



Vieques Investigation and Cleanup NAVFAC Atlantic

Restoration Advisory Board (RAB)

Meeting #27
Wednesday, October 27, 2010
Lighthouse - Vieques

Attendees:

Silvimaire Morales Aponte - visitor	Colleen MacNamara – RAB member
Mike Barandiaran – USFWS	Lirio Márquez – RAB member
Mitsuka Bermudez - resident	Sandy Martínez – Fulton Communications
Wanda Bermudez – RAB member	Soledad Martínez - visitor
James Brantley – Navy	Doug and Marikay McHoul - residents
Michael Pablo Connelly	Stacie Notine – RAB member
Gerardo and Donna Cisneros - residents	Jorge Fernández Porto – RAB member
Kevin Cloe – Navy	Daniel Rodriguez - EPA
Michael Díaz – RAB member	Madeline Rivera – Navy
Brett Doerr - CH2M HILL	Wilmarie Rivera - EQB
Haronid Cruz Félix - visitor	Janice Robles - visitor
Keith Fulton – Fulton Communications	Wilberto Saldaña - resident
Abigail González – visitor (Vieques Legislative Assembly)	Susana Struve – CH2M HILL
Lisette Flores González - visitor	John Tomik – CH2M HILL
Daniel Hood – Navy	Tim Wenk – CH2M HILL

1. Welcome and Introductions

Kevin Cloe (Navy Co-chair) provided an introduction and a brief overview of the presentation agenda and presenters.

2. Environmental Quality Board Update (EQB)

Wilmarie Rivera (EQB) presented an update on EQB's participation in regulatory oversight activities.

- Wilmarie mentioned the Governor's Site Visit to Vieques on August 2, 2010 including the following government representatives
 - Hon. Luis G. Fortuño, Governor of Puerto Rico
 - Hon. Pedro R. Pierluisi, Resident Commissioner
 - Mrs. Judith A. Enck , EPA Regional Administrator
 - Hon. Evelyn Delorme, Vieques Mayor
 - Pedro J. Nieves, Esq., PREQB President
 - Mr. Daniel Galán, DNRE Secretary
 - Agro. Javier Rivera, PR Department of Agriculture Secretary

- A Site Visit to East Vieques on September 30, 2010 which started in Camp Garcia to meet MEC and Quality Managers. The following sites and activities were observed:
 - En el SIA WAD 38 to observe Team 6 performing surface clearance
 - Beach 22 Target Area to observe PIKA removing a target
 - Road subsurface clearance where we observed the inactive work site where a mortar was found in the road
 - Yellow Beach to observe geophysical data collection in an area that is both a road and beach buffer area.

Following the field visit we returned to Camp Garcia to review operational and quality control documentation. PREQB determined that the surface clearance of items such targets, subsurface excavation and field geophysics data collection is being performed in accordance with the work plan.

- Other activities included: Documents Reviews; Participation in Technical Subcommittee Conference Calls and Technical Subcommittee Meetings (the last one in July 2010 in New York).
- Wilmarie also announced that EQB will be participating in the outreach event scheduled for October 28.

3. U.S. Fish and Wildlife Update (USFWS)

Mike Barandiaran presented an update of the recent USFWS activities including: the status of the unique vegetation map, the construction of a greenhouse.

- Mike provided brief updates on several USFWS activities:
 - Vieques USFWS personnel and members of TICATOVE (local community based conservation NGO) presented information about the status of reptiles and amphibians species within the Vieques National Wildlife Refuge (VNWR), at the 3rd Puerto Rico Herpetology symposium at the University of PR in Arecibo. The USFWS presentation focused on the cooperation and partnerships between the agency, TICATOVE, the Vieques, Historical and Conservation Trust, The Navy (NAFVAC), University of PR and a number of other agencies. A total of three presentations were made.
 - This year has been a record year for green turtles on Vieques. Because Vieques has the largest occurrence of green turtles in PR, being able to document and manage this is a major accomplishment. More than 360 nests so far were found on beaches throughout Vieques. A poster about this will be on display touting this accomplishment and providing information about the species. The Navy has been a valuable partner in this effort providing training and UXO (unexploded ordnance) avoidance support to USFWS personnel to help them continue with conservation of the species and refuge management activities.

