

# Vieques Cleanup Status and Explosives Safety



**Provided to:**

**Caribbean Regional Response Team Meeting**

**San Juan, Puerto Rico**

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**Presented by:**

**Dan Waddill, PE**

**NAVFAC Atlantic**

**[dan.w.waddill.civ@us.navy.mil](mailto:dan.w.waddill.civ@us.navy.mil)**



# Things to Know Up Front



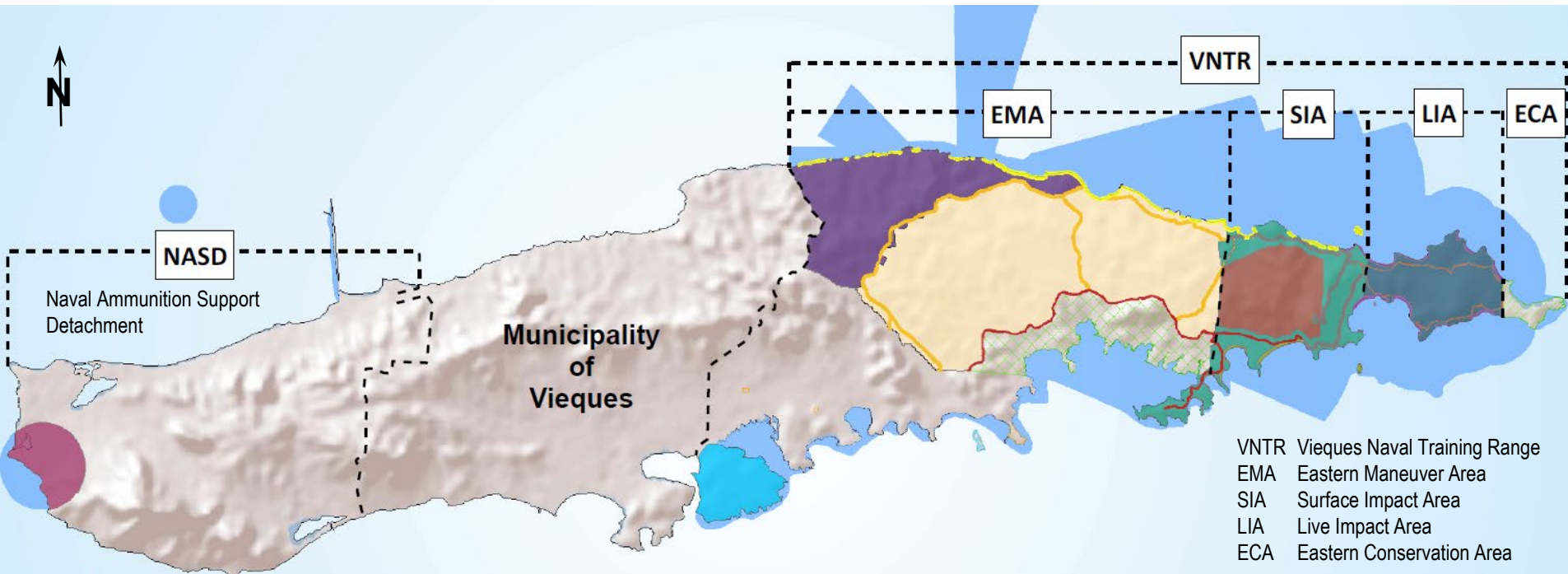
- The Vieques cleanup involves enormous amounts of Unexploded Ordnance (UXO)
  - UXO consists of munitions that have been fired and fired, but somehow failed to explode as expected
  - UXO items are especially dangerous because they are set to explode and may do so without warning
- Navy will continue active removal of UXO for ~10 more years on land and ~15 years underwater
- Following active removal, Navy will do long-term management



# Vieques Background



- 2001 and 2003: Former Navy areas transferred to Municipality of Vieques, Puerto Rico Conservation Trust, and US Department of the Interior (DOI)
  - DOI created the Vieques National Wildlife Refuge under the Fish & Wildlife Service (FWS)
- 2005: Vieques placed on National Priorities List (NPL)
  - Navy performs the cleanup under the Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA)



