

FINAL MEETING SUMMARY

CH2MHILL

St. Juliens Creek Annex Partnering Team Meeting Minutes: September 18, 2007

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

Tier II Link: Tim Reisch/NAVFAC MID LANT

Guests: None

From: Janna Staszak/CH2M HILL

Date: February 8, 2008

Location: CH2M HILL, Philadelphia, Pennsylvania

Tuesday, September 18, 2007

0830 Welcome/Check In

Roles and Responsibilities for this meeting:

Meeting Manager: Kim Henderson
Timekeeper/Gatekeeper: Karen Doran
Host: Josh Barber
Goalkeeper: Tim Reisch
Facilitator: Tim Reisch
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. Topics will be adjusted throughout the meeting as necessary.

Action Kim - Update the Partnering Guidelines.

Review Meeting Minutes: The meeting minutes were reviewed and will remain as draft pending Karen's action item:

Action Karen - Talk to Pat about July meeting minutes, regarding the TCE cancer slope factor discussion.

Review Parking Lot: Parking Lot items were reviewed.

- Environmental Indicators: Josh will look into how Environmental Indicators under control can be achieved in FY08 (meeting topic).
- Site 4 Groundwater Monitoring at 5-Year Review: Remains in Parking Lot.
- Phone numbers on IR signs.

Review Action Items: The action items were reviewed.

II. Site 21 RI and FS

Objectives: Discuss the draft RI report content, including results and recommendations. Develop the remedial action objectives. Discuss the FS alternatives. Review the schedule.

Overview of Discussion: Copies of the presentation were distributed.

The draft SSI report was submitted in 2006. Comments were provided by VDEQ and NEHAC. Kim reviewed the comments. The document was not finalized because it recommended further investigation; comments will be addressed in the draft RI report.

Kim presented the new CSM for Site 21. The CSM provides a picture of the overall site, including surface features, hydrogeologic features, potential releases, and current/future receptors. Josh provided the following comments:

- Show the plume under the buildings (e.g., Building 1556), possibly through building transparency.
- Make the grass greener to provide contrast between paved and grass-covered areas.

Kim reviewed the results of the HHRA for shallow groundwater and the risk characterization for site-related and non-site-related COCs. Site-related risk is associated with potable use of groundwater (TCE, VC, and cis-1,2-DCE) and inhalation of vapors by a future resident (TCE, VC, and dichlorodifluoromethane) and by an industrial worker (TCE in Building 54).

Non site-related COCs from potable use of shallow groundwater are benzene and arsenic. Benzene and arsenic were only detected above the MCL downgradient of the closed former UST site, which has a CERCLA exemption for POL. In addition, naturally occurring arsenic concentrations are increased by reducing conditions caused by degradation of petroleum compounds (low DO, negative ORP, and elevated ferrous iron concentrations).

Kim presented the results of the HHRA for deep groundwater and risk characterization. Potential risk was identified for potable use of deep groundwater due to arsenic and vanadium. However, arsenic and vanadium are not considered site-related as they were detected only sporadically, were not identified in the Columbia aquifer within the same area of the site, and the migration of any COCs in the Columbia aquifer is prevented by the laterally extensive hydraulic aquitard (Yorktown confining unit). Additionally, clay has a very low vertical permeability, and there is a low (and upward) vertical groundwater flow rate.

Kim discussed the storm water and surface water HHRA. Storm water was not evaluated in the HHRA due to its transient nature. Surface water was not evaluated because there are no surface water bodies within Site 21. Site 21 stormwater discharges to Site 2, where a higher

concentration CVOC plume is also discharging. Therefore, surface water in the Site 2 inlet will be addressed with Site 2.

Kim reviewed the RI report recommendations. For shallow groundwater, an FS is recommended to evaluate remedial alternatives to mitigate unacceptable human health risks from the site-related CVOCs. Further evaluation of potential indoor air risk at Building 54 is necessary. The evaluation of remedies should take into consideration the potential for mobilizing naturally occurring arsenic.

Action Tim – Schedule call to discuss vapor path forward for Site 21 (Dan, John, Kim, Janna).

The RI report will also recommend no further action for arsenic and benzene in shallow groundwater, on the basis that they are not site-related. Due to the co-location of POL site within the CERCLA site, it is anticipated that benzene will be remediated below MCLs. Arsenic will be monitored to assess the potential mobilization of arsenic due to the CERCLA action. Josh asked if benzene will be monitored to ensure it is addressed. Tim responded that it is a state call under the UST program, but the state usually bases their remedial endpoint on free-product, which has not been observed at Site 21.

The RI report will recommend no further action for deep groundwater because there are no site-related contaminants. No further action will be recommended for storm water. Surface water will be addressed with Site 2.

