



## Naval Facilities Engineering Command - Atlantic Vieques, Puerto Rico

### Status Report for the Vieques Restoration Advisory Board July 2008

This report provides the Restoration Advisory Board (RAB) with a status of on-going work at the Solid Waste Management Units and Areas of Concern (SWMUs and AOCs) on the former Naval Ammunition Support Detachment (NASD) property in western Vieques and an overview of the Environmental Restoration and Munitions Response activities on eastern Vieques. The following is a summary of the activities completed through July 2008, and the activities planned for completion for the next few months.

#### ENVIRONMENTAL RESTORATION PROGRAM

##### WEST VIEQUES

- PREQB approved No Further Action (NFA) under CERCLA for nine west Vieques sites (solid waste management units [SWMUs] 5, 10, 14, 15; areas of concern [AOCs] B, C, F, K, and L) in February 2007.
- **AOC E (Former Waste Oil Tank)**  
The Draft Final RI Report for AOC E was submitted to the RAB in June 2008. It is anticipated that the Final RI Report will be submitted in July 2008. Based on the recommendations in the RI Report, additional sampling to support the Feasibility Study for AOC E was conducted in July 2008.
- **AOC H (Abandoned Power Plant)**  
Based on the RI Report findings, a No Further Action Proposed Plan was made available to the public on January 28, 2008 for a 45-day public comment period. A public meeting to present and discuss the Proposed Plan was held on February 7, 2008. No public comments were submitted to the Navy or EPA (other than questions asked at the Public Meeting) during the public comment period. Based on the Proposed Plan, the Draft Record of Decision was prepared and submitted for regulatory review in May 2008. It is anticipated that the Record of Decision will be signed in September 2008.
- **AOC I (Former Asphalt Mixing Plant)**  
The Draft Final RI Report was prepared and submitted to the RAB in April 2008. No RAB comments were received on the Draft Final RI Report. The Final RI Report was

**Note:** This summary is presented in English and Spanish for the convenience of the reader. Every effort has been made for the translations to be as accurate as reasonably possible. However, readers should be aware that the English version of the text is the official version.

**Nota:** Este resumen se presenta en inglés y en español para la conveniencia del lector. Se han hecho todos los esfuerzos para que la traducción sea precisa en lo más razonablemente posible. Sin embargo, los lectores deben estar al tanto que el texto en inglés es la versión oficial.

submitted in June 2008. Based on the recommendations in the RI Report, additional sampling to support the Feasibility Study for AOC I was conducted in July 2008.

- **AOC J (Former Operations/Staging Area Disposal Site)**

The Final RI Report for AOC J was submitted in May 2007. Because waste at the site may pose a potential risk of future releases of contaminants, the RI Report recommended a waste removal action.

Regulatory agency approval of the Removal Action Work Plan was received in February 2008. Based on the approved work plan, waste profile sampling to determine the appropriate disposition of soil associated with the waste was conducted in February 2008. Risk assessments are currently being performed on the waste profile sample data to determine the appropriate disposition. Physical removal of the waste is anticipated to occur in late-2008, pending finalization of the risk assessments.

Following the removal action, a removal action report will be prepared that documents the removal action activities and the new risk assessments performed using the removal confirmatory data.

- **AOC R (Former Staging and Operations Area)**

The RI field work, comprising monitoring well installation and surface water, sediment, soil, and groundwater sampling, began in December 2005 and was completed in March 2006. Preliminary evaluation of the analytical data suggests additional data are needed to adequately delineate the nature and extent of contamination and assess potential risks. This additional data collection will take place subsequently to the planned removal action. See the discussion above under AOC J regarding the removal action work, which includes AOC R.

Human health and ecological risk assessments will be conducted and an RI Report prepared following the removal action and additional data collection.

- **SWMU 4 (Former OB/OD Unit)**

Preliminary evaluation of the RI data collected in 2007 suggested additional sampling was warranted to sufficiently characterize the site. The rationale for additional sampling and the proposed locations was submitted to the regulatory agencies in November 2007. Regulatory comments on the proposed additional sampling were received in January 2008. Comment responses were submitted for regulatory agency consideration in February 2008. The comment responses were resolved in March 2008. The Final Work Plan Addendum was submitted and the additional samples were collected in April 2008. Preliminary evaluation of the supplemental RI data collected in 2008 suggested several additional soil samples were warranted to complete the site characterization. These additional samples will be collected in July 2008. It is anticipated that the risk assessment process will start in late 2008 and the Draft RI Report will be submitted for regulatory review in early 2009.