# Vieques Cleanup Team

## Interagency Cooperation



- Participants from Vieques, Puerto Rico, and mainland US
  - Senior management, project managers, technical experts
  - Decisions made by consensus of all team members
- CERCLA process ensures all points of view are considered
  - Public meetings
  - Public comment

1 FWS, EPA Region 2  
Vieques, Puerto Rico

2 Puerto Rico Stakeholders:  
EQB, DNER  
SHPO  
RAB  
Univ. of Puerto Rico  
Municipality of Vieques  
General Public  
Local Businesses

3 Fish & Wildlife Service  
Atlanta, GA

4 CFFC/NAVFAC Atlantic (PAO)  
Norfolk, VA  
Vieques Core Project Team  
Norfolk, VA

5 ASN/CNO/NAVFAC  
Washington, D.C.  
NOAA, DoD, EPA  
Headquarters, DDESB,  
EQB Support Contractor  
Washington, D.C.

6 NOSSA & Tech Div.  
Indian Head, MD

7 FWS  
Annapolis, MD

8 EPA Region 2, NOAA  
New York, NY

9 EQB Support Contractor  
Boston, MA

**Winner of the Secretary of Defense Environmental Restoration Team Award, 2016, 2018, 2020, and 2024**  
**Winner of the Secretary of the Navy Restoration Team Award, 2022**

