

## Town of Andover, Massachusetts

# Ledge Road Landfill Closure and Remediation Project

*Closure of the Ledge Road Landfill is proceeding in accordance with the Massachusetts Department of Environmental Protection (MassDEP) Solid Waste Management Regulations (310 CMR 19.000).*

*The Town's goal is to continue post-closure use of the southern portion of the landfill site as a materials storage area for the Department of Public Works.*

### Site Background

The Ledge Road Landfill, a 25.8 acre site, was closed to waste disposal in 1973. The former landfill is located west of Ledge Road, just northeast of the I-93 / I-495 interchange.

The former landfill was closed to waste disposal in 1973. During the 1980s, the Town constructed Deyermund Field on the northern portion of the site, consisting of two ball fields and a soccer field (see Figure 1). The remaining southern portion of the site currently serves as a municipal public works yard for storage of brush, street sweepings, catch basin cleanings and roadway construction debris.

Under the MassDEP landfill closure process as detailed in the Solid Waste Management Regulations, an Initial Site Assessment (ISA) and Comprehensive Site Assessment (CSA) were completed. The CSA concluded that the landfill site has no significant impact on human health, safety or the environment. For this reason, recreational play has been allowed to continue on Deyermund Field, with regular testing to ensure that the fields remain safe for play.

### Assessment of Wetlands Tributary to Fish Brook

The CSA documented the presence of unexpected concentrations of the metal arsenic in wetland sediments immediately adjacent to the southwestern edge of the landfill. In response to MassDEP comments on the CSA and a lowered drinking water standard for arsenic, the Town has undertaken a program to further sample and assess sediments, surface water, and groundwater in the wetland system downstream of the landfill site. This wetland system is within the Fish Brook watershed—a Class A designated surface water that provides a portion of the Town's water supply.

Based on sampling to date, surface water sample locations within 200 feet of the landfill exceed the drinking water standard for arsenic. Numerous surface water samples collected further downstream have had no detection of arsenic.

Regarding wetland sediments, levels of arsenic that appear to be well in excess of natural concentrations have been detected, requiring further sampling and assessment, as part of a Supplemental CSA. The goals of the Supplemental CSA are to define the extent of arsenic in the wetland sediments and groundwater, update the human health risk assessment, and conduct an ecological risk assessment. The Supplemental CSA will be followed by a Corrective Actions Alternatives Analysis (CAAA).

The CAAA will focus on two issues—the necessity and extent of wetland sediment management because of the arsenic concentrations and the need for source identification and feasible control measures to limit future arsenic deposition in the wetland sediment. It is anticipated that all CSA and CAAA activities will be completed during 2008.