- **SWMU 6 (Mangrove Disposal Site at Kiani Lagoon)**

The Final SWMU 6 RI Report was submitted in February 2007. Because waste at the site may pose a potential risk of future releases of contaminants, the RI Report

recommended a waste removal action. See the discussion above under AOC J regarding the removal action work, which includes SWMU 6.

- **SWMU 7 (Quebrada Disposal Site)**

The Final SWMU 7 RI Report was submitted in March 2008. Because the waste at the site may pose a potential risk of future releases of contaminants, the RI Report recommended a waste removal action. See the discussion above under AOC J regarding the removal action work, which includes SWMU 7.

## EASTERN VIEQUES

- **Original 12 SWMUs/AOCs Contained in the RCRA Consent Order**

The Draft Final PA/SI Report (which included 8 PI/PAOC sites, as stated below) was submitted to the RAB in April 2008. No RAB comments were received on the Draft Final PA/SI Report. The Final Report was submitted in June 2008. Based on the findings in the PA/SI Report, an Expanded SI is recommended for 7 of the original 12 Consent Order sites. An SI/Expanded SI Work Plan is currently being prepared for these 7 sites (together with 15 PI/PAOC sites [see below]).

A no further action decision document is currently being prepared for the Consent Order sites and PI/PAOC sites (see below) concurred upon by the agencies to require no further action.

- **PI/PAOC sites**

The Draft Final PA/SI Report (which included the Consent Order sites discussed above) for 8 PI/PAOC sites was submitted to the RAB in April 2008. No RAB comments were received on the Draft Final PA/SI Report. The Final Report was submitted in June 2008. Based on the findings in the PA/SI Report, an Expanded SI is recommended for 5 of the 8 PI/PAOC sites discussed above. An SI/Expanded SI Work Plan is currently being prepared for these 5 sites (together with the 7 Consent Order sites [see above] and an additional 10 PI/PAOC sites [see below]).

Of the remaining PI/PAOC sites, 16 are currently included in the Environmental Restoration Program. In October 2007, the regulatory agencies and Navy met to discuss the path forward for each of the sites. The meeting included a site visit to the majority of the sites. Six sites were determined to require no further action. An SI will be performed at the remaining 10 sites (see SI/Expanded SI Work Plan preparation discussed above).

A no further action decision document is currently being prepared for the PI/PAOC sites and Consent Order sites (see above) concurred upon by the agencies to require no further action.

## MUNITIONS RESPONSE PROGRAM

- **Progress through July 2008**

- 756 acres in the LIA and ECA have been surface cleared
- All beaches (65 acres) have previously been surface cleared
- Over 13,000 live munitions removed
- Approximately 4,900 tons of munitions debris (MD) and range related debris (RRD) has been recovered and is being processed for eventual shipment to a recycler.

- Over 1,700 tons of MD and RRD have been shipped off island to be recycled

## WEST VIEQUES

- A draft work plan for the removal of subsurface MEC at selected roads and beaches was submitted to the regulatory agencies for review and comments from the agencies were received the week of May 5, 2008. The Navy developed responses to comments and the regulatory agencies are currently reviewing. The draft final document will be completed by mid August 2008.
- **SWMU 4 (Open Burn/Open Detonation (OB/OD) Area)**  
The Draft Munitions/Explosives Remedial Investigation Report dated April 2004 is currently on hold and will be revised to include data collected during future interim removal action.
- A draft engineering evaluation/cost analysis (EE/CA) to remove munitions at selected areas in the vicinity of SWMU 4 and East Vieques was submitted for public review on October 3, 2007. All comments were received and addressed and the EE/CA was finalized February 2008.