# Cleanup Status

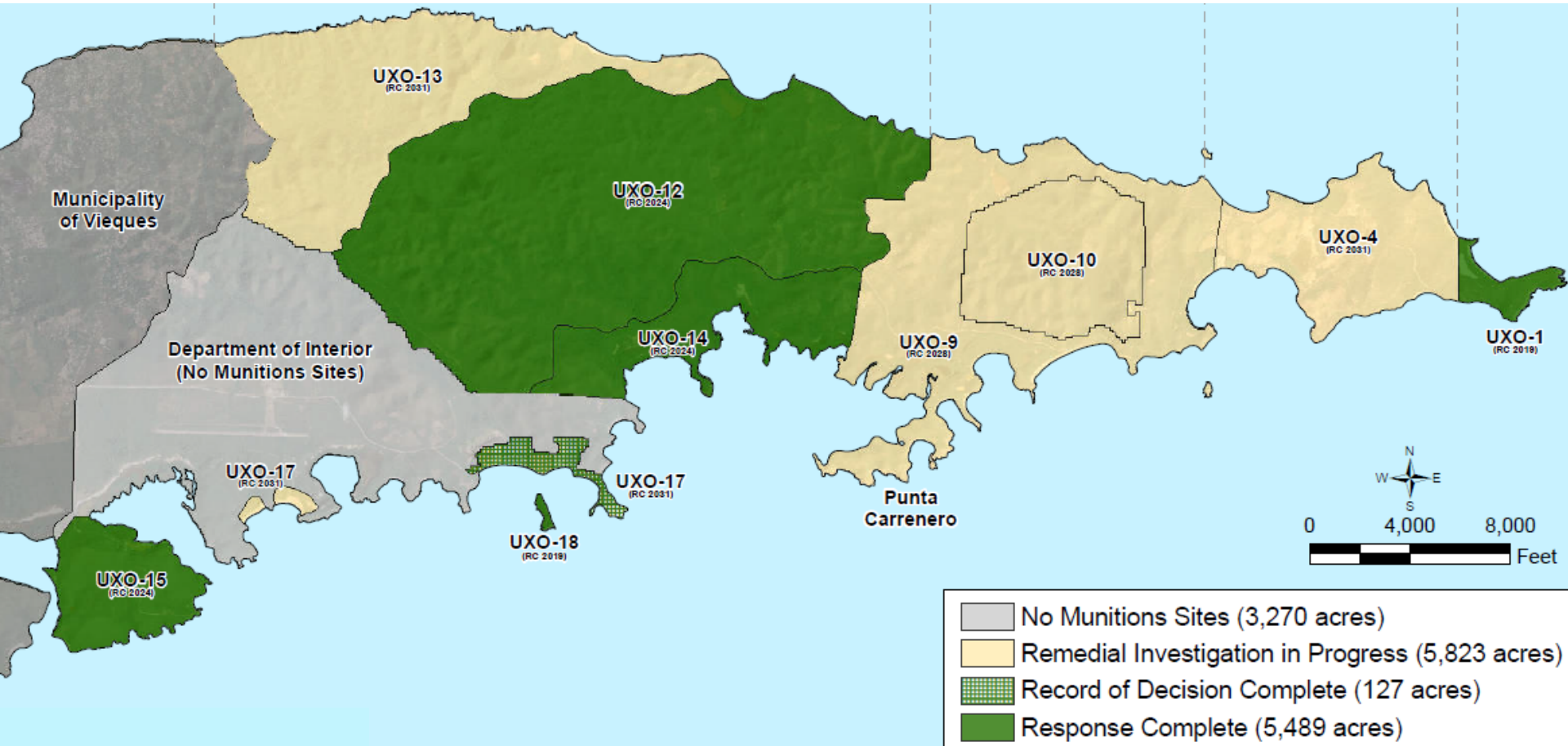
## Munitions Response Sites



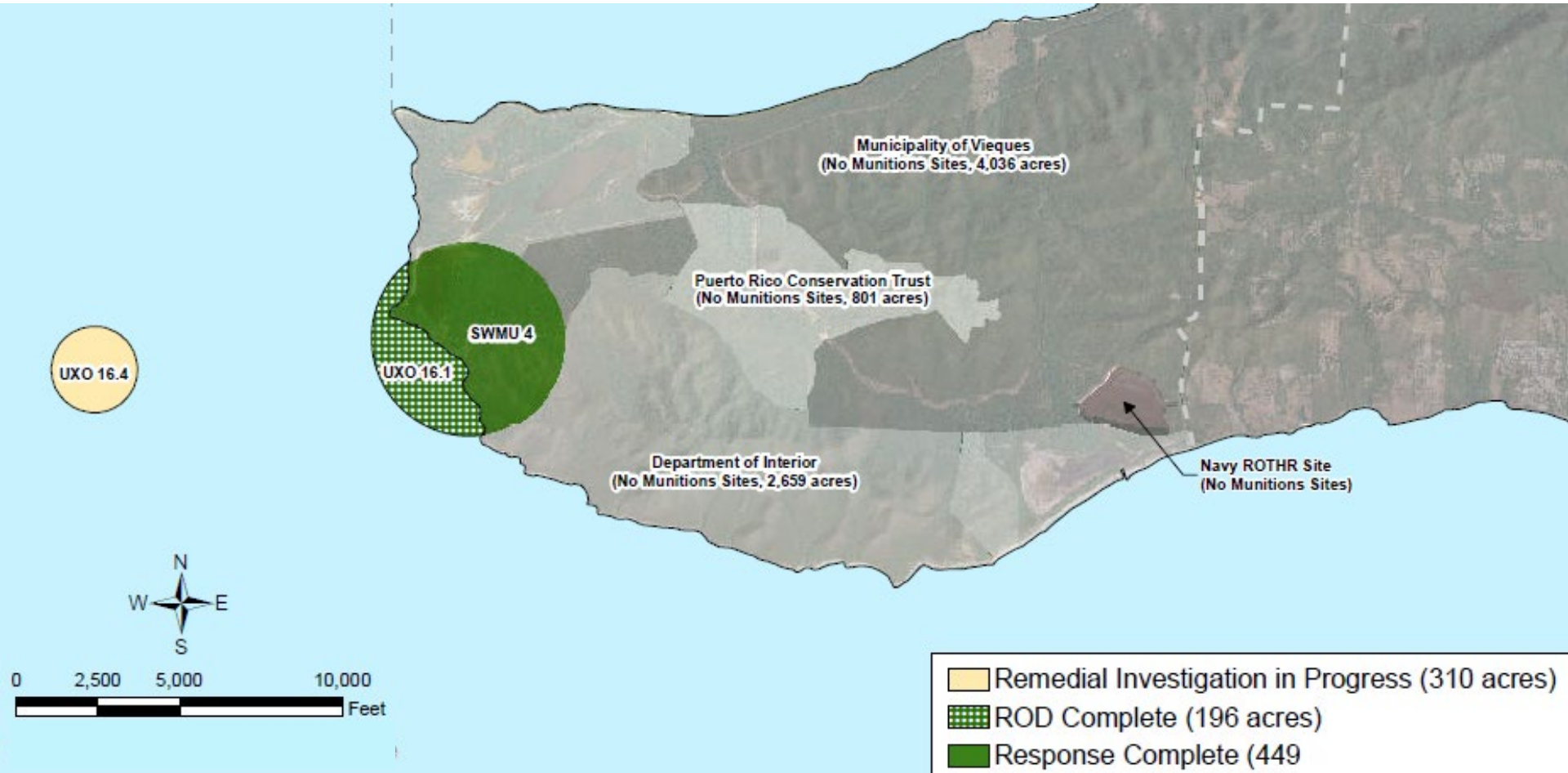
- Surface clearance
  - 4,600 acres cleared of munitions
  - 8.7 million pieces of material potentially presenting an explosive hazard (MPPEH)
  - 137,000 munitions items
- Sub-surface clearance
  - 19 miles of roads, 12 miles of beaches
- Scrap metal
  - 17.8 million pounds recycled



