

**EXPLANATION OF SIGNIFICANT DIFFERENCE
BAIRD & MCGUIRE SUPERFUND SITE
HOLBROOK, MASSACHUSETTS
OPERABLE UNIT 1
GROUNDWATER REMEDY**

Site Name: Baird & McGuire Superfund Site

Location: Holbrook, Massachusetts

Lead Agency: U.S. Environmental Protection Agency

Support Agency: Massachusetts Department of Environmental Protection

Under Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and promulgated in 40 C.F.R. Sections 300.435(c)(2)(I) and 300.825(a)(2), if the United States Environmental Protection Agency (EPA) determines that the remedial action at the Site differs significantly in scope, performance or cost from the Record of Decision (ROD) for the Baird & McGuire Superfund Site (site), EPA shall publish an explanation of significant difference between the remedial action being undertaken and the remedial action set forth in the ROD and the reasons such changes are being made.

This Explanation of Significant Difference (ESD) addresses changes to the Operable Unit 1 - Groundwater ROD (Groundwater ROD). Included in this ESD is a brief history of the site, a description of the remedy selected in the Groundwater ROD signed on September 30, 1986, and a description of and rationale for the changes to this Groundwater ROD.

This ESD and other supporting documents can be found in the Administrative Record located at EPA's Region I Records Center, located at One Congress Street, Suite 1100, Boston, Massachusetts, 02114-2023 with hours from Monday thru Friday 8 a.m. - 1 p.m. and 2 p.m. - 5 p.m., and at the Holbrook Public Library, 2 Plymouth Street, Holbrook, Massachusetts 02343.

I. Site History

The site consists of approximately 32.5 acres and is located on South Street in Holbrook, MA. The site includes the location of a former chemical mixing and batching company (Baird & McGuire, Inc.), property that had Baird & McGuire ownership, privately owned lots and property owned jointly by the Towns of Holbrook and Randolph. Land use in the general vicinity of the site (i.e., to the north and south of the site along South Street; on Center and Union Street and the Cochato Industrial Park located to the east of the site) is primarily industrial/commercial. The area west of South Street is primarily residential. The Cochato River forms the eastern perimeter of the site.

Baird & McGuire, Inc. operated a chemical mixing and batching company from 1912 until 1983. The State became involved with the site in the period between 1954 and 1977 when the company was fined at least thirty-five times for numerous violations of the Federal Insecticide, Fungicide and Rodenticide Act of 1947 (FIFRA). In 1981 and 1982 the Massachusetts Department of Environmental Quality Engineering (DEQE) documented a number of questionable disposal practices. From February through April 1982, Baird & McGuire voluntarily undertook a series of remedial actions. In October 1982 the site was proposed to the National Priority List and finalized on September 8, 1983. EPA initiated a removal action at the site which included the removal of 1,000 cubic yards of contaminated soil, the construction of a clay cap, the installation of a groundwater interception/recirculation system and construction of limited fencing. On May 2, 1983, the Board of Selectman of Holbrook revoked the Baird & McGuire's permit to store chemicals at the site and ordered it to dismantle its existing storage facilities. As a result of this order, Baird & McGuire was forced to cease operations.

II. Summary of Remedy

EPA has issued three RODs for four remedial operable units at the site (EPA, 1986; 1989; 1990). The first ROD, issued in September 1986, included Operable Unit 1, groundwater extraction and treatment at an on-site plant to address groundwater (Groundwater ROD) and Operable Unit 2, to address soil excavation and treatment at an on-site incinerator. The second ROD, issued in September 1989, addressed contamination in the Cochato River sediments (Operable Unit 3). The final ROD, Operable Unit 4, was issued in 1990, and called for the reopening of the Donna Road Wellfield as an alternate water supply for the community (Alternate Water Supply ROD).

The Groundwater ROD specified groundwater extraction and on-site treatment to address a groundwater contaminated plume that originated from the Baird & McGuire property and extending beyond the Cochato River. The current system consists of six extraction wells that pump contaminated groundwater to a groundwater treatment facility and four recharge basins for discharge of treated groundwater back to the aquifer. This plant has been operating for approximately ten years. Subsequent to the 1986 ROD, it was determined that light non-aqueous phase liquid (LNAPL) is present in the central part of the site plume. A LNAPL remediation system became operational in March 1999 and continues to operate. Operable Units 2 and 3, which addressed soil and sediments contamination, have been completed.

