

Baird & McGuire

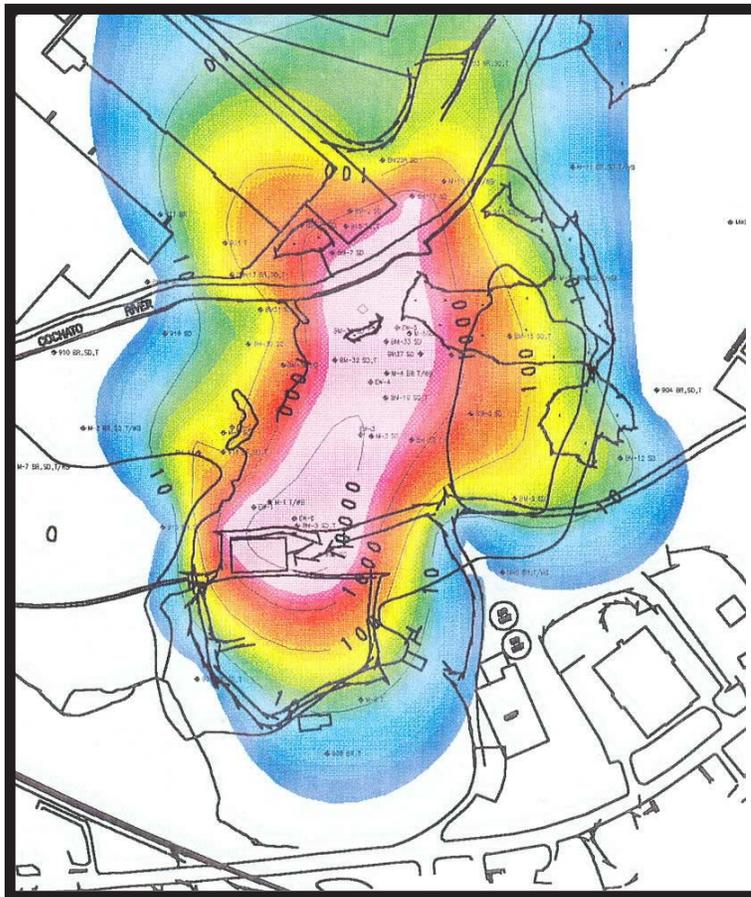
May 2004



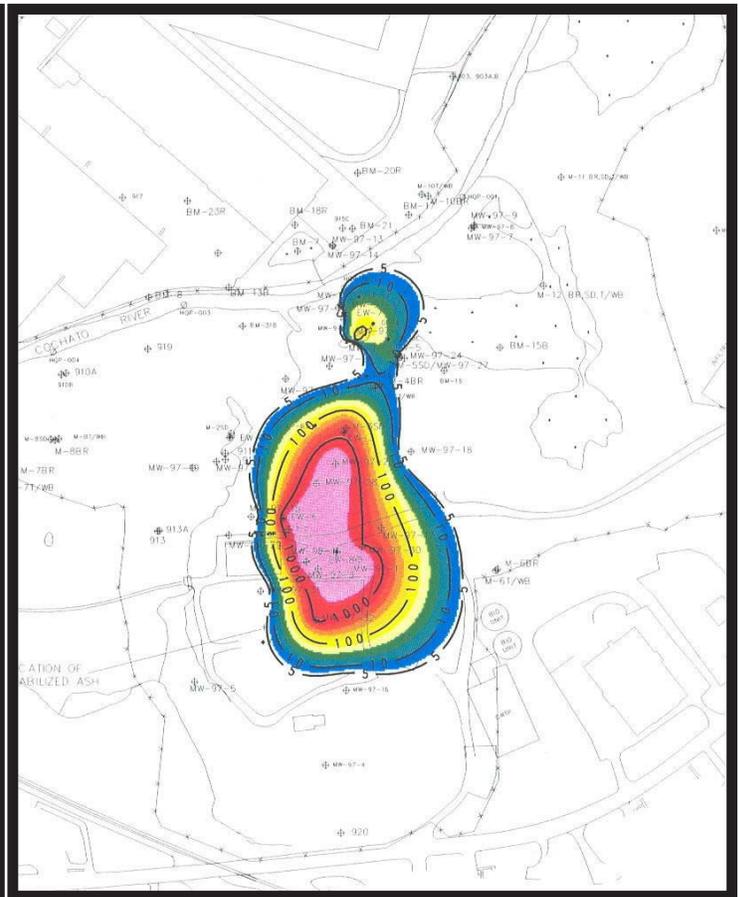
Superfund Site Activity Update

Key Cleanup Accomplishments:

- Soil and sediment cleaned up
- Cochato River sediment and fish tissue samples, with a few exceptions, have contamination below levels of concern
- Removal of a significant amount of Light Non-aqueous Phase Liquid (LNAPL), the primary groundwater contaminant source
- Significant decrease in groundwater contaminant plume size, extent, and strength of Semi-Volatile Organics (SVOs), which mainly come from LNAPL



