

St. Juliens Creek Annex Restoration Advisory Board Meeting Summary: November 2, 2011 Meeting

RAB Meeting Attendees:

Walter Bell - NAVFAC Mid-Atlantic	Barbara Brumbaugh - City of Chesapeake
Robert Mann - RAB Community Co-chair	Janna Staszak - CH2M HILL
Kevin Lew - RAB Member	Adrienne Jones - CH2M HILL
Robert Stroud - USEPA (Region III)	Valerie Walker - NAVFAC MIDLANT
Karen Doran - Virginia DEQ	Dave Tugwell - Geneva Shores resident
Mike Brayshaw - NNSY Public Affairs Office	Marty Costello - Citizens for Restoration of St. Juliens Creek
Harry Blevins - US Senate	

Location: Major Hillard Library, Chesapeake, Virginia

Meeting Date: November 2, 2011

From: Adrienne Jones/CH2M HILL

Minutes Date: January 19, 2012

Restoration Advisory Board Welcome and Introductions

At 5:00 PM Mr. Bell presented opening remarks and introductions to the Restoration Advisory Board (RAB). Mr. Bell explained that he is the Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic Remedial Project Manager for St. Juliens Creek Annex (SJCA). The other RAB members and the guests introduced themselves. Handouts of all of the presentations were distributed.

Fiscal Year 2012 Goals

Mr. Bell reviewed the objectives of the presentation, which were to provide an overview of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process; provide an update of the Environmental Restoration Program (ERP) sites and Fiscal Year (FY) 2012 goals for the Installation Restoration Program (IRP) sites, Munitions Response Program (MRP) sites, and for facility-wide ERP activities; and answer any questions.

Mr. Bell provided an overview of the CERCLA process. Mr. Bell explained that goals are established yearly to cover the FY, which starts on October 1 and ends on September 30. The goals serve as a budgeting tool for allocating funds, as a prioritization tool to determine sequencing of sites to be investigated and remediated based on their potential risk to human health and the environment, and as a scheduling tool to keep remediation projects on track. A figure was presented showing the status of the ERP sites at SJCA; to date 54 sites have been closed with no further action required and four are currently active in the ERP.

Mr. Bell provided the background and status of IRP Site 2 (Waste Disposal Area B). Site 2 is a 5.7-acre site that includes an unlined, former waste disposal area for construction debris, blast grit, waste ordnance, and solvents. The area was used for waste disposal from 1921 to 1942. A Remedial Investigation (RI) was conducted at the site and identified potential risk to human health and/or the environment from waste; chlorinated solvents, one polycyclic aromatic hydrocarbon (PAH), and one pesticide in the shallow aquifer groundwater; chlorinated solvents and metals in the surface water; and PAHs, pesticides, polychlorinated biphenyls (PCBs), and metals in the sediment and soil. A Feasibility Study (FS) was conducted to develop and evaluate remedial alternatives to address the site's human health and environmental concerns and a Proposed Plan identifying the preferred remedial alternative [cover, excavation, enhanced reductive dechlorination (ERD), and monitored natural attenuation] was presented to the public. The Record of Decision (ROD) documenting the selected remedy was signed and the Remedial Design (RD) and Remedial Action (RA) planning are currently in progress. The FY12 goals established for Site 2 are to finalize the RD by December 31, 2011, finalize the RA work plan by June 30, 2012, and finalize the RD Addendum by September 30, 2012.

Mr. Bell provided the background and status of IRP Site 4 (Landfill D). Site 4 is an 8.3-acre landfill that was operated from 1970 to 1981. An RI was conducted at the site and identified potential concerns from the waste; metals, PCBs, and PAHs in soil; and mercury in drainage sediment. Soil cover installation and drainage ditch sediment removal were completed in October 2005 in accordance with the ROD. Land Use Controls (LUCs) have been implemented to prohibit disturbance of the soil cover and residential use of the site. A Five-Year Review for the site, incorporating the results of voluntary groundwater monitoring conducted following completion of the RA to evaluate the site's impact on groundwater quality, was completed in 2010. The Five-Year Review report concluded that the remedy at Site 4 is protective of human health and the environment. LUCs (signs, fencing, survey plat, and annual inspections) are maintained at the site and Five-Year Reviews will be conducted every five years, with the next scheduled for 2015. No FY12 goals were established for Site 4.

