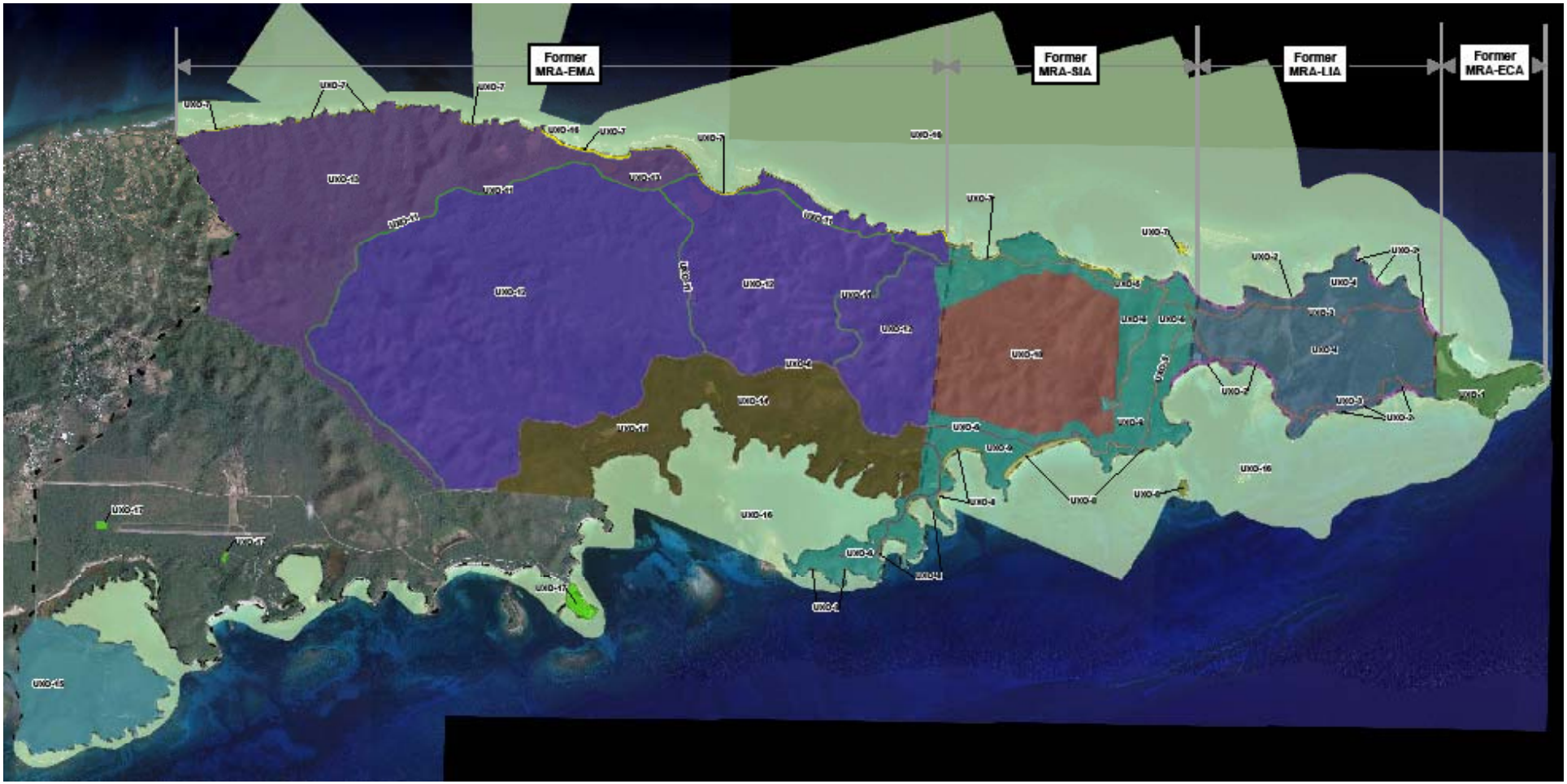
Vieques
Restoration Advisory Board Meeting
Environmental Restoration Program Update

August 2011

Eastern Conservation Area
Remedial Investigation
Preliminary Results

East Vieques Munitions Sites



ECA

Investigation Approach

- **Collected 27 incremental surface soil samples**
- **Collected 24 discrete surface and subsurface soil samples**
- **Collected 5 surface water and 15 sediment samples**
- **Analyzed all samples for explosives including perchlorate and metals (inorganics)**