## EASTERN VIEQUES – Munitions Response Actions

- The Time Critical Removal Action in the LIA continues to reduce risk to human health for 1,100 acres in the LIA and ECA. Seven hundred fifty six acres have been surface cleared within the LIA, significantly reducing explosive risk in these areas. During these removal efforts over 13,000 munitions items have been removed, including over 6,400 extremely sensitive sub-munitions. Additionally, 65 acres of beaches have previously been surface cleared of munitions.
- Air monitoring is being conducted along the LIA-SIA border to determine if there are metals or explosives releases above human health screening criteria from the BIP activities. To date no metals have exceeded the criteria and no explosives have been detected at these near source locations.
- The Final Expanded Range Assessment/Phase II Site Inspection work plan was submitted December 2006 and further investigation efforts to determine the munitions extent across the east side has been initiated including the subsurface geophysical surveys for the beach areas. The Phase II Site Inspection will also address munitions response sites not yet investigated, by conducting surface evaluations to determine if munitions items are present. The actual field work associated with the Phase II Site Inspection commenced 3 March, 2008

- An amendment to the Phase II Site Inspection work plan was submitted to the regulatory agencies for review on July 14, 2007. This amendment includes inspection of additional areas at the former VNTR.
- Digital Geophysical Mapping (DGM) has been conducted on 80 acres of beaches and 24 acres of selected roadways. The mapping will identify anomalies that may indicate the presence of munitions and explosives of concern (MEC) below the ground surface. DGM operations were suspended on October 12 but will resume when the sub-surface removal begins. Eventually, approximately 300 acres of beaches and roadways will be geophysical surveyed and will undergo a sub-surface removal. Biological survey of the Eastern Conservation Area was completed to support future removal action activities. An Archaeological survey of the beach areas has been conducted and additional surveys across the entire range will be conducted to support future removal action activities.
- Final EE/CA and Draft Work Plan were submitted for munitions removal action at beach areas and selected roadways on February 6, 2008.
- A draft Engineering Evaluation/Cost Analysis (EE/CA) was submitted to the regulatory agencies on June 24, 2008 for the removal of surface MEC in the former Surface Impact Area. A draft final EE/CA is scheduled to be sent for public review the beginning of August 2008.
- A draft work plan for removal of MEC from the surface of the former Surface Impact Area was sent to the regulatory agencies for review on July 14, 2008.

## MISCELLANEOUS

- **Master Quality Assurance Project Plan**  
A draft Master Quality Assurance Project Plan (QAPP) was submitted for regulatory review in May 2006. The Master QAPP provides standard procedures for data collection, analysis, and evaluation as part of the environmental restoration program. Although project-specific deviations from the Master QAPP may be warranted, the Master QAPP facilitates consistency and efficiency across the program. Regulatory comments were received in September 2006. Comment responses were prepared and submitted for regulatory consideration in November 2006. A meeting was held among the agencies in December 2006 to discuss the comment responses and reach concurrence on an acceptable set of responses and associated work plan revisions. The concurred-upon comment responses were incorporated into the Master QAPP and the draft final document was submitted to the RAB in February 2007. No comments were received from the RAB. The final Master QAPP was submitted in May 2007.
- **Federal Facility Agreement (FFA)**  
The Federal Facility Agreement (FFA) was signed by the agencies: U.S. Environmental Protection Agency (EPA), U.S. Department of the Navy, and the Puerto Rico Environmental Quality Board (EQB). The FFA had a Public Notice with a 45 days comment period. After the comments were addressed the Responsiveness Summary finalized. The FFA was effective beginning on March 28, 2008

- **Site Management Plan**

A Site Management Plan was prepared in accordance with requirements defined in the FFA.

### Public Involvement Activities

- The Navy participated in the Second Child Health Fair held on Vieques on July 9, 2008. The Navy's message was safety: stay away from the restricted areas and obey the warning signs.
- The next RAB meeting is planned for August 20, 2008.
- Informational Flyers continue to be distributed widely on Vieques
- Warning signs were installed in April 2008. The buoys were donated by the Coast Guard. The Coast Guard and Army Corps of Engineers approved the permit for the installation in consultation with National Marine Fisheries. The Navy followed the Coast Guard guidance for the buoy installation

### VIEQUES DOCUMENT SUBMITTAL UPDATE

(As of July 2008)

