



FORMER NCBC DAVISVILLE

79th Restoration Advisory Board (RAB) Meeting Minutes

September 22, 2011

The 79th Restoration Advisory Board (RAB) meeting was held at the Quonset Development Corporation (QDC) Conference Center at 95 Cripe Street in North Kingstown, Rhode Island on 22 September 2011. The meeting agenda for the 79th RAB is included as Attachment A. The attendance list for the 79th RAB is included as Attachment B. David Barney, the Navy's BRAC Environmental Coordinator, convened the meeting at approximately 7:00 PM on 22 September 2011.

NEXT RESTORATION ADVISORY BOARD MEETING

The next RAB meeting will be held on 22 March 2012 at 7:00 PM at the QDC Conference Center. The Navy will send out postcards prior to the next RAB meeting reminding the public of the date, time, and location of the next meeting.

LONG-TERM MONITORING UPDATES

Scott Anderson gave a brief update on activities at Sites 09 and 07:

Site 09:

The Annual Report for 2009 and 2010 is currently being prepared with Navy review to occur in October 2011. It is anticipated that the draft report will be published in November 2011. The Data Report for long-term monitoring event (ME) 37 is nearly complete; the draft document will be published in October 2011. Field work for ME 38 (a large sampling event) will occur between October 3 and October 21, 2011. Landfill maintenance (including cutting grass, removing weeds and repairs to wooden fence) was completed in September 2011. The Annual Landfill Settlement Survey will be completed in October 2011.

Site 07:

Field Work for long-term ME 15 (groundwater sampling, shoreline piezometer sampling, sediment sampling) will occur in September/October 2011. The Site 07 Source Area Investigation is nearly complete. As detailed in the summary presented below, soil borings were advanced in April/May 2011 and the Offshore Investigation was completed in June 2011. The results of the April/May 2011 soil investigations were used to propose the locations of eight new groundwater monitoring wells at Site 07. These wells were installed in August 2011. Development and groundwater sampling at new wells occurred in September 2011.

UPDATED RISK ASSESMENT OF SOILS AT SITE 03 (Attachment C)

Lee Ann Sinagoga provided a brief summary of the updated (2011) Human Health Risk Evaluation (HHRE) of soils at four sites within the former Construction Equipment Department (CED) which is located in Zone 3 of the former NCBC Davisville, west of Site 16. The four sites evaluated were: Study Area 01, the CED Drum Storage Area; Site 02, the Battery Acid Disposal Area; Site 03, the CED Solvent Disposal Area; and Study Area 04, the CED Asphalt Disposal Area. The current (and likely future) land use at the former CED area is industrial/commercial. However, for purposes of completeness, four potential receptors of concern were evaluated: construction workers, industrial workers, recreational users (child, adult, and lifelong receptors), and hypothetical residents (child, adult, and lifelong receptors). Chemicals of Concern (COCs) were identified based on the results of the HHRE for each of the study

areas/sites evaluated. No COCs were identified based on HHRE results for subsurface soil. The Carcinogenic Polycyclic Aromatic Hydrocarbons (CPAHs) were identified as COCs for Study Area 01 surface soil. Total petroleum hydrocarbons (TPH) were identified as COCs for Site 02 and Site 03 surface soil. Polychlorinated biphenyls (PCBs) were identified as COCs for Study Area 04 surface soil. The path forward for the four sites includes the resolution of all regulatory comments on the 2011 HHRE and the evaluation of potential remedial responses for the sites (e.g., the soil data evaluated could support a limited action remedial response [e.g., a residential land-use restriction] for soils in the CED area).

SITE 16 FEASIBILITY STUDY AND PROPOSED PLAN UPDATE

For Site 16 (the former FTA/Creosote Dip Tank Area), the field investigation to support the Feasibility Study was completed in 2010, and a report was submitted in November 2010. The Revised Draft Feasibility Study was submitted in February 2011 and evaluates remedial alternatives for both soil and groundwater contamination. Land use controls will be a component of any remedy selected for Site 16.

A response to comments document for the Revised Draft Feasibility Study was submitted in August 2011. The proposed Plan is tentatively due to EPA Region I and RIDEM in November 2011, and the Record of Decision is scheduled to be published in 2012.

NAVY PRESENTATION: SITE 07 SOURCE AREA INVESTIGATION AND REMOVAL ACTION (Attachment D)

Mr. Scott Anderson, Tetra Tech NUS, presented an overview of the source area investigation and the upcoming removal action at Calf Pasture Point (Site 07), located at former Naval Construction Battalion Center Davisville, in North Kingstown, Rhode Island. The source area investigation was performed to assist the Navy in evaluating the site remedy (i.e., long-term monitoring) to ensure continued protectiveness and explore potential additional work to reduce residual sources and thus reduce overall remedy time.

