

Restoration Advisory Board (RAB) Meeting

Former Naval Station Roosevelt Roads
Ceiba, Puerto Rico

October 25, 2007



Tonight's Agenda

Welcome and Introductions Action Items from August Meeting RAB Members' Topics

- Utilities and Residual Contamination
- Piñeros Island
- Role of State Agencies in Cleanup

What's New

- Covenant Deferral Request
- Hospital/Conservation FOST
- Roosey-roads.com

Recreation in Conservation Areas

Break (7:15 – 7:30 pm)

- Overview of Selected Sites: SWMUs 9, 27, 28, 29, 68
- RAB Charter update
- Other public comments and questions
- Planning the next meeting and closing

Mark Davidson, Navy Co-Chair
Mark Davidson

Jeff Meyers, Navy

Jorge Baez, PRCT

Mark Kimes, Baker Environmental
Susana Struve/CH2M HILL
RAB members and visitors
Susana Struve



Action Items from Last Meeting

Action Item	Status
Navy: Provide a list of upcoming documents for the RAB members to identify where they would like technical assistance.	<i>Completed</i>
Navy: Provide information about SWMU 46 and AOC C, where RAB Member Ismael Velásquez believes that transformers contaminated the soil with PCBs.	<i>Completed</i>
Navy and RAB Members: Develop and sign the Roosevelt Roads RAB Charter.	RAB members to meet internally to discuss the proposed changes, respond to the Navy, or finalize if they are in agreement.



Action Items from Last Meeting

Action Item	Status
Navy: Provide more information about suspicions that a cache of ammunition had been covered over (vegetated mound observed in the magazine area, during the RAB March 2007 site tour).	Ongoing
Lilyana Betancourt: to share with Navy her list of buildings/facilities she believes are affected by contaminants.	Awaiting list
Navy: Provide technical presentations for each of the sites under investigation (found on the deliverables list).	Ongoing (SWMUs 9, 27, 28, 29, and 68 to be presented tonight)



Action Items from Last Meeting

Action Item	Status
Ismael Velázquez: Provide information about a spill he witnessed at Pole Yard.	<i>Completed (EPA assigned this release as SWMU 78)</i>
Neida Pumarejo Cintrón: Provide information about recreational activities that will be compatible with the conditions of the mangroves.	<i>Presentation provided tonight</i>
LRA: Request Department of Natural Resources (DNER) participation in RAB meetings.	<i>Completed</i>
LRA: Take RAB member (Rafael Montes) to the dry area across the bay, identify the place and respond to his concerns.	<i>Ongoing</i>



RAB Members' Topics (from August meeting)

Mark Davidson, Navy Co-Chair

October 25, 2007



Utilities & Residual Contamination

- **Utilities at NAPR have been investigated/evaluated during their lifetime.**
 - Phase I and Phase II Inflow/Infiltration Study of the Basewide Sanitary Sewer System
 - *Corrective measures including pipeline replacement, manhole repairs, etc... were performed as a result of this study.*
 - Monitoring of regulated stormwater outfalls
 - *Attached image shows drainage boundary associated with regulated Outfall 015.*



Mothballing fuel tanks and piping

- **Twenty-seven (27) Defense Energy Support Center (DESC) tanks were emptied, cleaned, degassed, capped and deactivated as of July 15, 2005.**
 - aboveground storage tanks (ASTs)
 - cut and cover tanks (tanks covered by soil)
- **All interconnecting piping serving the tanks were drained and excess fuel was removed by mechanical pigging.**
 - Pigging: cleaning out the pipes by pushing a plug through, to remove any remaining fuel that was not drained by gravity.





