



# Vieques Environmental Restoration Program Overview

## RAB Meeting

November 15, 2011

# Environmental Restoration Program Status



- **West Vieques**

- **17 total sites (13 sites closed out)**

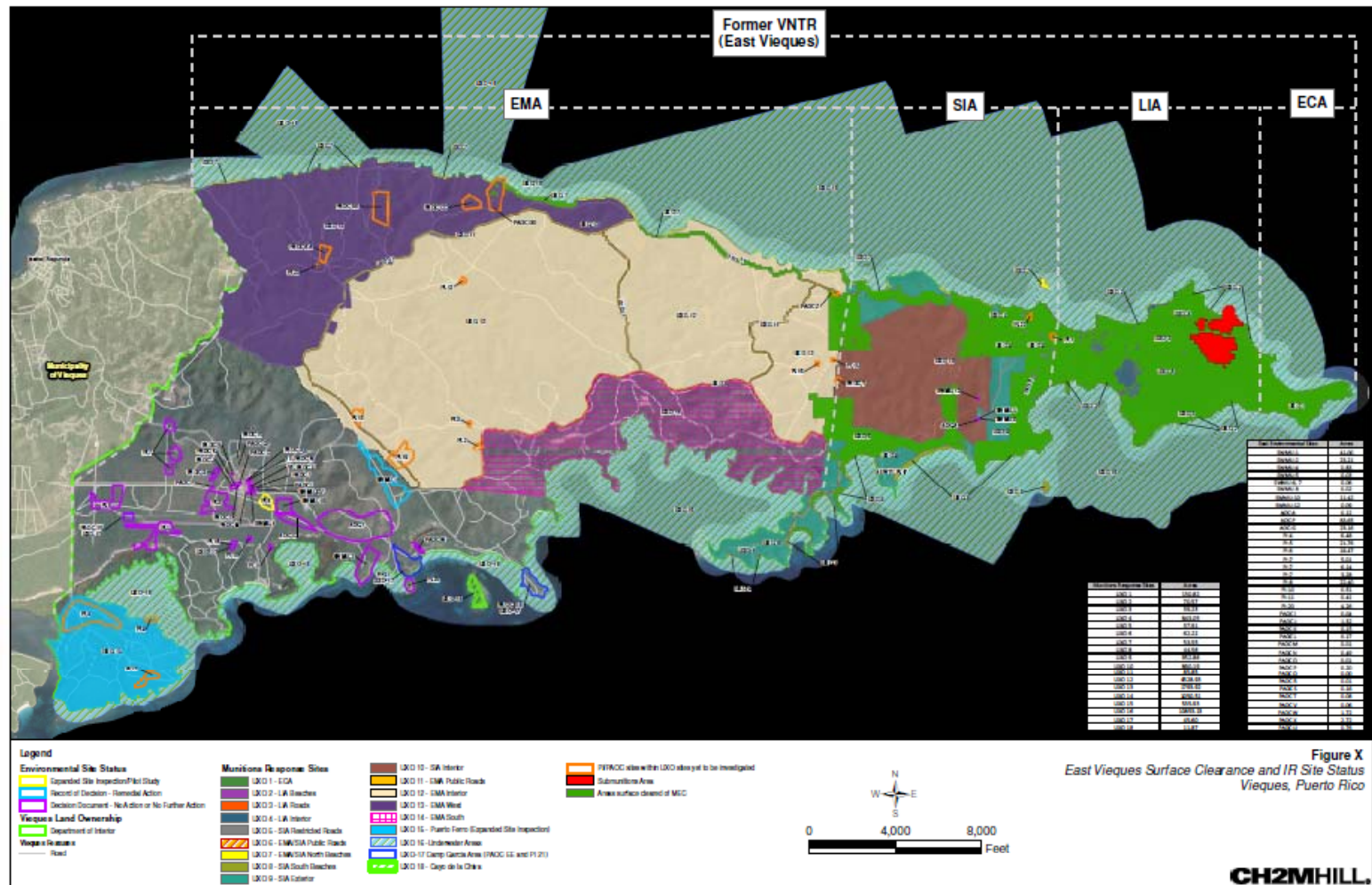
- 9 sites closed out in a No Further Action Report
      - Before Vieques was listed on the National Priorities List (“Superfund”)
    - 4 sites closed out with no further action in a Record of Decision (AOC H, AOC J, AOC R, SWMU 7)
    - 3 sites in Feasibility Study (AOC E, SWMU 4, SWMU 6)
    - 1 site in pilot study (AOC I)