**Semi-Volatile Organics in
Groundwater, 1988**



**Semi-Volatile Organics in
Groundwater, 2003**



New
Chemical
Delivery System



New Updated Polymer
Delivery System



New Process Tank

Cleanup Milestones

- 1983** Site listed on EPA's National Priorities List making it eligible for federal cleanup funding. EPA undertakes a removal action.
- 1985** Remedial Investigation begins to determine type and extent of contamination.
- 1986** Feasibility Study begins to evaluate possible cleanup options. Groundwater and Soil and Sediment Cleanup Plan issued (Record of Decision I).
- 1989** Cochato River Contaminated Sediment Cleanup Plan issued (Record of Decision II).
- 1990** Alternative Municipal Water Supply Plan issued (Record of Decision III).
- 1993 to present** **Groundwater extraction & treatment plant:** Total volume of groundwater treated as of April 2004 is 600,000 million gallons. The system continues to treat an average of 130 to 140 gallons per minute. Monitoring data shows significant decrease in contamination concentrations and areas contaminated.
- 1996** **Cochato River sediment** cleanup completed (approximately 1,500 cubic yards of contaminated sediment from the river and river bank were excavated, treated, and capped on-site). Began long term monitoring of river sediment, river bank soil, and fish tissue samples (results thus far, with a few exceptions, show contamination below levels of concern).
- 1997** **Contaminated soil** cleanup completed through excavation, on-site incineration treatment, and on-site capping of ash from 248,000 cubic yards of treated soil.
- 1998 to present** **Light Non-aqueous Phase Liquid (LNAPL)** recovery system: As of April 2004, 11,000 gallons of LNAPL, an oily liquid that floats on the water table, have been recovered from the aquifer and shipped off-site for treatment and disposal. Approximately 5 to 7 gallons of LNAPL a day continue to be captured, significantly reducing the source of groundwater contamination.

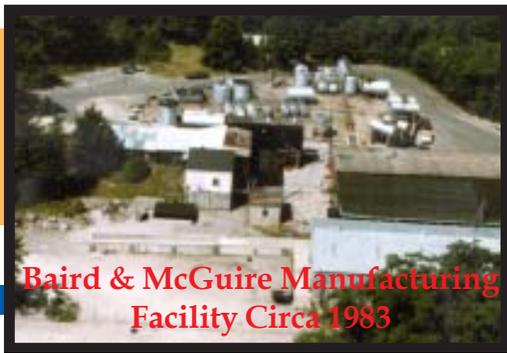


2003 EPA provided funding to the on-going water supply expansion project undertaken by the Towns of Holbrook, Randolph, and Braintree to increase the capacity of Upper Reservoir/Great Pond. Of the \$992,009 funded, EPA contributed 90% while MA DEP is providing 10%. This funding will cover an increase in water supply approximately equal to the lost demand from the contaminated South Street Wellfield. Hence the original cleanup plan calling for the construction of the Donna Road Water Treatment Plant is no longer needed. This cleanup plan change and that of additional excavation to assist the water supply expansion project were documented in two Explanations of Significant Differences.

Activities in the Past Year

In 2003, EPA conducted a facility-wide equipment inventory and condition assessment. The following items were or are in the process of being replaced or upgraded based on that assessment:

- **Supervisory Control and Data Acquisition (SCADA) system.** This installation of a new upgraded system will make the plant largely automated. Control of major plant processes, monitoring of processes, security, and fire alarm systems can be remotely controlled seven days a week, 24 hours a day.
- **Process tanks and pumps.** Three process tanks and several pumps have been replaced.
- **Permanganate and polymer delivery systems.** These chemical delivery systems, which deliver chemicals to a tank where they are used to treat metals, were updated.
- **Oil/water separator** in the LNAPL building was replaced with a more efficient unit.
- **Groundwater treatment plant doors** will have security alarms added.
- **Sludge collection system** will be automated.
- **Lime silo** is no longer used and will be removed.
- **One extraction well** was replaced and **one additional LNAPL recovery well** was installed.



State Takes Over Site

As part of the standard agreement between EPA and Massachusetts, the state becomes responsible for the operation and maintenance of a site after the groundwater cleanup plans have been in place and running for a ten year time period. Since the Baird & McGuire groundwater treatment facility has been operating successfully for over ten years, the Commonwealth will assume responsibility for the site in June 2004. MA Department of Environmental Protection (DEP) will be responsible for performing and funding all site activities including operation and maintenance of the groundwater treatment plant, the LNAPL recovery system, grounds maintenance, site security, and environmental monitoring.

EPA will continue to perform five-year reviews and remains the approving agency for the shutdown of any cleanup operation. A five-year review includes an evaluation of the cleanup operations at the site to determine if the cleanup remains protective of human health and the environment and is operating properly. The site's second five-year review will be completed in September 2004.

In preparation for this responsibility transfer, EPA invested in updating the facility's equipment, as mentioned above, ensuring that DEP will be transferred a state-of-the-art treatment plant. Additionally, EPA and DEP are working together to establish requirements to guide any potential future reuse of the site. These requirements, or institutional controls, may include deed restrictions on the use of the site's groundwater, land, and surface water. Examples include a prohibition against the use of groundwater for any purpose and control over activities near monitoring and extraction wells to ensure compatibility with on-going cleanup activities.

Site History

The 32-acre Baird & McGuire site is a former chemical manufacturing facility in northwest Holbrook, MA. From 1912 to 1983, the company operated a chemical manufacturing and batching facility on the property making herbicides, pesticides, disinfectants, soaps, floor waxes and solvents. Waste disposal methods at the site included direct discharge into the soil, a nearby brook and wetlands, and a former gravel pit in the eastern portion of the site. Underground disposal systems were also used. In May 1983, the Holbrook Board of Selectmen revoked Baird and McGuire's permit to store chemicals at the site and ordered it to dismantle its existing storage facilities, essentially shutting it down.

For More Information:

Elaine Stanley, U.S. EPA, Project Manager
617-918-1332 or toll free 1-888-372-7341
stanley.elainet@epa.gov

Stacy Greendlinger, U.S. EPA, Community
Involvement
617-918-1403 or toll free 1-888-372-7341
greendlinger.stacy@epa.gov

Dorothy Allen, MA DEP, Project Manager
617-292-5675
dorothy.t.allen@state.ma.us