

St. Juliens Creek Annex Partnering Team Meeting Minutes: January 31 and February 1, 2007

Attendees: Agnes Sullivan/NAVFAC MID LANT
Josh Barber/EPA (Region III)
Karen Doran/VDEQ
Kim Henderson/CH2M HILL
Janna Staszak/CH2M HILL

Tier II Link: Bob Schirmer/NAVFAC MID LANT

Guests: Laura Cook/CH2M HILL (by phone)

From: Janna Staszak/CH2M HILL

Date: February 1, 2007

Location: VDEQ, Richmond, Virginia

Wednesday, January 31, 2007

0900 Welcome/Check In

Roles and Responsibilities for this meeting:

Meeting Manager: Kim Henderson
Timekeeper/Gatekeeper: Josh Barber
Host: Karen Doran
Goalkeeper: Agnes Sullivan
Facilitator: Agnes Sullivan
Recorder: Janna Staszak

Ground Rules

I. Review Agenda, Meeting Minutes, Action Items, and Parking Lot from the Previous Meeting

Review Agenda: No changes were made to the agenda.

Review Meeting Minutes: The draft August meeting minutes were reviewed.

Consensus: The team agrees to accept the draft meeting minutes from the August 2006 meeting as final. The final minutes will be posted on the Virginia/Maryland Joint Installation Restoration (IR) Teams web site.

Review Parking Lot: The draft August meeting minutes were removed from the Parking Lot.

Review Action Items: The action items from the December meeting were reviewed.

II. Tier II Update

Bob Schirmer provided the Tier II update:

EPA RPM Transition: EPA has a shortage of RPMs. EPA will have to prioritize bases to staff.

Tier III: Tier III group is being established. Membership is being finalized and may include additional states (Maryland and Washington DC?). Role is still being defined.

Training: Tier II would like to conduct a joint training session. Teams should choose four of the following options: Long Term Monitoring Optimization, Overall Base Closure Strategy, RCRA/CERCLA interface issue, MMRP Incorporation, NIRIS, Five-Year Reviews, Program Goals, Land Use Control Remedial Designs, ARARs, Changes to RODs, Technical Impracticability Waivers, DOD Industrial Use versus Ecological Risk, Streamlined ROD/BERA.

The team selected five: RCRA/CERCLA interface issue, Five-Year Reviews, Technical Impracticability Waivers, and DOD Industrial Use versus Ecological Risk.

NAVFAC Hiring: NAVFAC is looking to hire additional RPMs (engineers only).

III. Site 4 Voluntary Groundwater Performance Monitoring

Objective: Review the site background, discuss the results of the first round of voluntary groundwater monitoring, and review the schedule.

Overview of Discussion: Copies of the presentation and a table of data were provided. Kim reviewed the history and status of the site.

Action Agnes - Check GIS to see if Site 4 has more current cover picture. If so, get Kim and Janna access. If not, get helicopter flyover.

The first round of voluntary groundwater monitoring was conducted in November 2006, based on the December 2005 consensus statement. Groundwater was analyzed for arsenic, cadmium, iron, lead, and thallium. A report will be generated at the completion of 2 years of monitoring.

Kim reviewed each constituent. Arsenic was detected at the downgradient well at a concentration significantly higher than the previous detection and exceeding the MCL and background UTL. All other constituents were detected at similar or lower concentrations.

Action Kim/Janna - Check on Navy's policy on Five Year Review trigger.

Path forward: The next round of samples will be collected in February and presented in the May meeting. Sampling will continue quarterly for 2 years, and a report will be submitted in October 2008. LUC inspections will be conducted annually (next in September 2007). The 5-year review will be conducted in March 2010.

IV. Site 5 EE/CA, Action Memorandum, and Groundwater

Objectives: Discuss the EE/CA Status, review the Action Memorandum, gain team consensus for soil and sediment, discuss shallow groundwater, and review the schedule.

Overview of Discussion: Copies of the presentation were provided. Kim indicated that the Draft Final EE/CA has been placed in the Major Hillard library for the 30-day public review period, which lasts until February 17. There is significant interest in this site, so comments may be received.

The Action Memorandum was submitted on January 30 for team review. Comments are requested by February 28.

Consensus: The team agrees that conducting the removal action developed in the Site 5 EE/CA will address all unacceptable human health and ecological risk associated with Site 5 soil and sediment for unlimited use and unrestricted exposure; no further action will be required for those site media. Groundwater will be the only remaining media to be addressed under the CERCLA process.

