

## MEETING MINUTES

### RESTORATION ADVISORY BOARD (RAB) FOR THE ENVIRONMENTAL AND MUNITIONS RESPONSE PROGRAMS VIEQUES ISLAND, PUERTO RICO

MEETING No. 19; JANUARY 28, 2009

LOCATION: "LA HIELERA," MARTINEAU NEIGHBORHOOD, VIEQUES

*Note: These minutes are a summary of informal notes taken during the meeting. They are not intended to provide an exact transcript, nor capture everything that was discussed at the meeting. Any comment or additional notes provided by persons present during the meeting within 30 days of the distribution of this document will be added to the minutes.*

#### CALL TO ORDER AND INTRODUCTORY COMMENTS

The meeting began at 6:10 p.m. Susana Struve of CH2M HILL welcomed those in attendance. She informed the audience that interpretation equipment was available for those who are not bilingual.

**Kevin Cloe (Navy Co-Chair):** Mr. Cloe gave a brief welcome and discussed the agenda agreed upon for the meeting. He welcomed new members of the RAB, Wanda Bermúdez and Lionel Sánchez.

#### Presentations:

##### I. Updates to the Environmental Restoration Program in Western Vieques - Brett Doerr (CH2M HILL)

###### AOC E

Mr. Doerr discussed the results from the Final Remediation Investigation Report, dated July 2008. He explained that an additional round of sampling to obtain additional data on groundwater and soil was performed to help assess whether a feasibility study or pilot study should be performed. Based on the results of this sampling, a pilot study to treat soil and groundwater contaminants has been proposed to the regulatory agencies, which are evaluating the proposal.

###### AOC I

Similar sampling as that done at AOC E was performed at AOC I. Based on the results of this sampling, a pilot study to treat groundwater contaminants has been proposed to the regulatory agencies, which are evaluating the proposal.

Stacie Notine (RAB member) requested an explanation as to how they chose the areas to be studied to determine contaminants. Brett said that wells are placed in different areas to determine the nature and extent of contamination associated with past releases.

Stacie asked if there were other contaminants there to investigate besides those derived from petroleum (oil). Brett said that historical samples were analyzed for a broad range of contaminants which determined that the contaminants there are associated with petroleum. He stated that this information is available in public documents and could be verified there.

Wanda Bermúdez (RAB Member) asked how something that was not tangible could be determined. Susana said Wanda's question pertained to issues surrounding measuring background levels of chemicals. Background issues are explained in other documents that have already been reviewed by the RAB. Susana proposed setting up a meeting for the new RAB members, existing RAB members and/or Navy personnel so that the new RAB members can be informed about previous meeting discussions, as well as the regulations that govern the data sampling and analysis programs.

Brett continued the discussion of the proposed Pilot Study. He stated that the data show there has been a natural reduction of contaminant concentrations in the groundwater over time. He discussed the Pilot Study technology that will help determine if application of a remedial technology is warranted at the sites. Phase one of this technology will consist of injecting a compound that oxidizes the contaminants and converts the groundwater into a highly oxygenated state. The second phase injects a compound into the wells that slowly releases oxygen to sustain remediation of the contaminated area. The Pilot Study proposal is under evaluation by the Regulatory Agencies.

Jorge Fernández (RAB Member) stated that the slides presented remediation measures proposed for the contaminated area. He asked what type of method will be used to address the contamination. Brett answered that he expected the oxygen injections would accelerate the remediation since the area of contamination is relatively small.

Brett continued the discussion regarding the Pilot Study technology. He stated that soil will be treated at only AOC E to prevent soil contaminants from being a source of future groundwater contamination. This is not necessary at AOC I because the soil data suggest there is no ongoing source of groundwater contamination there.

### **Pilot Study Technology**

- Groundwater (Two-Phased Approach)
  - Phase 1: In-Situ Chemical Oxidation (ISCO) - Consists of injecting a compound that rapidly releases oxygen (such as sodium persulfate).
  - Phase 2: Enhanced In-Situ Bioremediation (EISB) - Consists of placing a compound within the existing monitor wells that slowly releases oxygen (Oxygen Releasing Compound [ORC]).
- Soil (Only in AOC E)
  - Treat the soil in order to reduce the concentrations of remaining fuel-related contaminants to eliminate them as a source of groundwater contamination.