Site	Document	Submitted By Navy To Regulators or RAB for Review	Regulator or RAB Comments Submitted To Navy
<b>West Vieques</b>			
	Draft (revised) RI Report	December 2007	February and March 2008
AOC E	Preliminary responses to regulatory comments	April 2008	Comments resolved in June 2008
	Draft Final RI Report	Submitted to RAB in June 2008	No comments submitted
	Draft RI Report	April 2004	October 2005
	Preliminary responses to regulatory comments	January 2006	Discussed in May, September, and December 2006
AOC H	Draft Final RI Report	Submitted to RAB in May 2007	No comments submitted
	Final RI Report submitted in July 2007	Not Applicable	Not Applicable

Site	Document	Submitted By Navy To Regulators or RAB for Review	Regulator or RAB Comments Submitted To Navy
	Draft Proposed Plan  Preliminary responses to comments on Draft Proposed Plan  Final Proposed Plan and initiation of 45-day public comment period  Draft Record of Decision	August 2007  November 2007  January 28, 2007  May 2008	September 2007  Comments resolved in January 2008  Not Applicable
AOC I	Draft RI Report  Preliminary responses to comments  Draft Final RI Report  Final RI Report submitted in June 2008	November 2007  March 2008  Submitted to RAB in April 2008 Not Applicable	January 2008  Comments resolved in April 2008  No comments submitted  Not Applicable
AOC R	Final RI Work Plan submitted in November 2005  Draft EE/CA  Final EE/CA  Draft Removal Action Work Plan  Revised Draft Removal Action Work Plan  Response to comments and revised Removal Action Work Plan  Draft Final Removal Action Work Plan  Waste Characterization HHRA Interim Deliverables	Not Applicable  August 2005  Submitted to RAB/Public in December 2005  November 2005  April 2007  August 2007  January 2008  July 2008	Not Applicable  October 2005  Not Applicable  March 2006  June 2007  January 2008  Regulatory agency approval in February 2008
SWMU 4	Draft RI Work Plan  Preliminary responses to regulatory comments	June 2004  April 2006	January 2006  Discussed in May and September 2006

Site	Document	Submitted By Navy To Regulators or RAB for Review	Regulator or RAB Comments Submitted To Navy
	<p>Draft Final Work Plan</p> <p>Final Work Plan submitted in January 2007</p> <p>Proposed additional sampling locations</p> <p>Preliminary responses to comments</p> <p>Final Work Plan addendum submitted in April 2008</p>	<p>Submitted to RAB in November 2006</p> <p>Not Applicable</p> <p>November 2007</p> <p>February 2008</p> <p>Not Applicable</p>	<p>Not Applicable</p> <p>Not Applicable</p> <p>January 2008</p> <p>Comments resolved in March 2008</p> <p>Not Applicable</p>
SWMU 6	<p>Draft RI Report</p> <p>Preliminary responses to regulatory comments</p> <p>Final RI Report submitted in February 2007</p> <p>Draft EE/CA</p> <p>Final EE/CA</p> <p>Draft Removal Action Work Plan</p> <p>Revised Draft Removal Action Work Plan</p> <p>Responses to comments and revised Removal Action Work Plan</p> <p>Draft Final Removal Action Work Plan</p> <p>Waste Characterization HHRA Interim Deliverables</p>	<p>April 2004</p> <p>August 2006</p> <p>Not Applicable</p> <p>August 2005</p> <p>Submitted to RAB/Public in December 2005</p> <p>November 2005</p> <p>April 2007</p> <p>August 2007</p> <p>January 2008</p> <p>July 2008</p>	<p>June 2006</p> <p>Discussed in December 2006</p> <p>Not Applicable</p> <p>October 2005</p> <p>Not Applicable</p> <p>March 2006</p> <p>June 2007</p> <p>January 2008</p> <p>Regulatory agency approval in February 2008</p>
SWMU 7	<p>Response to comments on Draft RI Report</p> <p>Final RI Report submitted in</p>	<p>November 2004</p> <p>Not Applicable</p>	<p>Discussed in September 2006</p> <p>Not Applicable</p>

