SITE MANAGEMENT TEAM MONTHLY CALL SUMMARY
FORMER DEFENSE DEPOT MEMPHIS, TENNESSEE
9 AUGUST 2022
11:00 EDT

Army, Base Realignment and Closure Division (DAIM-ODB): Jay Foster
CALIBRE BEC: Bill Millar
U.S. EPA, Region 4, DDMT Project Manager – Fernando Martinez Torres
TDEC Division of Remediation, DDMT Project Manager – Jamie Woods (absent)
USACE, Mobile – Bob Beacham (absent): Laura Roebuck, Melissa Shirley
Koman Government Solutions: Larry Pannell
HDR EOC: Tom Holmes, Clayton Mokri, Nancy Jepsen
TechLaw: Mac McRae

Mr. Millar stated he would like to schedule an in-person meeting at DDMT for Wednesday, 19 October, because Ben Bentkowski would be able to attend that day. Mr. Martinez Torres confirmed that he would be available that day. Mr. Holmes said he would check whether Barnhart Crane has a larger meeting room that could be used.

MAIN INSTALLATION (MI)

No remedial action at the MI.

Focused Feasibility Study (FFS)

Mr. Holmes stated that the Army comments on the FFS have been resolved, and the updated document has been sent to the Army Environmental Law Division (ELD) for review.

Human Health & Ecological Risk Assessment (HHERA) Sampling

Mr. Holmes said that all samples but two samples for the HHERA were collected. One sample location in a concrete culvert had no sediment. The second location was not accessible at the time of sampling. Mr. Mokri will attempt to collect sediment and surface water samples at that location next week.

Vapor Intrusion (VI) Study

Mr. Holmes said the Comprehensive Sampling Plan (CSP) is in progress.

DUNN FIELD

Status of Air Sparge (AS)/Soil Vapor Extraction (SVE) Operations

Mr. Pannell said July was an “off” month for the AS/SVE system, with only wells AS-91 through AS-95 operating. The trichloroethene (TCE) concentration at MW-246, on the downgradient (north) side of the AS wells, was slightly above the MCL in the April LTM sample. The increase may be due to operation of AS-91 through AS-95 pushing contaminated groundwater past the system. AS-1 through AS-42 were turned on for one week in mid-July to see if that might reduce the TCE concentration at MW-246. All AS wells were switched to auto on 1 August and will operate for the month.

Mr. Pannell said that photoionization detector (PID) and vacuum measurements would be collected on 16 August. An air effluent sample will not be collected; effluent samples are collected four times each year and the next sample is scheduled for October.

AS/SVE Reporting

Mr. Pannell noted the Year 10 Annual Report Revision 1 was submitted to regulators. Mr. Millar confirmed that Mr. Martinez Torres and Mr. McRae had downloaded the report.

OFFSITE INVESTIGATIONS

Mr. Holmes said the Offsite Groundwater Investigation report, the Dunn Field West Post ROD Supplemental Investigation report, and the Dunn Field West property transfer documents are being reviewed by ELD.

LONG TERM MONITORING (LTM)

Mr. Holmes said responses to EPA comments on the Annual LTM Report – 2021 were submitted 9 August. The next LTM sample event will be in October.

OTHER ISSUES

Mr. Holmes said the 2022 Annual Site Inspection was submitted to EPA and TDEC in July.

He said there were no calls on the Community Information Line in July.

Mr. Holmes stated HDR will prepare a story list and schedule for the annual newsletter, EnviroNews, in September. He noted that whenever an SMT remedial project manager (RPM) changes, the newsletter includes a photograph of the new manager and a brief statement. Mr. Millar has provided a photograph; Mr. Holmes asked Mr. Martinez Torres to send a photograph for inclusion in the newsletter.

Mr. Holmes noted HDR is preparing the semi-annual update for the Information Repository (IR). An updated index of files will be placed on the website (https://ww3.sam.usace.army.mil/DDMT/) Administrative Record (AR) and IR documents that have been added since the last update.

Mr. Holmes stated the Five-Year Review was submitted for Army review on 27 July. He noted that the document will need ELD review, which will likely delay submission of the report to EPA and TDEC beyond the scheduled date of 22 August. An extension of the deadline will be requested prior to the submittal date. Mr. Martinez Torres asked if a draft of the report could be submitted to EPA for an internal preliminary review, at the same time as the ELD review, in order to speed up the process. Mr. Millar said he would discuss that with ELD.

