Naval Air Station South Weymouth, MA
Restoration Advisory Board (RAB) Meeting Minutes
November 10, 2011

1. INTRODUCTIONS/ APPROVAL OF PRIOR MEETING MINUTES

John Goodrich, RAB facilitator, opened the meeting at approximately 7:00 PM. He requested that all attendees, including RAB members, regulators, and audience members, introduce themselves. He noted that the meeting agenda, handouts, and the sign-in sheet were available on the table at the back of the room. The sign-in sheet for the meeting is provided as Attachment A. J. Goodrich asked if everyone had time to read the minutes from the September 2011 RAB meeting and if there were any comments. There were no comments.

J. Goodrich reviewed the guidelines for the meeting and reminded everyone that the focus of the meeting is cleanup issues. Any issues and/or comments not related to base cleanup will be noted and referred to the appropriate agency or organization. He reminded the participants when asking questions to wait to speak until they are acknowledged, to state their names and affiliations, and to speak clearly or into the microphone when they have questions.

He then reviewed the agenda for the meeting. The meeting agenda and the action item tracking list are provided as Attachment B. In accordance with the agenda, the presentation and discussion would be followed by the updates and action items portion of the meeting. The minutes, agenda and action items for the meeting are posted on the BRAC PMO website: http://www.bracpmo.navy.mil/.

2. PRESENTATION

J. Goodrich introduced Dave Barney to give the presentation on the Rubble Disposal Area (RDA). D. Barney noted that the RDA was last discussed at a RAB meeting in 2009. The objective of this meeting is to discuss the five major activities completed at RDA since the last RAB presentation (Slide 2).

The RDA ROD was signed in 2003. The ROD called for the closure of the landfill; installation of the cap began in 2004. The cap was completed in 2006. Related activities included restoring impacted wetlands and creating new compensatory wetlands. LTM began in March 2007; 5 years of an anticipated 30-year LTM program have been completed. Two years of quarterly sampling was completed (2007/2008) and now LTM is on a semi-annual frequency (spring/fall). Slide 3 presents the post-closure activities for the LTM. Mowing of portions of the cap has been conducted to cut woody plants that could impact the cap;

generally 1/3 of the cap area is mowed each year. Additional LTM activities are summarized on Slide 4. Wetland inspections were conducted for 5 years (2007 – 2011) to evaluate the wetland restoration and document species diversity, the density of the plants, and presence of invasive species. While the invasive species, purple loosestrife is present, it is being naturally controlled by the *Gallerucella* beetle. The wetland restoration goals were met in spring 2011; no further inspections are required.

A 5-year review for NAS South Weymouth, which included a detailed evaluation of the RDA remedy, was completed in 2009. The 5-year review concluded that the remedy is functioning properly. It also included recommendations and follow-up actions. An Explanation of Significant Differences (ESD) was completed in August 2010 as recommended in the 5-year review. The ESD added a MNA groundwater remedy and adjusted the land use control compliance boundaries. In addition, two monitoring wells were replaced and the landfill cap was repaired (ruts, etc.).

The LTM sampling events and facility inspections are performed to assess post-remedial action conditions. The groundwater results are compared to the remedial goals (RGs) in the ROD (Slide 5). Manganese concentrations typically exceed the RGs, which was not unexpected due to reducing conditions created by the landfill cap. There are three surface water/sediment sampling locations along the wetland and two locations in Old Swamp River. There are no ROD RGs for surface water. There have been low level detections of a number of compounds, but not at levels that create unacceptable risk (Slide 6). Sediment also has no ROD RGs. The compounds detected in the sediments samples are not at levels that create unacceptable risk (Slide 7).

Landfill gas monitoring is conducted to check if landfill gases are migrating. There are seven gas probes along the perimeter and eight gas vents within the landfill footprint. Since 2007, there have been methane detections in probes outside the landfill cap. After many years of methane detections, a supplemental landfill gas investigation was conducted in 2010 to determine the lateral extent of methane-enriched areas outside the landfill footprint and the origin and source of the methane since the landfill is located near wetlands and Old Swamp River. An extensive program was conducted including installation of 83 temporary gas probes to measure the gases outside the landfill (Slide 8). Based on field monitoring of the 83 points, 8 soil gas samples were collected from the probes for laboratory analysis. The vapor, or gas, sampling equipment is shown on Slide 9. The results indicated that methane concentrations outside of the landfill exceeded state regulations (Slide 10). The study concluded that the methane was from biodegradation of petroleum. The Navy is designing a corrective action to mitigate the gas migrating beyond the RDA footprint.