Karen asked how the fact that Site 21 groundwater is contributing contaminants to Site 2 will be addressed. Tim responded that Site 21 is a groundwater site; through remediation, the concentrations discharged to the surface water of Site 2 will be addressed. At Site 2, all of the media (including surface water) will be addressed. Groundwater samples have been collected between the Site 21 and Site 2 plumes, and the plumes do not appear to be continuous. Karen is concerned with implementing no further action for the storm water because contaminants have been detected and present a migration pathway. Karen asked if we can continue to monitor within the storm water. Monitoring of the storm water can be incorporated with the groundwater monitoring, because the water in the storm sewer (other than during precipitation events) is groundwater. Storm water will be recommended for no further action, but will be monitored in association with groundwater as a mechanism for evaluating contaminant transport.

Kim reviewed the preliminary remedial action objectives. Vapor may need to be worked into the RAOs. The RAOs can be refined during the next meeting.

Kim reviewed the preliminary remedial alternatives. Soil mixing of ZVI (in addition to injection) has been added to the alternatives since the last meeting. Josh asked if a PRB wall should be evaluated. The PRB was evaluated during the preliminary technology screening and was not carried through. Tim indicated that MNA should not be evaluated in association with a treatment train approach; instead, include monitoring for the effectiveness of the treatment. MNA may be considered as a separate alternative.

The team discussed the schedule. The draft RI report will be reviewed by NAVFAC by October 26. Comments will be addressed, followed by team submission November 9. Comments will be due on January 9, and the document will be finalized by the end of

January. The FS is ongoing, and the draft submission is planned for January, in coordination with the finalization of the RI report.

Path Forward: Complete, submit and review the draft RI report. Continue with the evaluation of alternatives in the FS. Refine the RAOs for discussion during the next partnering meeting. Develop a path forward for indoor air vapor (NAVFAC and CH2M HILL).

Action Team – Consider streamlining the Site 21 ROD. Incorporate into the goals.

III. Site 2 Success Story

Objective: Review the Site 2 Triad Investigation success story.

Overview of Discussion: Karen presented a draft Site 2 Triad investigation success story. The overall success is based on the reduced cost and length of the investigation through the use of the Triad approach. The memorandum includes a site background and investigation history and discusses the latest phase of the investigation using the Triad approach. Tim suggested the memo focus on the iterative approach of previous investigation and defined scoping based on data gaps identified during each phase, versus how the Triad approach differs through real-time technologies and flexible scoping. Further discussion of the outcome of the preliminary planning meeting will be added; in particular the table developed with the data gaps, RAOs, and associated investigation activities. The memo should also discuss how the team identified the preliminary remedial alternatives in order ensure the investigation addressed any data gaps that will need to be filled in order to evaluate those alternatives.

Path Forward: Janna/Kim will provide Karen with the draft abstract prepared by CH2M HILL for the Triad conference. Karen will incorporate the team suggestions and distribute the draft memorandum to the team.

Action Karen – Incorporate suggestions for Site 2 success story and send to the team by September 27.

IV. Roundtable

Site 2 – Kim provided an update on Site 2. She showed the team the draft CSM, abstract for the upcoming Triad conference, and the table of RAOs and remedial alternatives for shallow groundwater for discussion at the next meeting. The abstract for the Triad conference is due on October 1, 2007.

VDEQ Risk Assessment: Pat has been promoted to a new position: the risk assessment manager for VDEQ. Ahmet Bulbulkaya plus three others (one current, and two open positions) will support her. Until the positions are filled, risk assessment review may be slow.

GIS: The Navy Georeadiness system includes the entire IR mapping. There is a data/file structure for information that defines the shape files, and it is inconsistent between what CH2M HILL is using for their mapping and the Georeadiness system. The Navy is determining what approach should be used for the transition phase in the conversion to NIRIS. Action is pending Navy guidance.

V. Site 5 NTCRA Work Plan and Delineation Results

Objectives: Review the NTCRA phases, the draft removal action work plan content, and the results of the hot spot delineation,

Overview of Discussion: Copies of the presentation were distributed.

Kim reviewed the phases of the NTCRA. Tim requested a master project schedule, incorporating both TOs and all phases. The JV should begin emphasizing the three phases in project communication and document titles to avoid confusion. Doug Taylor will be the AROICC and Richard Hart will be ET for the project. Janna discussed the content of the removal action work plan, including the appendices (ESS and MEC work plan) that were not completed for team review but will be included in the final work plan.

Kim presented the results of the additional hot spot delineation sampling activities for SS35 and SS19. The team discussed the removal of the SS19 lead hot spot, and the impacts to the surrounding habitats. Although the Navy is committed to going through with the removal to achieve UU/UE and the removal is already funded, Tim suggested the team weigh the pros and cons because it will result in habitat destruction. Additionally, leaving SS19 in place does not pose significant site-wide risks. Leaving the SS19 lead concentrations (average of 1,172 mg/kg) in place, results in a post-removal site-wide average (141 mg/kg) below the human health cleanup goal of 400 mg/kg and background UTL of 147 mg/kg.

Action Kim – Send team Site 5 presentation (fill in averages and wetland impacts).

Action Josh/Karen – Discuss Site 5 SS19 results/removal with support staff and respond to the team by September 28.