Mr. Martinez Torres asked if the extension would cause a delay in obtaining signatures at the required time. Mr. Holmes said he hoped it would not, adding that the first three Five Year Reviews were submitted to the EPA RPM and forwarded to EPA Headquarters upon receipt so the review could be in parallel rather than sequentially. He would like that process to be followed

for this Five-Year Review. Mr. Martinez Torres responded that the EPA review will require internal discussion between Headquarters staff and himself, and that process might speed up if he could review a preliminary copy.

Mr. Martinez Torres requested a list of the documents that are currently in review by ELD. Mr. Millar agreed to provide that list.

VI Discussion

In advance of the call, Mr. Martinez Torres had emailed three comments regarding concerns on the VI Conceptual Site Model (CSM), which were addressed in this meeting.

Comment 1. According to the Report, the onsite and offsite plume areas of Dunn Field will not be evaluated to determine if CVOCs in soil vapor pose an unacceptable human health risk from VI. Residential property is located both west of and east of Dunn Field. Additionally, the Report states the spatial boundary for the VI investigation is on the MI property and the offsite groundwater contamination migrating onto the MI is considered from offsite sources. Residential property is located offsite of the MI to the west, south and southeast.

Response 1. Mr. Holmes stated the onsite and offsite plumes at Dunn Field were not discussed in the VI CSM as it was focused on the MI. The Dunn Field plumes will be addressed with EPA once the ELD completes responses to EPA letters on the Offsite Groundwater Investigation report and the Dunn Field West reports.

Mr. Holmes noted there are two areas on the MI with potential for offsite exposure where plumes are clearly migrating onto the MI: the TTA-1N and the North-Central plumes. Since the source of these plumes must be offsite, Army does not plan to investigation offsite impacts.

The first step in the VI investigation on the MI will be passive soil vapor screening samples throughout the MI, including locations near the property boundary; these boundary sample results will be reviewed to evaluate if there is a potential for onsite soil vapor concentrations to impact offsite areas. If concentrations in passive samples exceed screening levels, additional screening samples will be collected. Locations for soil vapor samples, sub-slab samples and indoor air samples will be selected based on the analytical results for the screening samples, previous soil vapor samples and recent groundwater samples.

Mr. Millar asked if there would be samples collected with passive vapor samplers in the surface soils. Mr. Holmes confirmed they would, stating that it was an idea from Mr. Bentkowski during a meeting with EPA in 2020. Mr. Millar asked if any of the samples would be taken in the Veterans Housing area. Mr. Holmes said they would be.

Comment 2. Section 9.2 (Groundwater to Indoor Air Attenuation Factors, Page 28) of the Report states vapor intrusion screening level (VISL) uses a groundwater to indoor air attenuation factor of 0.001; however, per USEPA guidance, a less conservative attenuation factor of 0.0005 based on site-specific soil type and depth to the water table. The semi-site-specific groundwater to indoor air attenuation factor of 0.0005 may be used at sites where laterally extensive fine-grained sediment has been demonstrated through site-specific sampling to underlay buildings

being investigated for vapor intrusion (USEPA, 2015). The Report notes the loess yields low permeability values of 3.7x10-8 to 1.6x10-7 cm/sec and provides an effective barrier to retard the migration of CVOCs from groundwater to indoor air. However, it is noted the presence of the loess layer did not prevent the groundwater from being contaminated due to infiltration of contaminants through vadose zone. As such, to address the uncertainty in how protective the loess is to vapor intrusion, utilization of a conservative attenuation factor of 0.001 and a less conservative attenuation factor of 0.0005 is recommended.

Response 2. Mr. Holmes said EPA guidance states that the pathway can be evaluated using an iterative approach, which is the plan. The Army proposed this site-specific, less conservative attenuation factor because low permeability soils are present to depths of 30 feet below ground surface. He acknowledged that low permeability is not the same as impermeable; however, potential for vapor intrusion will clearly be less than if the coarse-grained soils extended to the surface. He said that initial samples will be collected, and they will be followed with more samples where higher concentrations are detected. The final VI risk will be determined by soil vapor and indoor air results.