The corrective action will be a landfill gas mitigation trench. The objectives of the project are to improve the gas venting system and control gas migration (Slide 11). The project will use the existing gas management layer (crushed stone) where the gas can move freely. An interception trench will be

installed along the swale on the northern perimeter of the landfill. The efficiency of the vents was improved by installing cowl vents on the four existing gas vents in the northern portion of the landfill (Slide 12). The trench design and work plan are being prepared. The landfill gas investigation data are being evaluated as part of the design to ensure that gases from the trench will be vented safely. The trench will run from Old Swamp River to the wetlands on the western edge of the landfill (Slide 13). New gas vent pipes will be placed in the trench every 100 feet; the trench will be constructed at a depth below the low water table (estimated at about 14 feet bgs). The side of the trench facing the landfill would be a highly permeable area; the outer face of the trench would be an impermeable layer so gas generated in the landfill will move into the trench and up the vents placed in the trench. Construction of the gas interception trench is anticipated to be completed in about 6 months.

M. Parsons asked if the trench will be moved away from the post and rail fence. D. Barney responded that yes the trench will have to be stepped away from the fence, but the fence will have to be temporarily removed for construction access, and then replaced.

P. Lofgren asked if petroleum in the landfill escaped and resulted in the migration of the gas. D. Barney stated that the presence of methane shows that petroleum in the landfill is breaking down.

H. Welch asked if the amount of gas has increased since the cap was installed. D. Barney responded that gas will not migrate through water, and since there was no gas investigation conducted in that area prior to the capping of the landfill, it is difficult to say whether the cap has changed things. Prior to 2004, landfill gas measured within the landfill showed very little methane and that is still true based on the current measurements.

The RDA Explanation of Significant Differences (ESD) was final topic of the presentation. Construction of the East-West Parkway has a slight impact on the remedy for the RDA: the drainage channel, or swale, and fence will be altered. Altering these components represents a minor change to the RDA remedy. There are three possible ways to change a ROD-specified remedy: a memo to the site file; an ESD; or a ROD amendment. An ESD was determined to be appropriate to document the minor changes to the remedy (Slide 14). The changes do not impact the waste inside the landfill.

After the parkway construction is completed there will be no culverts and the contour of the backside drainage swale along Old Swamp River will be changed. The lower part of the fourth culvert will be left in place and the slope of the backside drainage swale will be contoured over it. Slide 15 shows the existing conditions at the RDA and along Old Swamp River; slide 16 shows the configuration once the parkway is constructed, the culverts are removed, and the swale and fence are altered. Approximately 50 feet of the post and rail fence will be removed and a roadway guardrail will be put in its place. Where the landfill and parkway diverge, the post and rail fence will remain intact.

M. Parsons asked why the fourth culvert was being left in place. D. Barney stated that the top of the culvert will be cut off and the lower part will be left in place. The remaining three culverts will be removed completely. P. Tyrell added that the temporary drainage pipes that were installed will all be removed. The Old Swamp River channel will be restored as shown on the ESD plan. The fourth culvert will not be visible once the work is completed; it is being left to help maintain the integrity of the landfill. The guardrail is being installed less than 10 feet away from the RDA.

D. Galluzzo asked why the parkway is being constructed on top of the RDA. He is concerned that it will affect the effectiveness of the remedy. D. Barney responded that the parkway will not impact the location of the waste. It will not affect the integrity of the cap. The parkway construction is only affecting the clean side of the drainage swale, e.g. the side not facing the landfill.

D. Galluzzo stated that he had heard that the guard rail will be installed 2 feet inside the post and rail fence. D. Barney stated it is a matter of the available space; the post and rain fence was an optional component in the ROD. However, the Navy wanted it and the post and rail fence is being adequately replaced with the guard rail. D. Galluzzo asked why the roadway can't be moved north. D. Barney responded that the feeder stream and the wetlands to the north restrict moving the roadway. There is not enough room to adjust the location. He added that there will be no adverse effects to the landfill or the RDA remedy with the planned roadway construction.

T. Pries asked what would happen if a car flips onto RDA. B. Olson responded that the cap can be repaired and from a regulatory standpoint, the main concern is to ensure that the parkway does not impact the RDA. The information gathered to date shows no impact to the remedy. She then asked where the gas trench would be located. D. Barney stated that it would follow the swale; the drainage needs will be evaluated as part of the trench design. The current swale is not deep enough to completely intercept the migration of the landfill gas, so the trench will be extended below the water table.

