

# Vieques Restoration Advisory Board Meeting Environmental Restoration Program Update

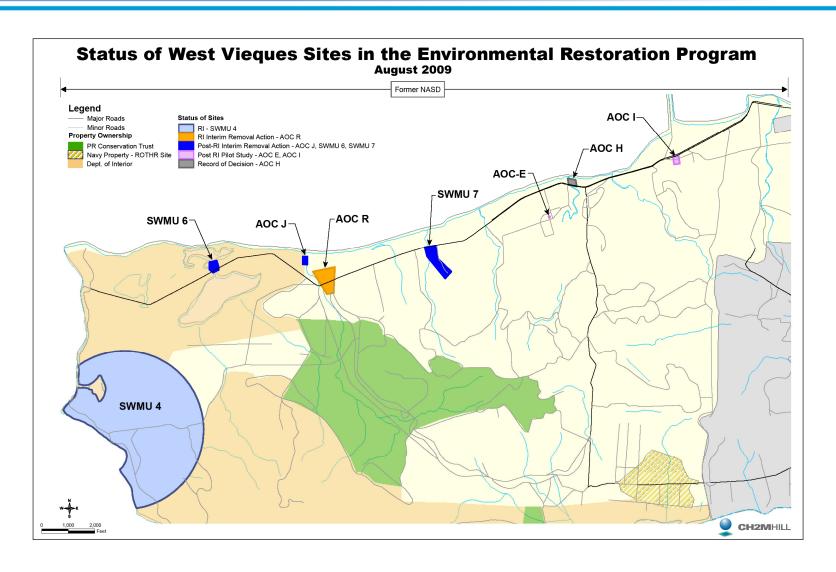
October 2010



Western Vieques

# **West Side Sites**





# **AOC E**



# Background

Former waste oil underground storage tank

# Findings:

- Relatively low levels of several, primarily petroleumrelated contaminants in groundwater
- No soil contamination posing unacceptable risk
- Potential for naphthalene to move from soil to groundwater
- If we take no action, contaminants will naturally decline to acceptable levels within 15 years

# Ongoing Actions

 Pilot Study underway to determine if the cleanup can be accelerated

# **AOC E – Injecting Oxidant into Soil**





# **AOCI**



# Background

Former asphalt plant

# Findings:

- Relatively low levels of several, primarily petroleumrelated contaminants in groundwater
- No soil contamination posing unacceptable risk
- If we take no action, contaminants will naturally decline to acceptable levels within 15 years

# Ongoing Actions

 Pilot Study underway to determine if the cleanup can be accelerated

# **AOC I – Injecting Oxidant into Groundwater**





#### **AOC J and SWMU 7**



### Background

Former waste disposal sites

#### Actions Taken

Removal actions completed in June 2009

#### Path Forward

No Further Action Record of Decision anticipated in FY11

# SWMU 7 - Before





# **SWMU 7 - After**





#### **SWMU 6**



# Background

Former waste disposal site

#### Actions Taken

- Removal action completed in June 2009
- Removal action altered site from land to lagoon

#### Path Forward

 Additional samples will be collected to evaluate new site conditions within the next year

# **SWMU 6 - Before**





2

# **SWMU 6 - After**





#### **AOC R**



### Background

Former waste disposal site

# Activities Completed

Removal action and field investigation completed in 2009

#### Path Forward

- Remedial Investigation Report in 2011
- No Further Action Record of Decision anticipated in 2011

#### SWMU 4



# Background

Former open burn/open detonation site

# Activities Completed

- Remedial Investigation sampling of soil, groundwater, surface water, and sediment completed
- Draft Remedial Investigation Report prepared

#### Path Forward

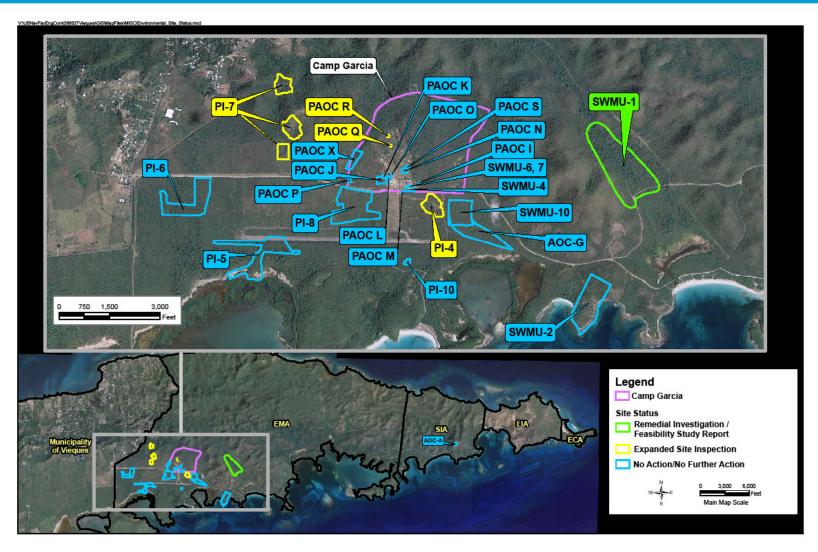
 Findings of Draft Remedial Investigation Report being discussed among the agencies to determine the appropriate path forward (for example, feasibility study, additional sampling, etc.)



