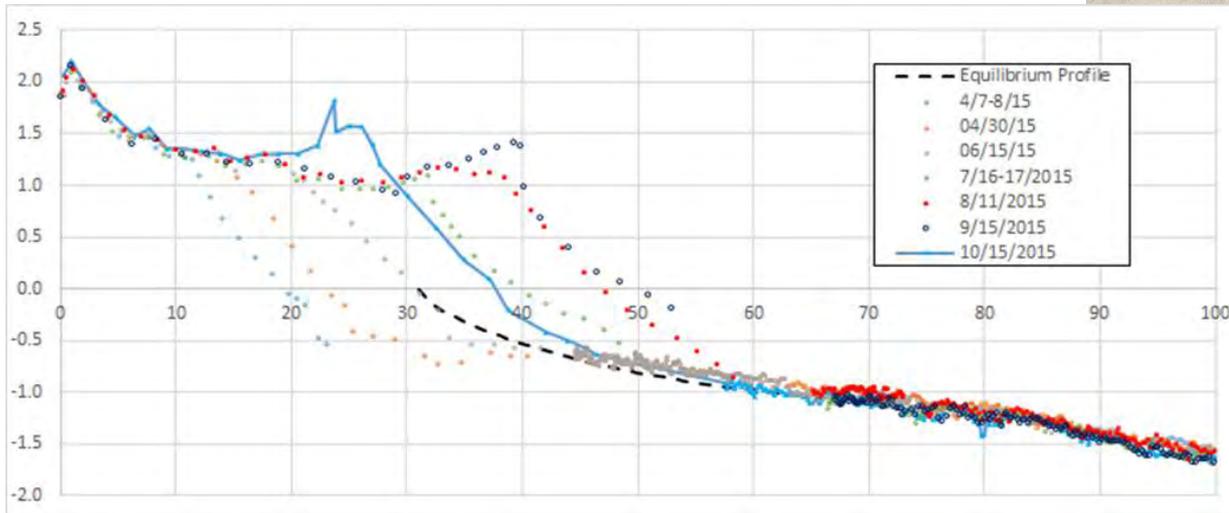
Preliminary Survey Results to Date



- **Stable Beaches**
 - Beaches 2, 3, 4, 5, 19 and SWMU 4
- **Moderately Dynamic Beaches**
 - Beaches 1, 12, and 22
- **Very Dynamic Beaches**
 - Beaches 14 and 24



Beach 24 Transect Profile – Elevations (m)



Surrogate Tracking Video via Remotely Operated Vehicle (ROV)



Navy Project Update

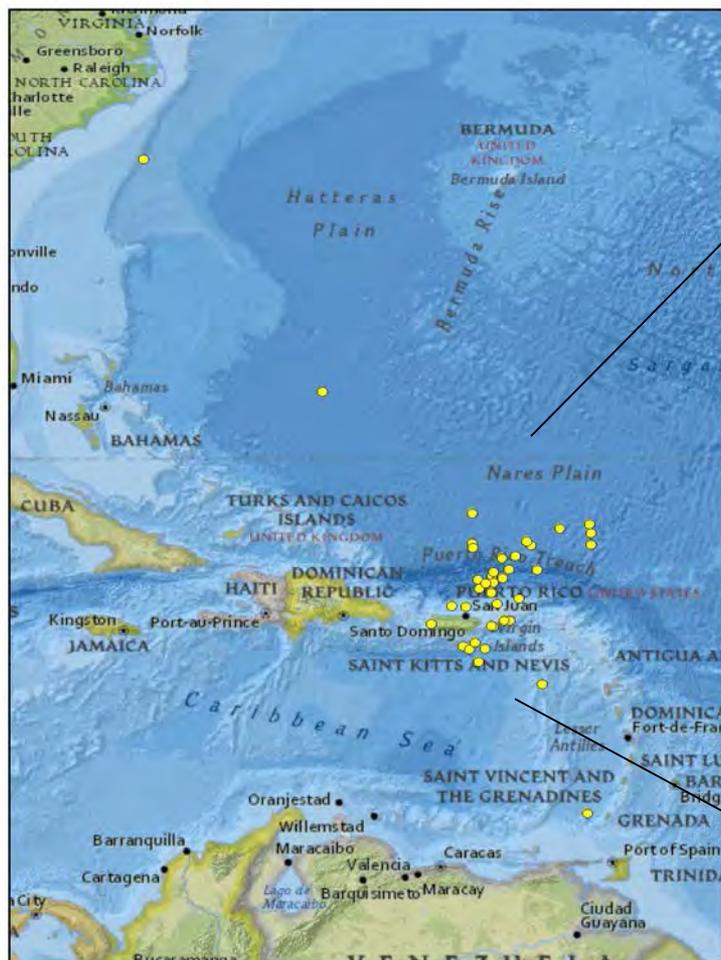
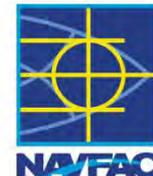
INFORMATION ON SUNKEN SHIPS