- **East Vieques**

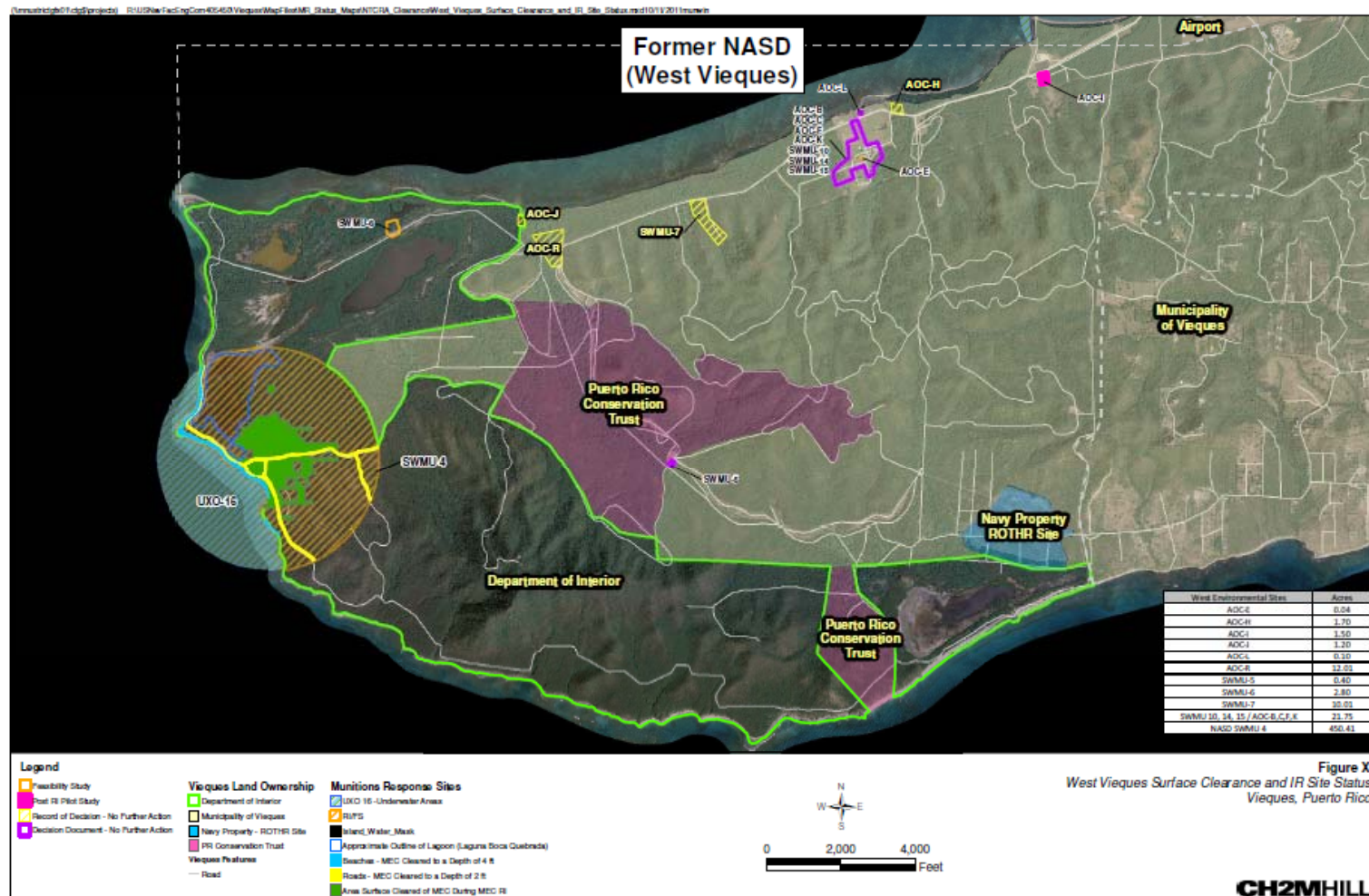
- **56 total sites (36 sites closed out)**

