

## St. Juliens Creek Annex Restoration Advisory Board Meeting Summary: June 17, 2008 Meeting

### RAB Members Present:

Tim Reisch	NAVFAC Mid-Atlantic	Karen Doran	Virginia DEQ
Walt Bell	NAVFAC Mid-Atlantic	Kim Henderson	CH2M HILL
Robert Mann	RAB Community Co-chair	Janna Staszak	CH2M HILL
John Burchette	EPA (Region III)	Adrienne Jones	CH2M HILL

**Location:** Major Hillard Library, Chesapeake, Virginia

**Meeting Date:** June 17, 2008

**From:** Janna Staszak/CH2M HILL

**Minutes Date:** August 19, 2008

### Restoration Advisory Board Welcome and Introductions

At 5:30 PM Mr. Reisch presented opening remarks and introductions to the Restoration Advisory Board (RAB). Mr. Reisch indicated that Mr. Bell is currently transitioning into the St. Juliens Creek Annex (SJCA) Remedial Project Manager (RPM) position for the Navy. Handouts of all of the presentations were distributed.

### Site 5 Removal Action

Mr. Reisch summarized the removal action being conducted at Site 5. He reviewed the objectives of the presentation, which were to review the site history, present the approach for the removal action, and discuss the schedule and path forward. Mr. Reisch presented a figure showing the location of Site 5 within SJCA. The site consists of approximately 23 acres in the northeastern portion of the facility. Site 5 was operated as the burning grounds from the 1930s to the 1970s. The area was used for disposal of ordnance wastes through burning. Historical records indicate other wastes were also disposed in the area, including carbon tetrachloride, trichloroethene, paint sludge, pesticides, and refuse, of unknown quantities. Mr. Reisch indicated that approximately 4 acres of the site were used for the burning operations. Various contaminants, predominately metals and pesticides, have been identified in select areas throughout the remaining 19 acres of the site.

Mr. Reisch reviewed the investigation history of Site 5. The Remedial Investigation began at Site 5 in 1997. The investigations identified potential risk to human health or the environment in waste, soil, sediment, and shallow groundwater from the waste, metals, and

pesticides. An Expanded Remedial Investigation was conducted in 2006 to further evaluate shallow groundwater. The Expanded Remedial Investigation report concluded that no further investigation was required for shallow groundwater due to the sporadic elevated metals concentrations. Mr. Mann asked if monitoring wells are present at Site 5, and Mr. Reisch indicated that there are 5 shallow groundwater monitoring wells.

An engineering evaluation/cost analysis was prepared in 2007 to develop and evaluate removal action alternatives to address the waste, soil, and sediment. Excavation of the areas followed by site restoration and wetlands creation was the selected alternative. The removal action would be conducted in phases. The restoration plan consists of mixed habitats, and will attempt to keep *phragmites* out of the restored areas. However, because of the invasive nature of *phragmites*, it might not be possible. EPA's Biological Technical Assistance Group (BTAG) has participated in the development of the restoration plan.

Mr. Reisch indicated that the removal action will be conducted in 3 phases. The first phase was initiated in December 2007. He reviewed the activities that were conducted: mobilization, waste characterization sampling, and portions of the site setup/installation of erosion and sediment controls. He indicated that work was stopped when a Mark 1 smoke hand signal was encountered during site preparation activities. Naval Ordnance Safety and Security Activity (NOSSA) is requiring the submission of an Explosive Safety Submission (ESS) prior to resuming work at the site.

The ESS develops the procedures for protecting the project team and public during implementation of the removal action. It also identifies the quality control (QC) procedures to ensure no munitions and explosives of concern (MEC) or items having the appearance of MEC are sent off-site for disposal with the soil and waste. All excavated materials will be mechanically screened. The QC manager will also place QC seeds into excavated material lots to confirm that they are identified through the screening process. If the QC seed is not found, the lot will fail and will be re-screened prior to off-site disposal. Tim indicated that NOSSA comments on the ESS are currently being resolved.