List of Sunken Ships

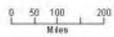


- **USS Atakapa**
- **USS Barr**
- **USS De Long III**
- **USS Samuel B Roberts**
- **USS Stockham**
- **USS Vesole**
- **USS Ross**
- **USS William C Lawe**
- **USS Rowe**
- **USS Mackerel**
- **USS LCM-8**
- **USS Stribling**
- **USCGC Blackhaw**
- **USS Glennon**
- **USS Submarine
Chaser No 340**
- **USS Robbinson**
- **USS YP-205**
- **USS YW-32**
- **USCGC Acacia**
- **USS Chilula**
- **USS Soley**
- **USS Cony**
- **USS Darby**
- **USCGS Em Dow**
- **USS Richmond K. Turner**
- **USS YA-61**
- **USS Caron**
- **USS Charles R. Ware**
- **USS Cable**
- **USS Otter**
- **USS Stanton**
- **USS Bray**
- **USS Gherardi**
- **USS Killen**
- **USS Ganadoga**
- **USS Gillespie**
- **USS Joseph E Connolly**
- **USS Frankford**
- **USS PC-457**
- **USS Kenneth M. Willett**
- **USS Robert L Wilson**
- **USS Pettit**
- **USS Roberts**
- **USS Otterstetter**

Map of Sunken Ships

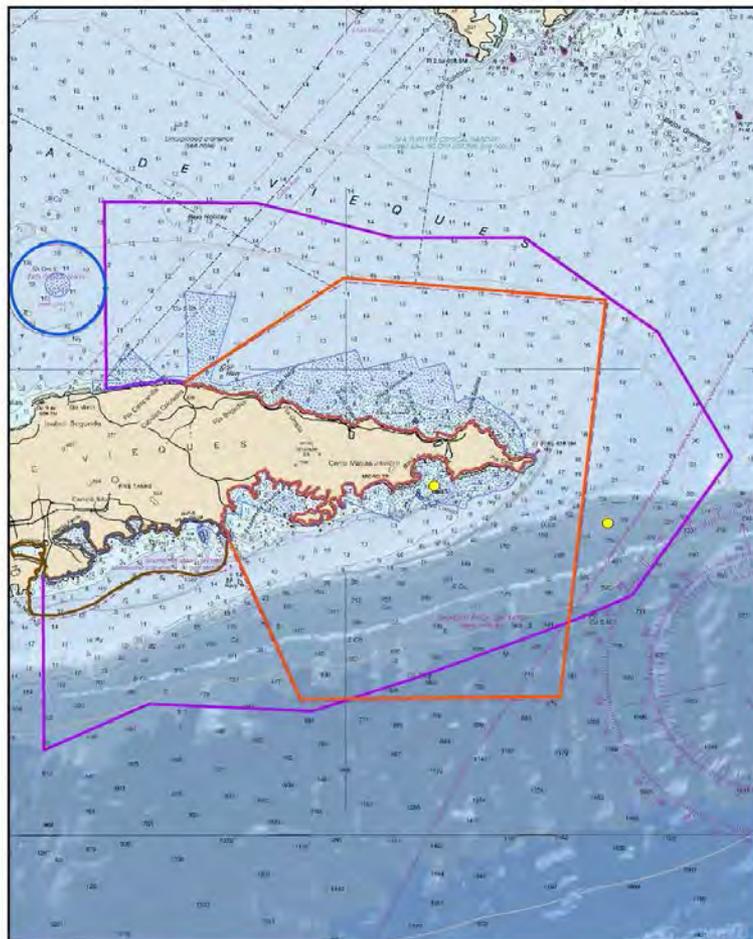


LEGEND
● Ship Wreck Location



CH2MHILL

Map of Sunken Ships Near Vieques



LEGEND

- Ship Wreck Location
- UXO 16
- Explosives Anchorage Area (NOAA Chart)
- Offshore Danger Area (NOAA chart)
- Offshore Restricted Area (NOAA chart)
- Waters of the Inner Range