Stacie asked why the soil is treated, instead of being removed. Brett explained that the depth of the area to be treated extends to 40 feet. As such, it has to be treated because it is not practical to remove such a large quantity of soil. However, the result is the same in that future contamination of groundwater from soil contaminants is mitigated.

#### **AOCs J & R, SWMUs 6 & 7**

Brett explained that the Final Removal Action Plan was submitted in February 2008. In addition, he said that they are completing the risk assessments for the soil to be removed with the waste. The risk assessments show that part of the soil that will be removed can be used by the Vieques landfill as daily cover. These soils were analyzed and are feasible to be used as cover material. The waste removal will begin in February 2009. Debris may be transported off the island for recycling or disposal. This removal process will take months to complete. Upon completion of the removal action, the remediation investigation for the AOC R will be completed. The remedial investigations at AOC J and SWMUs 6 and 7 have already been completed.

#### **SWMU 4**

This area was an open burn/open detonation site. Brett explained that the field work for the remedial investigation was completed in August 2008. The Interim Deliverable for Human Health Risk Assessment was submitted to the Regulatory Agencies for review in October 2008. Resolution of the comments received is underway.

It is anticipated that a draft of the Remedial Investigation report will be received by the Regulatory Agencies in mid 2009. Based on the anticipated schedule, the draft final Remedial Investigation report will be provided to RAB in late 2009.

## **II. Updated Information on the Environmental Restoration Program for Eastern Vieques - Brett Doerr (CH2M HILL)**

**36 Sites fall within the Environmental Restoration Program (ERP).** In December 2008 the draft final Decision Document for No Further Action for 10 sites was provided to the RAB. The final Decision Document for No Further Action will be ready in January 2009. Twenty three of the remaining 26 sites are included in the Site Inspection/Expanded Site Inspection (SI/ESI) Work Plan. The draft final document will be provided to the RAB in January 2009.

Brett stated the final SI Work Plan will be ready in February 2009. The fieldwork for this inspection will require several months for completion, beginning in February 2009. Prior to fieldwork commencement, the sites were visited by the Navy, EPA, PREQB, and FWS during the last week of January to concur upon the sampling locations.

### III. Updated Information on the Munitions Response Program - Tim Garretson (CH2M HILL)

Tim began to explain the map showing the progress of this program to the end of 2008. He discussed the following:

- Green area: completed area
- Purple area: area where the vegetation is complete
- Light Blue area: area where no work has been done due to water content
- Brown area: area with high content of sub-munitions

He explained the surface area cleanup progress in acres completed per year:

- 2005 - 2006: 239 Acres
- 2007: 328 Acres
- 2008: 336 Acres

A total of 903 acres of cleared surface area by the end of 2008.

Tim continued by explaining the quantity of munitions and explosives of concern (MEC) that were recovered and destroyed:

- 2005 - 2006: 2,453 articles
- 2007: 4,027 articles
- 2008: 10,130 articles

A total of 16,610 articles have already been recovered and destroyed, which now do not represent a threat to anyone.

Tim provided an explanation regarding the MEC articles that were recovered and destroyed by category and year.

He discussed the quantity of recovered scrap metal:

- 2005 - 2006: 754 TONS
- 2007: 2697 TONS
- 2008: 2570 TONS

At this time more than 12 million pounds (more than 6 tons) of scrap metal have been recovered.

**Phase II Site Inspection (SI).** The workers drew out routes approximately 5 feet wide called "Transects." These transects are physically inspected to observe actual conditions, if Munitions and Explosives of Concern (MEC), or munitions scraps are discovered, they are noted. He stated that this is an important aspect of the job to determine verifiable site content and conditions.

He explained that in December 2008 monitoring using an aerial magnetometer was performed and was concluded on December 23, 2008. The monitoring was performed using

a helicopter equipped with magnetic detectors which flew over the entire expanse of the former range area. The magnetic detectors identify large metallic objects; the locations are recorded and can later be shown on a map. He said that once the report is complete the areas where large metallic objects were identified will be investigated.

**Eastern Maneuvers Area – Site Inspection Progress Map.** He explained the Site Inspection Progress Map for the Vieques Eastern Maneuver Area (EMA). 80 to 90% of the work on the transects had been completed. In addition, he explained that in the EMA, we haven't found many munitions related items and that is what we expected because most of that area was used for maneuvers.

Lionel Sánchez (RAB Member) asked how deep the helicopter sensor can penetrate. Tim answered it depends on the size of the metal object and the altitude of the helicopter.