OUTFALL 014

OUTFALL NR-018

OUTFALL NR-019

OUTFALL 015

OUTFALL NR-020

15" Opening and 12" Opening

12"

12"

8"

12"

12"

12"

12"

12"

48"

48"

15"

15"

18"

18"

12"

15"

8"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

36"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

12"

Fuel Pipelines and Hydrant Pits (SWMU 74)

- **A CMS Investigation is proposed for the fuel lines, hydrants, and valve pits at NAPR (next slide).**
- **Phase I CMS Investigation:**
 - Investigate approximately 40,000 feet of pipeline, sampling every 100 ft for approximately 400 soil borings
 - Sample another 54 soil borings at the 27 valve pit locations
 - Sample groundwater at areas of suspected contamination and approximately one out of every 10 soil boring locations
- **Phase II CMS Investigation:**
 - Delineate any contamination identified during Phase I





- LEGEND**
- ⊕ - SUBSURFACE SOIL AND GROUNDWATER SAMPLE LOCATION (ECP 2004)
 - - SUBSURFACE SOIL SAMPLE LOCATION (ECP 2004)
 - - TANK FAILED INTEGRITY TEST
 - - TANK AREA IMPACTED BY TVHC
 - - VALVE PIT IMPACTED BY TVHC
 - - PIPELINE/OTHER IMPACTED BY TVHC
 - JP-5 PIPELINE
 - DFM PIPELINE
 - SWMU BOUNDARY

FIGURE 1-3
ECP SAMPLE LOCATION MAP
SWMU 74-FUEL PIPELINES AND
HYDRANT PITS
CMS WORK PLAN
NAVAL ACTIVITY PUERTO RICO





Piñeros Island Update

- **November/December 2007: Submit documents**
 - Explosive Safety Submission (ESS) to Naval Ordnance Safety and Security Activity (NOSSA)
 - Fieldwork Workplan to BRAC Cleanup Team and other regulators for review
 - *National Marine Fisheries Service*
 - *U.S. Fish and Wildlife Service*
- **January/February 2008: Conduct fieldwork**
 - After turtle nesting season, because there will be digging along the four beaches



Role of State Agencies in Cleanup

- **EQB is a member of the BRAC Cleanup Team (BCT)**
 - Reviews and comments on documents
 - *Piñeros Munitions and Explosives of Concern (MEC) investigation*
 - *Community Environmental Response Facilitation Act (CERFA) Clean*
 - *Findings of Suitability to Transfer (FOSTs)*
 - *Covenant Deferral Request (CDR)*
 - *Other select RCRA documents*
 - *RCRA 7003 Order on Consent*
 - Provides input/guidance on environmental issues



Role of State Agencies in Cleanup, cont'd.

- **Puerto Rico Dept. of Natural Resources (PRDNR)**
 - Provides input on the Piñeros Island approach
- **NOTE: Primary oversight of the RCRA corrective action program is EPA**



What's New

Jeff Meyers, Navy

October 25, 2007





What's New

- **Conservation Transfer**
- **Hospital Transfer**
- **Clinic Transfer**
- **DHS Transfer**
- **Mangroves Restoration**



Hospital/Conservation Transfers

- **Navy assigned Conservation Property to Department of Interior (DOI)**
 - DOI will issue quitclaim deed to PRDNER
- **Hospital FOST signed**
 - Public Benefit Conveyance (PBC) application under review by Department of Health and Human Services (DHHS)
 - After approval, Navy will assign property to DHHS
 - DHHS will then issue quitclaim deed to Servicios de Salud Episcopales, Inc.





Clinic Transfer

- **PBC approved**
- **FOST reviewed by EQB**
- **FOST signature and property transfer expected in the next couple of months**



Department of Homeland Security (DHS) Transfer

- **Parcel near Tow Way Fuel Farm**
- **No environmental sites**
- **DHS will accept property with restrictions**
- **Fed-to-fed transfer document under review by DHS**





Mangroves Restoration

- **Channel widened**
- **Bridge completed**
- **Navy will fund and conduct 3 to 5 years of monitoring**



Overview of Selected Sites

SWMU 9

Tanks 212 through 217
Sludge Disposal Pits





Background – SWMU 9

- Recommended for a full RCRA Facility Investigation (RFI) -1994
- Cut-and-cover storage tanks were constructed in the 1940s for fuel storage
- Six tanks and pipelines with support facilities were constructed in three areas: Area A, Area B, and Area C





Background – SWMU 9 (cont.)