Kim reviewed the groundwater data and potential risks identified in the shallow groundwater. Based on RME (more conservative), aluminum, arsenic, iron, cadmium, manganese, thallium, and vanadium pose non-cancer risks to a future child resident and arsenic poses a cancer risk to a future lifetime resident. Based on CT, ingestion of iron and manganese pose non-cancer risk to a future child resident.

To supplement previous groundwater data, the two additional rounds of shallow groundwater samples were collected (June and October 2006). The results were similar to previous rounds. Three new maximum concentrations were identified: lead, manganese, and selenium. A qualitative evaluation of the data indicates the risk conclusion will not change. A table of all shallow groundwater data was distributed.

Kim reviewed potential risk management considerations for the various constituents. The team may be able to risk manage the human health risks based on CT. However, because risk has been identified and there are MCL exceedances, the groundwater flexibilities will need to be used for a risk management decision on the MCL exceedances. Kim reviewed the applicability of each of the groundwater flexibilities for Site 5. The team discussed how the groundwater flexibilities are applied. If possible, the flexibilities should be incorporated into the risk assessment and ROD rather than in a separate document.

Action Josh & Karen – Talk with risk assessors and other RPMs about use of RME versus CT for risk management of groundwater and application of the groundwater flexibilities.

Agnes indicated that because the results have been consistent, it is unlikely that additional rounds before the removal action will be useful now.

Action Kim – Check on the possibility for iron and manganese to be considered essential nutrients in Site 5 shallow groundwater.

Path forward/schedule: Kim reviewed the schedule for Site 5. Developing a path forward for the groundwater will be an objective of the next meeting. The Final EE/CA will be submitted on February 23, pending public acceptance of the document. The Draft Action Memorandum has been submitted for review. The Final Action Memorandum will be submitted for Navy approval on March 6.

V. Site 21 Additional Investigation and Treatability Study

Objectives: Review storm sewer video survey results, discuss the additional field investigation activities to further delineate CVOC groundwater plume, discuss treatability study options, and review the schedule.

Overview: Storm sewer survey conducted October 2006 through January 2007 (phased). Preliminary review of video survey report indicates cracks, fractures, and broken pipes (~275 ft). A tech memo report will be prepared to present results and recommendations for repair.

Phase II additional groundwater delineation field activities are planned the week of February 19, 2007. Temporary well installation and groundwater sample collection for VOCs by on-site lab will be completed. Karen expressed concerns about the on-site lab quality due to an audit of an on-site lab being used at Camp Peary. Kim indicated that the CH2M HILL chemist is involved with that project and the selection of the lab for Site 21, and will conduct an audit of the lab during the field activities. Based on the results, permanent monitoring wells will be installed and groundwater samples collected for VOCs by an off-site lab.

Laura Cook reviewed the site conditions at Site 21 that will impact the selection of a treatability study technology. Laura indicated that there are many technologies that can be considered, but the presentation focuses on five: enhanced reductive dechlorination (ERD), aerobic bioremediation via co-metabolism, in-situ chemical oxidation, in-situ chemical reduction, and thermal technologies. She explained each technology and reviewed their key advantages and disadvantages. Laura also identified additional technologies, including air sparging, air stripping/recirculation wells, cosolvent/surfactant flushing, and pump & treat, none of which seem appropriate for Site 21 based on high operational cost, effectiveness, or policy.

Karen asked about sequencing of the treatability study, regarding the source areas and the dissolved phase areas. Laura indicated that a phased approach will likely be recommended, but the timing will need to be determined by technical consultants specializing in the selected technologies.

Agnes indicated she's been looking into enhanced bioaugmentation, and has seen recent studies where recirculation has been required. Laura said that it is dependent on the specific site conditions and soil types. In sites with low soil permeability or with obstacles preventing desired spacing of injections, recirculation is sometimes necessary. The goal is complete distribution of the substrate across the plume.

Agnes asked if ZVI leaves behind byproducts, such as iron, in the soil. Laura believes that the iron left in the soil is less available to the groundwater, but she will research.

Action Kim/Janna - Follow up with Laura on byproducts of ZVI for Site 21, and if the byproducts vary by type (powder versus oil).

Josh asked if there is potential to ever clean up the site to MCLs because of the presence of DNAPL. Laura indicated that she is unaware of any DNAPL site that has been cleaned up to meet MCLs. The treatability study and future remediation at the site can result in

significant reduction in contaminants. The difficulty with DNAPL is getting the substrate in contact with the contaminant.

Path Forward: The storm sewer video survey report and recommendations will be submitted in February. The Site 21 investigation activities will be conducted during the week of February 19. The data from the two recent events will be incorporated into the existing Draft SSI report and submitted in April. A Draft Treatability Study Work Plan will be submitted in May.