M. Parsons was concerned about the removal of the fence and replacing it with a guardrail and chain link fence. She would prefer both the post and rail fence and guard rail. T. Pries stated that they had started the construction when they were only completed with the 25% design phase. J. Young noted that the 3-foot chain link fence is required by Natural Heritage to protect the Eastern Box Turtle habitat. S. Ivas added that only about 50 feet of the post and rail fence will be removed. D. Deacon stated that the metal guardrail needs to be in place per the Highway Code.

P. Tyrell stated that they need to remove the post and rail fence to cut off the top of the part of the fourth culvert. It is redundant to put the post and rail fence back along with the guard rail and chain link fence. They are working around the landfill and the project will not compromise the landfill contents.

B. Olson stated that the EPA is OK without the fence, so there is no issue with the change to the guard rail. The only purpose of the fence is to ensure that no one drives on the cap. There is no concern about any impact to the landfill contents. He added that the Navy is being very proactive about the landfill gas issues and construction of the gas interception trench. The process has gone very smoothly and the best design possible is being created. J. Young added that the guard rail design will have wood posts and brown rail to fit in with the environment.

H. Welch asked if salting the parkway during winter will affect Old Swamp River. D. Barney stated that there are a lot of other local roads in the area that cross Old Swamp River. J. Young noted that there is a no salt zone on Shea Memorial Drive from Route 18 to the SSTTDC offices. When SSTTDC owns the property they can look into making it a no salt zone. A. Malewicz stated that there is a procedure to minimize road salt within Mass Highway and MassDEP, so this would be taken into account.

Action Item: Confirm that this will be a no salt zone.

M. Bromberg asked about the new vents in the trench design. D. Barney responded they would be installed every 100 feet, so there will be approximately 8 to 10 new vents. The constituents of the gas need to be evaluated to finalize the venting needs along the parkway. The trench will likely be on the embankment of the swale. M. Bromberg asked if there was any iron and manganese in the wetlands around RDA and if there was any human health risk. D. Barney stated that iron and manganese are present. D. Chaffin added that there is no unacceptable risk associated with this area and ideally over time the concentrations will decrease, as the landfill material degrades. M. Bromberg asked if there was any risk when all the detected compounds were taken into consideration together. D. Barney stated that this is always a concern and the values used for data comparison during the risk evaluation consider cumulative risk.

M. Smart asked about the temporary gas probes with upper explosive limit (UEL) exceedances, is there any concern associated with these? D. Barney responded that the soil gas exceeded the UEL but the ambient air at the ground surface did not exceed the UEL. The only possible concern or risk is associated with excavation in the area and Barletta, the parkway contractor, provided a site-specific HASP to cover that.

M. Smart asked if the regulators will review the design for the trench. B. Olson responded that they have not yet but they will review the designs. D. Barney noted that they will look at different construction alternatives and the site conditions and then determine the best way to implement the design. M. Smart asked if footings will be installed at Old Swamp River. D. Deacon stated that the footings have been

installed and are on piles. The piles were driven 30 feet to 50 feet into bedrock. The footings are about 40 to 50 feet from the edge of the cap.

C. Keating asked about the schedule for the ESD for the trench. D. Barney stated that he needed to speak with Brian Helland and Tetra Tech.

M. Brennan asked about the concentrations at SD02. K. Jalkut responded that the sediments were collected at a groundwater discharge zone. D. Chaffin added that the location was selected because it is a discharge zone (worst case scenario). There is no risk concern associated with this area; it is mostly high iron and manganese. B. Olson noted that if there was a concern, then there would be restricted access, but there no concern about any sediment risk at the RDA.

P. Lofgren asked about the stormwater runoff design. P. Tyrell responded that the stormwater runoff design meets the MassDEP standards and the designers went above and beyond the comments on the 25% design. The stormwater runoff will be treated through an oil-water separator before discharge to a wetland area.

M. Smart asked about how the ruts got on the cap. K. Jalkut responded that the ruts are from drilling in 2007 to install the LTM monitoring wells.

