

## Army Materials Technology Laboratory Superfund Site Watertown, Massachusetts



### Background

The Army Materials Technology Laboratory Superfund Site (Site) occupies approximately 48 acres within the Town of Watertown, MA, about 6 miles northwest of Boston. The Site was originally part of a 131-acre military facility, known as the "Watertown Arsenal," which was built in 1816 for the production and research of weapons and other military materials. Following World War II, the Watertown Arsenal primarily focused on research and technology development. In August of 1968, 55 acres of the Watertown Arsenal were sold to the Town of Watertown. This area was redeveloped in the mid-1970s as the Arsenal Mall, Arsenal Park, and apartment buildings. In late 1988, Congress recommended the closure of the Watertown Arsenal, which took place on September 29, 1995.

#### Quick Facts

<b>Location:</b>	Watertown, MA
<b>Acreage:</b>	48 acres
<b>Current Uses:</b>	Commercial and recreational.
<b>Ownership:</b>	Public and private
<b>Cleanup Status:</b>	Construction activities complete. Site is in remedial operations & maintenance and long-term remedy performance monitoring phases.
<b>Surrounding Land Uses:</b>	Residential and commercial

The 48 acre-site was placed on the EPA National Priorities List (NPL) in May 1994 owing to surface water contamination. In 1995, the Army signed an Interagency Agreement with the EPA requiring that site investigations and cleanup actions follow Superfund regulations and guidance.

For purposes of the Superfund investigation, the Site was divided into three areas called 'operable units.'

Operable Unit #1 (OU1) addressed most outdoor soil and all underlying groundwater contamination. A small area northeast of building 131 was addressed as Operable Unit #3 (OU3) so that the cleanup of this area could be expedited to accommodate reuse. Operable Unit #2 (OU2) consists of a two-mile stretch of the Charles River adjacent to the former Arsenal.

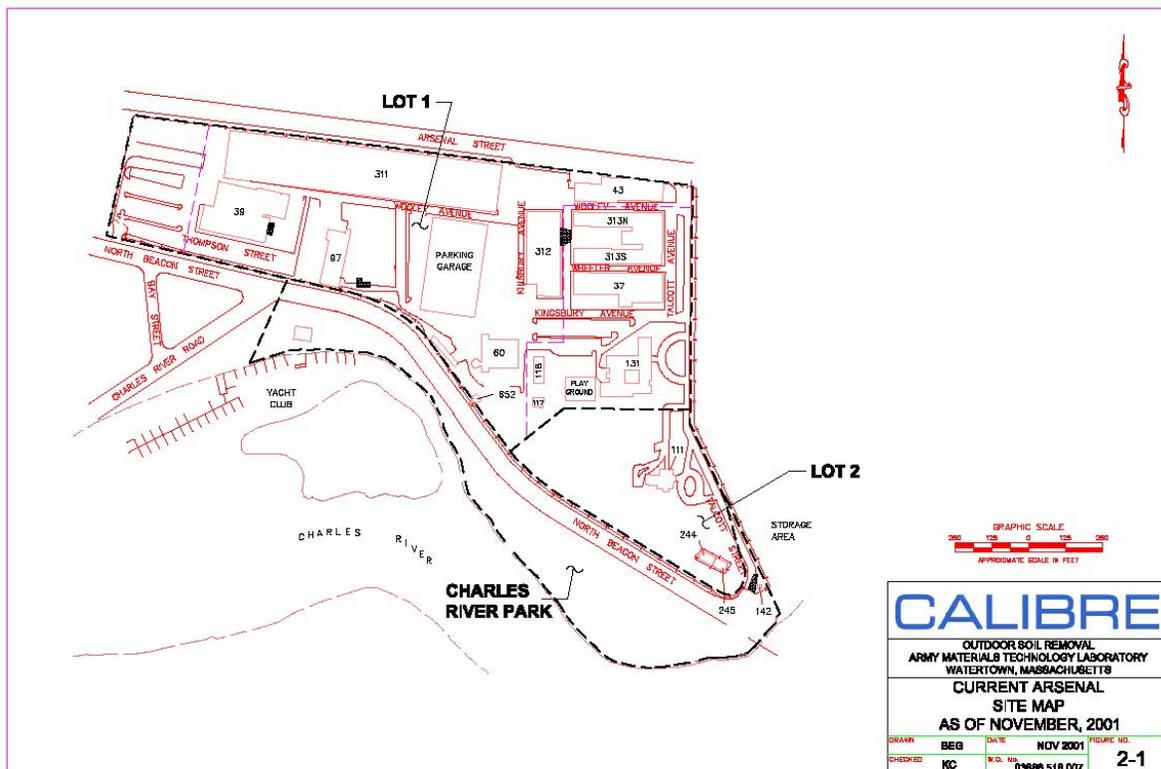
EPA determined in July 1998 that the Superfund cleanup was completed on approximately 36.6 acres associated with OU1 and OU3. On November 22, 1999, these 36.6 acres were removed from the NPL in an administrative process called "partial deletion." In September 2005, EPA determined that the cleanup of the remaining areas of the Site was completed and intends to delete the entire Site by the end of 2006. Further description of the site investigation and cleanup can be found in the 'Cleanup Status' section of this document.