- Prior to 1978, sludge from tank cleaning was disposed of in unlined earthen pits adjacent to the tanks.
- All tanks were cleaned and taken out of service in 2005.









Work Conducted at SWMU 9

- Three phases of RFI were conducted: Phase I (April 1996), Phase II (March 1998), and Phase III (March 2000).
- Corrective Measures Study (CMS) Work Plan with Screening Level Ecological Risk Assessment (ERA) (Steps 1 and 2) and the Baseline ERA (Step 3a).



Work Conducted at SWMU 9 (cont.)

- Corrective Measures Study (CMS) Investigation was conducted on surface soil from Area B and surface water and sediment from Areas A, B, and C and the estuarine wetland background and reported in April 2003.
- Additional Data Collection was conducted on surface soil from Area B and sediment from Area A and B and reported in June 2004.
- Navy recommended to the EPA the need for Interim Corrective Measure to excavate lead contaminated surface soil from three areas at Area B to mitigate the risk to human health receptors in letter dated 11/03/2004.



Work Conducted at SWMU 9 (cont.)

- Interim Corrective Measure was implemented in Spring of 2006 to remove lead contaminated surface soils from three areas at Area B.
 - **Discovered petroleum contaminated soils during the excavation at one of the three areas.**
- The Baseline ERA has been suspended until the characterization of this petroleum contamination is completed.



Work Conducted at SWMU 9 (cont.)

- Phase I RFI Investigation for Area B Tank 214 Area soil, groundwater and sediment was conducted in March 2007.
- Following EPA recommendation a Full RFI Work Plan for Area B Tank 214 Area is to be developed.



Overview of Selected Sites

SWMUs 27, 28, and 29

Wastewater Treatment Plant Sludge Disposal
Pits





Background of SWMU 27

- SWMU 27 is the Sludge Drying Beds at Capehart Sewage Treatment Plant, which treats domestic sewage.
- The sludge is not considered to be hazardous.
- SWMU 27 was identified in the RCRA 7003 Administrative Order on Consent as a site requiring an RFI.
- Phase I RFI was conducted on soil and groundwater in 2006.







Investigation and Findings

- Surface soil sampling at six locations, and subsurface soil sampling collected at one depth from three borings adjacent to the sludge drying beds.
- Installation of three temporary monitoring wells at the three borings and groundwater sampling.
- Arsenic and zinc in surface soil and arsenic in subsurface soil exceeded human health screening levels.
- Barium was found in the groundwater downgradient of the sludge drying beds, adjacent to ocean water.
- The Phase I RFI Report (April 2007) recommended a full RFI. Groundwater was not recommended because of the low yield of the aquifer.





Future Work

- A Full RFI will be conducted at SWMU 27 upon approval of the August 2007 work plan submitted to the USEPA.
- Based on USEPA comments, the investigation will include:
 - **Delineation of the soil and groundwater contamination for metals around the sludge drying beds.**
 - **Further evaluation of the solvent contamination upgradient of the sludge drying beds.**





Background of SWMU 28

- SWMU 28 is the Sludge Drying Beds at the Bundy Wastewater Treatment Plant, which treats domestic sewage .
- The sludge is not considered to be hazardous.
- SWMU 28 was identified in the RCRA 7003 Administrative Order on Consent (January 2007) as a site requiring an RFI.
- Phase I RFI was conducted on soil and groundwater in 2006.







Investigation and Findings

- Surface soil sampling at nine locations adjacent to the sludge drying beds; subsurface soil sampling at four locations in the eastern and southern portions.
- The installation of three temporary monitoring wells at three boring locations, and groundwater sampling.
- A PCB compound (Aroclor 1260) was detected in the surface soil at four of the nine locations, it exceeded its human health screening value at one location only.
- Several inorganic compounds exceeded human health and ecological screening values, as well as their background concentrations in both the surface soil and groundwater media.
- The Phase I RFI report (March 2007) recommended a Full RFI Investigation in order to delineate the site contamination above background levels in both surface soil and groundwater, as well as evaluate the potential for human health and ecological risk.