Mr. Reisch reviewed the project schedule. The ESS will be resubmitted, and NOSSA approval is anticipated shortly after. The removal action will then resume and should be completed by the fall. Following the removal action, a no further action Proposed Plan will be prepared. Depending on the schedule for the removal action, a public review period for the Proposed Plan will likely take place in January or February 2009.

### **Indoor Air Vapor Intrusion**

Mr. Reisch informed the RAB of an ongoing vapor intrusion evaluation being conducted at Site 21. Mr. Reisch presented a figure depicting a chlorinated volatile organic compound (CVOC) plume in shallow groundwater at Site 21. CVOCs are volatile, and therefore can potentially volatilize and pass through the vadose zone into the air. Therefore, during the Remedial Investigation risk assessment, groundwater data was input into a model to assess the potential of vapor intrusion into buildings at Site 21. During review of the document, concern was raised regarding the applicability of the model at sites with shallow groundwater (e.g., Site 21, where depth to groundwater ranges from 1 to 7 feet below ground surface). Air vapor intrusion guidance is still under development. In the meantime, additional investigation is being planned, including the collection of indoor air data to assess potential risk to building occupants.

Mr. Reisch indicated that the air vapor modeling conducted for Building 1556 and Building 54 identified potential risks based on long-term exposure. No imminent or short-term risks were identified. Mr. Mann asked what operations are conducted in the buildings. Mr. Reisch indicated that Building 1556 is the Mid-Atlantic Regional Maintenance Center (MAMRC) and used mostly for storage. Building 54 is a small maintenance shop. Mr. Reisch indicated that all of the active buildings at the site will be evaluated during the investigation. Inactive buildings will not be investigated; however, land use controls will be placed on them and investigation will be required prior to a change in building use.

Mr. Reisch indicated that the investigation of groundwater at the site has been completed, and that a feasibility study is under way to evaluate remedial alternatives for CVOCs in groundwater. The Navy will likely remediate the groundwater through the injection of a reagent into the ground.

## Site 2 Triad Investigation

Ms. Jones presented a poster of the Site 2 Triad investigation that she presented at the Triad National Conference and Training at Amherst, Massachusetts in June. The conference consisted of training sessions, platform sessions, and work shops focused on implementation of new tools, approaches, and strategies for hazardous waste site characterization, site remediation, and site redevelopment. The conference provides an opportunity for environmental professionals to interact with one another and learn from leading experts, researchers and practitioners in the field of environmental site characterization, monitoring, sampling and remediation, weaving together the Triad approach for improved decision making and site management.

Ms. Jones explained the Triad approach, which uses systematic project planning, dynamic work strategies, and real-time measurements for conducting investigations. The approach is intended to reduce the duration of investigations and improve the quality of data collected. She discussed a timeline for investigations at Site 2. Remedial Investigation activities were conducted from 1997 to 2006 using traditional investigation methods, and significant data gaps remained at the site. Using the Triad approach, an investigation was conducted from April through July 2007 that addressed all of the remaining data gaps in a short timeframe.

Ms. Jones indicated what real-time technologies were used during the investigation, including membrane interface probe data collection, collection of groundwater samples with direct push technology and through piezometers for analysis in an on-site laboratory, and collection of sediment pore water samples by sediment diffusion samplers for analysis in an on-site laboratory. Results were uploaded to the SJCA partnering team web site daily so the project team members could follow the investigation and participate in decision making, such as selection of additional sample locations.

Ms. Jones discussed the lessons learned through the investigation. She concluded that the Triad approach significantly reduced cost and time to complete the investigation, and it is recommended for use at other complex sites. The project team involvement helped with decision making and reduced comments and uncertainty with the data collected.

## Unexploded Ordnance (UXO) Site 0001

Mr. Bell presented a new munitions response program (MRP) site at SJCA: Site UXO 0001, which is the wharf areas of SJCA. He reviewed the objectives of his presentation, which were to present the MRP process, present background on UXO 0001, and discuss the path forward. Mr. Bell indicated that the MRP was established under the Defense Environmental Restoration Program to address munitions and explosives of concern (MEC) and munitions constituents (MC) at areas outside of operational ranges. The Department of Defense is establishing policy and guidance for munitions and response actions under the MRP. The CERCLA process, for which Mr. Bell presented a figure depicting the steps, is currently the preferred MRP regulatory approach.