Collecting Incremental Surface Soil Samples

Collecting Discrete Soil Samples

Explosives Results in Incremental Soil Samples

- **No detections above risk-based screening levels**
- **Only 13 explosives detections (out of 486 analyses)**
  - **8 perchlorate detections**
    - Detects: 0.27 to 1.6 ug/kg
      - Human health risk-based screening level = 72,000 ug/kg
      - Ecological risk-based screening level = 1,000 ug/kg
  - **5 other explosive detections**
    - Max Detect (98 ug/kg) for nitrobenzene
      - Min Screening Level is 2,260 ug/kg

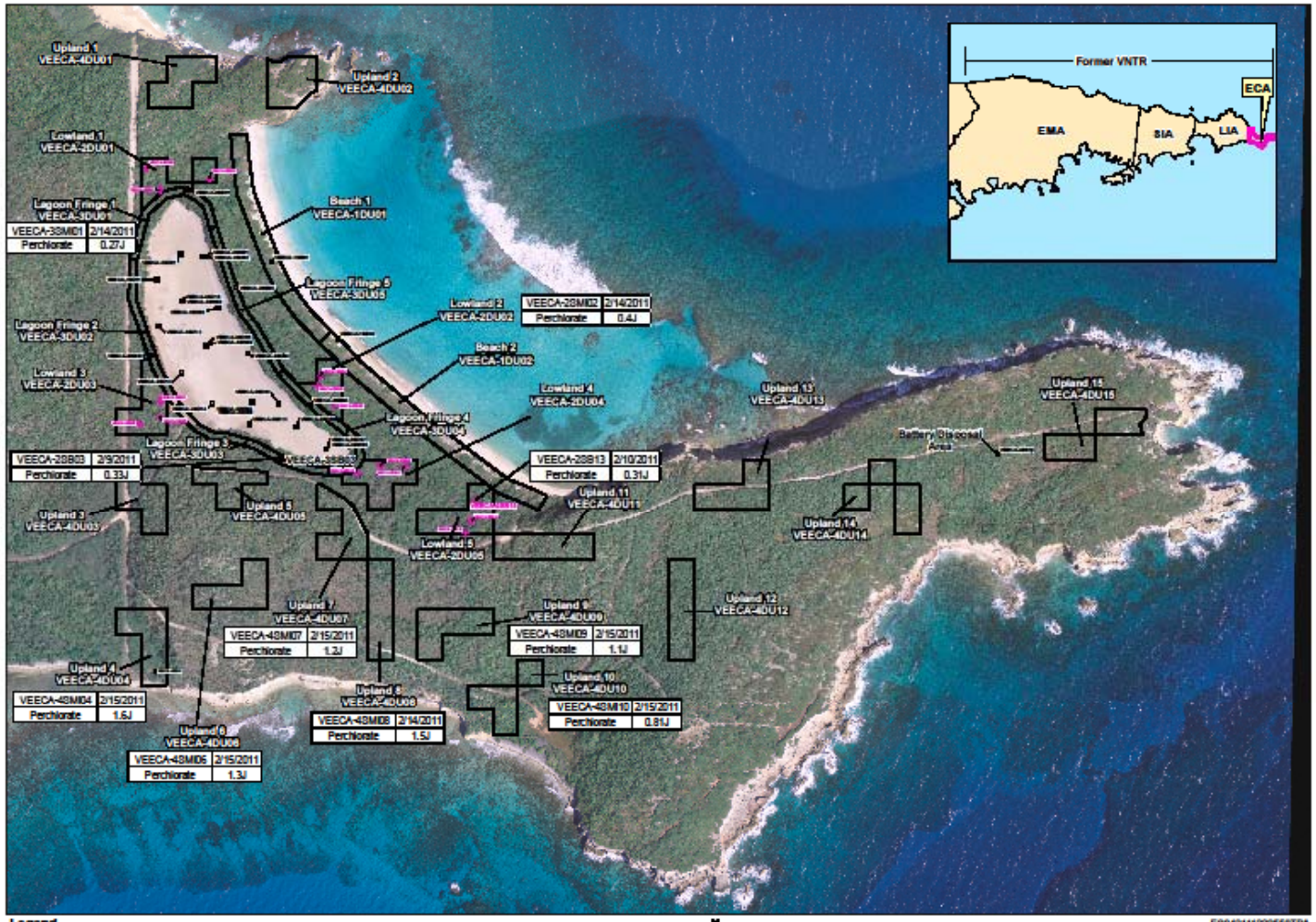
Explosives Results in Discrete Soil Samples

- **No detections above risk-based screening levels**
- **Only 3 explosives detections (out of 414 analyses)**
  - **2 perchlorate detections**
    - Detects: 0.31 and 0.33 ug/kg
    - Max Detect (0.33 ug/kg)
      - Human health risk-based screening level = 72,000 ug/kg
      - Ecological risk-based screening level = 1,000 ug/kg
  - **1 other explosive detection**
    - Tetryl at 40 ug/kg
      - Human health risk-based screening level = 250,000 ug/kg
      - Ecological risk-based screening level = 10,000 ug/kg

