

The United States Environmental Protection Agency is Pleased to Announce  
**Re-Use Success at Eastland Woolen Mill Superfund Site**  
**Corinna, Maine**



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248065



Superfund Records Center  
SITE: Eastland Woolen  
BREAK: 13.5  
OTHER: 248065

**Community Update # 13**

**February, 2006**

### **Introduction:**

This Community Update describes the progress at the Eastland Woolen Mill since Community Update #12 that was released in the spring of 2004.

### **Re-use Success:**

Large areas of the Site have been restored and are now available for re-use. These areas are shown on Figures 1 (aerial photo view) and 2 (Site plan view). Two re-use success stories are already underway at the Eastland Woolen Mill Superfund Site and more are anticipated in the future.

- A 20 unit Senior Housing facility, Corundel Commons, has been constructed by Penquis Community Action Program (CAP) and Penquis Development, Inc. on the back portion of the Site. The Corundel Commons facility is scheduled to open in March 2006. The area now occupied by Corundel Commons was once the stockpile for contaminated soil awaiting treatment. The soil has been cleaned and the area has become a valuable asset for the community.
- The former Odd Fellows building was re-located from the center of the cleanup area to a new location across the highway. As a result of the cleanup, the structure was renovated and is now a country store and restaurant.

In addition, the Town of Corinna has completed work to make additional areas of the Eastland Woolen Mill Superfund Site available for re-use. A subdivision plan has been finalized to create an opportunity for a village style development while providing ample green space and river access for the public.

### **Recent Progress at the Eastland Woolen Mill Site:**

With the cleanup of the soil and sediments in downtown Corinna complete, EPA will focus on the cleanup of the remaining contaminated groundwater. EPA signed a cleanup decision for the groundwater cleanup in September 2002. From 2003 – 2005, EPA performed the design for the groundwater cleanup. To support the design, additional information was collected for three major focus areas as described below:

- **Better characterization of the site geology and contaminant distribution.**
  - Additional drilling was performed to obtain samples of soil and groundwater to improve the delineation of the contamination.
  - Monitoring wells and injection wells were completed in several of the drilling locations.
- **Improvement in the understanding of the movement of contamination in groundwater flow system.**
  - Tests were performed to improve the understanding of the flow of groundwater.
  - Tracer tests were used to identify the preferential flow paths in the groundwater system.
  - Innovative geophysical methods were used to supplement the tracer tests and further refine the understanding of the groundwater flow system.

# FIGURE 1

EASTLAND WOOLEN MILL  
FORMER WORK AREAS CURRENTLY  
AVAILABLE FOR REUSE



The areas inside the yellow line (excluding the active groundwater cleanup areas shown in cross-hatching) are former work areas where the cleanup has been completed and are currently available for reuse.

## LEGEND



Active Groundwater Cleanup Area



Limit of Eastland Woolen Mill Superfund Site Cleanup Activities and Extent of Area Available for Reuse



2005 Extent of overburden groundwater contamination above drinking water standards (MCL/MEG)



2005 Extent of bedrock groundwater contamination above drinking water standards (MCL/MEG)

# FIGURE 2

## EASTLAND WOOLEN MILL FORMER WORK AREAS CURRENTLY AVAILABLE FOR REUSE

The areas inside the yellow line (excluding the active groundwater cleanup areas shown in cross-hatching) are former work areas where the cleanup has been completed and are currently available for reuse.