VI. Roundtable

Pass requests: Michelle Hartman is leaving, so pass requests must go through Agnes.

IDW/CNRMA: Lora Fly will replace Crystal as the contact. Notify Agnes as waste begins to be accumulated if it is suspected to be hazardous.

Vapor Intrusion: Josh expressed concern about vapor intrusion at Site 21, specifically Building 1556. The 2002 EPA draft vapor intrusion guidance is still being revised. EPA is developing a revised process for evaluating indoor air vapor intrusion.

If the building activity uses the same chemicals that are present in the groundwater, OSHA will govern their activities rather than CERCLA.

VII. Partnering Activity

The team performed a partnering activity to develop better team work skills.

Thursday, February 1, 2007

0830 Welcome/Check In

Reviewed Roles and Responsibilities

Reviewed Ground Rules

Reviewed current agenda: The technical topic was removed from the agenda to shorten the meeting due to a weather advisory. Additional changes will be made as necessary.

VIII. Site 2 Dynamic Work Plan

Objectives: Present the work plan developed based on the Site 2 Triad planning meeting and review the schedule for deliverables and activities.

Overview: Copies of the presentation and decision logic were distributed. Kim presented the field activities and logic associated with each. The team discussed the deep groundwater monitoring. Additional groundwater samples from the downgradient wells should be collected to confirm that the VOCs are not migrating in the deep aquifer from the vicinity of MW10D. Samples will be collected in April from MW02D and MW05D. Future monitoring will be based on consensus developed in the March partnering meeting.

Action Kim - Develop a plan for deep groundwater sampling and closure at Site 2.

Path forward: The draft dynamic work plan will be submitted to the Navy for initial review tomorrow or Monday. The draft will then be sent to the team around February 14, 2007. A 30-day review is requested, followed by finalization at the end of March. The field work will then be conducted beginning in April.

IX. Schedule and FY 2007 Team Goals Update

Schedule: The Schedule was updated and is included as a separate file.

FY 2007 Team Goals: The FY 2007 Goals were updated, included as an attachment, and will be posted on the Virginia/Maryland Joint IR Teams web site.

VIII. Agenda Building – March Meeting Agenda

<u>Topic</u>	<u>Goal</u>	<u>Lead</u>	<u>Time</u>
Site 2 Dynamic Work Plan Comment Resolution & Deep Groundwater Path Forward	Discuss comments on DWP and plan closure of deep groundwater	Kim	1.5 hr
Site 5 Groundwater and Site Visit	Develop exit strategy for Site 5 groundwater; Discuss outcome of site visit	Janna	1.5 hr
Site 21 Additional Investigation Summary and Preliminary Results	Discuss field investigation and results, plan path forward for storm sewer line repairs.	Kim or Janna	1 hr
Site Tour	Introduce new EPA team member (Jeff) to SJCA.	Kim or Janna	1 hr
Roundtable	Open (eBERA consensus)	Team	30 min
Technical Topic: Dechlorination using bioaugmentation	Educate the team.	Agnes	1 hr
Partnering Activity	Improve team working relationship or entrance/exit activities	Team	1 hr

Next meeting: March 21 - 22, 2007

Location: CH2M HILL, Philadelphia, PA

Lodging: Crowne Plaza, Philadelphia, PA

Start time: 1:30 PM

Finish time: 5:00 PM

Chair: Agnes Sullivan

Host: Josh Barber

Timekeeper: Karen Doran

Goal Keeper: Agnes Sullivan

Recorder: Janna Staszak

Facilitator: Josh Barber

Tier II: Tim Reisch

Guests: None

Pre-Meeting Agenda Conference Call: 10:00 AM on March 12, 2007

IX. Future Meetings Schedule

May 8 - 9, 2007

Virginia Beach or Norfolk, VA? w/RAB (May 7) (full day May 8, half day May 9)

July 17 - 18, 2007 Richmond, Virginia

September 18 - 19, 2007 Philadelphia, Pennsylvania

November 13 - 14, 2007 Tidewater, Virginia

X. Meeting Evaluation

Agnes provided facilitator feedback. During the Partnering Session, the Team filled in "+" and "Δ" to list the positives and negatives of the meeting.

Consensus: The team agrees to accept these meetings for the February 1, 2007 meeting as final. The final minutes will be posted on the Virginia/Maryland Joint Installation Restoration (IR) Teams web site.

XI. Parking Lot

- Incorporate Environmental Indicators into FY2008 Goals
- Site 4 groundwater monitoring during the 5-year review
- Consensus statements for final documents
- Indoor Air Vapor Intrusion at Site 21