The entire Site is currently in use. A large part is owned by Harvard University and accommodates a variety of office and commercial uses, as well as a regional arts center. The Town owns and operates the historic Commander's Mansion as a function center. Other uses include a recreational park and yacht club.

## Reuse Status

### *Reuse History*

To oversee the cleanup and facilitate the reuse of the Watertown Arsenal, the Town of Watertown formed a reuse committee in April 1989. Through a \$500,000 grant provided by the Department of Defense's Office of Economic Adjustment, the committee worked with consultants to prepare a Reuse Planning and Feasibility Study. Additional consultants were hired in 1995 and 1996 to update the study and a revised reuse plan was completed in February, 1997. Consistent with the reuse plan's recommendations, the Watertown Arsenal Development Corporation (WADC) was formally established in May 1997 to manage the



**Site Map Prior to Redevelopment**

redemption of the Arsenal properties. The WADC operated until September 2005, at which time it was dissolved because there was no longer a need to provide redevelopment and conversion assistance and services. Building on the committee's reuse plan, the WADC prepared an Economic Development Plan for the Arsenal properties that was approved by Town Council in September 1997.

In August 1998, the U.S. Army sold approximately 29.4 acres of the 48-acre Superfund site to the WADC ("Lot 1" or "WADC Parcel") for \$7.6 million and transferred approximately 7.2 acres to the Town of Watertown ("Lot 2" or "Commander's Mansion Parcel"). In March 2005, the remaining 11 acres of the Site were transferred to the Department of Conservation and Recreation (DCR) for what would become the Squibnocket Park (also described as the Charles

## Army Materials Technology Laboratories

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River Park) and an area leased to the Watertown Yacht Club. At the time of each transfer, the Army granted the Massachusetts Department of Environmental Protection (MassDEP) a Grant of Environmental Restriction and Easement that provides a mechanism for the creation and enforcement of the land use controls required as a condition of the cleanup.



**Commercial Buildings - Arsenal on the Charles**

Following a solicitation for proposals, the WADC parcel was sold to O'Neill Properties in the summer of 1998 for a compensation package worth approximately \$24 million. This included \$1 million for the construction of an on-site arts center and \$955,000 towards the renovation of the town-owned Commander's Mansion property. O'Neill Properties also agreed to provide space for the art center and to cover a portion of the center's operating costs. Additionally, in the event of a future sale of the property, it was agreed that the Town of Watertown would receive an 'agency fee.'

O'Neill Properties conducted a major renovation of the property -- including improvements to many of the existing buildings, roadways, and utilities infrastructure, and the construction of parking structures. In 2001, following the completion of the redevelopment, O'Neill Properties sold the property to Harvard University, for which the Town received an agency fee of \$2.45 million. To compensate for the potential loss of property tax revenues that would result from the 'non-profit' status of the new owner, the Town and Harvard University negotiated a payment in lieu of taxes (PILOT) agreement in which the Town will receive approximately \$480 million over a 52-year period. Both parties agreed to renegotiate the PILOT agreement at the end of that period. This PILOT agreement, which the WADC believes is one of the most comprehensive and groundbreaking of its kind, is described more fully in the WADC's final report dated September 23, 2005, available on-line at the Town's website.



**Arsenal Center for the Arts**

### *Current Uses*

As the result of the cleanup and redevelopment of the Site, the area now provides a variety of benefits to the surrounding community. This includes the creation of over 2,000 new jobs. The commercial center of the property is the 757,244 square foot Arsenal on the Charles complex, which currently has 39 tenants that include retail stores, restaurants, a child care facility, a fitness center, corporate offices, and various other businesses. Also located within this complex is the Arsenal Center for the Arts -- an important

## Army Materials Technology Laboratories

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cultural asset that includes a theater, gallery space, classrooms, artists' studios and other resources and services. The 3,000 square foot arts center is housed in a renovated building that is under a 99-year lease held by the Town.

Also located at the Site, on the 7.2-acre parcel owned by the Town, is the 27-room Commander's Mansion, a historic landmark that is available for meetings and other functions. Revenue generated from those functions is reportedly enough to cover the operating expenses



**Commander's Mansion**

incurred by the Town. The Mansion was built in 1865 by Major Thomas Rodman, the commanding officer of the Arsenal, for use as his residence. It was placed on the National Registry of Historic Places on January 30, 1976. The property was renovated in 1999 with the nearly \$1 million provided by O'Neill Properties and a \$150,000 historic Preservation Grant from the Massachusetts Historic Commission.

To further enhance the area, the WADC initiated the Arsenal Street Improvement Project in 1999, which brought about the

reconstruction of Arsenal Street and other improvements to sidewalks, landscaping, street lighting, and traffic signals. The WADC also notes in its final report that the Arsenal redevelopment efforts spurred significant investments and improvements at other surrounding properties.