Mr. Bell presented the background and status of IRP Site 5 (Burning Grounds). The site extends over approximately 23 acres, a portion of which was used as a burning ground from the 1930s to the 1970s. Various wastes were reportedly disposed of, including solvents, paint sludge, pesticides, and refuse. An RI was conducted at the site and identified potential concerns from waste and metals, pesticides, and PAHs in the surface soil and drainage sediment. An Engineering Evaluation/Cost Analysis was conducted to develop and evaluate removal action alternatives to address concerns, identify the preferred removal action, and provide an opportunity for public input. An Action Memorandum documenting the preferred action as the selected action (excavation of waste and impacted soil and sediment and offsite disposal) was signed in 2007 and a Supplemental Action Memorandum documenting a change in scope of the response and ceiling increase was made available for public comment and signed in 2010. The removal action, initially delayed due to discovery of munitions and explosive of concern, is currently in progress. The FY12 goals established for IRP Site 5 are to draft the Construction Closeout Report for the removal action by September 30, 2012 and draft the Proposed Plan for the site by September 30, 2012.

Mr. Bell presented the background and status of IRP Site 21 (Industrial Area). Site 21 comprises an industrial area of the base. Historically, buildings were used as maintenance

and electrical shops and munitions loading facilities, outdoor areas were used for equipment and chemical storage, and a former fuel service station was operated. An RI was conducted at the site and identified potential concerns from chlorinated solvents in the shallow aquifer groundwater and indoor air. An Interim Proposed Plan identifying the preferred remedial alternative for addressing shallow aquifer groundwater concerns was presented to the public. An Interim ROD documenting the selected remedy for addressing shallow aquifer groundwater concerns, In Situ Chemical Reduction (ISCR) and ERD, has been signed. Mr. Bell explained that the Proposed Plan and ROD were “interim” because they only addressed the unacceptable risk from potable use of shallow groundwater while the potential risk to building occupants from vapor intrusion through the inhalation of indoor air was ongoing. An RI and FS Addendum Report concluded there are no indoor air concerns as a result of chlorinated solvents in shallow aquifer groundwater and recommended vapor intrusion monitoring as a conservative measure until the groundwater RA has been completed. A Proposed Plan identifying the interim Selected Remedy to address the shallow groundwater aquifer concerns as the final remedy for the site was presented to the public. The RA construction was completed in September 2011. A ROD documenting the interim Selected Remedy as the final remedy for the site has been signed. A work plan for monitoring vapor intrusion during the RA is in progress, and RA operation, including groundwater monitoring, is ongoing. The FY12 goals established for Site 21 are to obtain signature on the ROD by December 31, 2011; finalize the LUC RD by December 31, 2011; finalize the vapor intrusion work plan by December 31, 2011; and finalize the interim RA closeout report by June 30, 2012.

Mr. Bell presented the background and status of MRP Area UXO 1 (Wharf Area Sediments). MRP Area UXO 1 consists of approximately 2,230 linear feet of current or former wharf areas along the Southern Branch of the Elizabeth River. The northern wharf area was constructed in 1917 and used for loading and unloading ordnance, especially Mark VI mines, until the mid 1920s. The wharf is no longer present, with the exception of some pilings. The southern wharf area was constructed in 1898 and used for ordnance loading until the early 1970s. The wharf is still in use, but no longer used for ordnance loading or unloading. A Preliminary Assessment for the area was completed in 2009 and recommended further investigation. The Site Inspection (SI) report documenting a geophysical investigation conducted in 2010 recommended additional investigation to further assess geophysical anomalies. The work plan for investigating the anomaly sources is currently being developed. The FY12 goal established for MRP Area UXO 1 is to finalize the SI addendum by September 30, 2012.

