

The Memphis Depot
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Memphis, TN 38114

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FOR YOUR INFORMATION.....

The Information Repositories are at the following locations:

The Depot, 2163 Airways Blvd., Bldg. 144,
Memphis, TN (901) 544-0613
The Community Outreach Room is located in Building
144. Please call ahead for an appointment to ensure
that we are available to help you.

Memphis/Shelby County Health
Department, Pollution Control Division
814 Jefferson Ave., Memphis, TN
(901) 576-7775
The Pollution Control Division is open Monday
to Friday from 7:30 a.m. to 4:30 p.m.

Memphis/Shelby County Public Library,
Cherokee Branch, 3300 Sharpe Ave.,
Memphis, TN (901) 743-3655
The Cherokee Branch is open Monday to Thursday
from 10 a.m. to 6 p.m. and Saturday from 10 a.m. to
6 p.m. Closed on Friday & Sunday.

HOW TO REACH US....

If you have any questions or comments about the Depot's environmental cleanup program,
please feel free to contact any one of the following:

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(404) 562-8553

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EnviroNews is published by the Memphis Depot to
update the public on the environmental cleanup
program. If you have comments, questions, or
suggestions for future articles, please call
Ms. Alma Black Moore at (901) 544-0613.

Visit the Depot's website at www.ddc.dla.mil/memphis



EnviroNews

Summer 2004



Depot plans community involvement initiatives for the future

Members of the Memphis Depot community met with staff from the Depot's Community Relations Office in June to talk about the Depot's ongoing communication efforts.



Helen Turner (left) and Merle Smith met with staff from the Depot's Community Relations Office in June.

The interviews focused on people's opinions on how well the Depot was informing the community. For instance, people were asked if they received enough information and was the information easily understood.

Twenty-three people were interviewed during the period June 24-26, 2004. They were selected randomly from various groups such as community members, ministers, former employees, principals and teachers, community and business leaders, politicians and media representatives. The interviews lasted from 15 minutes to an hour. The answers will help fine tune the Depot's communication efforts.

"The Defense Logistics Agency recognizes the importance of involving the community in the cleanup process," said Michael Dobbs, the Depot's BRAC Environmental Coordinator and Environmental Manager for the Defense Distribution Center (DDC). "Throughout the cleanup process our Community Relations Office and environmental team have taken a number of steps to keep the community informed and involved. We remain committed to ongoing communication as we begin the Remedial Design/Remedial Action phases of the cleanup program and move towards program completion."



Hattie Wooten discusses the Depot's community relations efforts with Gary DuPriest of the Depot's Community Relations Office.

The Depot staff also asked questions to identify current concerns with the Depot's environmental program. The community involvement activities will be revised to respond to the community concerns in the updated Community Involvement Plan.

The Community Relations Plan (CRP), written in 1999, details efforts to involve the community in the

NEXT RAB MEETING

The Memphis Depot Restoration Advisory Board (RAB) will meet on:

Thursday,
Oct. 21, 2004
at 6 p.m.

The meeting will be held at the South Memphis Senior Citizens Center, located at 1620 Marjorie Street. The public is invited to attend this meeting to learn more about the Memphis Depot environmental restoration program.

For more information,
call (901) 544-0613.

cleanup program. The updated plan is scheduled for release this fall. The CRP will change its name to Community Involvement Plan (CIP). The name change reflects the language used by the Environmental Protection Agency (EPA) in its Superfund Community Involvement Handbook.

The Depot's award winning community outreach program has included Community Information Sessions, community newsletters and fact sheets, meetings and presentations to neighborhood associations, school classes and community leaders, and media outreach. □

Dunn Field Record of Decision signed

The Defense Distribution Center (DDC), Tennessee Department of Environment and Conservation (TDEC) and U.S. Environmental Protection Agency (EPA) have signed the Record of Decision (ROD) for Dunn Field at the former Memphis Depot.

This is the final ROD for the Depot and its completion marks an important milestone in the cleanup process. The Main Installation ROD was signed in 2001.