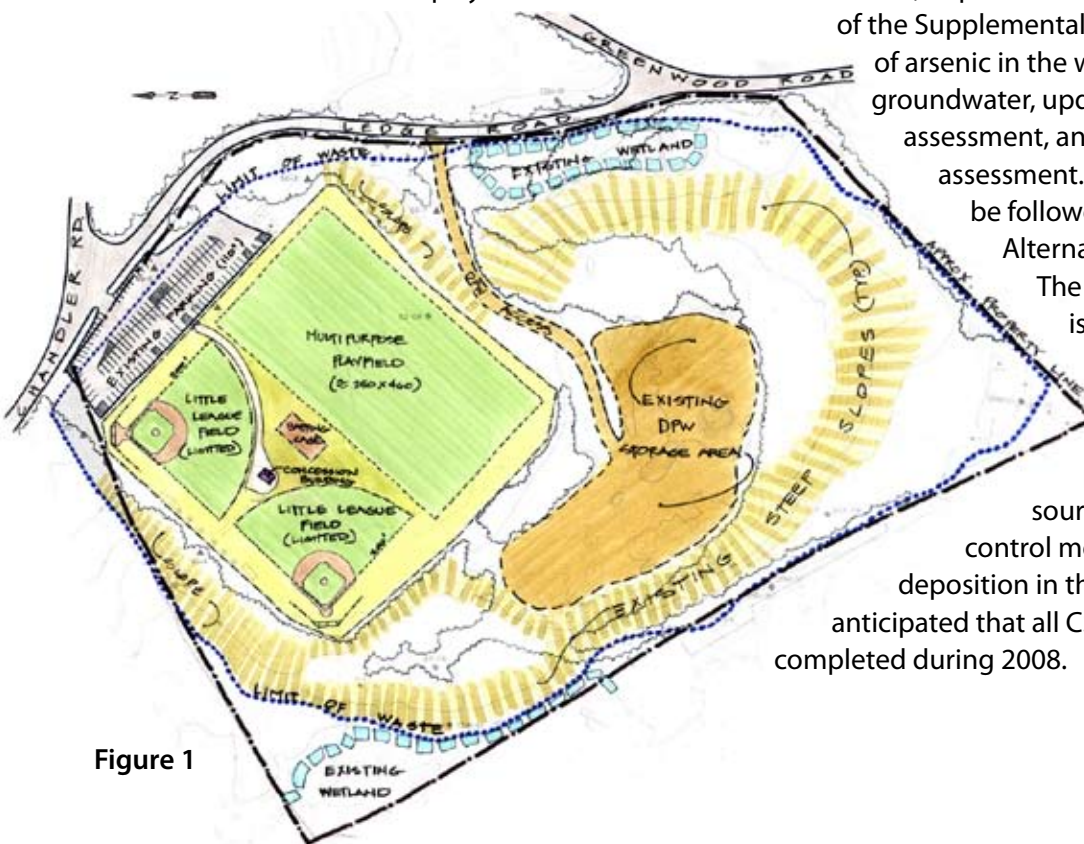


Figure 1

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### Plans for Capping and Post-Closure Use

A closure plan for the Ledge Road Landfill is currently under development. The plan will include a schedule for design and construction of the landfill cap as well as any off site remediation measures necessary. The cap construction schedule will assume continued use of the existing fields, until new recreational facilities are available elsewhere in town.

To date, the cap design has been completed for the southern portion of the landfill (approximately 14 acres). Efforts remaining include cap design and permitting for the northern portion of the landfill (approximately 11 acres). In addition, there are at least two known areas of off-site waste disposal located on privately owned land abutting the landfill, which require closure. The Corrective Action Alternatives Analysis (CAAA) will determine the scope of remediation necessary relative to the arsenic contamination in downgradient wetlands. Final cap design and construction phasing will be coordinated with this remediation effort to ensure a cost effective approach to landfill closure. Land acquisition may also be necessary to complete corrective action for the off-site waste and arsenic contaminated sediments.

The Town continues to consider post-closure use of the landfill. It is intended that the southern portion of the landfill remain a DPW stockpiling area.

### Public Involvement Plan (PIP)

At the request of area residents, a Public Involvement Plan (PIP) has been prepared for the site. The PIP, prepared in accordance with MassDEP requirements, provides opportunity for public meetings and public comment on all project milestone deliverables.

A mailing list is maintained by the DPW for any individuals interested in receiving notification of project

milestones and meetings. In addition, the Town has established an Information Repository of all project documents for public viewing at the following locations:

#### **Andover Memorial Hall Library**

1 Elm Square, Andover, MA 01810

Time: M – Th 9:00 AM – 9:00 PM

F – Sat 9:00 AM – 5:00 PM

#### **Andover Board of Health**

26 Bartlett Street, Andover, MA 01810

Time: M – F 8:00 AM – 4:00 PM

### Financial Status

The Town appropriated \$2.2 million at the 1999 Annual Town Meeting for the initial closure and capping phase of the Ledge Road Landfill. At 2006 Annual Town Meeting, \$0.5 million was appropriated for future phases of design and related activities including the ongoing assessment of wetland sediments. Based on the Town's application for a State Revolving Fund (SRF) low interest loan, the Ledge Road Landfill Closure Project has been placed on the MassDEP Final Intended Use Plan (IUP) for \$7.37 million. As a requirement for receiving this loan, the Town must have an appropriation in place by July 2008, and a formal application to MassDEP by October 15, 2008. Construction would be expected to begin in Fall of 2009. Final construction cost estimates will be developed based on the corrective action design yet to be selected for the landfill and adjacent wetland areas.

### For more Information

If you would like more information on this project or wish to be added to the PIP mailing list, please contact:

#### **Jack Petkus, P.E., Director of Public Works**

Andover Department of Public Works

Water Treatment Plant

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