M. Parsons asked if there will be baseline testing of Old Swamp River so that it can be compared to future data if necessary. P. Tyrell responded that the stormwater design would utilize vegetated wetlands to lessen the effect on Old Swamp River. The stormwater design was reviewed by the local conservation commissions (Rockland and SSTTDC). The Rockland Conservation Commission oversees (independently) the construction/maintenance of the stormwater management system. D. Chaffin said that the design was the typical stormwater management system.

D. Galluzzo asked what the protocol was to maintain the oil/water separators. P. Tyrell stated that SSTTDC has regulations to maintain the stormwater management systems and report to the EPA any concerns and operations and maintenance information. D. Galluzzo asked what state agency one would go to for documentation of maintenance. J. Young noted that any documents generated are public documents and they would be available upon request. P. Tyrell stated that he would suggest going to the conservation commission and the MassDEP, if necessary.

D. Galluzzo stated he thinks that the work plan submitted by VHB/BHD allows a “do over”. J. Young explained that a draft ESD was provided to the Navy, EPA, and MassDEP; comments were received and addressed. The revised version of this document was accepted by the EPA and MassDEP. C. Keating and D. Chaffin both added that this is a typical review process where there is more than one round of

comments and responses on a given document; the regulators are comfortable with the changes that were made.

3. UPDATES AND ACTION ITEMS

Action Items: None.

MassDEP Update: None.

IR/EBS Program Site Update: D. Barney reviewed the October RAB update. Work is continuing on Building 81, Building 82, and SRA feasibility studies (FS). After a number of discussions, approaches for the FS were agreed upon and the work on all three is continuing. M. Parsons asked what the remedies are. D. Barney responded that they need to complete each FS first. There were a lot of comments that needed to be addressed before going forward.

M. Parsons asked about the status of SMP Revision 11. D. Barney stated that they were working on revising the schedules.

C. Keating stated that instead of trading comments and responses, they have tried to have discussions about documents. Hopefully this will streamline the approval process when the document is reissued. B. Olson stated that there have been extensive discussions about the three IR sites with the regulators and Navy. They are trying to be as transparent as possible about where these three sites are heading. One thing that has come out of these discussions is an expansion of what alternatives will be looked at in the FS, including more aggressive remedial alternatives.

The construction of the WGL cap and associated monitoring features is complete. The land use control plan has been accepted by EPA; the annual LUCIP inspection was completed today.

Soil samples were collected earlier this year at the STP and preparation of the report is underway.

A Notice of Landfill Operations was filed in the Plymouth County Registry of Deeds for Small Landfill. This was the last piece needed in order to submit the closeout report to the Southeast Regional office.

All work for the Main Gate Encroachment Area and AOC 55C sites is complete now that the RODs have been signed. A wetlands inspection was completed at AOC 55C; inspections will continue as needed over the next year or so.

As part of the PFC investigation, additional soil samples need to be collected inside Hangar 1 after the asbestos abatement is completed (RIA 11).

Samples were collected earlier this year at the Industrial Operations Area. Data evaluation and risk evaluation are being performed and the report is underway.

RIA 111 still needs to be addressed. It is currently a lower priority for the Navy than the RDA trench design.

The signed FOSTs have been reviewed. Some areas were identified that cannot be transferred and thus certain acreage will be held back (RDA, Hangar 1 and Fire Fighting Training Area [PFC's], Building 81 and Building 82).

D. Galluzzo asked what would happen if you can't clean the areas and LUCs are needed, does it have to be acceptable to the developer. D. Barney stated that all property will be transferred per BRAC even if there are LUCs.

FOST 5C remains on hold due to PFC issues associated with French Stream. FOST 6A is in draft form and includes WGL, Small Landfill, Main Gate Encroachment Area, and AOC 55C. This will most likely be out in about a month for public review. The FOSL has been reviewed. Since SSTTDC and LNR are not going to do any environmental cleanup, the FOSL language has been adjusted accordingly. Navy will continue performing the entire environmental cleanup.

A question was asked if the media attention affected the decision-making process about what remedies to include in the FS for the three RI sites. D. Barney stated that the Navy has always competed cleanups to the standards required by law; the Navy evaluates cleanup options from a variety of different standpoints. The cheapest solution may not be the best choice in the long run. The alternatives need to be thoroughly evaluated.

Conclusion/Next Meeting

J. Goodrich wrapped up the meeting. The next RAB meeting will be the second Thursday in January (January 12, 2012). The meeting will again be held at the New England Wildlife Center, 500 Columbian St., Weymouth, MA. Suggested topics for the next meeting include:

- FS discussion on one of the IR sites, if possible.