- 36 sites closed out in a No Further Action Decision Document
    - 1 site in remedial work plan development (SWMU 1) after Record of Decision
    - 1 site in Expanded Site Inspection/pilot study (PI 4)
    - 1 site in Expanded Site Inspection (UXO 15)
    - 17 sites in Remedial Investigation (UXO 1—UXO 14, UXO 16—UXO 18)

# East Vieques Sites



# West Vieques Sites





# Munitions Response Program – Key Milestones



- **FY03**

- Preliminary Range Assessment
- Munitions and Explosives of Concern (MEC) Removal at Green, Red and Blue Beaches

- **FY05-FY09**

- MEC Surface Clearance of remaining beaches
- East Vieques Site Inspection
- Time Critical Removal Action of MEC in the Live Impact Area and Eastern Conservation Area (not including sub-munitions area)

- **FY09**

- Subsurface Removal of MEC and Material Potentially Posing an Explosive Hazard (MPPEH) from roads and beaches began
- Surface Removal of MEC from Surface Impact Area began

- **FY10**

- SWMU 4 Remedial Investigation began
- Over 500 acres surface cleared of MEC

- **FY11**

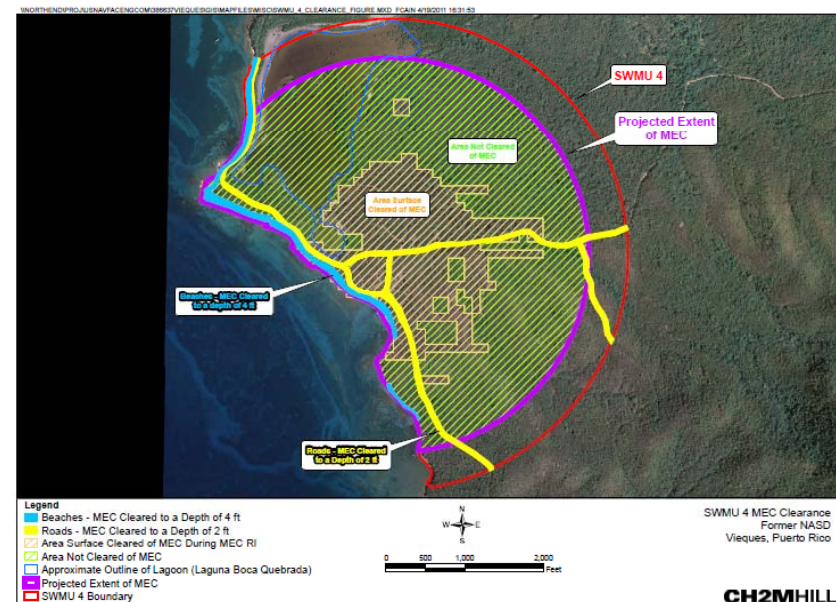
- Completed Non-Time-Critical Removal Action (NTCRA) for subsurface removal of MEC at SWMU 4



