



## PROPOSED PLAN CLEANUP ALTERNATIVES

**August 2000**--This Fact Sheet provides information about the cleanup alternatives considered by the BRAC Cleanup Team (BCT) in the Proposed Plan for impacted soil and groundwater on the Depot's Main Installation.

**The following alternatives were evaluated for the cleanup of impacted soil at the Main Installation:**

- **No Action:** No cleanup action would be taken.
- **Institutional Controls:** Low-level impacted surface soils would be left in place, but permanent deed restrictions would be implemented that will prohibit fishing and swimming in the lakes in Functional Unit 2, and maintain boundary fences to prohibit casual access to the lakes by nearby residents; regulate industrial use to prevent intrusive activities that may cause industrial users to encounter impacted soil; maintain barriers and signage to limit entry into certain impacted areas, as well as periodic monitoring of these areas. It would take approximately six months to reach cleanup objectives using this alternative.
- **Soil Containment:** A protective soil cover would be placed over approximately 7,200 square feet of impacted surface soil to act as a barrier to human contact during industrial use. This alternative would also include the deed restrictions listed above, as well as regular maintenance of the protective cover. It would take approximately one year to reach cleanup objectives using this alternative.
- **In-situ Soil Treatment:** Approximately 7,200 square feet of lead-impacted surface soil on site would be treated using a stabilizing agent to fix or immobilize compounds by physically binding them to the soil. It would take approximately six months to reach cleanup objectives using this alternative.

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- **Excavate and Transport Impacted Soil for Off-site Disposal:** Approximately 7,200 square feet of lead-impacted surface soil would be excavated and transported off-site for permanent disposal. Clean soil would be added and all excavated areas would be landscaped to their original condition. It would take approximately six months to reach cleanup objectives using this alternative.

**The following alternatives were evaluated for the cleanup of impacted groundwater at the Main Installation:**

- **No Action:** No action would be taken at this site. Instead, natural attenuation, or naturally occurring environmental processes, would be allowed to reduce impacts in the groundwater.
- **Institutional Controls with Long-Term Monitoring:** Impacted groundwater would be left in place, but deed restrictions and existing groundwater controls would prohibit the installation and use of groundwater production wells. Monitoring would record the progress of natural attenuation and possible migration of impacted groundwater off site. It would take approximately 30 years to reach cleanup objectives using this alternative.
- **Enhanced Bioremediation:** Compounds would be injected into the groundwater to speed up the natural biodegradation process that breakdowns and/or removes compounds. Groundwater monitoring would document changes in concentrations and deed restrictions would prohibit the installation and use of groundwater production wells until the completion of this alternative. It would take approximately 10 years to reach cleanup objectives using this alternative.
- **Air Sparging:** Air would be pumped into the groundwater to help flush out and remove substances from the most impacted areas. This alternative would also include institutional controls and a groundwater-monitoring program. It would take approximately 10 years to reach cleanup objectives using this alternative.
- **Extraction and Discharge to City of Memphis Publicly Owned Treatment Works (POTW):** Groundwater would be pumped from approximately 12 wells in the most impacted areas and discharged off-site to the POTW. This alternative would also include institutional controls and groundwater monitoring program. It would take approximately 10 years to reach cleanup objectives using this alternative.

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Each of these alternatives was analyzed by the BCT, and a Preferred Alternative was selected. More information on the BCT's Preferred Alternative is available in the Proposed Plan document, which is located in our four Information Repositories at the Memphis Depot, Cherokee Branch Library Memphis/Shelby County Health Department, and the Hillview Neighborhood Network Center on Alcy Road. The public is encouraged to review the proposed plan and submit their written comments by September 13, 2000 to:

Mr. Shawn Phillips  
BRAC Environmental Coordinator  
Memphis Depot Caretaker Division  
2163 Airways Blvd., Bldg. 144  
Memphis, TN 38114-5210

Verbal comments to this Proposed Plan can be made on the Depot's Environmental Information Line at (901) 544-0618.