Squibnocket Park, located on the 11-acre parcel deeded to the DCR, is a valuable addition to the very popular park and bike/pedestrian path system that runs along the Charles River. Two acres of this parcel have been leased to the Watertown Yacht Club, a privately-owned marina that has been operating since 1940. As a requirement of the Site cleanup, the Army will also be expanding and restoring wetland resource areas adjacent to Squibnocket Park and stabilizing the river bank starting in the Fall of 2006.

## Cleanup Status

OU1 includes most of the soil on the 48-acre Site – except for the small area northeast of former Building 131 addressed as OU3 – and all of the underlying groundwater. The indoor areas and petroleum-related cleanups were addressed through the Commonwealth of Massachusetts' cleanup authorities. Two Records of Decision (RODs), decision documents that specify cleanup requirements, were signed in 1996 for OU1 and OU3. The major components of the cleanup included the excavation and off-site disposal or reuse of contaminated soil above cleanup goals, backfilling with clean soil, and the establishment of institutional controls, where necessary, to limit certain activities and uses. Because the soil associated with OU3 was required to be cleaned-up to residential standards, there are no institutional controls specified for that area. It was also determined that no Superfund response actions were necessary for the groundwater.

Army Materials Technology Laboratories

Two Explanations of Significant Differences (ESDs) – essentially documents describing changes to the remedy selected in the ROD -- have been issued for OU1; one signed January 12, 1998 applies to Lot 1 and the other, signed June 7, 2001, applies to the Charles River Park parcel. These ESDs changed the cleanup levels for polyaromatic hydrocarbons in certain areas of the subsurface soil.

EPA determined in a Remedial Action Report signed July 27, 1998 that the cleanup on 36.6 acres of the Site (Lots 1 & 2) was completed, and those areas were deleted from the NPL in November 1999. A Remedial Action Report for the 11-acre River Park parcel was signed on December 22, 2003.

As a further requirement of the cleanup, every five years EPA must conduct an evaluation of each area of the Site where contaminated soil remains in place. The latest 'five-year review,' completed in March 2006, concluded that the remedy at OU1, the only area with contaminated soil remaining, is protective of human health and the environment in the short-term because there is no evidence of exposure. However, in order for the remedy to remain protective in the long-term, the Army must stabilize the riverbank and control any erosion into the Charles River. This work is slated to begin in September 2006.

For OU2, the two-mile stretch of the Charles River, EPA made a finding in a ROD on September 29, 2005 that no threat to human health or the environment is attributable to the Site and therefore no further Superfund cleanup of that area is required.

<u>Key Events</u>	
<b>1816</b>	Arsenal established by President James Madison
<b>1968</b>	55 acres sold to Town of Watertown
<b>Mid-1970s</b>	Arsenal Mall, Arsenal Park and apartment buildings built on 55-acre parcel
<b>1988</b>	Congress recommends closure of the Arsenal
<b>April 1989</b>	Town forms reuse committee
<b>1991-1992</b>	Army initiates environmental investigation
<b>May 1994</b>	48-acre AMTL Site added to EPA's National Priorities List
<b>Sept. 1995</b>	Congress authorizes Arsenal closure
<b>1996</b>	EPA selects cleanup remedies for OU1 and OU3, which includes the 48 acres of soil and the groundwater.
<b>May 1997</b>	Watertown Arsenal Development Corporation established
<b>July 1998</b>	EPA determines that the cleanup of 36.6 acres (Lots 1 & 2) is completed (excludes the 11-acre Charles River Park parcel)
<b>August 1998</b>	Army sells 29.4 acres (Lot 1) to WADC and 7.2 acres (Lot 2) to the Town
<b>Nov. 1999</b>	36.6 acres (Lots 1 & 2) deleted from the NPL
<b>March 2005</b>	Army transfers 11-acre Charles River Park parcel to DCR
<b>Sept. 2005</b>	Site clean-up is completed

EPA, with preliminary concurrence from the Commonwealth of Massachusetts, has determined that no further Superfund response actions are necessary for the Site. EPA intends to propose

Army Materials Technology Laboratories

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the deletion of the Site from the NPL in the late fall of 2006 after the riverbank stabilization and ecological restoration project has commenced.

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EPA web site: <http://www.epa.gov/region1/superfund/index2.htm>

Town of Watertown web site: <http://www.ci.watertown.ma.us>

References:

Airasian, John S., Chairman; Watertown Arsenal Development Corporation Final Report (September 23, 2005)

CALIBRE; Final Second Five-Year Review Report, U.S. ARMY Materials Technology Laboratory, Watertown, MA (March 1, 2006); prepared for the U.S. Army Installation Support Management Activity.

Web site: Arsenal Center for the Arts; <http://www.watertownarts.org>

Web site: The Arsenal on the Charles; <http://www.taotc.com/site/highlights.html>

Web Site: Watertown Yacht Club; <http://www.watertownyachtclub.org>

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