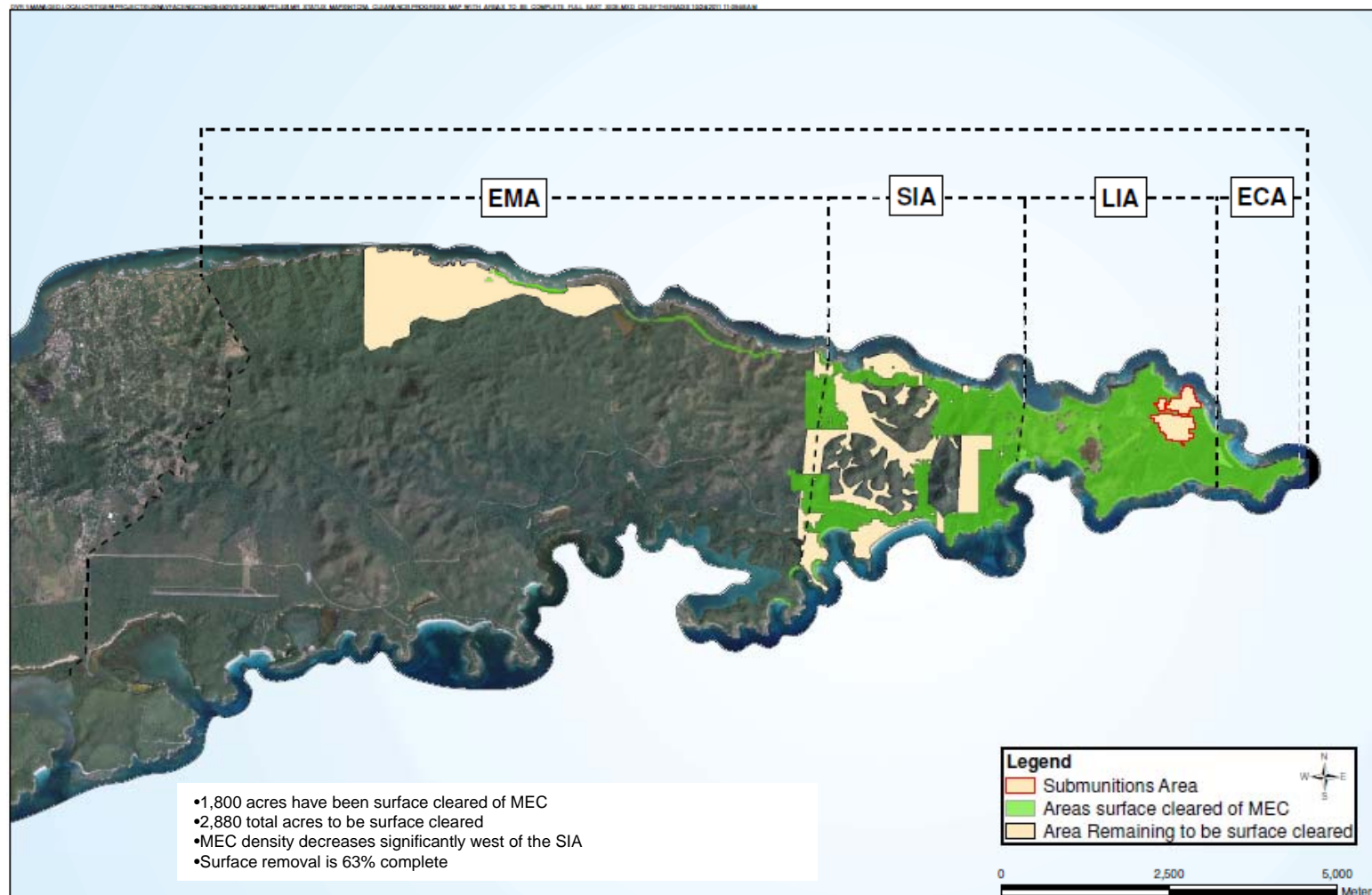
# Progress of MEC Removal At SWMU4 – West Vieques