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Dunn Field Record of Decision... continued from cover
“This is a giant step forward for the environmental program, and for the community,” said Michael Dobbs, Environmental Manager for the DDC, who also serves as the Depot’s Base Realignment and Cleanup (BRAC) Environmental Coordinator.

“The Dunn Field ROD is the final document in the decision-making phase of the cleanup program. The studies are done, we’ve reached agreement on the best cleanup solutions for the site, and we are now moving forward to design and implement the cleanup remedies that will ensure the site is safe for current and future use.”

The ROD outlines the nature and extent of environmental conditions at Dunn Field, and provides an evaluation of various cleanup technologies for restoring the site. It also documents the chosen cleanup remedies to restore environmental conditions at Dunn Field to acceptable, health-protective standards for the intended reuse of the site.

The remedies that have been selected satisfy the regulatory requirements outlined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The remedy is summarized as follows:

- Soil and buried materials from disposal sites within areas totaling 7,200 square-feet on the western portion of Dunn Field will be excavated and removed for offsite disposal;
- Soil vapor extraction (SVE) will be used to remove solvents in the subsurface soil (on the western portion of Dunn Field);
- Groundwater beneath the western portion of Dunn Field and offsite to the west will be treated using a combination of Zero-Valent Iron (ZVI) injections, a Permeable Reactive Barrier (PRB), and Monitored Natural Attenuation including long-term monitoring.
- Land use controls will be implemented, which consist of the following institutional controls: deed and/or lease restrictions; Notice of Land Use Restrictions; existing zoning restrictions and existing groundwater well restrictions, to control exposure to affected soil and groundwater over the long term.

The ROD states that TDEC and EPA will also conduct reviews within five years of the start of a Remedial Action, and every five years thereafter, to ensure the remedies continue to be protective of human health and the environment.

The ROD also includes a Responsiveness Summary that addresses community questions about the site and the proposed cleanup remedies that were raised during the Dunn Field Proposed Plan Public Comment Period.

The ROD for Dunn Field is now available for public reference at the Memphis Depot’s three Information Repositories, located at the Memphis Depot, Cherokee Branch Library, and the Memphis/Shelby County Health Department.

For more information on the environmental restoration program at the former Memphis Depot, call the Community Relations Office at (901) 544-0613. □

Wells help cleanup planning: Off-site monitoring wells installed at Dunn Field

As part of the Memphis Depot’s ongoing environmental cleanup program, seven additional groundwater monitoring wells have been installed in the surrounding community. The wells are mainly being used to collect data that will help scientists to design and monitor the groundwater cleanup remedy, as outlined in the Dunn Field Record of Decision (ROD).

In May and June, monitoring wells were installed near the following areas:

- One well near the railroad tracks in the field west of Rozelle Street (Dunn Field);
- Five wells near the railroad tracks on Memphis Light, Gas, and Water property south-east of Menager Road and east of Meadowhill Street (Dunn Field);
- One well near the intersection of Sparks Street and Dempster Avenue (Main Installation).



New groundwater monitoring wells have been installed in the Depot community to help gather data needed to design the cleanup remedy for groundwater at Dunn Field.

ProSonic Corporation drilled boreholes and installed the monitoring wells under the direction of MACTEC Engineering and Consulting.

MACTEC conducted the additional sampling to monitor groundwater conditions in the shallow aquifer beneath the Depot community. The Memphis Depot Base Realignment and Closure Cleanup Team (BCT) will use the data to design a Permeable Reactive Barrier (PRB) to treat the affected groundwater.

The PRB is recognized by the EPA as a cost-effective and reliable technology to treat groundwater containing chemicals such as the solvents, also known as volatile organic compounds (VOCs). At many sites, PRBs have replaced the traditional pump-and-treat systems as the preferred method for treating groundwater.

The PRB will be similar to an underground wall made of a permeable material, which means it has tiny holes that allow the groundwater to flow through. The wall is filled

with zero-valent iron (ZVI) particles, which break down chemicals in the groundwater into safe compounds. For sites with groundwater deeper than 50 feet, such as at the Depot, a PRB is formed by injecting a gel containing ZVI into the ground through a series of boreholes spaced five to 15 feet apart.