Mr. Bell presented a figure depicting the locations of wharf areas at SJCA. He reviewed the investigation history of the site, which was formerly listed as Installation Restoration Program (IRP) Site 20. The IAS (1981) identified 1,520 linear feet of wharf area and piers that were historically used for loading of ordnance from the 1917 to the 1970s. Explosive Ordnance Disposal (EOD) team divers searched the area and reported some metal and thick silt deposits. The IAS concluded that ordnance had been dropped into sediments during loading and loading operations, but that the items did not present a hazard if the sediments are not disturbed.

Mr. Bell presented the results of the Relative Risk Ranking (RRR) (1996). The RRR included a magnetometer survey and sediment sampling in the northern wharf area. Several "contacts" were identified near the former wharf pilings. The "contacts" represent buried metal, but not necessarily ordnance. No visual confirmation was made during the RRR. Four sediment samples were collected during the RRR and analyzed for total compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides/polychlorinated biphenyls (PCBs), target analyte list (TAL) inorganics, and explosives.

Mr. Bell presented the findings of the Site Screening Assessment (SSA) (2001). Data collected during the RRR was evaluated in the SSA. Human health and ecological risk screenings were conducted on the sediment data. The human health risk screening did not identify any potential risk to human receptors. The ecological risk screening identified minimal potential risk to benthic organisms. However, it was based on concentrations that were similar to concentrations detected in urban water bodies. One explosive, 1,3-dinitrobenzene, was detected in one of the four samples, but no toxicity screening value exists for it. The report recommended posting signs to prohibit intrusive activities, placing a warning notice in NAVFAC Real Estate Documents under the Navy's Range Program, and providing notification to the United States Army Corps of Engineers of the potential presence of UXO. During the July 2001 partnering team site visit, consensus was reached to close IRP Site 20 with no further action under CERCLA based on the actions to be taken under the Navy's Range Program.

Mr. Bell indicated that although IRP Site 20 was closed, dealing with sites with potential explosives is an up and coming program. It is recognized that they may present a hazard, so NAVFAC headquarters has approved the addition of Site UXO 0001 to the MRP. A Preliminary Assessment (PA)/Site Investigation (SI) is planned for 2008 through 2009.

Mr. Mann asked what area would be investigated during the PA/SI. Mr. Bell responded that in the northern area, investigation would extend approximately 150 feet out from the former wharf. In the southern area, the area will extend approximately to the river channel.

### **Roundtable / Q & A**

Mr. Reisch discussed the transition of the NAVFAC RPM. Mr. Bell is transitioning into the SJCA RPM role. Mr. Bell is currently responsible for two other facilities. Therefore, both Mr. Reisch and Mr. Bell will stay involved until Mr. Bell is relieved of one of his other facilities.

Mr. Mann indicated several of the residents in the Brentwood neighborhood have irrigation wells, and some residents have concern over the quality of the groundwater. Mr. Reisch asked to what depth the wells were installed, and Mr. Mann indicated approximately 60 feet. Mr. Reisch indicated that investigations conducted at SJCA identified a contiguous confining unit (the Yorktown confining unit) at approximately 15 to 20 feet below the ground surface, and had concluded that the facility had not impacted the Yorktown aquifer. Additionally, SJCA is located downgradient of Brentwood. Therefore, SJCA has not impacted the groundwater from which the irrigation wells are drawing water.

**Next Meeting:** Mr. Reisch suggested that the RAB meeting be held in conjunction with the public meeting for the Site 5 Proposed Plan, which is estimated for February 2009. Mr. Reisch asked if there are any particular topics that Mr. Mann would be interested in. Mr. Mann did not have any suggestions. Ms. Doran suggested a topic on the hydrogeology of the area/groundwater flow direction/etc.

Mr. Reisch indicated that RAB members will be notified of the next meeting by email and a public notice will be issued in the *Virginian-Pilot* newspaper.

Mr. Reisch suggested updating the fact sheet for distribution to the RAB members after the Remedial Investigation reports are completed for Site 2 and Site 21.

**Meeting Adjourned.**