Units on the map are Fathoms
1 Fathom = 6 Feet

Navy Project Update

STATUS OF SITES AND UPCOMING ACTIVITIES

Status of Sites and Upcoming Activities at West Vieques



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Planned Activities

SWMU 6:
Remedial Investigation Report Addendum
Proposed Remedial Action Plan

AOC E:
Remedy Implementation - Monitoring

SWMU 4:
Munitions Removal Action
Feasibility Study Addendum

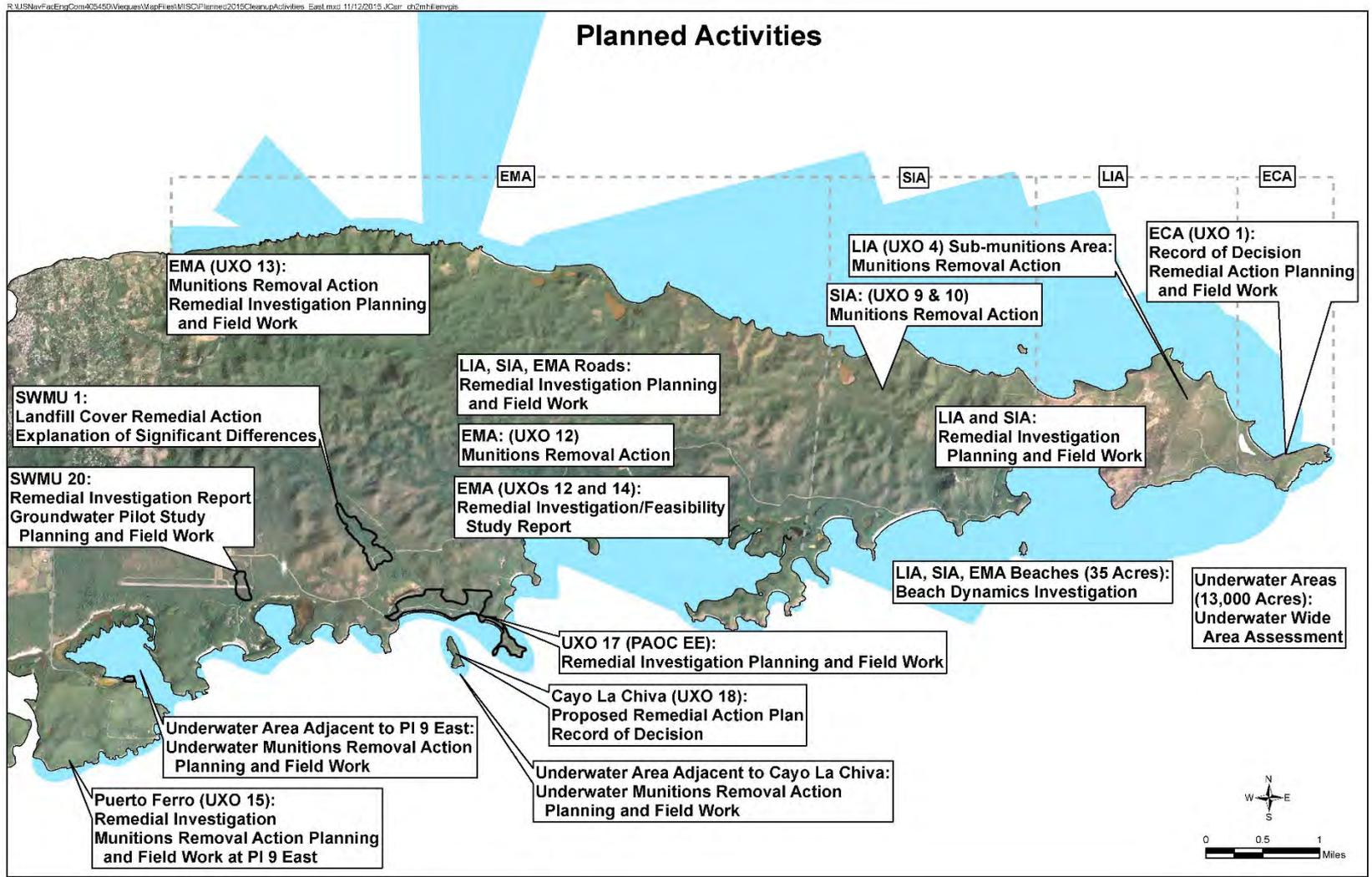
SWMU 4 Beach:
Beach Dynamics Investigation

Underwater Areas:
Remedial Investigation Planning and Field Work



0 0.25 0.5
Miles

Status of Sites and Upcoming Activities at East Vieques



Navy Project Update

NATIONAL WILDLIFE REFUGE WEEK ENVIRONMENTAL FAIR PARTICIPATION

NWR Environmental Fair Participation



- The Navy participated in the FWS Environmental Fair at the NWR Visitors Center on Friday, October 16, 2015.
- Approximately 200 community members visited the fair.