- A total of 87 acres surface cleared of MEC during Remedial Investigation and Removal Action
- A total of 24 acres of roads and beaches have been cleared of subsurface MEC
- Approximately 2,300 munitions items removed
- An additional 19 acres is proposed for subsurface clearance of MEC in the Draft Feasibility Study



# Progress of Surface Clearance of MEC - East Vieques

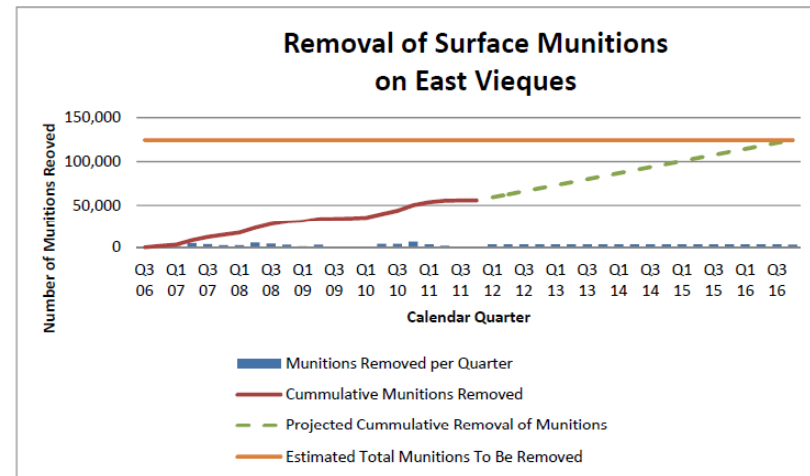
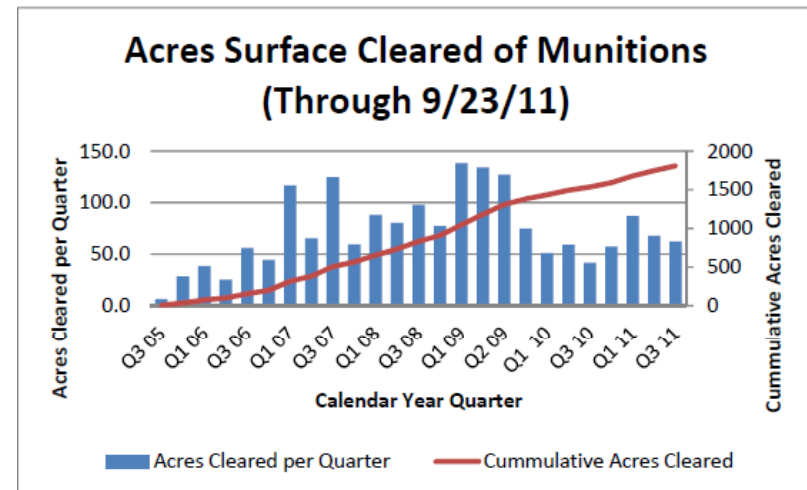




