

# **SITE REVIEW MEETING NOTES**

## **FORMER DEFENSE DEPOT MEMPHIS, TENNESSEE**

### **10 November 2011**

#### **PARTICIPANTS**

Army, Base Realignment and Closure Division (DAIM-ODB): Carolyn Jones, Jennifer Gibson,

CALIBRE: BEC - Joan Hutton

TDEC Division of Remediation, DDMT Project Manager: Jamie Woods

U.S. Environmental Protection Agency, Region 4, DDMT Project Manager: Turpin Ballard

HDR EOC: Tom Holmes, Denise Cooper, Angela Clark

#### **RESTORATION STATUS**

##### **Main Installation (MI)**

Restoration status: Long Term Monitoring (LTM)

*2010 MI Annual LTM Report* submitted to EPA and TDEC 2/7/11; and approved by EPA 4/4/11.

*April 2011 Long-term Monitoring Summary Report* submitted to EPA and TDEC 6/3/11.

*Work Plan for Partial Abandonment of Enhanced Bioremediation Treatment (EBT) System* submitted to EPA and TDEC 10/25/11.

Action: Continue LTM per the approved plan.

Discussion: Completed the annual LTM sample event in October 2011 (97 wells), and the results are pending. Regarding the partial abandonment work plan, HDR is scheduled to collect groundwater samples from MI remedial action (RA) injection and performance monitoring wells in December 2011. Recommendations for abandonment of wells will be based on sampling results. The initial plan was to abandon the EBT system, but it will be maintained in part because of CVOC rebound in the treatment areas and CVOC concentrations in sentinel wells. This will allow resumption of EBT, if necessary, to decrease length of LTM and reduce potential for impacts to the deeper aquifer. This sampling event differs from LTM sampling in that it focuses on the treatment areas (injection and performance monitoring wells) that have not been sampled since 2009. HDR is evaluating well abandonment at this time to reduce maintenance/repair of wells being impacted by heavy equipment and to reduce potential groundwater impacts. Also, if further injections become necessary, then labor savings to inject greater lactate concentrations into fewer wells. Work plan presents a sampling plan and recommends abandoning about ½ of the existing injection wells and most of the performance monitoring wells. Specific well recommendations will be included in the sampling summary report. EPA and TDEC concurred with the sampling plan (49 injection wells and 24 performance monitoring wells).

Meeting Action Item: HDR will move forward with sampling scheduled for 12/4/11.

##### **Dunn Field**

Restoration status: Fluvial Soil Vapor Extraction (SVE) operations (Year 5); Air Sparging/SVE operations (Year 2); Off Depot Long Term Monitoring

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## **FORMER DEFENSE DEPOT MEMPHIS, TENNESSEE**

### **10 November 2011**

#### **Fluvial Soil Vapor Extraction (FSVE)**

*Rebound Test and Confirmation Soil Sampling* report submitted to EPA and TDEC 2/21/11. Soil confirmation sample results met RAO.

*Fluvial Soil Vapor Extraction (SVE) – Operations Summary #16*, for operations 19 January-30 April 2011 and quarterly vapor sampling, submitted to EPA and TDEC 6/22/11.

*Fluvial Soil Vapor Extraction Year 4, 4<sup>th</sup> Quarter Report (Operations Summary #17)* for operations from 1 May-31 July 2011, annual vapor sampling, Dunn Field groundwater sample results (SVE-A to SVE-E shutdown 4/28 to 7/25), submitted to EPA and TDEC 9/16/11. Groundwater samples from northern area of Dunn Field did not indicate any rebound from the partial shutdown.

Action: FSVE operations will continue through 7/31/12. After FSVE shutdown, then sampling of wells on Dunn Field will occur as part of the Off Depot LTM to assess contaminant rebound.

Discussion: Year 4 Annual Operations Report is in preparation. From the rebound soil sampling report, results of the vadose zone model indicate that if any contaminants remain in the fluvial soils they would be expected to show up in groundwater within 3 months of system shutdown. If the FSVE system sufficiently cleaned the fluvial, the model indicated that it could take up to 4 years for levels of contaminants moving from the loess to groundwater to peak. The FSVE system will continue operating to remove as much contamination as possible from all the treatment areas using the newly installed SVE wells. The soil RAOs have been achieved by the FSVE system. Based on elevated vapor concentrations in some July 2011 samples, the system will continue to operate to decrease likelihood of future groundwater impact. EPA suggested DA consider use of 'baroball' caps for passive operation of the FSVE wells after shutdown. The Year 4 Annual Operations Report will include this discussion.