Mr. Bell explained that the facility-wide goals established for FY12 are to draft a Site Management Plan by June 15, 2012 and to prepare a success story by September 30, 2012. The SJCA partnering team is planning for FY12 with expected funding of 1.3 million dollars. This funding includes basewide support, LUC inspections, RA construction for Site 2, Site 5 removal action for special waste, Explosive Ordnance Disposal Technology Division (EODTECHDIV) support for the Site 5 removal action, Site 21 RA operation monitoring, and, if needed, an RI at Area UXO 1. In comparison, the FY11 budget was 8.9 million dollars and was allocated for basewide support, LUC inspections, Site RA construction, Site 2 RD addendum (included sampling), Site 5 removal action construction, EODTECHDIV support for the Site 5 removal action, Site 5 milestone documentation and

sampling documentation, Site 21 milestone documentation, Site 21 RA operation monitoring (vapor intrusion), and Area UXO 1 SI.

Mr. Bell presented some of the additional ERP successes at the base. He explained that some of the former ERP sites and areas of investigation have been turned back over to the base for beneficial land use. Training has been conducted at Sites 3 and 19, which were closed with no further action required. Additionally, construction of a wetland at no further action Site 19 is currently being planned.

Mr. Bell asked if there were any questions or comments. Mr. Manning asked about the reduced funding for FY12. Mr. Bell explained that more funding was required for FY11 because the work that needed to be funded was heavy on the construction side. Mr. Tugwell asked if the hauling work he has noticed at Paradise Creek is associated with the soil piles he has observed at SJCA. Mr. Bell responded that they are not related, that the soil piles he has observed at SJCA are associated with the removal action at Site 5. Mr. Costello asked if there are any businesses that might take advantage of the facility since work is wrapping up. Mr. Bell responded that although sites are typically cleaned up for residential use for conservativeness, he does not know of any changes in land use at SJCA other than for Navy work.

SJCA ERP Public Web Site

Adrienne Jones presented the SJCA ERP public web site. She indicated that NAVFAC maintains web sites for many of the Navy facilities across the country, including Oceana, Joint Expeditionary Base Little Creek, Naval Station Norfolk, Yorktown, Cheatham Annex, and SJCA within Virginia. She indicated that links to the SJCA web site are provided on the RAB meeting agenda. Ms. Jones indicated that the SJCA web site is currently being updated and that feedback is welcome. She reviewed the layout of the site, including the Home, Site Descriptions, Community Outreach, Administrative Record File, and Links pages. The Home page provides a brief summary of the facility background and ERP activities. Information about all the active and closed sites is presented on the Site Descriptions page. She indicated that a feature may be developed to incorporate a map of the sites. The Community Outreach page includes the location of the Information Repository, announces the date and location of upcoming public meetings, and provides past RAB meeting agendas and minutes. Updates to this page may include the addition of more public documents, such as the Community Involvement Plan, Site Management Plan, and documents currently available for public review. The Administrative Record File page contains a collection of documents compiled by the Navy to document the selection of environmental response actions for each ERP site. The Administrative Record file provides access to site-specific information so that the public can make informed comments on the selection of RAs. A search function is available that can be used to find documents of interest. The Links page is currently empty; however, links to the Virginia Department of Environmental Quality, United States Environmental Protection Agency, ERP, etc. may be added during the updates.

Ms. Jones asked if there were any questions or suggestions. Mr. Costello asked if a password and username are necessary to access the site. Ms. Jones responded that it is not. Mr. Lew asked if presentations from the RAB meetings can be posted on the web site. Ms. Jones

responded that they are not currently posted, but that the possibility will be considered by the PAO.