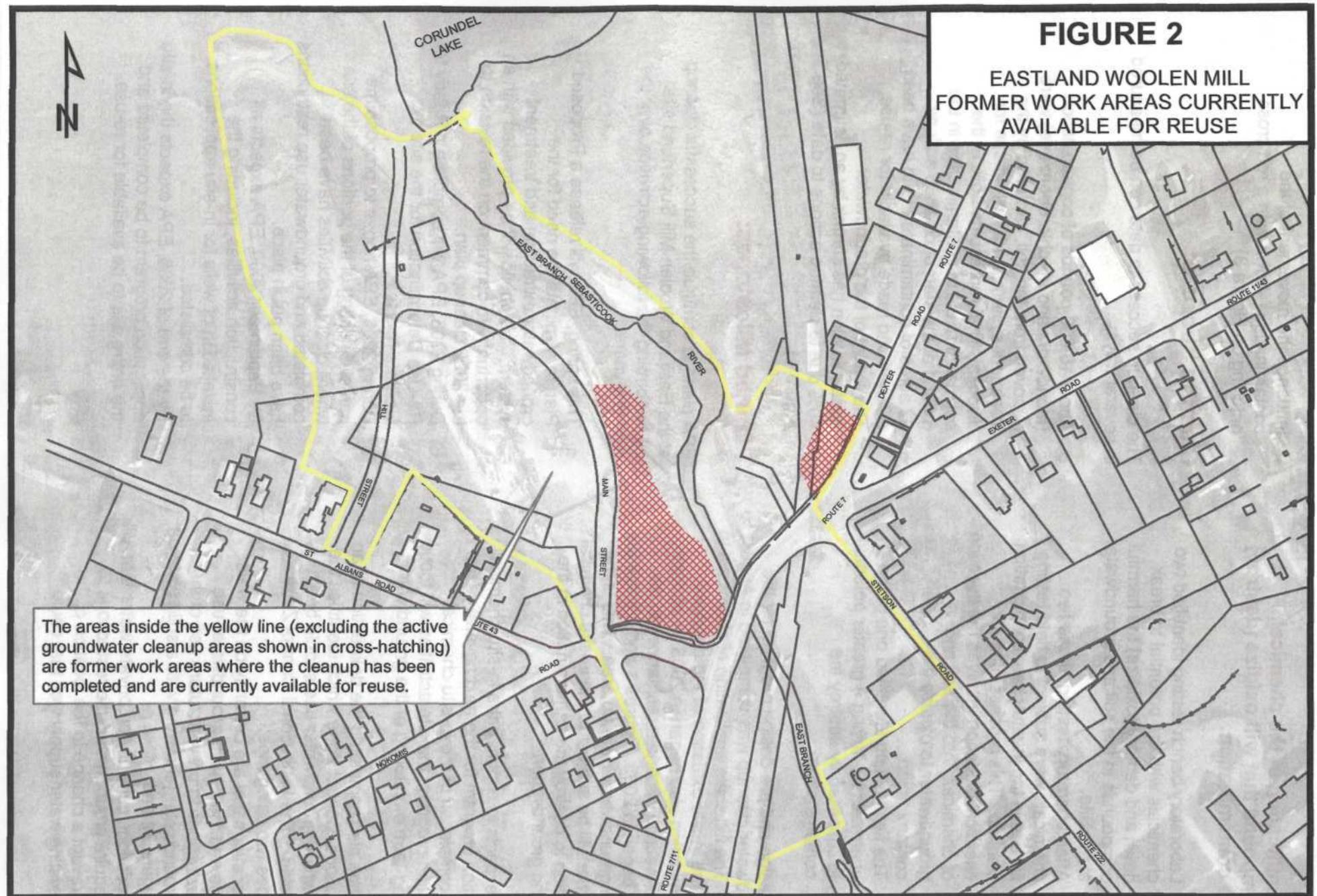
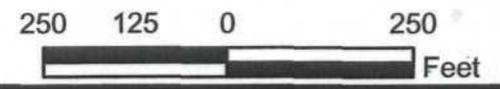
### Legend



Active Groundwater  
Cleanup Area



Limit of Eastland Woolen Mill Superfund Site Cleanup Activities  
and Extent of Area Available for Reuse



- **Identification of the chemical compound that will oxidize (destroy) the contamination.**

- Laboratory bench testing identified two chemicals with the potential to break down and destroy (oxidize) the harmful compounds in the soil and groundwater at the Site.
- After laboratory testing, these two chemicals were subject to field testing for use in the in-situ chemical oxidation cleanup. This process of in-situ chemical oxidation involves the injection of chemicals into the soil and groundwater to oxidize the contamination.
- The field testing identified one of the chemicals as having a greater potential to successfully destroy the contamination.

The design and pre-design program for the groundwater cleanup was completed in August 2005. The full scale application of chemicals to begin the in-situ oxidation of the deep soil contamination also began in 2005. In addition, the connection of certain residences to the water began in 2005. Figures 1 and 2 show the active groundwater cleanup area. This is the area that will be subject to the in-situ chemical oxidation to destroy the contamination in the soil and groundwater.

EPA expects to continue the in-situ chemical oxidation program for the next several years. After completion of the in-situ chemical oxidation program, the site activities will focus on long-term monitoring of the groundwater.