Dan Hood (Navy) commented that the helicopter monitor was a double verification of the terrain to detect large objects. An investigation in the areas metal objects were detected by the helicopter will be performed.

Félix López (Fish and Wildlife Service) asked if permission to burn the areas to clear vegetation is not obtained, what the next step will be. Tim replied that they currently do not have an answer to this question. At this point we are not sure what we could do.

Jorge asked what the blue areas on the progress map meant. Tim replied that they are lagoons. These areas have yet to be worked, but will be, if they dry.

Jorge asked whether in the 75 acres they plan to burn, if he thought they would find a large quantity of munitions. Tim replied, yes we know there are a lot of sub munitions in these areas.

Dan commented that a third verification will be made to see how efficient the cleanup has been. This will be an indication of how much work is left to do and how much has been done.

#### **IV. Updated Information from the FWS – Sandra Ortiz**

*The report that is presented here is an exact copy of the document presented at the RAB meeting by the USFWS representative, Sandra Ortiz.*

##### *“Highway Construction”*

*During the following month of March a new round of highway construction will begin. The construction will begin around March 16<sup>th</sup> of this year, and will continue until the end of the year. The main highway, which runs from the entrance of the Refuge to Caracas Beach, will be paved in asphalt. The highway located after the entrance to Caracas Beach to La Chiva Beach will be covered with gravel, similar to the highways that have already been completed. The main highway that runs to La Chiva Beach will remain open to the public; however, the highway that runs to Caracas Beach will be closed for part of the time. At the same time, the highway going to Punta Arenas will also be*

*covered with gravel. This will require that the highway remain closed, since there is no way to create and detour. Furthermore, we will be constructing a new bridge to cross the mouth of the Laguna Playa Grande. Access to the beach will remain open.*

*We will also be conducting a hydrologic study of the two bridges that are located on the highway to Punta Arenas to determine whether the canals provide an adequate flow of water. The results from this study will determine if we can replace the bridges as they are currently or if the canals need to be enlarged.*

*The highway to Playuela has been closed to vehicular traffic. Frequent and severe flooding, as well as the impact caused to the mangrove habitat, is the reasons for this closure.*

### **Buildings**

*The maintenance building in the Camp García area is almost finished and we hope to move by the following month, March.*

*We received the preliminary plans for the new offices, which will be constructed near the main entrance on the Eastern side. The building will have space for exhibitions, as well as a classroom that will also serve as a conference center. The building will be constructed in compliance with the "green" building codes. The probability that all of the energy for the building and the Camp Garcia area will be a combination of solar, wind, and generator energy is being studied.*

*The projects mentioned above will complete the majority of our principal construction projects, with the exception of the replacement of two bridges located on Laguna Kiani (west) and the La Chivoa Bridge (east). These projects represent a major financial investment and will provide our visitors with greater enjoyment of the facilities.*

### **Visitor Services Plan**

*We are in the process of compiling information for our visitor services plan. We have contracted Dr. Dan Sivek, of the University of Stephen's Point in Wisconsin, to develop this plan. Since just before Christmas, Dr. Sivek has been conducting interviews and compiling information from the members of our community. Recently Dr. Sivek and Gisella Burgos offered a workshop on environmental education to elementary, middle, and secondary school teachers from Vieques. This workshop was offered in the Fuerte Conde de Mirasol in cooperation with the Vieques Department of Education. The teachers had the opportunity to fraternize with other colleagues and learn fun techniques related to environmental education, which can be put into practice in their respective classrooms.*

### **Law Enforcement**

*Our law officer Bruce Butler has been working diligently to make the Refuge a safe place for visitors. I am sure that if you have visited the Refuge during the past months, you have seen Officer Butler*

patrolling in his ATV. We have contacted the local Police Department so that they may help us patrol the Refuge.