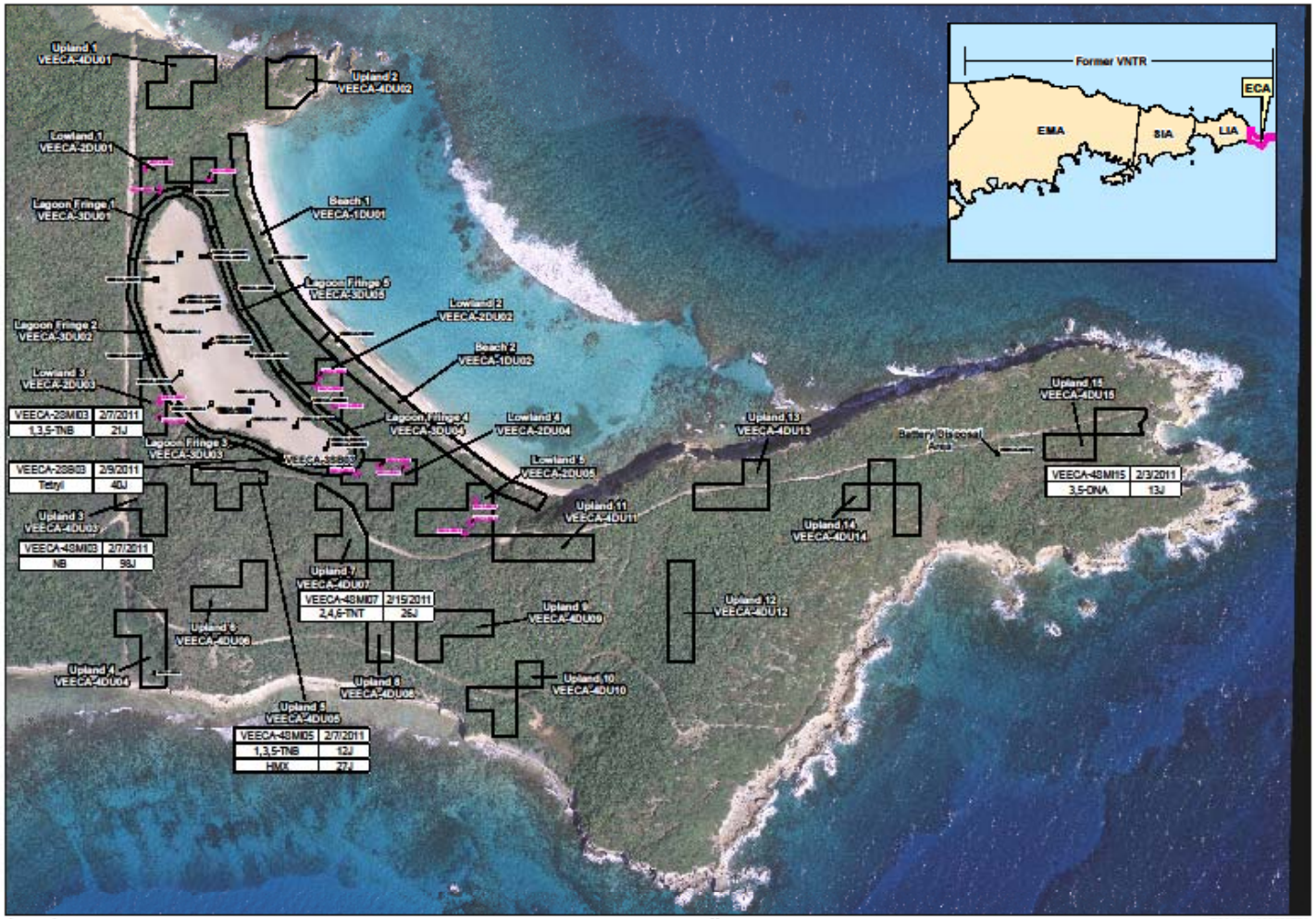
Explosives Results in Surface Water and Sediment Samples

- **No explosives detections**

Perchlorate Detections



Other Explosives Detections



Metals in Soil and Sediment

- **In general, the only inorganic observed consistently above background is arsenic. Its relatively uniform distribution across the site (together with the fact that arsenic is not associated with munitions) suggests it is likely associated with local background.**

Next Step

- **Use the data to conduct human health and ecological risk assessments**
- **Document the findings in a Remedial Investigation Report**

Questions?