EPA has also completed the delineation of an Institutional Control Zone which identifies the area where groundwater use should be restricted. The Institutional Control Zone includes two categories:

- Locations that are currently on the water line and must have groundwater use restrictions to prevent future use of the groundwater (shown in with a solid color on Figure 3); and
- Locations currently on private water that will require groundwater use restrictions to prevent a change in the location of the existing water supply well that could

influence the movement of the contamination (shown with a red cross hatching on Figure 3)

### **Cleanup Success:**

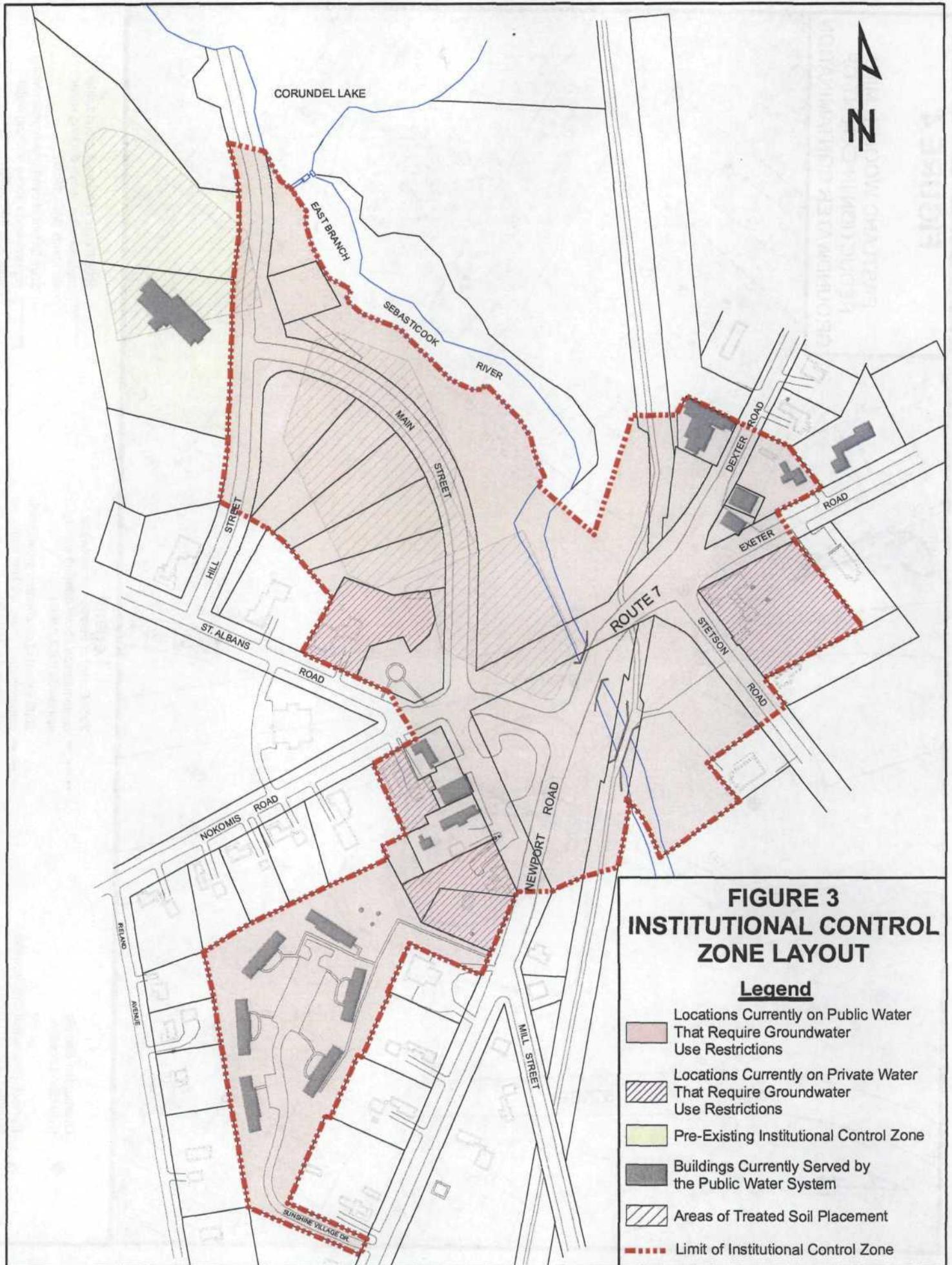
The cleanup success to date can be measured in several ways:

- About 10,000 pounds of contamination (mono-, di-, and tri- chlorobenzene) were removed from the soil, captured by the treatment system, and sent off-site for disposal. That represents 90% of the estimated mass of contamination in the ground at the start of cleanup actions.
- 22 acres of contaminated land have been cleaned and made available for re-use.
- The extent of the groundwater contamination has shrunk by an estimated 40% due to cleanup actions to date (See Figure 4).