Action Item: None.

#### **AS/SVE**

*Off Depot Groundwater Interim Remedial Action Completion Report* approved by EPA 8/29/11, includes Year 1 operations (2010).

*Off Depot Air Sparge Soil Vapor Extraction Year 2, 1st Quarter Operations and LTM Report*, for operations 1 January - 31 March 2011 and semiannual groundwater monitoring results for March-April 2011, submitted to EPA and TDEC 6/22/11.

*Off Depot Air Sparge Soil Vapor Extraction Year 2, 2nd Quarter Operations Report*, for operations 1 April through 30 June 2011, submitted to EPA and TDEC 8/1/11.

Action: Continue AS/SVE operations until upgradient concentrations are less than 50 µg/L for each CVOC. Based on progress to date, expect to reach goal before the estimated 5 year operations period ends in December 2014. Performance monitoring will be incorporated into Off Depot LTM in 2012 and recommendations will be provided in the Annual Operations Report. Continue quarterly effluent vapor sampling.

Discussion: Reduced system operations since November 2010 to limit potential plume diversion around the treatment area. Performance monitoring (36 wells) conducted in late September 2011 with results similar to March 2011 results. Off Depot AS/SVE Year 2 3<sup>rd</sup> Quarter Report is in preparation. The Annual Operations Report will incorporate LTM results and recommendations.

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### **10 November 2011**

The portion of the plume downgradient of the FSVE system continues to shrink before it reaches the AS/SVE system, which is working well and meeting its goals. EPA inquired whether the non-depot DCE plume is still migrating onto Dunn Field before continuing offsite. The Source Area RAs reduced the groundwater contamination levels and will potentially reduce the length of operation of the AS/SVE system. EPA requested that future data reports provide a DCE concentration contour to monitor the extent to which the offsite plume impinges on Dunn Field. EPA also stated future property deeds must contain a notification about the offsite source plume if it continues to impact groundwater under Dunn Field and the groundwater land use controls must remain in place.

Action Items: TDEC will send IRACR approval letter (received 11/15/11). Future reports will include a DCE concentration contour to track the plume originating from an upgradient, offsite source.

#### **Off Depot LTM**

*Off Depot Groundwater Annual Long-Term Monitoring Report – 2010* submitted to EPA and TDEC 2/21/11.

*Off Depot Air Sparge Soil Vapor Extraction Year 2, 1st Quarter Operations and LTM Report* submitted to EPA and TDEC 6/6/11, included March 2011 biennial sampling (57 wells) results.

Semiannual sampling in September 2011 (No LTM wells identified for semiannual sampling.)

Action: Continue LTM per approved plan.

#### **ADMINISTRATIVE AND COMMUNITY RELATIONS SUPPORT**

*Close Out BRAC Cleanup Plan, Version 14, Rev.1*, submitted to EPA and TDEC 5/23/11.

*Community Involvement Plan, Rev.1* submitted to EPA and TDEC 5/23/11.

Action: The 2012 Site Management Plan (SMP) is being reviewed by Army. The Winter 2011/2012 EnviroNews is being prepared. The 5-year review will begin in the Spring 2012.

Discussion: EPA requested that the SMP include a discussion of the 5-year review and status of action items from the second 5-year review to include activities and dates. The SMP should also include bullets of Community Involvement Plan activities required as part of the 5-year review.

Action Items: Evaluate SMP for 5-year review discussion and planned community involvement for review.

#### **OTHER ISSUES**

Discussion: TDEC approved wastewater discharges to the storm sewer if concentration limits are met.

The Depot Redevelopment Corporation has sold the vast majority of developed areas on the MI property, but retained the undeveloped areas. Sale of the remaining Dunn Field property will probably not occur until the FSVE system has been removed.

**SITE REVIEW MEETING NOTES**  
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Regular conference calls/meetings will be conducted in the future. EPA is unavailable on 3<sup>rd</sup> Thursdays, and TDEC requires 3-months' notice prior to traveling out of state.

Action Items: None.