



**Vieques Investigation and Cleanup
Naval Facilities Engineering Command (NAVFAC) Atlantic**

RESTORATION ADVISORY BOARD (RAB)

Meeting Number 47

6:00 p.m. – 9:30 p.m., November 17, 2015, Punta Mulas Lighthouse, Vieques, PR

MEETING MINUTES

Attendees:

Kevin Cloe – Ex-Officio RAB Member, NAVFAC Atlantic	Stacie Notine – Community RAB Member
Dan Waddill - Ex-Officio RAB Member, NAVFAC Atlantic	Myrna Pagán – Community RAB Member
Daniel Hood – Ex-Officio RAB member, NAVFAC Atlantic	Miriam Aldebol – Community Member
Madeline Rivera – NAVFAC Atlantic	Abigail González – Community Member
Geoffrey Garrison – USEPA	C. William Dey – Community Member
Susan Silander – Ex-Officio RAB member, USFWS	Julio Rosa Ponce – Community Member
Mike Barandiarán – Ex-Officio RAB member, USFWS	Julián García – Community Member
Craig Lilyestrom – Ex-Officio RAB member, DNER	Yashei Rosario – Community Member
Donald Shaw – USAE	Jose M. Rosario – Community Member
Brett Doerr – CH2M	Douglas McHoul – Community Member
Madeline Almodovar – CH2M	Juan Rosa – Community Member
James Larkins – Community RAB Member	

These minutes represent a summary of the meeting presentations, comments, questions, and action items and are not a verbatim transcript of the meeting.

Topics Discussed:

Opening and Introductions	
Madeline Almodovar (CH2M/Facilitator)	<ul style="list-style-type: none"> Meeting began at 6:10 p.m. She welcomed participants to the 47th meeting of the Vieques Restoration Advisory Board.
Dan Waddill (Navy - Program Manager)	<ul style="list-style-type: none"> Welcomed the participants and discussed the meeting format. Navy and regulatory agency representatives will be available during the breaks and after the meeting to follow up with additional questions.

SWMU 4 Update	
Daniel Hood (Navy Project Manager)	<ul style="list-style-type: none"> Stated that the surface and subsurface clearing activities conducted under the removal (interim) action on Solid Waste Management Unit (SWMU) 4 have been completed. Approximately 6,000 munitions items (mostly 20 mm projectiles) and 30,000 pounds of metal have been removed from the site. As expected, most of the munitions items (MEC) were found in the Open Burning/Open Detonation (OB/OD) pits; no MEC was identified in the parking area at the east end of the site, and one projectile was found in the observation tower area. The work on SWMU 4 took an additional 6 months to complete because the field teams found more items in the subsurface than originally expected. However, overall the Navy was able to comply with the request from the public to accelerate the cleanup work on this site. The cost for the removal (interim) action on just SWMU 4 was approximately \$7 million. The detailed findings will be presented in an After Action Report, which will be submitted for regulatory review and in turn for RAB review. After the final remedy for the site has been agreed upon, a final remedial action will be implemented for US Fish and Wildlife Service's (USFWS) intended use, which includes public access.
Community Feedback	<ul style="list-style-type: none"> Stacie Notine (RAB community member) commented that photos from the '1940s show a green lush area full of mangroves in the three lagoons within the area, and in contrast, photos from the '60s show that the entire area is barren. She asked if the OB/OD pits had larger munitions, like rockets, that could have caused a larger impact on the vegetation. <u>Navy Response:</u> <ul style="list-style-type: none"> OB/OD pits were used to discard various kinds of outdated munitions, but at SWMU 4 mostly 20 mm projectiles and some rocket items were found. The "mag and dig" process was extensive, reaching the bottom of the pits. The lagoon does not have a connection to the ocean, according to USFWS, in cases like this one, without access to the ocean, a lagoon ecosystem can change naturally and could even dry up. To the best of the Navy's knowledge, no vegetation clearing agents were used on Vieques. Perhaps USFWS can share more information on this observation later in the meeting. Stacie Notine asked for information related to radioactive materials. <u>Navy Response:</u> <ul style="list-style-type: none"> Depleted uranium was not used on the west side of Vieques and only a couple hundred rounds containing depleted uranium were inadvertently fired in the former Live Impact Area (LIA) on the east side of Vieques. This area was investigated and addressed at the time the rounds were fired, and additional work is being carried out as part of the ongoing cleanup of the LIA.
Underwater Work Update	
Dan Waddill	<ul style="list-style-type: none"> Summarized the different activities taking place underwater, which are being performed following CERCLA (Superfund) guidance. The Wide Area Assessment study being performed offshore is the first step of this process. The study aims to provide information on the areas with larger concentrations of munitions underwater, so priorities for additional study and cleanup can be established. This process includes a Biological Assessment to ensure natural resources are appropriately protected during the underwater investigations and cleanup. The initial Wide Area Assessment work in 2016 will concentrate on about 11,500 acres using digital geophysical mapping on transects 100 meters apart.