1. **Question:** In previous meetings there was a discussion of changing the munitions response methodology for the sensitive areas. Has this method been put into writing or has there been a documented change?

- Mike Barandiaran (USFWS) explained that some of the issues related to the vegetation clearing on the Eastern Conservation Area (ECA) were not a result of the agencies not understanding the ecology of the area but rather due to miscommunication among the agencies as to the level of the of vegetation removal and the methodology that was to be used to accomplish that task. USFWS knows what kind of vegetation is present; we have used biological experts to investigate the former range areas in the past. USFWS also has been working with current natural resource experts. Moving forward, USFWS is going to try to bring in additional people from the University of Puerto Rico (UPR) and employ other experts to investigate these areas. USFWS is looking to contract Dr Gary Breckon a former UPR professor, who is the botanist most familiar with that area.
- Daniel Hood (Navy) – The Navy deferred to USFWS’s assessment of the area before working there because FWS is the landowner.
- Mike B. (USFWS) – The USFWS has copies of all the studies and vegetation classifications made by Cintron, Proctor, GeoMarine and others; as well as vouchers collected for all the plants that are known to occur in Vieques. There is also a cooperative work being done with the UPR for a GIS vegetation cover map of the entire refuge. Therefore, when USFWS personnel go out to the areas on a regular basis, they are looking for specific, rare, unrecorded or threatened and endangered (T&E) species. In general, assessment of habitat areas does not include a detailed assessment of every plant species. The Navy will be conducting biological assessments (BAs) before working in any area, and USFWS has already identified areas for protection and further flora and fauna investigation. As an example, at Site UXO 13 (north-westernmost area of the former Vieques Naval Training Range -VNTR) the Navy is going to have a team of biologists work with USFWS personnel to investigate the area before any clearing work is performed at the site. If some T&E species or unique habitat is found, the cleanup in that area will need to be modified. If areas are identified that have only invasive species, the approach will be much simpler. So the areas will be investigated first, then the appropriate work approach will be selected, based first on safety and then on any unique characteristics of the vegetation.

2. **Question** - does the team of biologists include a specialist who will be able to identify sensitive areas such as the dry forests? What is the timeframe for the assessment?

- Mike B. (USFWS) – The BA team typically includes biologists from both the U.S. and Puerto Rico. The team will not necessarily need an expert in that habitat or areas, but it will need people who are capable of identifying unique and specific species that occur in those habitats. It is not necessary to have an expert to identify dry forest habitat areas; however

you do need experts for the identification of specific and uncommon species that occur in those habitats. As for a time frame, it all depends at what type of habitat we are looking at a mangrove forest or an area covered by invasives, will be much easier to assess than a large ravine. USFWS will take special measures if new species are discovered, independent of the Navy, to identify the existing species at the site. All of the plants identified on Vieques are mostly known. The Navy and USFWS are using BAs to identify what is out there and ways to improve the vegetation clearance processes. The timing of the BAs will depend on when the area is scheduled to be worked.

- Dan Hood (Navy) – The Navy is taking unique vegetation areas into consideration and asking the biologists to mark them. USFWS will then inspect the areas to see what is there. Together, the Navy and USFWS will generate a map with unique areas and species, then field check the map. The Navy is trying to avoid disturbing anything that is unique. The targeted timeframe for the BAs is at least a year before starting the munitions response work in the area. The investigation work plan and assessment reports have to be completed before starting the munitions work. The Navy is currently working on scoping for the area in UXO 13, for which the munitions response work is anticipated to begin in 2 to 2.5 years.