# CERCLA Status – East



# CERCLA Status – West

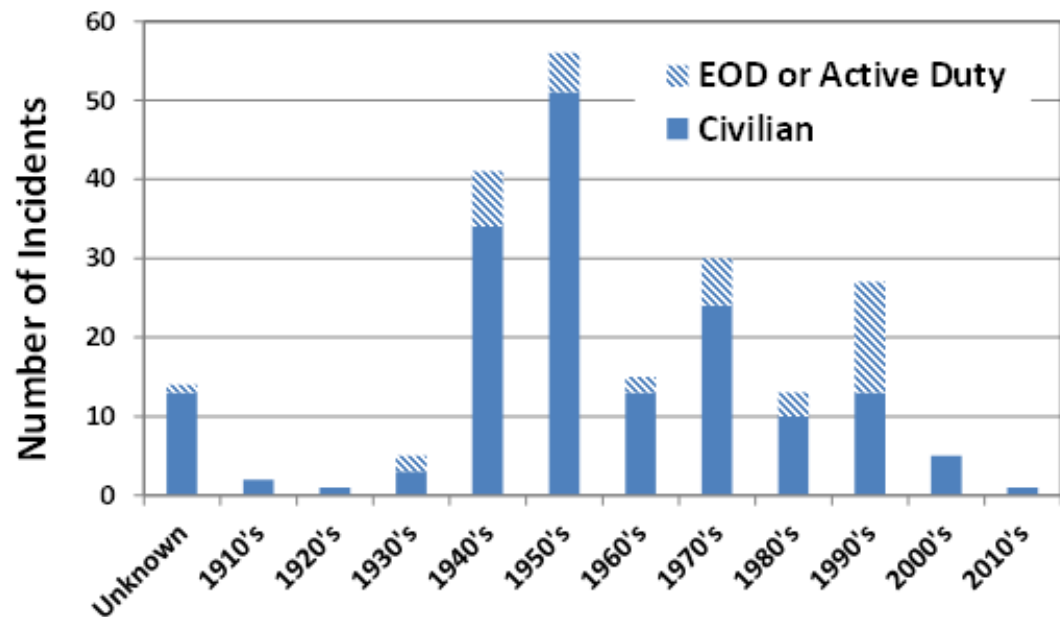


# Historical Accidents

Overall



- 208 munitions incidents in the US since 1910 involving death or injury
  - *A Study of MEC-Related Civilian Incidents Associated with FUD Sites (ACOE, 2011).*
  - *UXO Incident Report (EPA 2001), DPRA Inc. with data from DDESB and ATF.*
- 178 deaths and 424 injuries
- 31 incidents involved clearance work by military or civilian contractors
- No. of incidents by gender
  - Adult male 117
  - Male child 179
  - Adult female 1
  - Female child 24





### Terrestrial

- **Picked up** **158**
- **Fire** **20**
  - 10 Campfire or brushfire
  - 5 Brush fire or industrial fire
  - 3 Item put in or near campfire
  - 2 Fire built around bomb
- **Driven on / over** **4**
  - 1 mine, 3 during clearance
- **Kicked** **2**
- **Stepped on by civilians** **0**
- **Hit with pick axe** **1**
- **Hit with shovel** **0**
- **Hit with heavy equipment** **0**
- **Hit with tent stake** **0**