	<ul style="list-style-type: none"> • Dan Waddill also provided information on the Beach Dynamics Study currently underway at numerous beaches around the eastern and western areas. One of the objectives is to study sand movement on the beaches and near shore to help understand how munitions may move. The study also includes the use of munitions surrogates to simulate how actual munitions may move. The surrogates are tracked on a monthly basis using the signals from a “pinger” on each surrogate that can be detected with specialized equipment. With a remotely operated vehicle, the Navy can find out where the surrogate items are located and mark their position using GPS. This study has been underway for about 6 months; the data show that some of the beaches are stable, but others move a lot.
Community Feedback	<ul style="list-style-type: none"> • Julio Rosa (community member) stated that he would like to see the beaches of Vieques cleaned first and open to the public to allow tourism development and requested that the Navy keep this priority under consideration. • Myrna Pagan (Community RAB Member) read a statement of behalf of the organization <i>Vidas Viequenses Valen</i> with different demands for the cleanup process; she also thanked the Navy for providing the list of sunken ships in the vicinity of Vieques. <ul style="list-style-type: none"> ○ Dan Waddill requested Myrna provide a copy of her statement so that the requests she read can be considered. • James Larkins (Community RAB member) stated that on November 5th he sent a video of a detonation along with a number of questions to the Navy and requested a written response: Mr. Larkins read the following questions: Why is open detonation still performed? Why are the RAB and the Vieques communities not notified before the detonations? Why are the detonations performed during high winds? How many air monitoring units were in place before and after the detonations? What is the list of contaminants (chemical composition) registered by the air monitors after the detonations? Who manufactured the air monitoring equipment? Did USFWS close the beaches during the detonations? Is there written approval from EPA to conduct detonations? Were the native plant species and land crabs removed before the detonations? How deep are you going to clean up the sites? How far are the detonation areas from the beaches and the water supply? <ul style="list-style-type: none"> ○ Dan Waddill stated that responses to the list of questions Mr. Larkins sent to the Navy will be answered in writing. He stated that the beaches are a priority for the Navy. The Beach Dynamics Study is one of the investigations being conducted to address these areas. The open detonations have been discussed in length in the past with the technical team, regulatory agencies, RAB members, and the public. The consensus is that open detonation is the safest way to address the munitions for the workers, and it is protective of human health and the environment. The Navy has performed over 8 years of air monitoring during the open detonations, and explosive compounds were not detected in any of the air samples. In addition, metals and particulate matter were not detected at concentrations that exceed regulatory standards. • James Larkins asked for information about OSHA safety standards for the local workers. <ul style="list-style-type: none"> ○ The Navy replied that all OSHA safety rules are followed, and all workers receive proper safety training.