Site	Document	Submitted By Navy To Regulators or RAB for Review	Regulator or RAB Comments Submitted To Navy
	March 2008  Draft EE/CA  Final EE/CA  Draft Removal Action Work Plan  Revised Draft Removal Action Work Plan  Responses to comments and revised Removal Action Work Plan  Draft Final Removal Action Work Plan  Waste Characterization HHRA Interim Deliverables	August 2005  Submitted to RAB/Public in December 2005  November 2005  April 2007  August 2007  January 2008  July 2008	October 2005  Not Applicable  March 2006  June 2007  January 2008  Regulatory agency approval in February 2008
AOC J	Draft RI Report  Preliminary responses to regulatory comments  Final RI Report submitted in May 2007  Draft EE/CA  Final EE/CA  Draft Removal Action Work Plan  Revised Draft Removal Action Work Plan  Responses to comments and revised Removal Action Work Plan  Draft Final Removal Action Work Plan	April 2004  May 2006  Not Applicable  August 2005  Submitted to RAB/Public in December 2005  November 2005  April 2007  August 2007  January 2008	January 2006  Discussed in December 2006  Not Applicable  October 2005  Not Applicable  March 2006  June 2007  January 2008  Regulatory agency approval in February 2008

Site	Document	Submitted By Navy To Regulators or RAB for Review	Regulator or RAB Comments Submitted To Navy
	Waste Characterization HHRA Interim Deliverables	July 2008	
NFA Sites	PREQB Response to Public Comments on No Further Action Report	Not Applicable	Not Applicable
	Final NFA Report submitted in October 2006	Not Applicable	PREQB issued a Resolution and Notification concurring with NFA in February 2007
<b>Eastern Vieques</b>			
SIA	Draft Work Plan for Removal of Surface MEC	July 14, 2008	
SIA	Draft EE/CA for Surface MEC	June 24, 2008	
LIA, SIA, EMA	Draft ERA/Phase II SI Work Plan Amendment	July 14, 2008	
LIA, SIA, EMA	Revised Draft ERA/Phase I Site Inspection Report	May 2007	
Former VNTR	Draft EE/CA for subsurface removal of MEC of roads and beaches	May 2007 To RAB October 3 2007	July, 2007
	Draft Work Plan for subsurface removal of MEC of roads and beaches	February 6, 2008	
East Vieques Munitions Sites	Final MEC Master Work Plan	Final Submission – November 2006	
Various Munitions Response Sites and Beaches on East Vieques	Final Expanded Range Assessment/Phase II Site Inspection Work Plan	Final submission – December 2006. Editorial comments addressed and submitted – January 2007	
Background Soil	Revised Draft Final Background Soil Inorganics Investigation Work Plan	Public Comments Submitted to EPA in June 2005	November 2005
	Final Background Soil Inorganics Investigation Work Plan	Not Applicable	Not Applicable
	Draft Background Soil Inorganics Investigation Report	January 2007	April 2007

Site	Document	Submitted By Navy To Regulators or RAB for Review	Regulator or RAB Comments Submitted To Navy
	Preliminary responses to comments  Draft Final Background Soil Inorganics Report  Final Background Soil Inorganics Report submitted in October 2007	May 2007  Submitted to RAB August 2007  Not Applicable	Comments resolved July 2007  No written RAB comments submitted; verbal comments addressed via conference call  Not Applicable
Original 12 Consent Order Sites	Data Summary Report  Draft PA/SI Report  Preliminary responses to comments  Draft Final PA/SI Report  Final PA/SI Report submitted in June 2008	May 2005  November 2007  March 2008  Submitted to RAB in April 2008  Not Applicable	Not Applicable  January 2008  Comments resolved in April 2008  No comments received  Not Applicable
8 PI/PAOC Sites	Final PA/SI Work Plan submitted in January 2006  Draft PA/SI Report  Preliminary responses to comments  Draft Final PA/SI Report  Final PA/SI Report submitted in June 2008	Not Applicable  November 2007  March 2008  Submitted to RAB in April 2008  Not Applicable	Not Applicable  January 2008  Comments resolved in April 2008  No comments received  Not Applicable
Baseline Groundwater	Draft Final Groundwater Baseline Investigation Report	May 2005	