Matt Connolly  
Refuge Administrator

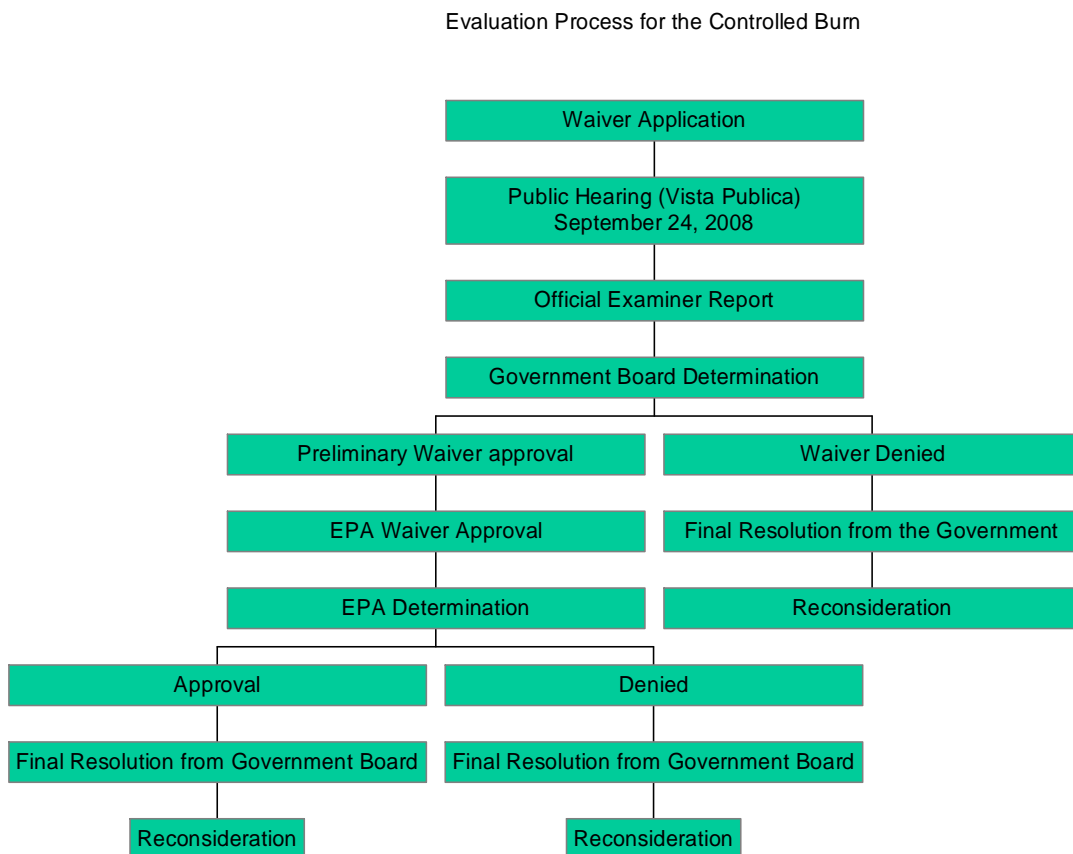
## V. Environmental Quality Board Report - Wilmarie Rivera

Wilmarie reported that the EQB has a new President, Pedro Nieves.

### Summary of the Request for Permission for the Controlled Burn

- The request was presented in the Environmental Quality Board on January 23, 2007.
- The Government Board will review the report to make a determination regarding the request for permission.
- After the report is reviewed the Government Board will issue a Resolution, which will indicate the determination made.

The diagram on the following page is an exact copy taken from the summary report by EQB representative, Wilmarie Rivera.



**MEC Management Plan for Vieques, Puerto Rico.** The following steps have been taken to develop an effective plan to address the potential discovery of munitions in areas within and outside of the refuge:

- Meetings with the EPA, Navy, FWS, and EQB were held. The Plan for Culebra will be used as an example.
- EQB offered training in Culebra to police officers, firefighters, Civil Defense, Department of Natural Resources and to community members about what to do if they find munitions. The same can be done for Vieques.

Lastly, Wilmarie presented the educational bulletins that can be found on the webpage [www.jca.goberno.pr](http://www.jca.goberno.pr) to keep the public informed about the EQB's projects.

## **VI. EPA Report - Daniel Rodríguez**

Daniel said his report consisted of what had already been discussed during the RAB meeting. He reported that they are working with the Navy on approval of the final documents for AOC E, the 36 Sites, Munitions, and the Burn Plan.

Jorge asked how much time the EPA takes to process the Burn Plan documentation. Daniel answered that they are working on prioritizing this issue and that it could possibly take one to two weeks to make the final decision.

## **MEETING CLOSURE**

Susana thanked everyone for attending and said that the next RAB meeting is planned for April 30, 2009.

## **ACTION ITEMS**

1. Coordinate a meeting with new RAB members to provide information and answer questions.

**Completed:** Madeline Rivera, Pedro Ruiz and Susana Struve met with Wanda Bermudez and Lionel Sanchez on March 17, 2009 to discuss RAB-related issues