Eastern Vieques

# **East Side Sites**





#### **36 Environmental Sites**



#### For 31 of the sites:

- Site Inspection completed
- Final No Action/No Further Action Decision Document issued

SWMU 2	SWMU 4	SWMU 5	SWMU 6	SWMU 7
SWMU 8	SWMU 10	SWMU 12	AOC A	AOC F
AOC G	PI 5	PI 6	PI 8	PI 10
PI 11	PI 20	PAOC I	PAOC J	PAOC K
PAOC L	PAOC M	PAOC N	PAOC O	PAOC P
PAOC S	PAOC T	PAOC U	PAOC V	PAOC W
PAOC X				

# The Remaining 5 Sites



- SWMU 1 Former Camp Garcia Landfill
- PAOC Q Former Boiler Room in Heat Plant Building 607
- PAOC R Former Boiler Room in Heat Plant Building 617
- PI 4 Former Helicopter Maintenance Area, Trenched Area, Disturbed Area, and Bermed Areas used for Fuel Bladder Storage
- PI 7 Former Quarry, Tar Drum Disposal Area, and Radar Communication Area

#### **SWMU 1**



### Background

 41-acre trench-and-fill landfill used from 1954 to 1978 for municipal-type waste

### Findings

 PA/SI data and regulatory guidance indicate site should proceed through Streamlined RI/FS and presumptive (containment) remedy

#### Path Forward

- Streamlined RI/FS submitted to regulatory agencies in October 2010
- Presumptive remedy (containment) Record of Decision anticipated in 2011

#### PAOC Q/R



# Background

 Former boilers; demolished in 1984; no known or suspected releases

# Findings

PA/SI sampling performed in mid-2010

#### Path Forward

Evaluate data to determine appropriate path forward

#### **PI 4**



# Background

Multiple uses and potential contaminant sources

# Findings

- Relatively low levels of several, volatile organic compounds (VOCs) in groundwater
- No soil contamination posing unacceptable risk

#### Path Forward

- Completed third round of SI groundwater sampling in mid-2010 to evaluate trend
- Evaluate data to determine appropriate path forward

#### **PI 7**



# Background

Former quarry (area still under study)

# Findings

- Single detection of semi-volatile organic compound in soil above human health risk level
- Data nearly 10 years old

#### Path Forward

- Re-sampled area in mid-2010 to determine current soil concentrations
- Evaluate data to determine appropriate path forward

# Former Munitions Sites Under Investigation for Contamination



- To date, munitions sites have been investigated only for presence of munitions and explosives of concern (MEC)
- Once the MEC investigations and/or actions have proceeded sufficiently, investigations for contamination in environmental media (e.g., soil) can take place, if warranted
- The four sites listed on the next slides are the first to move from the MEC-focused to the contaminant-focused process

# Former Munitions Sites Under Investigation for Contamination



- UXO-1 (Eastern Conservation Area)
  - Work Plan for RI anticipated to be finalized and implemented in 2011
- UXO-13 (Eastern Maneuver Area West)
  - RI Work Plan development to begin in December 2010

# Former Munitions Sites Under Investigation for Contamination



# UXO-15 (Puerto Ferro)

 Work Plan for Site Inspection anticipated to be finalized and implemented in 2011

# UXO-17 (Other Sites)

- No Action Decision Document for PI 14 and PAOC
   FF anticipated to be finalized in 2011
- Work Plan for Preliminary Assessment/Site Inspection at PAOC EE to be completed and implemented 2011

# **Upcoming Documents for RAB Review**



#### 4<sup>th</sup> Calendar Quarter (October – December) 2010

- Draft Final Remedial Investigation (RI) Report for west Vieques
   AOC R
- Draft Final Post-Removal Risk Assessment Report for west Vieques AOC J and SWMU 7
- Draft Final Work Plan for supplemental post-removal confirmatory sampling at west Vieques SWMU 6
- Draft Final RI Work Plan for Eastern Conservation Area

#### 1st Calendar Quarter (January – March) 2011

- Draft Final No Action Decision Document for east Vieques PI 14 and PAOC FF
- Draft Final Preliminary Assessment/Site Inspection (PA/SI) Work
   Plan for east Viegues PAOC EE



# **Questions?**