The source area investigation was performed in four phases as summarized below:

- Suspected Source Area Geophysics Evaluation – A geophysics evaluation was conducted in the suspected source area and included an EM-31 (non-ferrous) and magnetic (ferrous) survey. A large anomaly identified in the western portion of the site is suspected to be buried pails filled with white powder (DANC material). A ground penetrating radar survey was performed over this area to better resolve the anomalies in this area and estimate approximate depths of the buried material. Based on the ground penetrating radar survey it is estimated that the buried pails are approximately 2 to 5 feet below ground surface (bgs). The surveys also identified other areas of small miscellaneous buried metal objects.
- Site-Wide 3-D Soil Investigation – A site-wide 3-D soil investigation was performed in the spring of 2011 with a direct push technology (DPT) rig. Twenty-eight borings were installed across the site. The borings were advanced continuously until refusal, which was approximately 50 feet below ground surface (bgs). Samples were collected every five feet and were field screened using a photoionization detector (PID) and Color Tec screening. Approximately three to five samples per boring location were sent to a fixed base laboratory. The results of the investigation are still being evaluated and were used to determine the locations to install additional groundwater monitoring wells.
- Offshore Investigation – An offshore investigation within the Entrance Channel was conducted in June 2011. Twenty-one borings were advanced with a DPT rig on a barge. Sediment, deep surface water and pore water were collected at 21 locations and field screened using a PID and Color Tec screening. Sediment was collected from 1 to 6 inches and 6 to 12 inches below the sediment surface. Deep surface water samples were collected within 4 inches of the harbor floor. Pore water was collected 1 foot below sediment surface. Based on results of field screening, twelve samples were sent to a fixed based laboratory for analysis. All results were non-detect for all media.

- Installation and Sampling of Additional Groundwater Monitoring Wells – Eight wells were installed at six locations throughout the site based on the site-wide 3-D soil investigation screening and preliminary laboratory results. Two wells are shallow and deep well pairs. This work was performed in August 2011 using a DPT rig. All wells installed are 1.5 inch diameter pre-packed wells. The wells are currently being sampled and will be submitted to a fixed base laboratory for analysis.

A time critical removal action (TCRA) is planned to begin in late September/early October. The work will include removal of the large anomalous area identified during the geophysics investigation which is suspected to be buried pails filled with white powder (DANC material). The removal action will be completed by Shaw Environmental.

EPA PRESENTATION: SITE 07 NEAR SHORE GROUNDWATER DISCHARGE ZONE INVESTIGATION

Mr. William Brandon's (EPA) presentation is included as Attachment E. The following items summarize the main points:

- This investigation is being conducted by the EPA because of the Agency's concern regarding the potential discharge of Volatiles Organic Chemicals (VOCs) to the surface waters and sediments of Allen Harbor/Narragansett Bay and, thus, potential receptor exposure (shoreline human receptors, flora/fauna along the shoreline and out in the Harbor/Bay). The investigation is intended to compliment the Navy's Site 07 source area investigation and removal action. The near shore investigation was also conducted to further understand "where" the groundwater underlying Site 07 is discharging to Allen Harbor/Narragansett Bay.
- Portions of the current land area at Site 07 were initially lagoons and wetland areas that have been "filled in" in the past. This "filling in" has impacted/complicated groundwater flow patterns and, thus, the potential for and interpretation of contaminant transport downgradient of source areas (including to the adjoining surface water bodies).
- "Clam diggers" have been seen digging clams along the Site 07 shoreline in the past. This activity is no longer allowed (signs have been installed along the shoreline); however, portions of the shoreline are still attractive to such receptors.
- EPA began its investigation by conducting an inspection of the shoreline in terms of the conditions of the existing monitoring wells and piezometers, the existing signage (i.e., the no swimming or wading signs), and the presence of flora/fauna. The land area around the well pads at some well locations has sunk/subsided such that the pads are now above the ground surface. Such wells are in need of repair.
- The investigations addressed three areas at/downgradient of the Site 07 shoreline:
 - The eastern entrance channel.
 - The southeast shoreline along Narragansett Bay.
 - The northeast shoreline along Narragansett Bay
- The near-shore investigative program included the following:
 - Temperature and salinity profiling (length of the sampling probe was 6 feet), and observation of groundwater flow conditions (e.g., artesian conditions) to determine potential groundwater-to-surface water discharge zones.