3. **Question:** There are areas on eastern Vieques that are similar to places in Puerto Rico. These areas have been handled in a specific way. Have you considered using the government of Puerto Rico's procedures for working in these areas? I am sure these agencies would be interested in helping with the work. Stacie Notine (RAB member) suggested that the Navy and USFWS talk to experts in Puerto Rico who are familiar with the flora and fauna.

- Daniel Hood (Navy) thanked Stacie for the suggestion and said outside sources will be consulted before starting the work in these areas.

4. **Question** - I just want to know if Dr. Gary Breckon is going to be available for us (RAB members) to talk to and what is the timeframe?

- Mike B. (USFWS) –USFWS is planning on creating a webpage based on all the plant identification and cataloging that was done by Dr. Gary Breckon over the past seven years in Vieques. This will provide the public with all the information it has about the flora on Vieques. Although that is the plan, USFWS is not completely sure as to the date when the information will be available but it will be sometime in 2011, neither we know how the webpage will be developed by the Service and the UPR. USFWS wants to work with other biologists at UPR who have been to Vieques and will ask them if they can come next semester and do an initial investigation in Vieques. This investigation will be used to establish permanent transects in the area before a baseline evaluation is conducted. USFWS will be building a greenhouse for growing plants found at the former range area; these plants will eventually be used to replant the areas that have been cleared.

- USFWS will be at the poster session on October 28 and will provide handouts that show the areas with sensitive habitats. Those who want this information but cannot attend the poster session can review it at USFWS offices. USFWS will use the information provided from the Navy's BAs and its own documentation to create a GIS layer that shows the sensitive areas. This will help avoid what happened in the past with regards working in sensitive areas such as the ECA.
- If the Navy identifies a sensitive area, it will investigate what is there, in conjunction with USFWS, and then decide on a methodology for clearing the area. This deliberation will include an evaluation of various alternatives and will be a collaborative effort among USFWS and Navy personnel and the regulators. USFWS also would like the public's input into this process because it can learn from the public about other known sensitive areas. Any information provided will be investigated, and feedback will be provided to the person as to whether or not the species is present where they say it is. For this interaction to occur and for the public to be able to provide feedback, the public will have to participate in the RAB meetings because it is not possible for the Navy or USFWS to go door to door.

5. Question/comment - The process of identifying sensitive areas should include someone from the community in addition to USFWS and the biologists so they can say for sure whether there is something there.

- Mike B. (USFWS) – In my opinion, the more people the better, but I don't know how that would work and I'm not sure what the process would be. I am not opposed to the idea but it could take some coordination due to the location where this would occur.
- Susana Struve (CH2M HILL) – We can discuss this later and will take it under consideration when conducting future work.
- Daniel Hood (Navy) – The Navy has set up a new process for working in sensitive areas, ultra-sensitive areas, and areas that the residents consider to be sensitive. The Navy is currently working with USFWS to establish a new map that shows areas known to be sensitive or contain T&E species and archeological areas. Before the munitions work is conducted in an area with a known sensitive habitat that has been identified either through a BA or by USFWS, onsite staff members visit the area with Mike B. The approach used to clear the area is based on the work plans approved by the regulators and the assessment made during that site visit - modified method, current method, or no work at all. The Navy is currently not working in sensitive areas, and there will be another meeting with USFWS to address how work will be conducted in sensitive areas that have been put aside. The goal of the meeting will be to decide whether new methods must be employed when working in these areas. If so, the Navy will modify its work plans as necessary to accommodate changes in the work approach. Also, before conducting work, the Navy will finalize the map showing sensitive areas and conduct BAs and archaeological surveys.

4. Environmental Protection Agency Update (EPA)

- Danny Rodriguez (EPA) provided an update on the activities on Vieques, including the environmental and munitions response sites. See attached presentation for more details.
- Danny discussed the Vieques Task Force development and the goal of the task force. He said that the Vieques cleanup process is taking too long and the community involvement to date has been poor. The role of the Task Force will be to identify areas where it can accelerate the cleanup process and gain more community participation and a larger audience. Increasing community involvement depends on all agencies in the Task Force, including the Navy. The Navy currently has written a community involvement plan that was approved by EPA and is the guidance to all activities with the public.