NWR Environmental Fair Participation (Continued)



- Magnetometer use demonstration
- Interactive munitions safety activities
- Cleanup information



Regulatory Agency Updates

REGULATORY AGENCIES

- **U.S. Fish and Wildlife Service**
- **Puerto Rico Environmental Quality Board**
- **Environmental Protection Agency**
- **Puerto Rico Department of Natural and Environmental Resources**

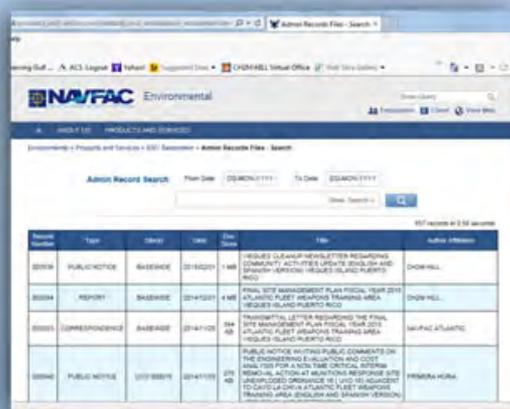
Vieques Restoration Program Facebook Page

www.facebook.com/ViequesRestoration



The screenshot shows the Facebook page for the Vieques Environmental Restoration Program. The page features a large cover photo of a tropical coastline with turquoise water and green hills. A profile picture shows a sea turtle swimming in clear water. The page name is "Vieques Environmental Restoration" with "Community" below it. Navigation tabs include "Timeline", "About", "Events", "Photos", and "More". On the left sidebar, it shows "153 people like this" and an "Invite friends" button. The "ABOUT" section includes a description in English and Spanish, and a website link: <http://www.navfac.navy.mil/vieques>. The main content area displays a post from May 12 with the text: "Welcome to the Vieques Environmental Restoration Program page. Stay connected with us to learn about opportunities to participate by attending public meetings, review public documents, and read about progress on the various cleanup and restoration actions in Vieques." It also includes a "See More" link and a "See Translation" option.

Did you know?



Record Number	Type	Format	Date	File Size	Title	Author/Institution
0008	PUBLIC NOTICE	BURSE	02/15/2011	1 MB	REVISED CLEANUP NEWSLETTER REGARDING COMMUNITY ACTIVITIES & LIFE-TO-BE BIODIVERSITY MONITORING PROGRAMS (R&D)	DNV HILL
0009	REPORT	BURSE	02/14/2011	4 MB	FINAL SITE MANAGEMENT PLAN FISCAL YEAR 2011 ATLANTIC FLEET WEAPONS TRAINING AREA (R&D)	DNV HILL
0001	CORRESPONDENCE	BURSE	02/14/2011	884 KB	TRANSMITTAL LETTER REGARDING THE FINAL SITE MANAGEMENT PLAN FISCAL YEAR 2011 ATLANTIC FLEET WEAPONS TRAINING AREA (R&D)	NAVFAC ATLANTIC
0006	PUBLIC NOTICE	PDF	02/14/2011	276 KB	PUBLIC NOTICE WITH PUBLIC COMMENTS ON THE ENGINEERING EVALUATION AND COST ANALYSIS FOR A NON-TIME CRITICAL RESPONSE MEDIUM-ACTION AT MULTIPLE RESPONSE SITE (R&D) FOR A NON-TIME CRITICAL RESPONSE TO CARBON DIOXIDE AT ATLANTIC FLEET WEAPONS TRAINING AREA (R&D) (R&D)	PRINCE HANA

The Vieques Administrative Record contains all the public documents related to Vieques cleanup and restoration activities.

Get informed and share!

www.navfac.navy.mil/vieques



www.navfac.navy.mil/vieques

- **Comments or Questions?**
- **Next Meeting Date**
- **If interested in becoming a Vieques Restoration Advisory Board member, contact Madeline Rivera, Navy Vieques Site Manager**
 - Phone: 787-741-4792
 - Email: madeline.rivera@navy.mil