Site 21 Interim Remedial Action

Mr. Bell provided an overview of the site background. Figures showing the location and features of Site 21 were projected. Site 21 is located within a light industrial area of the facility. Historical activities at the site were associated with maintenance shops, ordnance loading, and a fuel service station. Current site activities include storage and maintenance. Building 1556 is the most active building, used for warehousing and office space. Many of the buildings shown on the site figure are no longer present. Contamination at the site consists of trichloroethene (TCE) and its breakdown products [1,1-dichloroethene (DCE), cis-1,2-DCE, and vinyl chloride (VC)] in the shallow aquifer groundwater. Figures showing the initial extent of the TCE, cis-1,2-DCE, and VC plumes were projected.

Mr. Bell explained that the Interim ROD established the RA objectives of reducing contaminants in shallow aquifer groundwater to the maximum extent possible and preventing exposures until concentrations allow for unlimited use and unrestricted exposure. A table listing the maximum concentration of each contaminant of concern (COC) and its corresponding cleanup goal was projected.

Mr. Bell explained the components of the selected remedy for the site. The remedy includes ISCR and ERD, which facilitate a chemical reaction to break down TCE and its daughter products. ISCR was conducted through injection of zero valent iron (ZVI) into the accessible portions of the high-concentration COC areas in the shallow aquifer. ERD was conducted through injection of emulsified vegetable oil (EVO) into the low-concentration COC areas in the shallow aquifer.

Mr. Bell reviewed the RA activities completed to date. Mobilization for the RA occurred in November 2010, at which time 12 monitoring wells were installed and baseline sampling of 30 monitoring wells was conducted. The ZVI injections were conducted from December 2010 through February 2011. Performance monitoring in the ZVI area occurred in March and May 2011. The EVO injections were conducted from April through September 2011.

Mr. Bell explained changes that were made to the RA design during the construction. The horizontal wells planned for installation under Building 1556, in order to target the groundwater COCs under the building, could not be installed due to presence of foundation piles extending beneath the building. Several of the planned EVO injection points were relocated and the deeper portion of the groundwater aquifer was targeted for the EVO injections in order to address issues associated with daylighting and stormwater system infiltration.

Mr. Bell summarized the post ZVI injection sampling results. The results indicate that there have been significant reductions in the TCE levels. Four of the eight monitoring wells sampled have achieved 99% reduction in TCE and two of the eight have achieved clean up goals. Figures depicting the most recent plumes for TCE, cis-1,2-DCE, and VC following the ZVI injections were projected. Although the areal extent of the overall groundwater COC plume is very similar to what it was prior to injections, the COC concentrations have dropped significantly and a reduction in the areal extent of the plume is expected to occur.

Additional data will be available following the upcoming first semi-annual post-injection groundwater monitoring event, projected to take place in November 2011.

Mr. Bell asked if there were any questions; no questions were asked.

Roundtable / Q & A

Mr. Bell asked if anyone had general questions or comments that they would like to discuss. Mr. Mann indicated that he has been impressed with the ERP at the facility and what has been accomplished. Mr. Costello explained that he has formed a nonprofit organization, Citizens for the Restoration of St. Juliens Creek, dedicated to generating revenue in order to clean up the creek. He explained that the organization is attempting to make St. Juliens Creek safely navigable, especially since it appears that the waterway is being used by the Navy for training, and to rehabilitate a boat ramp and associated shoreline. Mr. Costello indicated that they are planning to plant native cord grass and conduct semi-annual cleanups, and he asked if the Navy can provide their source for the grasses used in wetland creation on the base. Ms. Staszak indicated that the source will be provided when it has been identified. Mr. Costello explained that they have requested that the damaged danger sign at the entrance to St. Juliens Creek, which warns of the overhead power line, be repaired. Mr. Mann suggested contacting Virginia Power about the downed trolley bridge. Mr. Bell noted that a sediment removal is going to be performed at Site 2 outfall to the creek.

Next Meeting:

Mr. Bell noted that the next RAB meeting will be in approximately 6 months, May 2012. Mr. Bell asked if there were any topics that the RAB members would be interested in. No additional agenda items were suggested.

Meeting Adjourned.