1. Question - What will this task force involve and when will the changes occur?

- Danny Rodriguez (EPA) - The Navy, EPA, EQB, federal and state agencies, Office of the Governor, and Vieques community members will be part of the group. Vieques and Culebra are the priority of the Task Force.

2. Comment - The impression I have (Jorge Porto Fernandez – RAB member) is that this Task Force will destroy the RAB. I don't know if the agencies acting together and the community members involved will be capable of replacing the RAB.

- Danny Rodriguez (EPA) - The Task Force could eliminate other meetings, such as the CTC, but it will not eliminate the RAB. Instead, it will be another platform that may create other venues for other agencies to distribute information to the public.
- Daniel Hood (Navy) – The Navy does not want to eliminate the RAB because it performs a vital function as part of the cleanup process. The EPA Regional Administrator have talked to people who previously refused to come to or participate in the RAB meetings and who believe the RAB is not reaching everyone it should. The Navy wants to do more community outreach events, in addition to the RAB meetings. The people involved in the Task Force are very high level—at our level we don't know specifics yet.

3. Question - When will the residents of Vieques see the fruit of the cleanup activities and how has the human factor been included?

- Danny Rodriguez (EPA) - Community participation is very important and we need people like you to spread information. There will be poster session tomorrow to discuss the work with the community. The fruits of the work are going to be on display and will show the progress of the cleanup. The information will include environmental sites and munitions sites. The

cleanup process takes time and there are many factors that must be taken into consideration when doing the work.

- Daniel Hood (Navy) – The long-term strategy is to clean up the site so it is safe to turn the land over to USFWS so it can be managed and used by the public. The plan is to start turning over the land within the next 10 years. This will benefit tourism and the fauna at the site.
- Mike B. (USFWS) – Not all of the agencies involved in the cleanup, and members of groups that work on the site are present at this meeting. For instance, there are groups that have been developed to work on conservation projects. USFWS hires 12 students each summer to work on FWS projects. The Vieques Conservation and Trust also has programs on conservation. So there are ways to get the community members involved.

Danny also briefly discussed:

- Lirio Marquez (RAB member) involvement with the Federal Facilities dialogue, which addresses contamination in federal areas and to solicit input from community members. The most recent meeting was the first meeting in 14 years to revisit the agreement/guidelines to see what has to be revised, reviewed, or continued. This dialogue will continue and the most recent meeting was only the second step.
 - The Vessel OSV Bold will be conducting an investigation in Mosquito Bay that will take place from November 10 to November 12. There will be an open house on November 22 for the community to see and tour the vessel.
 - Bioluminescent Bay Request For Proposals – Bids will be solicited for this project to reduce pesticide, sediment, and nutrient loading in Mosquito Bay. The bay is a priority for this administration in Vieques.
 - A local government advisory committee will be formed to provide advice and recommendations to the EPA's Regional Administrator.
- 1. Question** - Stacie Notine (RAB member): MTBE has been identified in groundwater at AOC E and is a contaminant in numerous municipal waters. This is a big problem in the US. I find it curious that this substance wasn't found earlier.
- Danny Rodriguez (EPA)- I don't have the details and this is a technical question. CERCLA does not typically address petroleum-related contamination; however, for Vieques it is included and is being addressed.
 - Kevin Cloe (Navy) – I don't have the information on hand but can discuss 1-on-1 during the outreach event if you want.

5. Environmental Restoration Program Update (Navy)

Kevin Cloe (Navy) provided a summary of the western and eastern environmental sites.