Mr. Millar asked if samples would be collected in the warehouses. Mr. Holmes said indoor air samples would be collected based on plume location and screening sample results. Mr. Millar asked about HDR's experience with indoor air samples, for the BRAC office has found it problematic due to false positive results. Mr. Mokri agreed that indoor business activities could contaminate the samples. He said that risk is mitigated by collecting outdoor air samples and sub-slab samples; this way if a contaminant is registered in the indoor sample but is not present in the other samples collected at the same time, then that chemical is likely due to specific indoor activities. Mr. Mokri also said that a building inventory and screening using a ppbPID is conducted prior to indoor air sampling in order to identify any sources. If sources are identified, they are removed a few days prior to the sampling event so that the building can be ventilated.

Mr. Holmes added that because the clay and fine-grained soils at the surface can hold contamination where spills have occurred, there may be a question as to whether soil vapor results from volatilization of VOCs in groundwater or from shallow soil contamination. He said this should be clarified by soil vapor samples at different depths.

Comment 3. Section 3 (Current Land Use, Page 4) of the Report states to address the data gap of the presence of sensitive receptors, interviews with MI property owners and tenants will be conducted during implementation of the CSP to document sensitive subgroups that may be present on the MI. Sensitive receptors include the elderly, women of child-bearing age, infants, children, people suffering from chronic illness and disadvantaged populations that may be sensitive to health effects from VI. However, Section 8.1 (Onsite, Page 25) of the Report states potential onsite receptors are site workers, construction workers in areas zoned for commercial-industrial use, and adults and children in the former housing area which is currently used as housing by Alpha Omega Veterans Services. Therefore, the adults and children currently in the Alpha Omega Veterans housing are already known sensitive receptors that may be sensitive to health effects from VI; thus, it is unclear why they have not already been interviewed.

Response 3. Mr. Holmes said that currently it is not known if sensitive receptors are present in the former housing area. The housing area is used for veterans and it is not known if children are present. The property owner will be asked about the age and gender of residents before submittal of the CSP. CVOC concentrations in groundwater are very low in the housing area. Three or four passive soil vapor screening samples will be collected from the housing area, with additional sampling if warranted based on initial results.

Conclusion

To conclude the meeting, Mr. Foster said he is looking forward to the in-person meeting on 19 October. He said the property transfer documents would be reviewed sequentially, not in parallel. First will be the Explanation of Significant Differences, then the Environmental Condition of Property, followed by the Finding of Suitability to Transfer. He said the latter two documents are internal Army documents but will be shared with regulators. Mr. Foster stated that the Army has a presence at DDMT and will continue to be actively engaged after property transfer.

Mr. Martinez Torres said that EPA will continue to investigate the offsite groundwater contamination, and will work with TDEC to do so.

Mr. Martinez Torres said that he is working with the internal EPA systems to budget for Fiscal Years 2023 and 2024. He asked if the master schedule (Figure 27) from the Site Management Plan could be updated so that he can properly predict requirements for the next year. Mr. Holmes said the figure would be updated in September and asked if that was soon enough. Mr. Martinez Torres indicated that he would prefer something sooner and that an informal submittal would be acceptable. Mr. Millar said he would look at Figure 27, but he doesn't expect that much will change. He said that he expects the ELD bottleneck to be resolved fairly soon, at which time the schedule will return to the previous expectations.

UPCOMING FIELDWORK

Contractor	Activity	Dates
KGS/Trinity	AS/SVE Quarterly Monitoring	16 Aug 2022
HDR	LTM Semiannual Sampling	11 to 21 Oct 2022
KGS/Trinity	AS/SVE Monitoring	18 Oct 2022

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Prioritized List of Documents for Regulatory Review

Responses to Comments

1. Responses to EPA Comments on Annual LTM Report – 2021 (March 2022); submitted 9 August.

Reports

1. 2022 Annual Site Inspection Report (July 2022)

Documents Requiring Army Revision or Responses to Agency Comments

1. EPA review (7 June 2022) of RTCs on Offsite Groundwater Investigation Report
2. EPA review (29 June 2022) of RTCs on DFW Post-ROD Supplemental Investigation Report

The next meeting will be Tuesday, 13 September, at 11 am EDT, 10 am CDT, 9 am MDT, and 8 am PDT. Team members should have already received the Webex meeting invitation, as the calls are scheduled as an ongoing series.