The Alternate Water Supply ROD required that an alternate water supply be developed to address the imminent risk that was thought to exist due to the loss of the South Street Wellfield, located within 1,500 feet of the site. The last operating well in the South Street Wellfield was shut down in 1982 due to contamination which likely came from the site. The Town of Holbrook used the South Street wells from 1958-1982 as a portion of its baseline water supply. The lost demand from this wellfield was estimated to be about .31 million gallons per day (mgd). Shutdown of the South Street wells forced the Town of Holbrook to rely completely on the water treatment facilities shared with Randolph and a surface water supply shared with the Towns of Randolph and Braintree. Holbrook, Randolph and Braintree draw drinking water from the Great

Pond Reservoir system which consists of Great Pond, Upper Reservoir and Richardi Reservoir. The Alternate Water Supply ROD required the reactivation of the Donna Road Wellfield to supplement the Great Pond Reservoir system water supply. Although this remedy was selected in 1990 and subsequently determined to be a state lead OU, the remedy has not yet been implemented due to several administrative delays. The Alternate Water Supply ROD basically supplemented the Groundwater ROD by reducing the risk in the interim until groundwater cleanup standards are met at the site by ensuring that the community has sufficient drinking water.

III. Explanation of Significant Difference

Since the Groundwater and the Alternate Water Supply RODs were issued, conditions at the site have changed. An on-going groundwater extraction and treatment system and LNAPL remediation system have been in operation for many years effectively working to clean up the groundwater contamination at the site including the contamination in the South Street Wellfield. Although the community has continued to face water shortages, the nature and magnitude of the threat associated with parties using contaminated water in the interim until the Groundwater ROD has been completed, has been reevaluated. In light of the effectiveness of the Groundwater ROD and the amount of time that has passed since these RODs were written, the degree of necessity to reactivate the Donna Rd. Wellfield to ensure the protectiveness of the Groundwater ROD in the interim has been lessened. EPA remains concerned, however, that the chronic continued water shortage in the community still presents an unacceptable risk in the interim until the Groundwater ROD is complete. EPA is particularly concerned that individuals will place private wells near the site to supplement their drinking water. Given that levels of contamination in this area are still above acceptable drinking water standards and are expected to remain so for some time, EPA has determined that it must supplement the local drinking water supply in a limited capacity to prevent unacceptable risk until the Groundwater ROD is complete and drinking water standards are met.

In 2000, the Joint Water Board, made up of the Towns of Holbrook and Randolph and the Tri-Town Board, made up of Holbrook, Randolph and the Town of Braintree, began a water supply expansion project to increase the capacity of Upper Reservoir/Great Pond to provide for a safe yield (the maximum rate at which the system can be expected to deliver water continually under a defined set of drought conditions). In order to most effectively provide this alternative water, EPA has provided funding for a portion of this expansion project equal to the lost demand amount of approximately .31 mgd. The equivalent cubic yardage for this capacity is approximately 400,000 cubic yards and construction of that phase of the project was completed in March 2003. The project will continue for another two years with a total goal of approximately 1,000,000 cubic yards of excavation. EPA believes this increase in additional drinking water capacity should be sufficient to eliminate any interim risk until cleanup levels are met in the Groundwater ROD.

EPA has determined that the follow change will be made to Groundwater ROD:

-excavation of silt, peat and sand and gravel from the Upper Reservoir/Great Pond located in Braintree and Randolph (approximately 400,000 cubic yards) to provide an additional

.31 mgd to be used in the interim to supplement the community's drinking water until the groundwater remedial action is complete. The cost of this construction project is \$992,009.

IV. Support Agency Comments

The Massachusetts Department of Environmental Protection has reviewed this ESD and has concurred with EPA in its issuance.

V. Affirmation of Statutory Determinations

Considering the new information that has been developed regarding expansion of the existing reservoir, the EPA and DEP believe that the remedy as revised by this ESD remain protective of human health and the environment. The remedy as revised by this ESD is not on-site, EPA is not required to comply with applicable or relevant and appropriate requirements for the changes to the remedial action. However, all activities that take place off-site shall be conducted in accordance with all applicable environmental laws. In addition, the revised remedy utilize permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable for this site and it is cost-effective.

VI. Public Participation Activities

This ESD and supporting information are available for public review at the locations and times identified in the introduction of this document. In addition, a notice of availability and brief description of the ESD will be provided to the Patriot Ledger, a local newspaper of general circulation.

VII. Declaration

For the foregoing reasons, by my signature below, EPA is issuing this Explanation of Significant Difference for the Baird & McGuire Superfund Site in Holbrook, Massachusetts.

August 21, 2003
Date

Susan Studlien
Susan Studlien, Acting Director
Office of Site Remediation & Restoration
EPA - New England