West Vieques

AOC E - Former waste oil underground storage tank. It has relatively low levels of several, primarily petroleum-related contaminants in the groundwater. No soil contamination presents an unacceptable risk, yet there is the potential for naphthalene to move from soil to groundwater. If we take no action, the contaminants will naturally decline to acceptable levels within 15 years. Currently a pilot Study is underway to determine if the cleanup can be accelerated.

AOC I - It is the former asphalt plant. It has relatively low levels of several, primarily petroleum-related contaminants in the groundwater. No soil contamination presents an unacceptable risk. If we take no action, the contaminants will naturally decline to acceptable levels within 15 years. Currently there is a pilot Study is underway to determine if the cleanup can be accelerated.

AOC J and SWMU 7 - Former waste disposal sites. The Removal actions were completed in June 2009. No Further Action Record of Decision is anticipated in FY11

SWMU 6 – A former waste disposal site. The Removal action was completed in June 2009. The removal action altered the site from land to lagoon. Additional samples will be collected to evaluate new site conditions within the next year

1. **Question** - After the excavation at SWMU 6, the lagoon expanded? What happened with the contaminants that were there? Were they flushed?
 - Kevin Cloe (Navy) – The purpose of the removal action was to remove the contaminated sediment and soil based on analytical results. Because the excavation extended to below the water table, the site is effectively an expanded lagoon now. There is nothing that would have prevented the contamination within the soil from washing out.
 - Brett Doerr (CH2M HILL) – The Navy is going to take samples from the lagoon and in the channel towards the ocean and the larger lagoon to see if the contamination has migrated offsite and is present at those locations.

2. **Question** - You removed materials that were dumped there. Was this a lagoon that was filled in previously? YES

3. **Question** - Was a study of crabs conducted at this site and SWMU 4 before the removal?
 - Danny Rodriguez (EPA) - A limited survey was conducted in Laguna Kiani that identified an issue with pesticides. NOAA studied crabs at SWMUs 4 and 6 and found ecological concerns but no human health concerns.

4. Question - Weren't PCBs found there or transformers that contained PCBs were thought to be there?

- Brett Doerr (CH2M HILL) – There was a small, isolated area with PCBs near this location that was not in the lagoon but on the south side of the road. A portion of this area was removed during the initial removal action but not all PCBs were removed. The Navy conducted additional sampling to determine the limits of the contamination and will have another removal action to completely remove the PCBs.

AOC R - Former waste disposal site. The removal action and field investigation completed in 2009. We expect to have the Remedial Investigation Report in 2011. No Further Action Record of Decision anticipated in 2011

SWMU 4 -Former open burn/open detonation site. The Remedial Investigation sampling of soil, groundwater, surface water, and sediment was completed and the Draft Remedial Investigation Report prepared. The findings of the Draft Remedial Investigation Report are being discussed among the agencies to determine the appropriate path forward (for example, feasibility study, additional sampling, etc.)

East Vieques

There are 36 environmental sites.

- For 31 of them the Site Inspection has been completed and the Final No Action/No Further Action Decision Document was been issued
- The 5 remaining sites are:

SWMU 1. A 41-acre trench-and-fill landfill used from 1954 to 1978 to discard municipal-type waste. The PA/SI data and regulatory guidance indicate that the site should proceed through Streamlined RI/FS and presumptive (containment) remedy. The Streamlined RI/FS was submitted to regulatory agencies in October 2010. Presumptive remedy (containment) Record of Decision is anticipated in 2011

5. Question - Have you found the edges/boundaries of the landfill?

- Kevin Cloe (Navy) – The edges have been identified through geophysical work and test pits.

6. Question - Do you have a way to contain the water that goes through the waste?

- Kevin Cloe (Navy) – The Navy has monitoring wells upgradient and down gradient of the landfill and the sample results do not show signs of leaching.
- Brett Doerr (CH2M HILL) – Several streams run by the landfill, and the Navy has tested the sediment in the creek to look for contaminants. There is no evidence of leaching. When the Navy finished its work the landfill was covered with 2 feet of soil.