Kim reviewed the basis and status of the ERI addendum. The draft was submitted on August 28 to include the updated risk assessment and risk management lines of evidence for shallow groundwater. Josh provided a few preliminary comments:

- Table 1-1: “selection” is incorrectly spelled.
- Page 2: Josh asked if VDEQ is okay with the text indicating that shallow groundwater is not considered to be a potable water source in the vicinity of SJCA.
- Arsenic and vanadium: add that there is no discernable plume.
- Page 6: Manganese, switch “tolerance” and “upper” in the last sentence?

Kim reviewed the overall schedule. It will be updated in detail during the schedule update.

Action Tim – Set up a conference call with CH2M HILL’s MEC staff and NOSSA to resolve the ESS comments.

Path Forward: Team review of the Draft Removal Action Work Plan by October 10. CH2M HILL will revise and resubmit the Compensatory Mitigation Plan to incorporate SS19 to the Navy for submittal to USACE. CH2M HILL and Navy will work to address NOSSA comments on the ESS and resubmit for review. CH2M HILL will prepare and submit the Draft Confirmation Sampling Work Plan for team review.

Action Tim – Notify team when the pre-construction meeting for Site 5 is scheduled.

Action Janna – Schedule a site visit for Site 5 after the removal action begins.

VI. Environmental Indicators

Objective: Update the team on the August meeting (EPA and NAVFAC) on Environmental Indicators.

Overview of Discussion: The two main environmental indicators are human exposure and groundwater migration. Human exposure for SJCA is classified as “under control”. Previously, groundwater migration was identified as having insufficient evidence to justify “under control” due to Site 2 and its proximity to St. Juliens Creek. Based on the results of the latest investigation activities, Josh and Tim met to review the status. Using the flow chart in the EPA guidance, they determined that although the Site 2 contamination is discharging from groundwater to St. Juliens Creek, because there is no risk and monitoring will continue, the indicator was changed to “under control”.

Environmental Indicators were removed from the parking lot.

VII. Tier II Update

Goals: Update goals and post them on web sites.

Training: Identify training needs and submit to Tier II (e.g., ESS)

Base/Site Closure Acceleration: VDEQ and EPA have asked to identify bases for which closure can be expedited. Navy has developed a schedule and cost to complete estimate for closure of each site, and is using it to balance their spending plans. Naval Base (last construction being funded next year) and SJCA are being accelerated.

VIII. 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.

IX. Schedule FY 2008 Goals

The FY 2008 Goals were drafted, included as an attachment, and will be posted on the Virginia/Maryland Joint IR Teams web site.

VIII. RAB Agenda Building – Wednesday, November 14, 2007 @ 5:30

| <u>Topic</u> | <u>Lead</u> |
|---------------------------------|---------------|
| Site 5 Removal Action | Tim Reisch |
| Groundwater Remediation - CVOCs | Laura Cook |
| Conceptual Site Models | Kim Henderson |

IX. Agenda Building – November Meeting Agenda

| <u>Topic</u> | <u>Goal</u> | <u>Lead</u> | <u>Time</u> |
|---|--|-------------|-------------|
| Site 21 Technical Topics (arsenic mobilization, treatment, vapor) | Discuss technical topics to enable preparation of the FS | Janna | 2 hr |

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|--|--|-----------|--------|
| intrusion, RAOs, and cleanup goals) | | | |
| Site 20 Path Forward | Provide information on input from NOSSA and Atlantic | Tim | 1 hr |
| EPA CPRM | Informational | Josh | 1 hr |
| Site 5 Comment Resolution & NTCRA Schedule | Resolve comments on Draft ERI Addendum, Confirmation Sampling Work Plan, and Hot Spot Delineation Report; update team on NTCRA | Kim/Janna | 2 hr |
| Site 2 Expanded Remedial Investigation Report, RAOs, and Remedial Alternatives | Present content of ERI (risk assessment results); Refine RAOs and remedial alternatives | Kim | 2 hr |
| Partnering Activity | Improve team working ability. | Team | 0.5 hr |
| Roundtable | Introduce new topics | Team | 0.5 hr |

Next meeting: November 15 - 16, 2007

Location: TBD, Virginia Beach, Virginia (57th street or Oceanfront? Va Beach Resort?)

Lodging: TBD

Start time: 8:30 AM Thursday

Finish time: 1:00 PM

Chair: Tim Reisch

Host: Janna Staszak

Timekeeper: Kim Henderson

Goal Keeper: Tim Reisch

Recorder: Janna Staszak

Facilitator: Josh Barber

Tier II: Tim Reisch

Guests: none

Pre-Meeting Agenda Conference Call: 11:30 AM on November 6, 2007

X. Future Meetings Schedule

October 10, 2007 @ 9:00 Site 4 Annual Inspection

January 23 - 24, 2008 Richmond, Alexandria, or Williamsburg, VA

March 11 - 12, 2008 Philadelphia, Pennsylvania (reservations Monday for Kim, Karen, and Janna & Tuesday for Tim, Kim, Karen, and Janna)

April 30 - May 1, 2008 Tidewater, Virginia with RAB

XI. Meeting Evaluation

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

XII. Parking Lot

- Site 4 groundwater monitoring during the 5-year review
- Phone numbers on IR site signs
- SROD for Site 21