Future Work

- A Full RFI will be conducted at SWMU 28 upon approval of the August 2007 work plan submitted to the USEPA.
- Based on USEPA comments, the investigation will include:
 - **Surface soil sampling at eleven locations for delineation of PCBs and metal contamination around the sludge drying beds.**
 - **Subsurface soil sampling at five of the eleven locations for vertical delineation of metals contamination.**
 - **Groundwater sampling upgradient and downgradient of the sludge drying beds to delineate the extent of metals contamination.**





Background of SWMU 29

- SWMU 29 is the Sludge Drying Beds at the Industrial Area Wastewater Treatment Plant, which has been in operation since 1963.
- The sludge was tested and found to be non-hazardous.
- SWMU 29 was identified in the RCRA 7003 Administrative Consent Order (January 2007) as a site requiring an RFI.
- A Phase I RFI was conducted on soil and groundwater in 2006.







Investigation and Findings

- Surface soil sampling at eight locations adjacent to the sludge drying beds; and subsurface soil sampling at six locations.
- The installation of four temporary monitoring wells in four of the six soil borings and groundwater sampling.
- Several metals exceeded screening criteria and background levels on the eastern/western sides of the drying beds.
- The subsurface soil did not exhibit any exceedances of the human health or ecological screening criteria.
- No significant contamination was found in the groundwater at the site.
- The Phase I RFI report (April 2007) recommended a Full RFI Investigation. No investigation of groundwater was recommended based on the findings.



Future Work

- A Full RFI will be conducted at SWMU 29 upon approval of the August 2007 work plan submitted to the USEPA.
- Based on USEPA comments, the investigation will include:
 - **A total of eight surface soil samples and forty subsurface soil samples will be collected at eight locations to delineate the vertical extent of metals contamination.**
 - **Five soil borings are located along the eastern edge of the sludge drying beds to provide additional data for the extent of contamination.**
 - **Three additional soil borings are located along the western edge of the sludge drying beds within a drainage area to further investigate the migration pathway.**



Overview of Selected Sites

SWMU 68

Former Southern Fire Training Area





Background of SWMU 68

- SWMU 68 is an open area southwest of the Ofstie Airfield.
- Fire training was conducted during the '50s and '60s.
- Aerial photos showed the area that was disturbed during the fire training.
- SWMU 68 was recognized in the RCRA 7003 Administrative Order (January 2007) as a site that required an RFI.







Investigations and Findings

- An Environmental Condition of Property investigation by the Navy in 2004 showed metal- and fuel-related (diesel) contamination in soil.
- A Phase I RFI (reported in March 2007) confirmed metal contamination in soil. A removal of lead- contaminated soil is recommended to address ecological concerns.
- Phase I RFI did not find significant arsenic contamination in soil; however, based on USEPA's comments (July 20, 2007), additional surface soil investigation was recommended to ensure delineation of arsenic in the surface soils.
- Additional surface soil samples were collected for analysis of arsenic in September 2007. Laboratory analysis is ongoing. Phase I RFI Report will be revised to include the results from this additional sampling.



Questions between meetings

Mark Davidson or David Criswell

**Navy BRAC Program
Management Office Southeast**

4130 Faber Place Dr, Ste 202
North Charleston, SC 29405

Teléfono: 843-743-2135 (Davidson)
843-743-2130 (Criswell)
Fax: 843-743-2142

Correo electrónico/email:
mark.e.davidson@navy.mil
david.criswell@navy.mil



Josefina A. González or Wilmarie Rivera

Junta de Calidad Ambiental

Edificio de Agencias Ambientales Cruz A.
Matos
Urb. San José Industrial Park
1375 Avenida Ponce de León
San Juan, PR 00926-2604

Teléfono: 787-767-8181 x 6141
(González)

Correo electrónico/email:

Josefinagonzalez@jca.gobierno.pr
wilmarierivera@jca.gobierno.pr