### Underwater

- **Picked up from shoreline** **2**
- **Hit with boat anchor** **0**
- **Dredging equipment** **0**
- **Recreational diver** **0**
- **Recreational fishing** **0**
- **Commercial fishing** **1**



- Fewer accidents underwater than on land
  - Must touch the bottom to encounter munitions
- Difficult to set something off underwater
  - No fires underwater
  - Swimmers, waders, and divers can't hit with much force underwater
- Underwater risk management
  - Underwater risk management
  - Given the time it takes to address underwater UXO, Navy will be managing in place for a long time
  - Riskiest encounter type is probably "pick up & bring ashore"
  - White phosphorus is an issue because it ignites when exposed to air



- Explosive incidents are rare, but they do occur
- Use historical knowledge to help prevent future accidents
  - Public, site workers, emergency responders
  - Active UXO cleanup takes time
  - Long term management indefinitely
- General rules
  - “Picking it up” is by far the riskiest encounter
  - Heat (fire) is second
  - Small, attractive, visible UXO items are the most dangerous
- UXO safety message
  - 3Rs
  - 1D (Don’t Pick It Up)

### Follow the 3Rs of Explosives Safety



**If you did not drop it,  
do NOT pick it up!**



[www.navfac.navy.mil/Vieques](http://www.navfac.navy.mil/Vieques)

## Stay Away from UXO



[FB/ViequesRestoration](https://www.facebook.com/ViequesRestoration)

### Follow the 3Rs of Explosives Safety



**If you did not drop it,  
do NOT pick it up!**

**Unexploded Ordnance (UXO) could explode if disturbed. For your safety, pay attention to all warning signs and locked gates, stay out of restricted areas, and follow the 3Rs.**

**Recognize** when you may have encountered a munition, and that munitions are dangerous.



**Retreat: DO NOT** approach, touch, move, or disturb a suspected munition, but carefully leave the area. At sea, **DO NOT** bring a suspected munition alongside or on board a vessel.

**Report:** On land, call **911** or **(787) 741-2020** and tell the authorities what you saw and where you saw it. At sea, notify the US Coast Guard, **Channel 16 – 156.800 MHz.**



# What Does UXO Look Like?



## Practice bomb

- “Practice” doesn’t mean “safe;” there is still a spotting charge



# What Does UXO Look Like?

(Continued)



## Projectiles

- Rotating band indicates it has been fired



# What Does UXO Look Like?

(Continued)



## Mortars



# What Does UXO Look Like?

(Continued)