7. Question - The wells you have are monitoring wells and this site was at one point in time it was described as a 200-acre site and now it is 41 acres. It is a concern to say that you are monitoring because you have just been sampling at irregular intervals. Are you really monitoring the entire site?

- Brett Doerr (CH2M HILL) – This area was never listed as a 200-acre site. At one time aerial photographs were used to show the size of the cleared area that was approximately 56 acres, but the test pitting and investigation narrowed it to 41 acres. The Navy has been monitoring the groundwater for several years at the site. Because the waste has been out there for 30-50 years, it is likely that the samples would show signs of a release. We have wells throughout the entire flow path – upgradient, in the waste, and downgradient. In terms of the number of wells, the spacing and number have been agreed to by the agencies and allow the team to get a true picture of what is going on at the site.

8. Question /Comment - The disposal area is one of the areas that required knowledge of where drilling should be performed. The RAB visited the site so its members could see the vegetation and extent of overgrowth. At that time, the RAB analyzed the proposed locations of wells and soil samples and agreed that they were correctly located. This visit allowed the RAB to understand the limits of the waste disposal and see where the samples were taken. I think that is one of the best areas in which the information exchange and RAV input has worked.

PAOC Q and R. Former boilers; demolished in 1984; no known or suspected releases
A PA/SI sampling was performed in mid-2010. The data will be evaluated to determine appropriate path forward

PI 4. – The site had multiple uses and potential contaminant sources. We found relatively low levels of several, volatile organic compounds (VOCs) in the groundwater. No soil contamination presents unacceptable risk. A third round of SI groundwater sampling was completed in mid-2010 to evaluate trend. The data will be evaluated to determine appropriate path forward.

PI 7 - Former quarry (area still under study). A single detection of semi-volatile organic compound was found in the soil above human health risk level. The data is nearly 10 years old. We will re-sample area in mid-2010 to determine current soil concentrations. The data will be evaluated 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

UXO-15 (Puerto Ferro). The work Plan for Site Inspection anticipated to be finalized and implemented in 2011

9. Question - Puerto Ferro site - Will the investigation be limited to where the pile of shells is?

- Daniel Hood (Navy) – The investigation will be conducted over the whole peninsula in any areas where munitions are suspected to be present. Some areas with munitions have already been identified, and the Navy is going to do geophysical work and test pitting at the site to identify other areas.

UXO-17 (Other Sites). No Action Decision Document for PI 14 and PAOC FF is anticipated to be finalized in 2011. The Work Plan for Preliminary Assessment/Site Inspection at PAOC EE is to be completed and implemented 2011

10. Question - I have a concern about budgeting. We haven't talked about that for a while and I want to know if there will be funding available for future work.

- Daniel Hood (Navy) – The Vieques cleanup program's funding is set for the next 3 years, at \$20 million per year. The overall budget has approximately \$351 million remaining. The Task Force is trying to accelerate the cleanup process and that may trigger the need for more funding faster.

Upcoming Documents for RAB Review

4th 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 Vieques PAOC EE

6. Munitions Program Update (Navy)

Below is a summary of the Vieques Munitions Response Site Prioritization. We were not able to present the attached presentation at the meeting due to insufficient time at the end of the meeting.

Summary: In April, 2010 the former site was divided into 18 munitions sites. The Munitions response sites were established based on geographic parcels and future land use rather than as operational units. The sites were prioritized to achieve site closure sooner within the CERCLA

process. The site inspection includes 17 sites on east Vieques: UXO-1 through UXO-17, and only 1 site on west Vieques ([NASD] UXO-1 aka SWMU4)

Prioritization Approach: The Cleanup will address both: explosives hazards and human health / ecological risks. The Current prioritization is driven by:

- Explosive hazard module as main driver
- Human health / ecological module is second driver
- Chemical weapons module does not apply to Vieques based on historical information
- The Sites will be re-scored annually as more site investigation data becomes available.

Meeting concluded at 9:10 PM