	<ul style="list-style-type: none"> • A visitor asked for a cost comparison between using the detonation chamber versus open detonations. <ul style="list-style-type: none"> ○ Dan Waddill replied that safety for the workers, rather than cost, is the main concern for the Navy. For all types of munitions, the safest approach always involves the least amount of handling. In fact, some types of munitions cannot be moved safely at all. Open detonation is the safest method because it can be performed with little or no handling of munitions. • A visitor asked for a list of Freedom of Information Act requests regarding Vieques. <ul style="list-style-type: none"> ○ Dan Waddill reminded the participants that the Navy Public website has abundant information on the investigations and it is available for the public.
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Information on the Sunken Ships

Daniel Hood (Navy Project Manager)	<ul style="list-style-type: none"> • Following a request from the last meeting, Daniel Hood stated that the team has contacted several areas of the Navy to find out information on the sunken ships and with effort found information in historical archives about 40 ships sunk around Puerto Rico. Only two ships are near Vieques: one lies in the inner range, the Killen; and the USS Bar is located fairly close to the island, but outside the inner range. Because the sunken ships are considered underwater archaeological sites, their exact coordinates are not disclosed.
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Status of Sites and Upcoming Activities

Kevin Cloe (Navy Project Manager)	<ul style="list-style-type: none"> • Summarized the investigation status and the upcoming work on sites located on west and east Vieques: <ul style="list-style-type: none"> ▪ SWMU 6: Based on the Feasibility Study Report that included a dredging effort, the Navy conducted additional sediment delineation and an ecological survey to help refine any area where dredging may be warranted. The results showed no unacceptable risk to human health or the environment. The next step is to develop an addendum to the Remedial Investigation Report (RI) followed by a Remedial Action Plan. After receiving public input, a Record of Decision (ROD) will be prepared for the site. ▪ Area of Concern (AOC) E: The underground tank and the contaminated soils have been removed. The groundwater contamination was addressed with pilot studies using <i>in situ</i> oxidation techniques to reduce the level of the contaminants. To ensure that the concentration of the chemicals of concern continue to be low, a three year monitoring plan was established. The Navy has performed one of those sampling events and are currently preparing for the second round of sampling. ▪ SWMU 1: This site is going through its remedy implementation. ▪ SWMU 20: An RI report is being completed for this site and a groundwater pilot study has been scheduled to evaluate techniques or remedial options to address the trichloroethylene (TCE) that remains in the groundwater at this site. ▪ There are various removal actions being planned or underway at Unexploded Ordnance (UXO) 4, UXO 9, UXO 12, and UXO 13. ▪ The ROD for the Eastern Conservation Area (UXO 1) marks a milestone for the program; the removal work has been completed, the land use control boundary markers should be implemented next, along with the revegetation plan led by USFWS. ▪ The RI Work Plan for Playa la Chiva is under development, and Cayo la Chiva is moving toward a ROD for its remedial action.
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	<ul style="list-style-type: none"> ▪ Puerto Ferro is in the RI stage, but the road to the Lighthouse was successfully opened to the public. ▪ Photo Identified (PI)-9 East has some encrusted munitions shells, which will be addressed by a removal action.
National Wildlife Refuge Week Environmental Fair Participation	
Madeline Rivera (Navy Site Manager)	<ul style="list-style-type: none"> • Summarized participation in the Environmental Fair during National Wildlife Refuge Week. The Navy provided a booth with information on the cleanup progress, reinforced the areas closed to the public, and taught students to be safe by highlighting the 3Rs (Recognize, Retreat, Report) message. There were interactive activities using metal detectors and other field equipment. Over 200 people participated, mostly local students.
Regulatory Agencies Update	
US Fish and Wildlife Service	
Mike Barandiarán (Vieques Wildlife Refuge Manager, USFWS)	<ul style="list-style-type: none"> • Provided comments and answers to several topics: <ul style="list-style-type: none"> ▪ Regarding the old photographs mentioned at the beginning of the meeting, he stated that we need to remember that the west side has a different habitat than the east side, and that the forest on Vieques is a secondary forest not more than 70 years old. Habitats do change due to many factors. If any of the community is interested, USFWS can study the old photographs. ▪ USFWS agrees that the beaches should be a priority. The beaches and cayos are under DNER jurisdiction. DNER and USFWS will co-manage these areas. Under the USFWS Comprehensive Conservation Plan, the intended uses for the sites were described, and the beaches were on top of the priority list. Several activities affect the pace of implementing the beach plans, including beach dynamics and Puerto Rico Joint Forces of Rapid Action (FURA) activities. USFWS is anxious to get the results for the Beach Dynamics Study so we can move on with the cleanup activities and open beaches to the public. ▪ USFWS expects that UXO 15 will be open soon. The investigations on SWMU 4 are on their way to being completed. ▪ Lagoons naturally open and close. Playa Grande is an important lagoon for the community which was closed by the Navy in the past. USFWS attempted to open it, but it has been hard to keep it open, it is currently in the natural process of closing again, which increases salinity. USFWS is working together with DNER to address this situation. ▪ USFWS has no data related to potential impacts of the open detonations on the ecology. We need to achieve a balance of protecting the ecology and making areas safe so they can be open to the public.
Puerto Rico Department of Natural and Environmental Resources	
Craig Lilyestrom (Director of the Marine Resources Division, DNER)	<ul style="list-style-type: none"> • Summarized two projects DNER is working on related to the cleanup. One is determining what parts of Vieques are under the legal jurisdiction of DNER. The other is determining the best use of the cayos in the future. DNER will keep the community updated and would like to invite members of the RAB on a site visit to the cayos and welcome their input on the potential uses. • In mid-January, DNER will be also be surveying the lagoons starting with Laguna Anones, Laguna Gatos and Laguna Icacos, and later on Boca Quebrada measuring the limits of the maritime-terrestrial zone. After the jurisdictional thresholds are defined, DNER is expecting to have a co-management agreement with USFWS for these areas.