- Push-point sampling for the presence of Chlorinated Volatile Organic Chemicals (CVOCs) (pore water sampling using Henry samplers). (Locations are displayed on Figure 2 of Attachment E.)
- Use of GPS to accurately document all sampling locations.
- Porewater salinity data are displayed on Figure 3 of Attachment E. The data suggest the lowest salinity pore water is found away from shoreline into the Entrance Channel and along the shallow shelf feature on the southern portion of the site on the Narragansett Bay. In the northern portion of the site along Narragansett Bay, porewater salinity is high (near sea water levels).
- As indicated on Figure 4 of Attachment E, artesian groundwater flow (i.e., discharge from groundwater to surface water) was observed at several locations advanced on either side of the entrance channel. However, trace levels (less than 5 ppb) of CVOCs only have been detected thus far along in the samples collected along the grid lines displayed (see Figure 5 of Attachment E).
- The freshwater/saltwater interface is more complicated due to laterally extensive semi-confining silt layer present at Site 7. Therefore, freshwater discharges to the surface water may occur in more than one location based on origin of freshwater.
- The EPA's work also included a groundwater investigation at locations within Site 07. The EPA program included the installation of piezometers, collection of water level measurements during November and December 2010, and direct-push technology (DPT) well installation during November/December 2010 (see Figure 14 of Attachment E). The EPA is concerned regarding the potential for a "valley" (hydro-geologically speaking) in the center of the site that may funnel groundwater along the pathways depicted on Figures 16, 17, and 18 of Attachment E. One of these potential pathways leads towards Narragansett Bay.
- Re-interpretations of the bedrock surface support divergent pathways for groundwater flow to the Entrance Channel and Narragansett Bay in the southern portion of the site.
 - Cross-sections in these areas suggest flow in upper and lower portions confined to within aquifer portions (shallow and deep zones) and discharge may be occurring on Spink's Neck.
- CVOC fluctuations at the MEW07-39 location suggest that this location is near the edge of a higher concentration area to the east, potentially migrating to the Entrance Channel.
- Mr. Brandon concluded his presentation with the following recommendations for potential future work:
 - To resolve concerns regarding the ability of the DPT advanced wells to reach the top-of-bedrock (TOR), additional wells may need to be installed via drive-and-wash technology.
 - The silt layer potentially located along potential groundwater transport pathways depicted on Figures 16, 17, and 18 (Attachment E) may require further investigation.
 - The CVOC concentrations at location MW07-24Dut may require further monitoring/evaluation to determine if the CVOC concentrations are trending upward at this location.
- Mr. Brandon further noted that data from both the Navy and EPA Site 07 investigations are currently pending. These data need to be evaluated and the Conceptual Site Model (CSM) for Site 07 updated, as necessary. Then, recommendations for additional Site 07 investigations and modifications to the Long-Term Monitoring Plan (LTMPs) contemplated by the Navy and EPA.

U.S. ARMY PRESENTATION: PROPOSED REMOVAL ACTION AT TRAINING AREA 3D AT CAMP FOGARTY

Mr. Randy Church, U.S. Army, summarized the proposed removal action activities for Munitions Response Site (MRS) Training Area 3D located at Camp Fogarty in East Greenwich, Rhode Island. The MRS is situated at the proposed location of a Military Construction (MILCON) Project, which includes the construction of a United States Property and Fiscal Office (USPFO) Building and associated parking areas. MILCON Project activities are scheduled to begin in the fall 2011.

Training Area 3D was formerly used as a range for firing small arms and 3.5-inch practice rockets. The soil impact berm, where former firing activities were directed, remains at the MRS. A Supplemental Investigation (SI) consisting of a geophysical survey and soil sampling was conducted in 2010. The SI identified munitions debris (small arms and practice rocket parts) in the soil berm and identified soil concentrations greater than RIDEM residential screening levels for select metals (arsenic, lead, manganese, and thallium) in the berm and at several other isolated locations. There were no Munitions and Explosives of Concern (MEC) identified at the MRS during the SI. The SI recommended a removal action be completed to address the elevated soil concentrations and munitions debris identified in the berm.

The proposed removal action activities consist of the excavation of the soil berm and isolated soil locations outside of the berm which contained concentrations greater than RIDEM residential screening levels and off-site disposal/re-use. It is anticipated that soils will be sent to Massachusetts for re-use as landfill cover. Berm soils will be screened using a 1-inch wire mesh to segregate munitions debris prior to re-use/disposal. Soil samples will be collected to confirm that the remediation goals are met. Removal action activities are scheduled to begin the first week in October and continue for three weeks. An after-action report will be prepared to document the removal action activities. The after-action report should be available in November 2011.

Tonight's meeting concluded at approximately 9:00 P.M.