## Rockets





# What Does UXO Look Like?

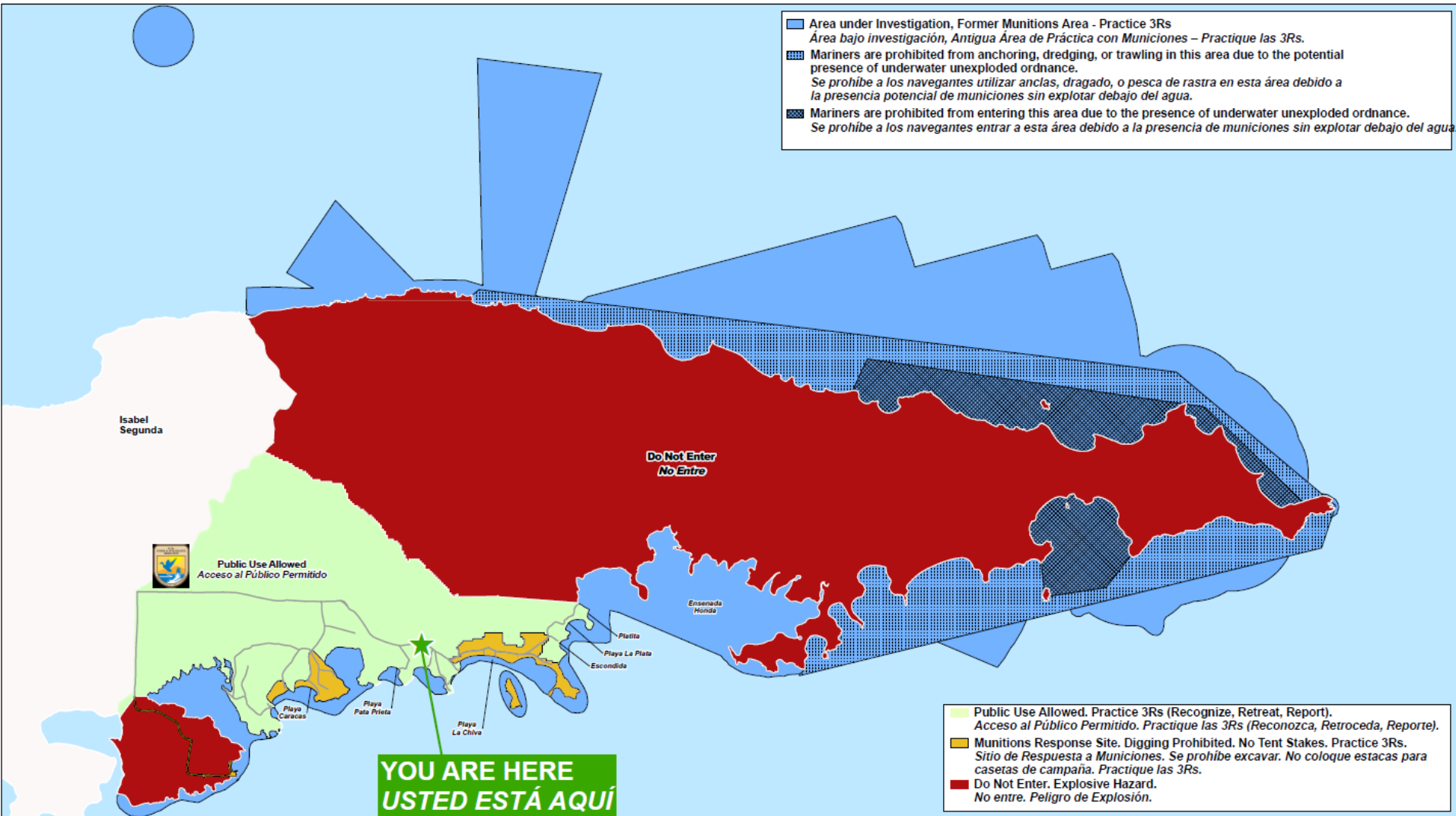
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## Submunitions



# Navy UXO Sites – Restricted Areas



- Signs on posts don't last
  - Damaged by weather: fade, blow over, fall apart
  - Disappear
- Signs on kiosks – protected under plexiglass
  - Used to define concrete monuments
  - Two options – enter or not
- Buoys in the water
  - Require regular maintenance



## ACCESS REQUIREMENTS REQUISITOS DE ACCESO

For your safety, pay attention to the color-coded concrete monuments that define access requirements within the former military training areas. All Federal, Commonwealth, and Municipal Regulations apply.

Por su seguridad, preste atención a los monumentos de concreto con códigos de colores que definen los requisitos de acceso dentro de las antiguas áreas de entrenamiento militar. Todos los reglamentos federales, estatales y municipales aplican.



**Public Use Area.**  
**Former Munitions Area.**  
Practice 3Rs. No Fires.  
No Digging. No Staking.  
**Área para el Uso Público.**  
**Antigua Área de Municiones.**

Practique las 3Rs. Prohibido hacer fogatas.  
No excavar. No colocar estacas.



**Do Not Enter.**  
**Unexploded Ordnance Area.**  
**No Entre.**   
**Área de municiones sin explotar.**

# Border of the Former Live Impact Area



- Public access to the former Live Impact Area (LIA) is prohibited by federal law
- For a CRRT response in the LIA, escort by UXO Techs is required



# CRRT Response on Vieques

## Former Navy Training Areas



- Contact the NAVFAC Atlantic Public Affairs Office (PAO)
  - [NAVFAC\\_LANT\\_PAO@us.navy.mil](mailto:NAVFAC_LANT_PAO@us.navy.mil)
  - (757) 322-8005
  
- PAO will put you in contact with the Navy site office on Vieques
  - Will coordinate with US Fish and Wildlife Service (FWS)
  - Will arrange for UXO Tech escort if necessary
  
- Follow the 3Rs and 1D
  - Recognize, Retreat, Report
  - If you didn't drop it, DON'T pick it up
  
- Navy will have a long-term presence on Vieques
  - Required to ensure public safety