# Progress of Surface Clearance Of MEC - East Vieques (through 10/30/11)

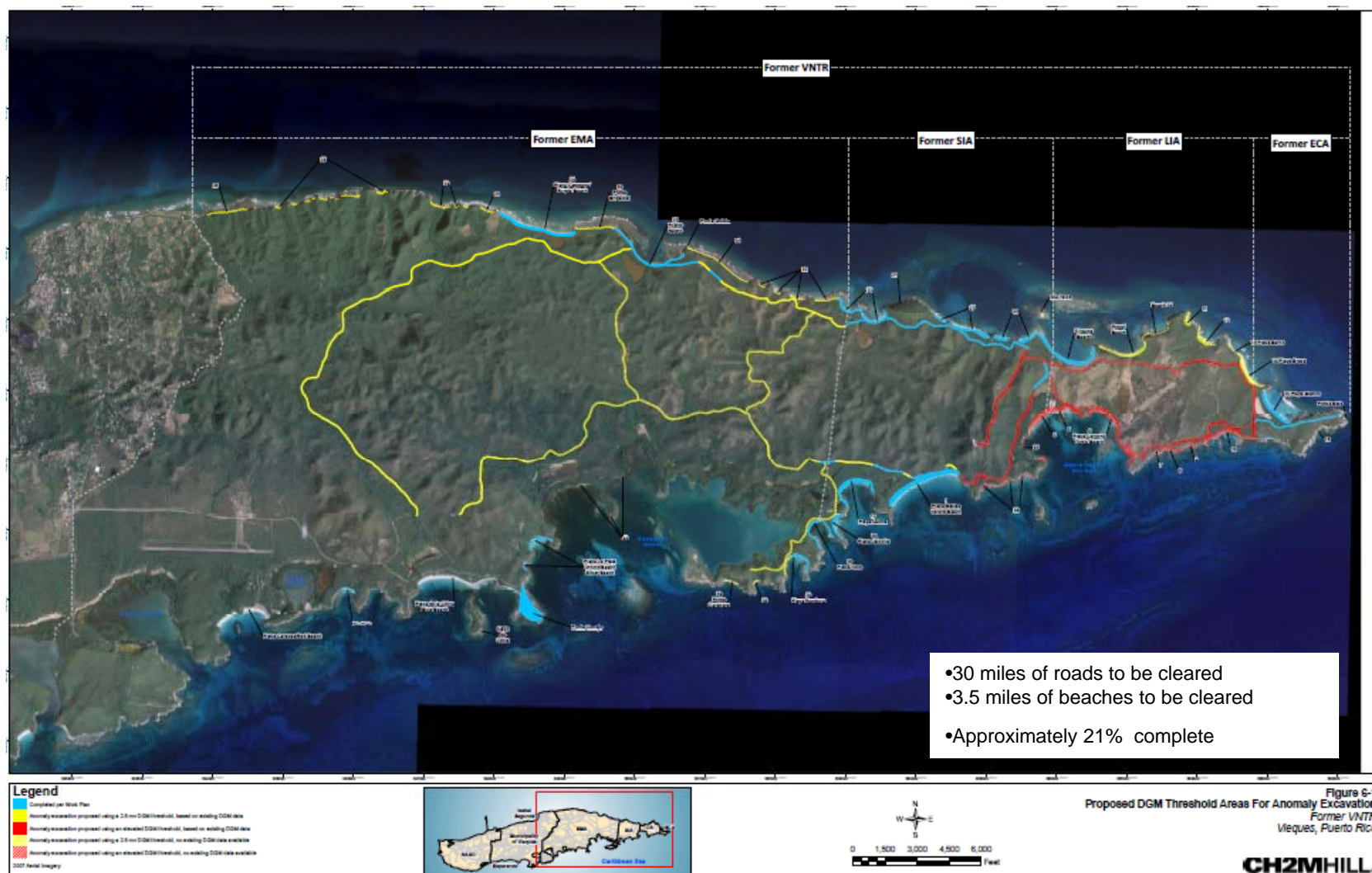


- 1,817 acres have been surface cleared of munitions
- 37,053 munitions items have been removed and destroyed
  - 7,269 bombs
  - 12,797 sub-munitions
- The Interim Removal Action is projected to be complete in 2016
  - Total of 2,880 acres to be surface cleared
- Estimated to reduce the explosive safety risk at the surface by over 95%
- The sub-munitions area is estimated to contain 44% of the remaining explosive safety risk
  - But only 6% of the land area that still needs to be cleared of MEC





# Progress of Subsurface MEC Clearance at Roads and Beaches - East Vieques



# Progress of Subsurface MEC Clearance from Roads and Beaches - East Vieques



- **Approximately 28,000 anomalies (metallic objects) and 1,350 MPPEH items have been excavated**
- **Geophysical surveys indicate approximately 131,000 anomalies and 6,500 munitions items remain in the subsurface roads and beaches**
- **Approximately 21% of the subsurface excavations have been completed**

## Subsurface Excavation of Anomalies