### **Planned Milestones:**

EPA plans to continue the successful cleanup at the Eastland Woolen Mill Superfund site by performing the following activities over the next few years.

- This spring, EPA will release a Proposed Plan to eliminate the need for the groundwater extraction and treatment system. The public will be provided with an opportunity to comment on the revision to the 2002 cleanup plan.
- During 2006, EPA will complete a Ready for Re-Use Determination for the site to facilitate re-use.
- During 2006, EPA hopes to propose the partial de-listing of the portions of the site where cleanup activities have been completed and groundwater use restrictions have been put in place.
- By September 2006, EPA expects all construction activities, including the installation of wells for in-situ applications, to be completed.
- By the end of 2008, EPA expects the in-situ application program to be completed and the entire site to be available for re-use.



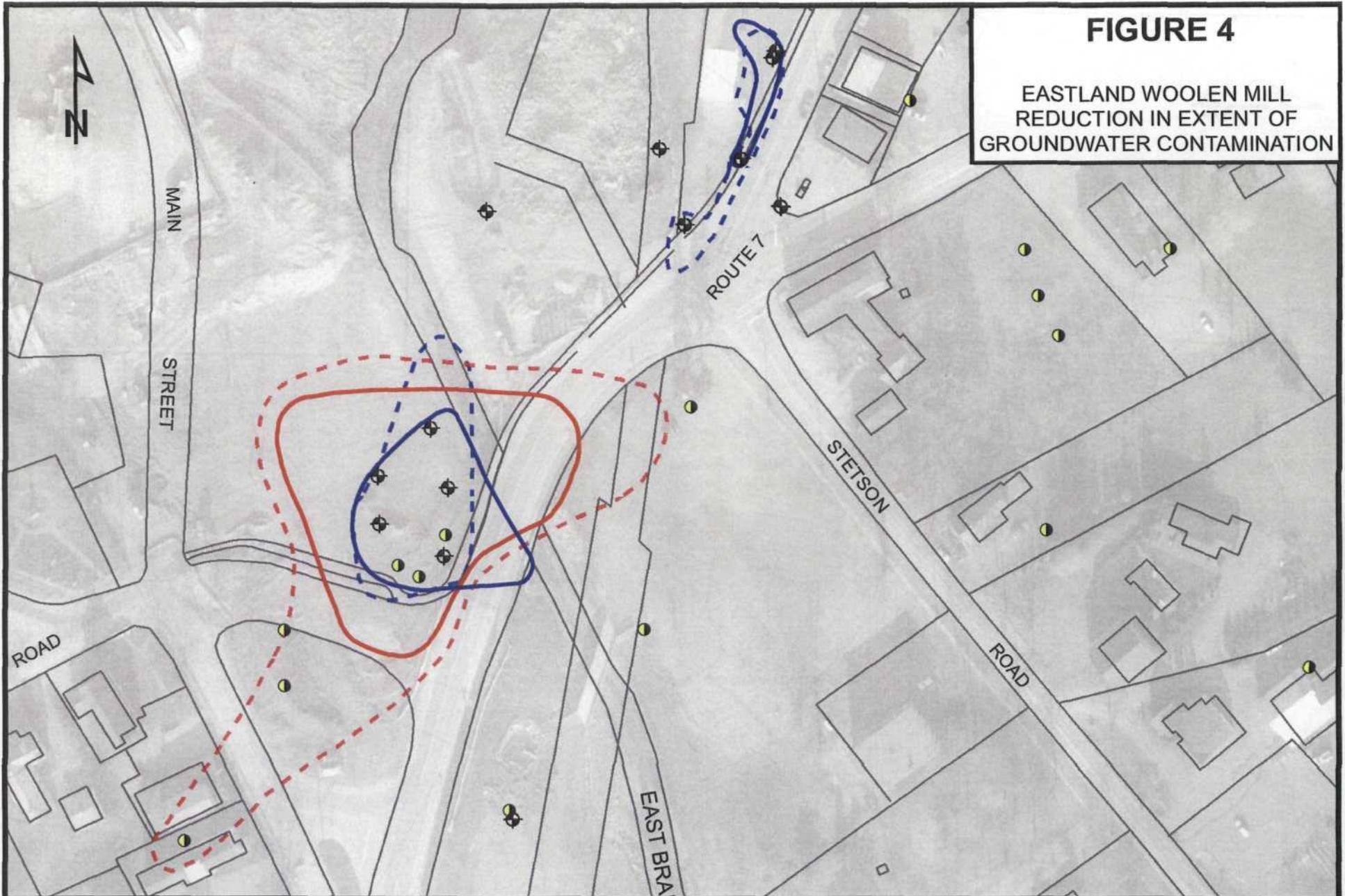
**FIGURE 3  
INSTITUTIONAL CONTROL  
ZONE LAYOUT**