The Depot’s environmental team has proposed a 1,000-foot-long PRB on property owned by Memphis Light, Gas and Water that is in the natural path of the groundwater flowing from Dunn Field. As the groundwater flows through the wall, the ZVI will act as a catalyst to breakdown the VOCs into safe compounds.

The Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) will review the design prior to installation of the PRB. When installed, the effectiveness of this remedy will be reviewed at five-year intervals to ensure it is working as planned. □

Main Installation Remedial Design completed

The Remedial Design (RD) has been completed for the Main Installation (MI) at the former Memphis Depot, clearing the way for the approved cleanup actions to begin.

The RD is the seventh of eight steps outlined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Approved by the Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC), the RD describes the implementation steps for the approved cleanup remedy to ensure the ongoing protection of human health and the environment.

The cleanup remedy for the MI is an enhanced bioremediation treatment (EBT) program that will be used to treat chemicals known as volatile organic compounds (VOCs) in the shallow groundwater aquifer beneath the MI.

The affected groundwater is in the thin water-bearing layer known as the Fluvial aquifer. This aquifer is about 90 feet below the ground surface. This water is not used for drinking water, so there is no exposure to the community. The city’s drinking water is drawn from the Memphis Sand aquifer, located roughly 250 feet below the ground surface.

EBT works by giving nutrients to naturally occurring organisms in the groundwater. The nutrients encourage the growth of more organisms and speeds up the natural bioremediation process. These organisms break down VOCs into other compounds that degrade to safe natural compounds over time. The nutrient will be provided by injection of sodium lactate, a safe, natural substance found in human skin tissue. The MI RD provides a design for mobile units that will inject sodium lactate into the groundwater through wells at different locations on the MI.

The RD also includes a Land Use Control Implementation Plan (LUCIP) for site-specific land use controls that will prevent future residential development on the site. A Long-Term Groundwater Monitoring Plan (LTM) outlines periodic testing of groundwater to make sure the EBT is working and cleanup objectives are being met.

The final phase of the CERCLA process is Remedial Action (RA). This is when the construction and operation of the cleanup remedy will take place. MACTEC Engineering and Consulting, the Depot’s Remedial Action contractor, is currently preparing a draft of the RA work plan. □

Checking groundwater flow on Dunn Field

The Dunn Field groundwater recovery system was turned off twice this summer – once in June to evaluate groundwater flow conditions and a second time in July to accommodate City of Memphis road work project.

Before shutting down the system in June, the Depot’s contractor, MACTEC Engineering and Consulting, collected water level measurements from monitoring wells located on and near Dunn Field. Once the system was off, field staff waited four days to allow the groundwater flow to stabilize and return to normal conditions before measuring water levels again. The system shutdown and the procedures for water level measurements were approved by the BCT Cleanup Team (M. Dobbs of DDC, T. Ballard of EPA and J. Morrison of TDEC) ahead of time.

“The purpose of the Dunn Field groundwater recovery system is to limit affected groundwater from leaving the Depot property until a permanent remedy is in place,” said Tom Holmes, MACTEC’s Project Manager. “We know that the estimated groundwater flow rates are fairly slow. And we’re

confident that shutting down the system for a short period of time will only have a minor impact on groundwater conditions beyond the Depot property.”

The results of the water level measurements will be used to evaluate the effect of the recovery system on groundwater flow in the areas where wells are located. The information will be used, along with data from the long-term monitoring wells, to design the final groundwater remedy approved in the Dunn Field Record of Decision (ROD).

In July, the groundwater recovery system was turned off to accommodate a City of Memphis project to widen Hays Road and

improve the intersection at Person Avenue. City workers replaced a section of sewer pipe that connects the groundwater recovery system to the municipal wastewater system. The pumps were shut down using approved maintenance procedures to ensure maximum safety and prevent exposure to affected groundwater.

For more information on the groundwater recovery system, call the Memphis Depot Community Relations Office at (901) 544-0613. □



A City of Memphis road works crew widens Hays Road