Community Feedback	<ul style="list-style-type: none"> • A community member asked about the jurisdiction of the beaches; who defines the limits and controls the access to the beaches? <ul style="list-style-type: none"> ○ Craig Lilyestrom responded that the beaches have joint jurisdiction between DNER and USFWS. The beaches will be accessible for folks working with turtles and for refuge management activities, and some of the beaches on the eastern end of the island will not be open for tourism due to safety restrictions. ○ Daniel Hood added that the beaches that will be restricted to the general public are located on the Live Impact Area (LIA); the restriction follows a Congressional mandate to keep that area as a wilderness area without access to the public. ○ Mike Barandiarán added that outside the LIA beaches, there are few beaches which will not have access to the public due to access issues (i.e. too much vegetation would need to be destroyed to provide access, impact on sea turtle nesting activities); other beaches will be open on a seasonal basis. USFWS expects that 90% of the beaches will be open. • James Larkins asked USFWS to provide a written list of those beaches that will remain as conservation areas, the beaches that will be open the public, and an estimate of when this will take place.
US Environmental Protection Agency	
Geoffrey Garrison (Community Involvement Coordinator, EPA Region 2)	<ul style="list-style-type: none"> • Stated that he works mostly on community involvement, but has listened with attention to the presentations and the questions provided at the meeting and will share them with the other members of the EPA team, who could not be present due to other commitments.
Community Feedback	<ul style="list-style-type: none"> • James Larkins asked about what actions EPA has taken to address the health of the Vieques community due to environmental causes. <ul style="list-style-type: none"> ○ Geoffrey Garrison stated that EPA is fulfilling its responsibility, all the agencies are accountable for the cleanup. He will refer Mr. Larkins' questions to EPA's technical folks and project managers.
Adjournment	
Madeline Almodovar	Thank you for participating. The meeting was adjourned at approximately 9:30 p.m. The next meeting will be held in February 2016.