**Legend**

- Locations Currently on Public Water That Require Groundwater Use Restrictions
- Locations Currently on Private Water That Require Groundwater Use Restrictions
- Pre-Existing Institutional Control Zone
- Buildings Currently Served by the Public Water System
- Areas of Treated Soil Placement
- Limit of Institutional Control Zone

**FIGURE 4**

**EASTLAND WOOLEN MILL  
REDUCTION IN EXTENT OF  
GROUNDWATER CONTAMINATION**



**Legend**

◆ Overburden Sample Collection Location

● Bedrock/Residential Groundwater Sample Collection Location

--- 2002 Extent of bedrock groundwater contamination above drinking water standards (MCL/MEG)

--- 2002 Extent of overburden groundwater contamination above drinking water standards (MCL/MEG)

— 2005 Extent of bedrock groundwater contamination above drinking water standards (MCL/MEG)

— 2005 Extent of overburden groundwater contamination above drinking water standards (MCL/MEG)

## Background:

EPA has undertaken two separate, but related, activities at the Eastland Woolen Mill Superfund Site. These two activities are described below:

### 1. Non-Time Critical Removal Action

**(NTCRA).** This early cleanup action was initiated in 1999. The NTCRA involved the following activities:

- Excavation and treatment of 100,000 tons of contaminated soil;
- Use of the clean soil as backfill to restore the disturbed portions of the Site;
- Initial in-situ treatment of deep soil that was not accessible to excavation.

To allow EPA to access the soil, EPA worked with the Town of Corinna, the State of Maine Departments of Environmental Protection, Conservation, and Transportation, and local stakeholders to develop a plan to create space for the cleanup activities and to facilitate future use of the Site. The NTCRA also included activities that were necessary to provide access to the contamination and in turn, created an opportunity for the revitalization of the downtown. These activities included:

- Demolition of the former Eastland Woolen Mill and several other structures in downtown Corinna;
- Re-location of the East Branch of the Sebasticook River and a segment of Route 7;
- Re-location of a historic building; and
- Re-location of a highway bridge and river crossing.

### 2. Remedial Investigation and Feasibility Study (RI/FS).

From 1998 – 2004, EPA performed a comprehensive investigation of the Eastland Woolen Mill and the areas that may have been impacted by the release of hazardous substances at the Eastland Woolen Mill.

The RI/FS program focused on identifying the cleanup activities that would be necessary in addition to the NTCRA. Two cleanup decisions resulted from the RI/FS:

- In 2002, EPA signed a cleanup decision to target the restoration of the groundwater in downtown Corinna, establish a zone of land use restrictions to prevent use of contaminated groundwater, and identify properties that should be connected to the water line to prevent any future expansion of the contaminated groundwater. This cleanup decision is referred to as Operable Unit I and is described in more detail on page 1 of this fact sheet.
- In 2004, EPA signed a Record of Decision for the downstream areas at the Eastland Woolen Mill Superfund Site. EPA determined that cleanup actions were not necessary for those areas.

***If you have questions or concerns about the Eastland Woolen Mill Superfund Site, please contact one of the following officials:***

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All of the Site information is available for public review at the Corinna Town Library or EPA Record Center in Boston, MA. Information is also available on EPA's web site at: [www.epa.gov/superfund](http://www.epa.gov/superfund)